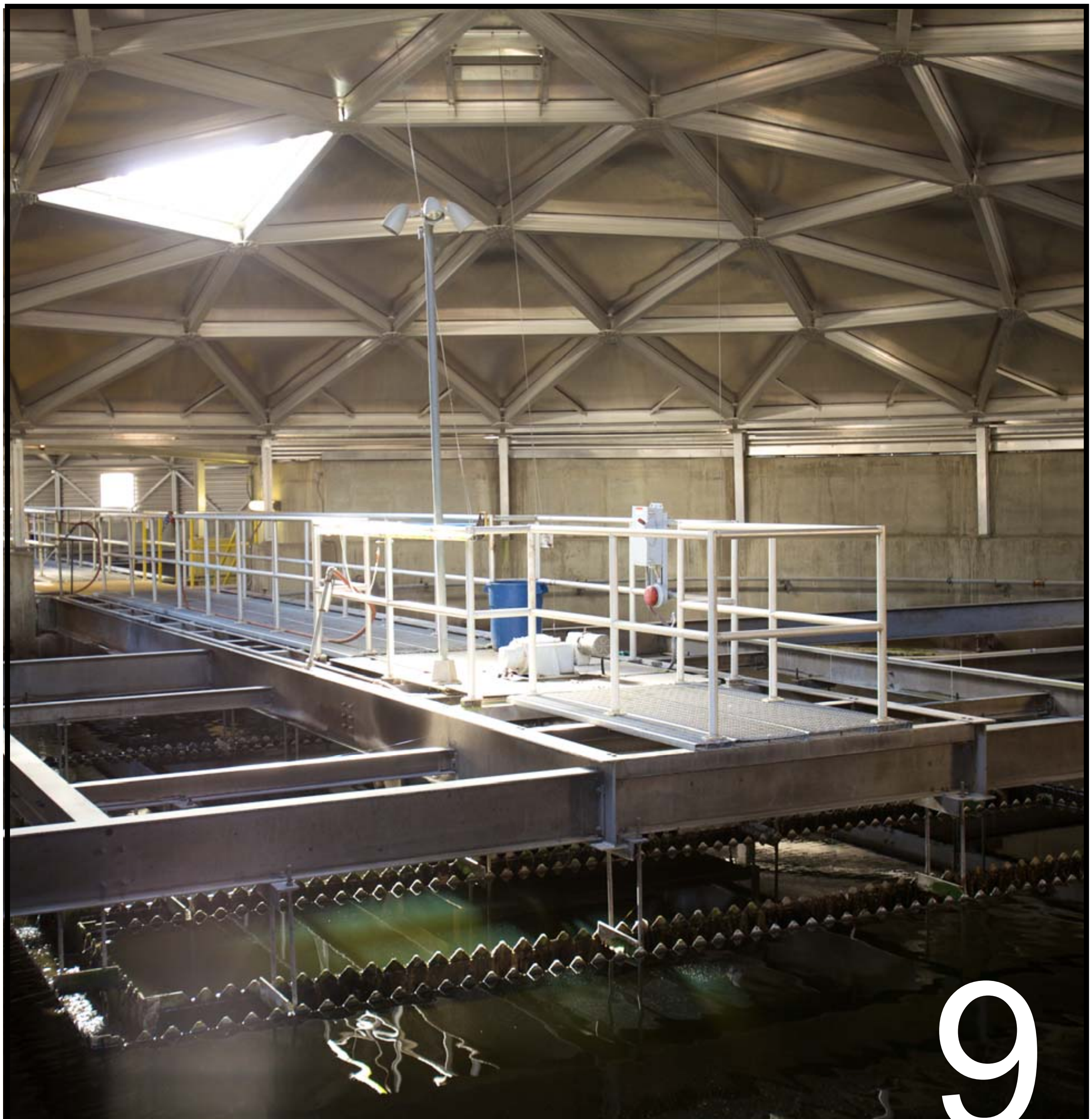

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Operating and Capital Budget

Fiscal Year Ending June 30, 2019

Big Bear Area Regional Wastewater Agency
Big Bear City, California 92314

Big Bear Area Regional Wastewater Agency

Budget and Forecast FY 2019 - 2023

Fiscal Year Ending June 30

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Budget Framework

Important Assumptions

The budget and the forecast period were prepared using the following assumptions:

Rate Increase: The budget and forecast period were prepared assuming inflationary adjustments in the Agency's sewer user fee for each year during the 5-year period, from FY 2019 - 2023. The following reflects the rate changes in the budget and forecast period compared to the maximum rate schedule.

	Actual FY 2011	Actual FY 2012	Actual FY 2013	Actual FY 2014	Actual FY 2015	Actual FY 2016	Actual FY 2017	Proj. FY 2018	Budget FY 2019	Forecast FY 2020	Forecast FY 2021	Forecast FY 2022	Forecast FY 2023
Actual/Proposed Rates	$ 173.76	$ 180.71	$ 187.94	$ 193.58	$ 201.32	$ 201.32	$ 201.32	$ 204.34	$ 210.06	$ 216.15	$ 222.42	$ 229.09	$ 235.97
% Change		4.0%	4.0%	3.0%	4.0%	0.0%	0.0%	1.5%	2.8%	2.9%	2.9%	3.0%	3.0%
Maximum Rate Schedule (a)	$ 173.76	$ 180.71	$ 187.94	$ 195.46	$ 203.27	$ 211.41	$ 216.00	$ 224.04	$ 231.34	TBD	TBD	TBD	TBD
% Change		4.0%	4.0%	4.0%	4.0%	4.0%	2.2%	3.7%	3.3%				

(a) Beginning in FY 2017, the Agency may increase its sewer user fees annually by an amount not to exceed the percentage change in the twenty-city, construction cost index (the " CCI") published by Engineering News Record.

The rates through FY 2023 have been structured to meet the Agency's current operating and capital needs during the next five years and assumes approximately $2.4 million in debt financing during the period. The Agency plans to debt finance 1) the purchase and installation of a new belt press (approximately $1.3 million) and the installation of new pipeline ($1.3 million[1]) in FY 2019.

Average Dry Weather Flow: The Agency budgets for dry weather. Based on historical experience, this is approximately 812 million gallons of influent flow on an annual basis. If, during the budget period, the Agency incurs wet weather flows or other operational variances from the budget, and the operating budget is unable to absorb the increased costs, the Agency has established a contingency fund from which the Board may appropriate funds. The contingency fund is recommended to be two months of operating and maintenance expense by the Government Finance Officers Association. Based on staff's review, we believe the amount to be adequate.

Inflation: Annual price change assumptions are used in the multi-year forecast to project year-over-year changes in certain revenues and costs. The Agency considers the Los Angeles-Riverside-Orange County, CA CPI-U (Consumer Price Index for all Urban Consumers, All Items; published by the Bureau of Labor Statistics), the 20-City Construction Cost Index (published by Engineering News Record), and the Congressional Budget Office forecast CPI as indicators in determining future price changes.

Price Index	Date	Change
CPI, Los Angeles-Riverside-Orange-County – All Urban Consumers	December 2017	3.6%
Construction Cost Index [2]	December 2017	3.3 %
Congressional Budget Office, CPI, All Urban Consumers	Calendar Years 2019- 2027, Annual Average	2.4%

[1] Approximately $200,000 of the total cost is estimated to be engineering expense and will not be debt financed.
[2] The construction cost index is a cost index based on 200 hours of common labor at the 20-city average of common labor rates, plus 25 cwt of standard structural steel shapes at the mill price prior to 1996 and the fabricated 20-city price from 1996, plus 1.128 tons of portland cement at the 20-city price, plus 1,088 board-ft of 2 x 4 lumber at the 20-city price.

Higher inflation is expected over the next five years driven by a tightening labor market and an expanding economy. Three to four rate hikes by the Federal Reserve are expected in 2018, depending on the pace of inflation. The western CPI (consumer price index) has been outpacing national inflation levels, with December increases as follows:

	Los Angeles	West Region	National
Consumer Price Index December 2017	3.6%	3.1%	2.1%

Forecasts are for sustained inflation above 2% during the next five-year period. Given the recent indication of higher overall inflation as well as higher regional inflation, the Agency has assumed inflation of 3% each year during the forecast period, up from 2.4% in prior forecasts.

	Actual FY 2012	Actual FY 2013	Actual FY 2014	Actual FY 2015	Actual FY 2016	Actual FY 2017	Projected FY 2018	Budget FY 2019	Forecast FY 2020	Forecast FY 2021	Forecast FY 2022	Forecast FY 2023	5-Year Average
Inflation Rate	1.6%	1.0%	1.8%	0.8%	1.8%	2.2%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%

Actual inflation represents the CPI, Los Angeles-Riverside-Orange County, All Urban Consumers

Comparisons

Financial performance comparisons throughout this draft include historical, current and future periods. The periods prior to and including FY 2017 are periods of actual financial performance, FY 2018 is the projected performance, FY 2019 is the budget period, and FY 2019 – FY 2023 is the forecast period:

FY 2017	FY 2018	FY 2019	FY 2019 - FY 2023
Actual	Projected	Budget	Forecast Period

Items Impacting Financial Performance

Rising Salaries and Wages Expense - Separations during 2017 and 2018 combined with a change in pay schedules resulting from the 2017 Compensation and Classification Study have resulted in the majority of the Agency's employees (14 of 15 employees) being within their respective pay range and thus eligible for annual merit adjustments in addition to annual cost of living adjustments. This results in potentially higher annual % changes in salaries than if all employees were at the top of the pay range and only eligible for a cost of living adjustment. As employees cycle through the pay scale, the growth in the Agency's salaries and wages is expected to peak in 2020 and begin to slow through 2023 as more employees reach the top of their respective pay scale.[3]

It should be noted that while annual changes in both dollar and percentage terms are higher during the next five-year period than the previous five-year period, the Agency is expecting lower overall salaries and benefits expense than forecast during the last budget cycle due to the separations noted above, which resulted in lower pay for new hires.

[3] Using the Plant Operator position as an example, it would take six years to cycle through the pay scale assuming annual merit adjustments of 5%.

Higher Pension Costs - CalPERS will lower the discount rate, also known as the assumed rate of return, to 7% from 7.5% over a 3-year period which will increase the Agency's pension contributions beginning in FY 2019. The normal cost[4] is expected to increase 2.3 points, from 12.5% of payroll in FY 2018 to 14.8% of payroll in FY 2023, and the payment of the unfunded accrued liability[5] is expected to increase substantially, from $63,814 to an estimated $206,000 in FY 2023. These increases represent an average annual growth rate of 15% for the next five years compared to -1% per year for the prior five years (due in part to the reduction in the Agency's UAL and Side Fund).

No Change in Annual Connections - The Agency has assumed 55 annual connections through FY 2023. This level of connections is uncertain but in line with FY 2018 experience to date (55 connections for the trailing twelve months ended December 31, 2017, excluding multi-unit developments). The Agency has averaged 46 connections per year for the last three years, excluding multi-unit developments. The Agency has taken a conservative approach to the level of connections considering there is no indication that connections will rebound to pre-recession averages of 200 per year.

New Belt Press - The Agency's current belt press is becoming difficult to repair and has been operating at a level that exceeds its specifications. The Agency began a sludge dewatering study in FY 2017 to determine the need for replacement as well as replacement options. Currently, the Agency is planning to add a new belt press in FY 2019 and will continue to operate and maintain its existing belt press which will primarily be used to add capacity during high flow/high processing events. The new belt press is expected to dry the solids to a greater degree (up to 18%) than the Agency's current belt press (13 - 14% reduction) and is expected to be less labor intensive. For each % reduction in solids, the estimated dollar savings is approximately $18,000, for potential savings of $90,000 annually. The current belt process requires an operator to standby during operation.

Load Equalization Basin Deferred - The Agency had been planning to complete a new load equalization basin (LEB) which would replace the old, and failing balancing chambers. This project has been deferred beyond the next five-year period. The Agency will continue to evaluate this project/process and the potential integration with the possible upcoming reclamation project. If the walls of the existing balancing chambers were to fail prior to construction of the new LEB, the Agency would be able to re-valve the plant for a period of time as well as use contingency funding and debt capacity to begin the replacement of the chambers if necessary.

Reduction of OPEB Unfunded Accrued Liability (OPEB UAL) - The Agency has budgeted to reduce its OPEB UAL by $200,000 during FY 2019, and by $600,000 over the five-year period. This is part of a five-year plan to reduce the liability annually by $200,000 for a total of $1.0 million. The Agency made its first reduction in 2017 and will make an additional payment in 2018, leaving $600,000 remaining in the next five-year period. Based on the most recent valuation (draft dated July 1, 2017), the unfunded OPEB Liability is $1.3 million and represents a 54% funded ratio (ratio of assets to liability). If the Agency were to reduce its OPEB UAL by an additional $800,000 ($1.0 million planned less $200,000 paid on June 30, 2017), the funded ratio would be greatly improved. Based on the current valuation, the funded ratio would be approximately 83%.

[4] The normal cost is the amount of pension benefit earned by active employees as they work and is calculated and contributed on an annual basis as a percentage of pay.
[5] The unfunded accrued liability (UAL) is the amount of pension benefit that has been earned and accrued by active and retired employees but that does not have an equal amount of assets set aside to fund the benefit.

A goal of the Agency has been to reduce its unfunded pension/OPEB liabilities so that the Agency's pension/OPEB assets are nearly equal to its pension/OPEB liabilities, resulting in annual pension/OPEB expense near the normal cost. Maintaining a higher funded ratio, better insures that the Agency's obligations will be met and that intergenerational equity will be maintained among ratepayers.

Terminology

CAGR	is the Compound Average Growth Rate which is the average annual growth rate over the period referenced
CAPEX	are capital expenditures
CalPERS	California Public Employees Retirement System
FY	means the fiscal year ending June 30th of the year referenced, i.e. FY 2019 is the fiscal year ending June 30, 2019
LEB	Load Equalization Basin
nm	means "not meaningful". It is input as the outcome when dividing by "0" or when the percent change over a prior period contains a loss or negative number
Projected performance	is based on six months of actual performance through November 2017 and represents the Agency's best estimate of full-year, FY 2018 performance
UAL	unfunded accrued liability (used in reference to pension and OPEB unfunded liabilities)

Financial Performance: Income Statement and Cash Flow Comparisons

Income statement and cash flow comparisons have been provided on the following pages. A summary is provided for each comparison. A discussion and analysis of the NEW FY 2019 Budget follows.

Statement Comparison: Projected FY 2018 to Actual FY 2017 and Budget FY 2018

INCOME STATEMENT
Comparison Projected FY 2018 to Actual FY 2017 and Budget FY 2018

	Actual FY 2017	Budget FY 2018	Projected FY 2018	Projected FY 2018 vs. Actual FY 2017 $	Projected FY 2018 vs. Actual FY 2017 %	Projected FY 2018 vs. Budget FY 2018 $	Projected FY 2018 vs. Budget FY 2018 %
Operating Revenues:							
Annual Charges	5,007,070	5,091,576	5,091,576	84,506	2%	0	0%
Standby Charges	86,930	85,180	85,180	-1,750	-2%	0	0%
Rental Income	49,918	50,344	50,344	426	1%	0	0%
Waste Disposal	22,033	21,798	21,798	-235	-1%	0	0%
Other Revenue	488	0	0	-488	-100%	0	nm
Total Operating Revenue	5,166,439	5,248,897	5,248,897	82,459	2%	0	0%
Operating Expenses:							
Salaries and Benefits	1,971,517	2,047,123	2,006,973	35,456	2%	-40,150	-2%
Power	522,181	501,011	434,175	-88,006	-17%	-66,836	-13%
Sludge Removal	281,096	303,809	356,627	75,531	27%	52,818	17%
Chemicals	71,097	43,362	43,901	-27,196	-38%	539	1%
Materials and Supplies	138,226	142,037	142,926	4,700	3%	889	1%
Repairs and Replacements	128,645	133,580	142,928	14,283	11%	9,348	7%
Equipment Rental	2,242	40,788	42,260	40,018	1785%	1,472	4%
Utilities Expense (other than power)	13,023	16,837	21,839	8,816	68%	5,002	30%
Communications Expense	44,062	43,719	47,766	3,704	8%	4,047	9%
Contractual Services - Other	94,182	99,435	90,602	-3,580	-4%	-8,833	-9%
Contractual Services - Professional	191,457	223,861	223,861	32,404	17%	0	0%
Permits and fees	148,687	150,199	144,956	-3,731	-3%	-5,243	-3%
Property Tax Expense	3,524	3,572	3,602	78	2%	30	1%
Insurance	85,386	93,307	99,325	13,939	16%	6,018	6%
Other Operating Expense	56,329	64,869	57,518	1,189	2%	-7,351	-11%
Depreciation Expense	896,429	811,358	894,443	-1,986	0%	83,085	10%
Total Operating Expense	4,648,083	4,718,867	4,753,701	105,619	2%	34,835	1%
Operating Income	518,356	530,031	495,196	-23,160	-4%	-34,835	-7%
Nonoperating Income							
Gain (loss) on asset disposition	-91,973	0	0	91,973	-100%	0	nm
Interest Income	29,101	48,817	48,817	19,716	68%	0	0%
Other Nonoperating Income	0	0	0	0	nm	0	nm
Nonoperating income	-62,872	48,817	48,817	111,689	-178%	0	0%
Nonoperating Expense							
Other Expense	11,700	11,700	11,700	0	0%	0	0%
Interest Expense	117,739	102,489	102,489	-15,250	-13%	0	0%
Nonoperating expense	129,439	114,189	114,189	-15,250	-12%	0	0%
Income before Contributions	326,045	464,658	429,823	103,779	32%	-34,835	-7%
Connection Fees	231,210	201,850	201,850	-29,360	-13%	0	0%
Change in Net Position	557,255	666,508	631,673	74,419	13%	-34,835	-5%

CASH FLOW STATEMENT
Comparison Projected FY 2018 to Actual FY 2017 and Budget FY 2018

	Actual FY 2017	Budget FY 2018	Projected FY 2018	Projected FY 2018 vs. Actual FY 2017	Projected FY 2018 vs. Budget FY 2018
Cash from operating activities:					
Operating Income (Loss)	518,356	530,031	495,196	-23,160	-34,835
Depreciation expense	896,429	811,358	894,443	-1,986	83,085
Other Miscellaneous Income (Exp)	184,284	0	0	-184,284	0
Change in Working Capital	-91,050	20,781	20,781	111,831	0
Net cash provided by op activities	1,508,019	1,362,169	1,410,420	-97,599	48,251
Cash from noncapital financing:					
Payment of pension related debt/liability	-200,000	-200,000	-200,000	0	0
Cash from capital and related financing:					
Capital Expenditures	-451,374	-1,691,763	-1,631,763	-1,180,389	60,000
Proceeds from Asset Disposition	17,439	0	0	-17,439	0
Connection Fee (Capital Contrib)	179,830	201,850	201,850	22,020	0
Proceeds from Debt Issuance	0		0	0	0
Debt Service:					
Interest Expense	-117,739	-102,489	-102,489	15,250	0
Principal Debt Amortization	-458,344	-473,594	-473,594	-15,250	0
Total Debt Service	-576,083	-576,084	-576,084	-1	0
Net cash used for cap and related financing	-830,188	-2,065,997	-2,005,997	-1,175,809	60,000
Cash from investing:					
(Increase) Decrease in Other Assets	0	0	0	0	0
Other Proceeds	0	0	0	0	0
Interest Income	22,653	48,817	48,817	26,164	0
Proceeds from the Sale of Investment	0	0	0	0	0
Net cash from investing	22,653	48,817	48,817	26,164	0
NET CHANGE IN CASH	500,484	-855,010	-746,760	-1,247,244	108,251
Beginning Cash Balance	6,617,083	7,117,566	7,117,566	500,484	0
Ending Cash Balance	7,117,566	6,262,556	6,370,807	-746,760	108,251
Change in Cash Balance	500,484	-855,010	(746,760)	-1,247,244	108,251

Discussion: Projected FY 2018 Compared to Actual FY 2017

Operating Revenues are projected to be $5.3 million, up $82,459 or 2% in FY 2018. The increase is driven by higher annual charges which are the result of a 1.5% rate increase and 55 connections during the period.

Operating Expenses (before depreciation) are projected to be $3.9 million, up $107,605 or 3% in FY 2018. The increase in operating expenses is due largely to higher Sludge Removal, Equipment Rental, Salaries and Benefits and Contractual Services-Professional expense. Higher costs were offset by much lower Power and Chemicals expense.

- **Sludge Removal** expense is projected to be $356,627, up $75,531 or 27% in FY 2018 due to an increase in solids removed from the plant. The Agency is projecting the removal of approximately 3,900 tons in FY 2018 compared to 3,600 tons in FY 2017. Higher sludge removal is due to running the plant lighter (with less solids) due in part to the pond reconstruction project, higher BOD levels, and reduced effectiveness of the Covered Drying Bed due to not heating the floor.
- **Equipment Rental** expense is projected to be $42,260, up $40,018 or 1,785% in FY 2018. The increase is due to the rental of an emergency backup generator for Northshore Station 3 in FY 2018.
- **Salaries and Benefits** expense is projected to be $2,006,973, up $35,456 or 2% compared to FY 2017. The increase is driven by higher benefits expense of $37,665, offset by lower salaries and wages expense of $8,358. The increase in benefits expense is largely due to higher medical premium expense (higher by $19,890 or 8.9%), and higher pension contribution expense (higher by $17,926 or 8.6%). Higher medical premium expense is due to a 13% increase in medical premiums effective January 2017 offset by a 3% increase effective January 2018. The higher pension contribution expense is largely due to an increase in contributions related to the Agency's pension UAL. Lower salaries and wages is due to employee separations resulting in lower pay for new hires.
- **Contractual Services - Professional** expense is projected to be $223,861, up $32,404 or 17% in FY 2018. The increase in professional services expense is driven by higher legal and other expense in FY 2018 related to government advocacy and IT services. The Agency began contracting for IT services at the end of FY 2016 and has experienced increasing costs associated with these services.
- **Power** expense is projected to be $434,175, down $88,006 or 17% in FY 2018, due to a reduction in natural gas transportation costs and lower natural gas costs. SW Gas lowered its transportation costs in January 2017. SW Gas passed through a credit which reflected prior overcharging. The Agency also entered into a "blend and extend" contract in December 2016 which lowered the cost for natural gas through 2021.
- **Chemicals** expense is projected to be $43,901, down 27,196 or 38% in FY 2018 due to a carbon tower replacement ($33,400) in FY 2017. These replacements are required every three years

Operating Income is projected to be $495,196, down $23,160 or 4% in FY 2018. The decrease in operating income results from the growth in operating expenses outpacing revenue growth. Operating expenses increased $105,619 compared to the increase in operating revenues of $82,459.

Change in Net Position is projected to be $631,673, an increase of $74,419 or 13% in FY 2018. During the projected period, lower projected operating income of $23,160 and lower connection fees of $29,360 are largely offset by positive changes in non-operating income (expense) of $126,939. Connections are expected to decrease compared to the prior period, due to reduced connections from multi-unit developments.

Change in cash for the period is projected to be ($746,760) in FY 2018 compared to $500,484 in the prior period, a decrease of $1,247,244 in cash generated. Lower cash flow in FY 2018 is expected due to lower cash from operations (lower by $97,599) and higher capital expenditures (higher by $1,180,389).

Discussion: Projected FY 2018 Compared to Budget FY 2018

The comparison below is made to the Agency's budget, as amended during the year, which includes $844,408 in carry over and new appropriations during the period: 1) $40,000 equipment rental expense, 2) $21,000 contractual services - professional expense, 3) 15,263 training and IT consulting expense and 4) $808,144 capital expenditures.

Note: Explanations provided below for variances between projected performance and the budget are similar to those explanations for projected performance compared to the prior year actual performance.

Operating Revenues are projected to be $5.3 million, on plan with the budget.

Operating Expenses (before depreciation) are projected to be $3.9 million, down $48,251 or 1% below the budget. The decline in Operating Expenses when compared to the FY 2018 Budget is primarily due to lower Salaries and Benefits and Power expense offset by higher Sludge Removal, Repairs and Replacements and Utilities expense.

- **Salaries and Benefits** expense is projected to be $2,006,973, down $40,150 or 2% from the budget. The variance from budget is due to separations during the period. Two operator positions were vacant for the first quarter, and filled with lower paying, operator-in-training positions. The Plant Manager retired during the period leaving this position vacant during recruitment (approximately three months).
- **Power** expense is projected to be $434,175, down $66,836 or 13% from the budget. SW Gas, the Agency's natural gas transporter, passed through a credit beginning in January 2017 through December 2017, related to prior overcharging. This combined with low flows for the period contributed to lower power costs than planned.
- **Sludge Removal** expense is projected to be $356,627, up $52,818 or 17% from the budget. The increase is due to higher sludge removal and higher transportation costs. Higher sludge removal is due to 1) higher tons removed from the plant resulting from plant preparation for the pond reconstruction project and a change in operations to run the plant "lighter", 2) higher BOD (biochemical oxygen demand) levels in the Agency's influent which results in higher levels of sludge production, and 3) reduced effectiveness of the Covered Drying Bed resulting from the inability to heat the floor during the period due to generator management. Higher transportation costs have resulted from 1) having to transport to a more distant facility due to disposal site permitting issues and 2) very minimal self-hauling. The Agency's bin truck used for sludge removal has become unreliable. The Agency had budgeted to self-haul approximately 572 tons, which results in lower disposal costs per ton. The Agency expects to haul less than 100 tons in FY 2018.
- **Repairs and replacements** expense is projected to be $142,928, up $9,348 or 7%, due to higher generator repairs expense. The generators experienced unexpected operational issues during the period which were difficult to diagnose

Operating Income is projected to be $495,196 down $34,835 or 7% compared to the budget. Lower operating income is driven by higher total operating expenses (including depreciation) of $34,385. The increase is driven by higher depreciation expense which is projected to be over the budget by $83,085 and is due to 1) higher projected capital expenditures than budgeted of $808,144 and 2) underbudgeting depreciation for the FY 2018 budget period. Depreciation expense is higher than historical levels due to higher capital expenditures in recent years having shorter useful lives.

Change in Net Position is projected to be $631,673 down $34,835 or 5% due to the $34,835 decrease in Operating Income noted above.

Change in cash for the period is projected to be ($746,760) compared to ($855,010) in the budget, an increase in projected cash flow of $108,251 and is primarily due to higher cash from operations (higher by $48,251) and lower capital expenditures (lower by $60,000).

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Statement Comparison: NEW Budget FY 2019 to Projected FY 2018

INCOME STATEMENT
Comparison NEW Budget FY 2019 to Projected FY 2018

	Projected FY 2018	NEW Budget FY 2019	NEW Budget FY 2019 vs. Projected FY 2018 $	%
Operating Revenues:				
Annual Charges	5,091,576	5,251,785	160,209	3%
Standby Charges	85,180	83,200	-1,980	-2%
Rental Income	50,344	51,071	727	1%
Waste Disposal	21,798	21,798	0	0%
Other Revenue	0	0	0	nm
Total Operating Revenue	5,248,897	5,407,854	158,957	3%
Operating Expenses:				
Salaries and Benefits	2,006,973	2,150,153	143,179	7%
Power	434,175	445,035	10,860	3%
Sludge Removal	356,627	355,339	-1,288	0%
Chemicals	43,901	47,864	3,963	9%
Materials and Supplies	142,926	156,052	13,126	9%
Repairs and Replacements	142,928	183,326	40,398	28%
Equipment Rental	42,260	803	-41,457	nm
Utilities Expense	21,839	20,376	-1,463	-7%
Communications Expense	47,766	47,734	-32	0%
Contractual Services - Other	90,602	94,285	3,683	4%
Contractual Services - Prof	223,861	231,143	7,282	3%
Permits and fees	144,956	151,465	6,509	4%
Property Tax Expense	3,602	3,652	51	1%
Insurance	99,325	103,132	3,807	4%
Other Operating Expense	57,518	57,382	-136	0%
Depreciation Expense	894,443	975,331	80,888	9%
Total Operating Expenses	4,753,701	5,023,071	269,370	6%
Operating Income	495,196	384,783	-110,413	-22%
Nonoperating Income				
Gain (loss) on asset disposition	0	0	0	nm
Finance Charge Income	0	0	0	nm
Interest Income	48,817	72,043	23,226	48%
Other Nonoperating Income	0	0	0	nm
Nonoperating income	48,817	72,043	23,226	48%
Nonoperating Expense				
Other Expense	11,700	11,700	0	0%
Interest Expense	102,489	128,264	25,775	25%
Nonoperating expense	114,189	139,964	25,775	23%
Income before Contributions	429,823	316,862	-112,961	-26%
Connection Fees	201,850	201,850	0	0%
Net Income, Change in Net Assets	631,673	518,712	-112,961	-18%

CASH FLOW STATEMENT
Comparison NEW Budget FY 2019 to Projected FY 2018

	Projected FY 2018	NEW Budget FY 2019	Budget FY 2019 vs. Proj. FY 2018
Cash from operating activities:			
Operating Income (Loss)	495,196	384,783	-110,413
Depreciation expense	894,443	975,331	80,888
Other Miscellaneous Income (Exp)	0	0	0
Change in Working Capital	20,781	10,155	-10,626
Net cash provided by op activities	1,410,420	1,370,268	-40,152
Cash from noncapital financing:			
Payment of pension related debt/liability	-200,000	-200,000	0
Cash from capital and related financing:			
Capital Expenditures	-1,631,763	-2,937,284	-1,305,521
Proceeds from Asset Disposition	0	0	0
Connection Fee (Capital Contrib)	201,850	201,850	0
Proceeds from Debt Issuance	0	2,374,403	2,374,403
Debt Service:			
Interest Expense	-102,489	-128,264	-25,775
Principal Debt Amortization	-473,594	-441,719	31,875
Total Debt Service	-576,084	-569,983	6,101
Net cash used for cap and related financing	-2,005,997	-931,014	1,074,982
Cash from investing:			
(Increase) Decrease in Other Assets	0	0	0
Other Proceeds	0	0	0
Interest Income	48,817	72,043	23,226
Proceeds from the Sale of Investment	0	0	0
Net cash from investing	48,817	72,043	23,226
			0
NET CHANGE IN CASH	-746,760	311,297	1,058,057
Beginning Cash Balance	7,117,566	6,370,807	-746,760
Ending Cash Balance	6,370,807	6,682,104	311,297
Change in Cash Balance	-746,760	311,297	1,058,057

Discussion: NEW Budget FY 2019 Compared to Projected FY 2018

Operating Revenues are budgeted to be $5.4 million, up $158.957 or 3% from FY 2018. The increase in operating revenues reflects a 3% increase in Annual Charges which is a result of a 2.8% rate adjustment and 55 new connections to the system.

Operating Expenses (before depreciation) are budgeted at $4 million, up $188,482 or 5% from FY 2018. The 5% increase in operating expenses is driven by increases in Salaries and Benefits, Repairs and Replacements, and Materials and Supplies expense offset by lower Equipment Rental expense. These changes are explained below.

- **Salaries and benefits** expense is budgeted to be $2,150,153, up $143,179 or 7% from FY 2018. The increase is driven by increases in salaries and wages largely due to annual merit, cola and longevity adjustments[6] ($86,949) and an increase in benefits expense ($53,499) driven by higher pension contribution expense ($30,733), offset to some extent by lower unemployment expense. Higher merit and COLA adjustments are related to 1) the majority of all employees (14 of 15) being within the pay range and eligible for merit and 2) a higher COLA. The November CPI is 3.6%, compared to 1.8% in FY 2018. Higher pension contribution expense is related to increases in the annual required contribution association with the UAL and is the result of the reduction in the discount rate used by CalPERS and which is used in the calculation of the UAL
- **Repairs and Replacements** expense is budgeted to be $183,326, up $40,398 or 28% from FY 2018. The higher than inflationary increase is primarily the result of 1) adding $30,000 to the FY 2019 budget for unidentified but likely repairs and 2) station repairs related to sealing wet wells and replacement of carbon drums. The Agency, as a matter of practice, does not budget for “unknown” repairs; however, the Agency’s Plant Manager position is unfilled at the time of budget development, and given recent unexpected but needed repairs with the Agency’s power producing equipment and fire suppression system, there may be needed repairs that are not identified during the budget process. While staff may always request a new appropriation from the Board for unexpected repairs, we believe the current approach provides the most flexibility and efficiency to make repairs when and as needed.
- **Materials and Supplies** expense is budgeted to be $156,052, up $13,126 or 9% from FY 2018. The higher than inflationary increase is due to purchases related to safety supplies and hardware inventory control.
- **Equipment Rental** expense is budgeted to be $2,242, down $41,457 from FY 2018 due to approximately $40,000 of rental expense associated with an emergency backup generator rental in the prior period.

Operating Income is budgeted to be $384,783, a decrease of $110,413 or 22%. The decrease in Operating Income is primarily due to the increase in Operating Expenses of $269,370 outpacing the increase in Operating Revenues of $158,957.

[6] The Agency budgets salary adjustments as follows: employees that are below the top of scale and are thus eligible to receive a merit adjustment are budgeted to receive a 5% salary adjustment; employees that have been here 7 years or more are budgeted to receive a 1% longevity adjustment; all employees are budgeted to receive a COLA adjustment based on the November CPI. Estimates based on these assumptions are for budgeting purposes only.

Change in Net Position is budgeted to be $518,712, a decrease of $112,961or 18% from FY 2018 and primarily reflects the decrease in Operating Income noted above.

Change in cash for the period is budgeted to be $311,297 compared to ($746,760) in FY 2018, an increase of $1,058,057 in cash flow generated compared to FY 2018. The increase is primarily due to proceeds from debt issuance of $2,374,403, offset by higher capital expenditures of $1,305,251 and lower cash provided by operating activities of $40,152.

Financial Summary

Based on the current forecast, the Agency will need inflationary rate adjustments beginning in FY 2019 through 2023. This is consistent with the Agency's prior plan. The prior plan included average annual rate adjustments of 2.4% compared to 2.9% under the current plan. The increase in the rate adjustments reflects higher expected inflation over the period. The Agency completed studies in FY 2018 to re-evaluate rate levels (the 2108 Rate Study), connection fees (the 2018 Connection Fee Study) and waste hauler fees. The 2018 Rate Study proposes the same rate adjustments that are provided here.

During the next five-year period, growth in operating expenses will outpace that of revenues. Over the five-year period, revenues will grow at an average annual rate of 3% while expenses grow at an average annual rate of 5%. As a result, operating income[7] will shrink although to levels that are still acceptable. Operating Income is expected to decrease from $495,196 in FY 2018 to $248,704 in FY 2023. The decline in Operating Income is acceptable, considering the Agency's average Operating Income over the period provides adequate cash flow for operating and capital requirements and minimum debt service coverage at the end of the period is strong at 2.7x (1.2x minimum test level). **If operating expenses continue to grow at a pace which exceeds inflation, rate increases in excess of inflation or cost reduction measures that will slow growth will be required to keep revenues in line with costs.**

The Agency is planning to incur $2.4 million of new debt in FY 2019 to fund the new belt press and the new pipeline. The Agency's debt service will remain largely unchanged due to lowering amortization requirements under the existing debt beginning in FY 2019.

At the end of FY 2023, the Agency is projected to have $2.2 million in the "future" component of the capital and replacement fund. This amount reflects the amount of cash that is available for future capital projects beginning in FY 2025. The Agency will need approximately $2.1 million of this amount for the capital projects currently planned for the period FY 2025 – FY 2029.

The Agency generates positive net cash flow of $611,088 over the five-year period which is used primarily to fund required increases in the Agency's liquidity fund (an increase of $445,124) and Operating Fund (an increase of $117,197)[8].

The Agency's debt service coverage covenants are strong, although declining during the period from an estimated 2.9 x in FY 2018 to 2.7 x in FY 2023, driven largely by declining operating income over the period. The Agency's

[7]Operating Income is an important measure for the Agency. Operating Income is Operating Revenues less Operating Expenses and is an indicator of the Agency's ability to cover maintenance capital expenditures and debt service with recurring revenues (primarily revenues from rates).
[8] The required minimum balances for these funds are a function of Operating Expenses. As Operating Expenses, grow, the minimum balances in these reserve funds also grow, requiring additional cash to fund them.

debt capacity is estimated[9] at $3.3 million in FY 2019 declining to $2.5 million in FY 2023.

Operating Trends and Outlook

Declining Operating Income, Higher Operating Expenses

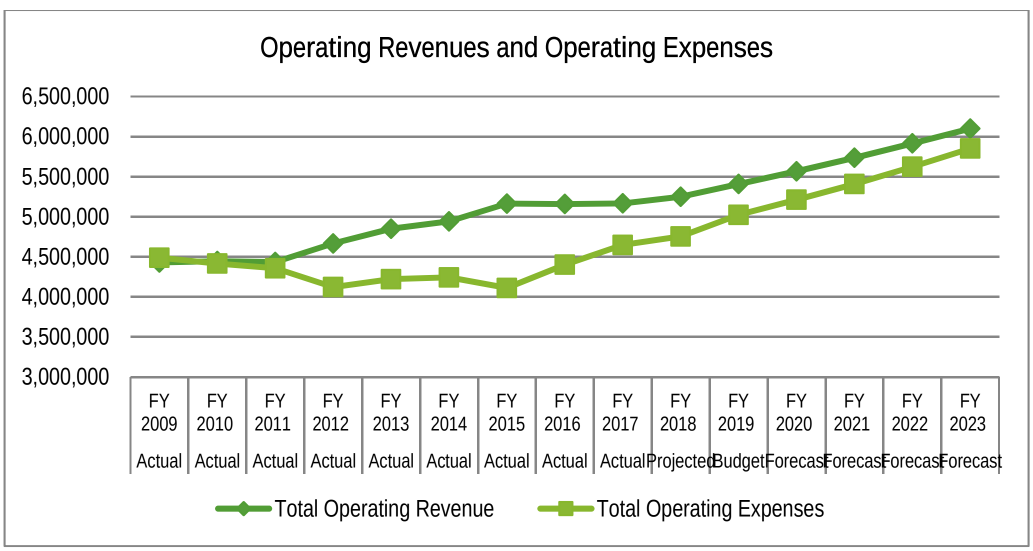
Operating Income is expected to decrease from $495,196 in FY 2018 to $248,704 in FY 2023 and is the result of the growth in Operating Expenses outpacing the growth in Operating Revenues.

The Agency's Operating Expenses (before depreciation) are expected to grow at average annual rate of 5% over the next five years, outpacing expected inflation of 3% for the same period, and higher than the most recent five-year period of 2% average growth (FY 2013-2018). Lower growth in the most recent five-year period has been driven by 1) lower salaries and benefits expense, averaging 2% per year, due to lower employee benefits expense and staffing changes, 2) low inflation, averaging 1.5% per year and 3) lower annual flows, averaging 659 million gallons[10] or 16% below the average dry weather flow.

Over the next five years, higher operating expenses can be expected, in general, as a result of higher inflation and higher expected flows. Other contributors to faster growing Operating Expenses include Salaries and Benefits, and Insurance expense, which on an average annual basis, are projected to grow at rates exceeding inflation.

- **Salaries and Benefits expense** is expected to outpace the 5-year historical average annual growth of 2%, and is expected to grow at an average annual rate of 8% over the period due to routine merit, longevity and inflationary adjustments, higher medical premiums, and higher pension expense. (See Discussion and Analysis section for further details.)

- **Insurance expense** is projected to increase 6% annually compared to 3% historically. The increase is driven by expected inflationary adjustments in workman's compensation insurance rates combined with projected changes in salaries and wages.



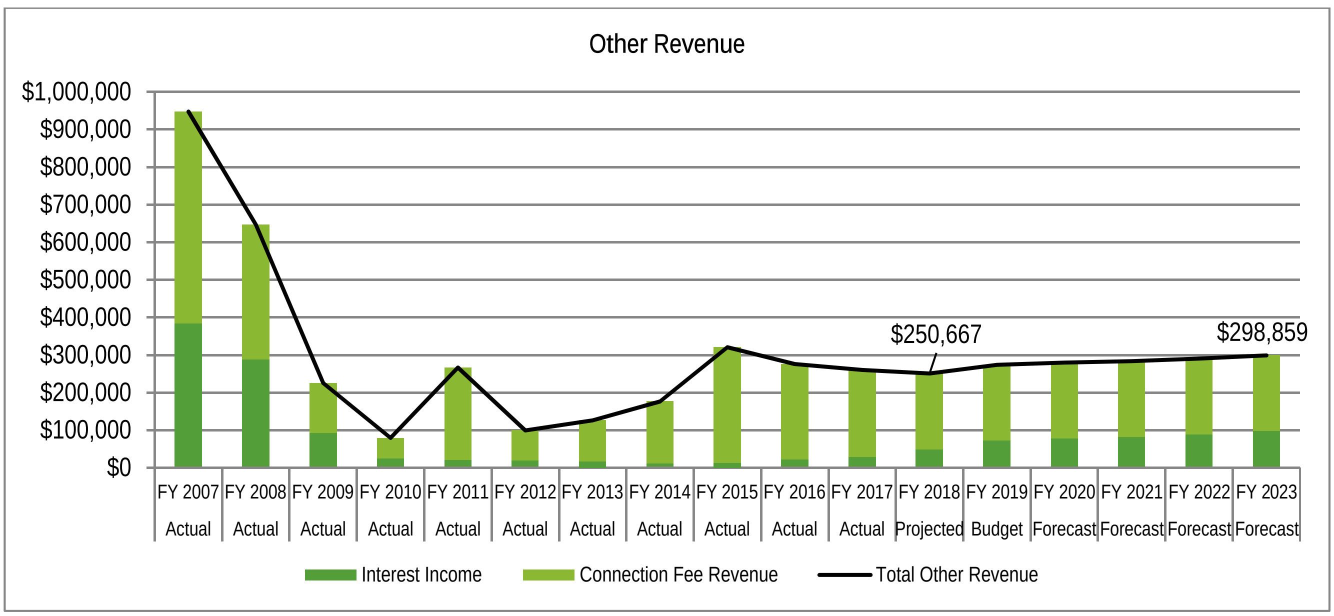
[9] The calculation utilizes a 2.0 x debt service coverage.
[10] Average for the period ended June 30, 2013 - 2017.

Other Revenue Sources Remain Flat

Other revenue sources, Interest Income and Connection Fee revenue combined, are projected to increase slightly over the period with projected, combined totals of approximately $250,000 - $300,000 annually, driven by increasing cash and interest rates.

The Agency's other revenue sources[11], Interest Income and Connection Fees, experienced sharp declines during the Great Recession and have been relatively flat through the recovery. For the budget and forecast period, Interest Income is expected to increase over the period as cash and interest rates gradually rise through FY 2023. Cash is forecast to increase from $6.4 million to approximately $7 million during the period and interest rates are forecast to increase from the current rate of 1.3% to 2%.

Connection Fees are expected to remain relatively flat and are projected at 55 annually over the forecast period. Excluding multi-unit developments, connections to the wastewater system have remained low, averaging 46 connections per year for the last 3 years, with the highest annual connections of 53 in FY 2016. While connections are trending up, the Agency has taken a conservative approach when projecting connections considering that a recovery to pre-recession averages of 200 per year is unlikely. The Agency's connection fee has remained at $3,670 since the last connection fee study in FY 2011. While the new 2018 Connection Fee Study reflects an increase to the Connection Fee, the study has yet to be adopted by the Board and thus the increased fee has not been incorporated into the forecast.

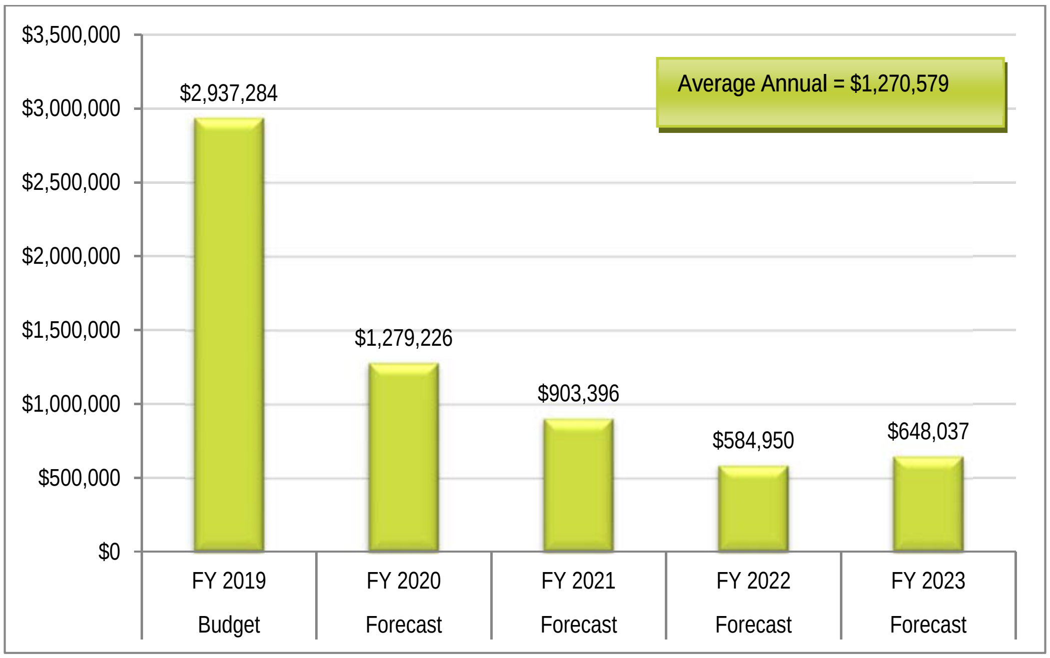


[11] Other revenue sources such as Interest Income and Connection Fees are considered separately from Operating Revenue since they are cyclical and potentially non-recurring, and not generated as part of the Agency's primary operations.

Capital

Capital Expenditures (CAPEX)

During the five-year forecast, CAPEX totals $6.4 million and averages $1.3 million per year. The 5-year plan includes two large capital projects that total $2.4 million. Maintenance and replacement CAPEX over the period averages approximately $760,000 per year and is in line with expected annual maintenance. Approximately $2.4 million of the planned CAPEX is forecast to be debt financed, with the remaining $4 million funded through cash. See Capital Projects section for a detailed discussion of the planned capital projects for the budget and forecast period.



Debt

Leverage

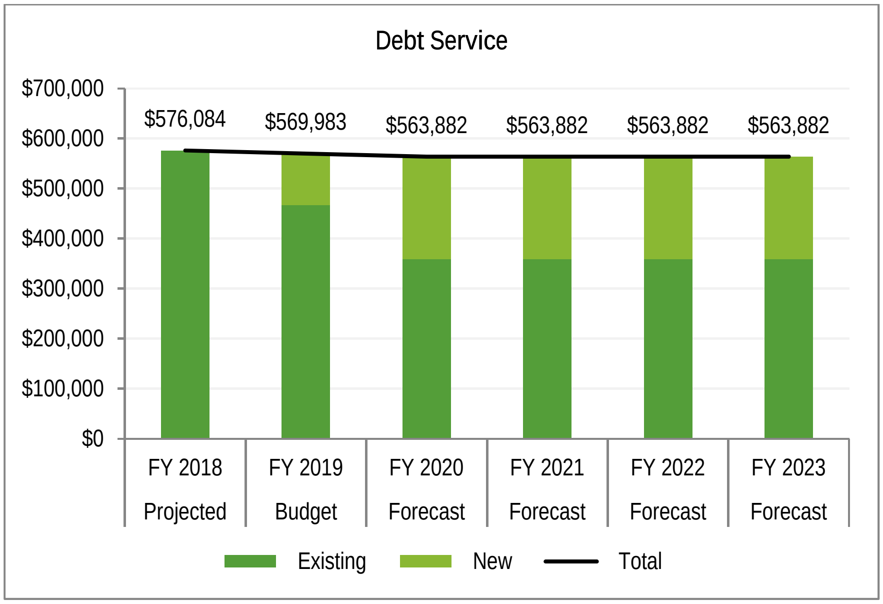
Under the current capital improvement schedule, the Agency anticipates approximately $2.4 million in new debt during the five-year period. In FY 2019, the Agency plans to borrow $2.4 million for the new belt press ($1.3 million) and two, new gravity lines ($1.1 million, excluding $200,000 capitalized engineering costs). The Agency's leverage is restricted through its debt service coverage covenant contained in its borrowing agreements. Essentially, the covenant requires the Agency to maintain the ability to cover its debt service (principal and interest expense) with earnings before interest, taxes, depreciation and amortization (EBITDA)[12] 1.2 times. Internally, the Agency prefers to cover debt service at least 2 times (using the calculation above). This allows the Agency to 1) maintain operating flexibility (incur variances from the budget and thus lower EBITDA, without triggering a covenant default) and 2) maintain debt capacity and thus the ability to borrow additional funds under the existing

[12] This is essentially the Agency's operating income (before depreciation) plus other income (connection fees and interest income).

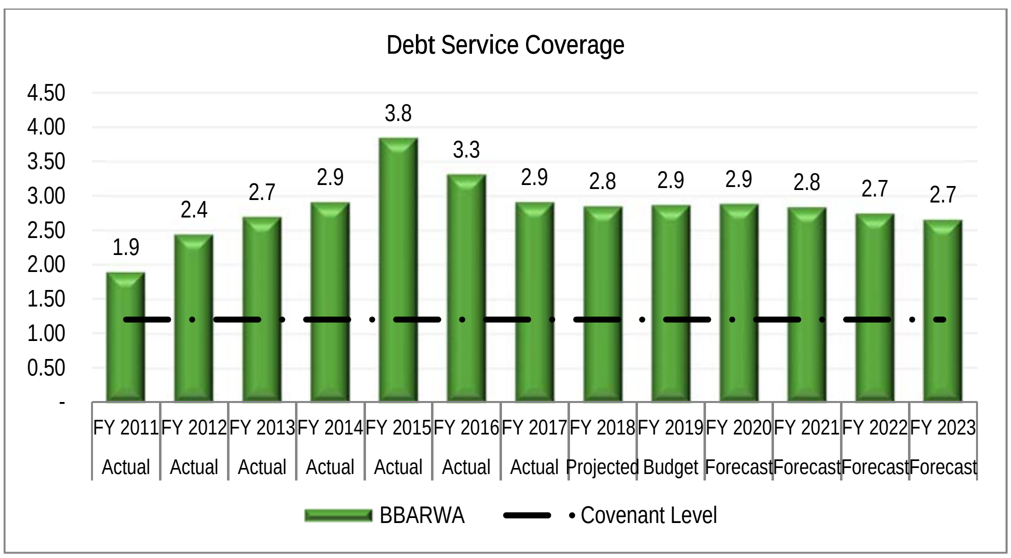
rate structure if necessary. Including the new debt, the Agency maintains comfortable debt service coverage of 2.7x or greater and maintains additional debt capacity of $2.5 million over the forecast period.

Debt Service Coverage Covenant

The Agency's debt service declines slightly over the period from $576,084 in FY 2018 to $563,882 reflecting reduced amortization under the existing debt. Existing debt service actually steps down in FY 2019 and FY 2020, offsetting new debt service.



The Agency's debt service coverage covenant requires a minimum of 1.2 x coverage and measures the Agency's ability to cover its annual debt service with current year earnings. The Agency's debt service coverage ratio declines slightly from 2.9x in FY 2019 to 2.7x in FY 2023 as the Agency's operating income declines.



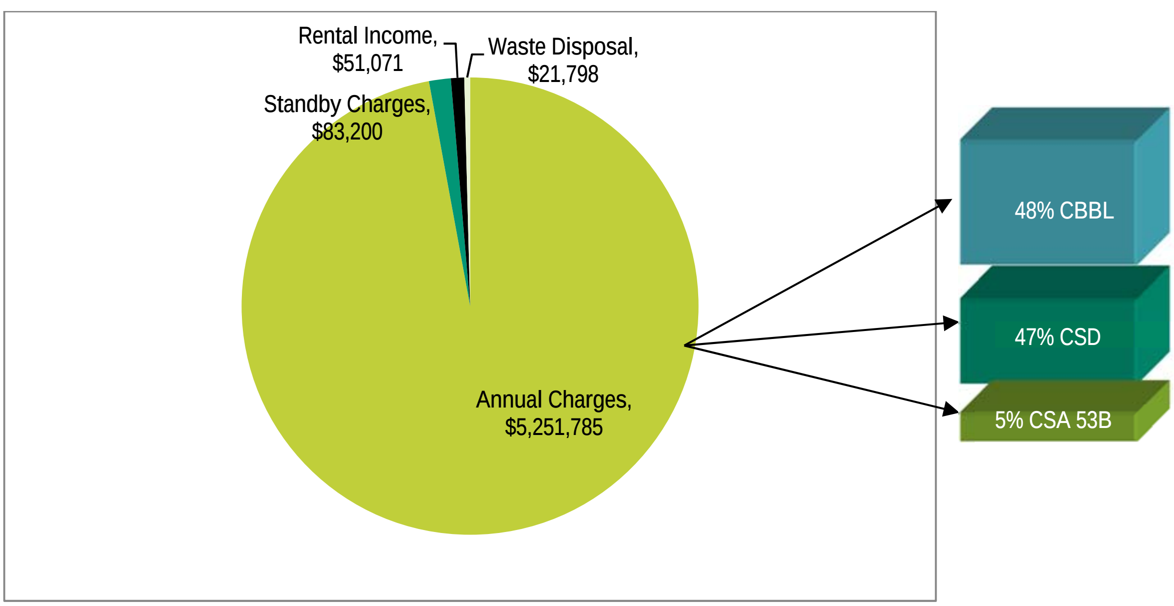
Discussion and Analysis

Operations

Operating Revenues

Operating Revenues are budgeted to increase 3% in FY 2019 and 3% on an average annual basis over the forecast period, through FY 2023. The growth reflects a 3% average annual change in the Agency's sewer user fees over the period and 55 connections to the system each year.

	Actual FY 2013	Actual FY 2014	Actual FY 2015	Actual FY 2016	Actual FY 2017	Projected FY 2018	Budget FY 2019	Forecast FY 2020	Forecast FY 2021	Forecast FY 2022	Forecast FY 2023	5-Year CAGR
Operating Revenues:												
Annual Charges	4,688,312	4,778,215	4,979,690	4,991,166	5,007,070	5,091,576	5,251,785	5,410,589	5,579,591	5,759,436	5,945,051	3%
Standby Charges	92,430	91,400	90,860	89,250	86,930	85,180	83,200	81,998	80,886	79,775	78,663	-2%
Rental Income	47,433	47,745	48,291	49,232	49,918	50,344	51,071	51,820	52,592	53,386	53,386	1%
Waste Disposal	20,918	22,433	19,829	22,869	22,033	21,798	21,798	21,798	21,798	21,798	21,798	0%
Other Revenue	50	2,007	24,575	5,104	488	0	0	0	0	0	0	nm
Total Op Revenues	4,849,143	4,941,801	5,163,247	5,157,621	5,166,439	5,248,897	5,407,854	5,566,205	5,734,867	5,914,395	6,098,899	3%
Annual Change	4%	2%	4%	0%	0%	2%	3%	3%	3%	3%	3%	



Annual Charges

Operating Revenues are driven by changes in Annual Charges, which account for approximately 97% of the Agency's Operating Revenues. Annual Charges, pursuant to the Agency's Operating Agreement No. 1, are collected annually from the three member agencies based on EDUs and flow per Agency.

Member Agency Billing

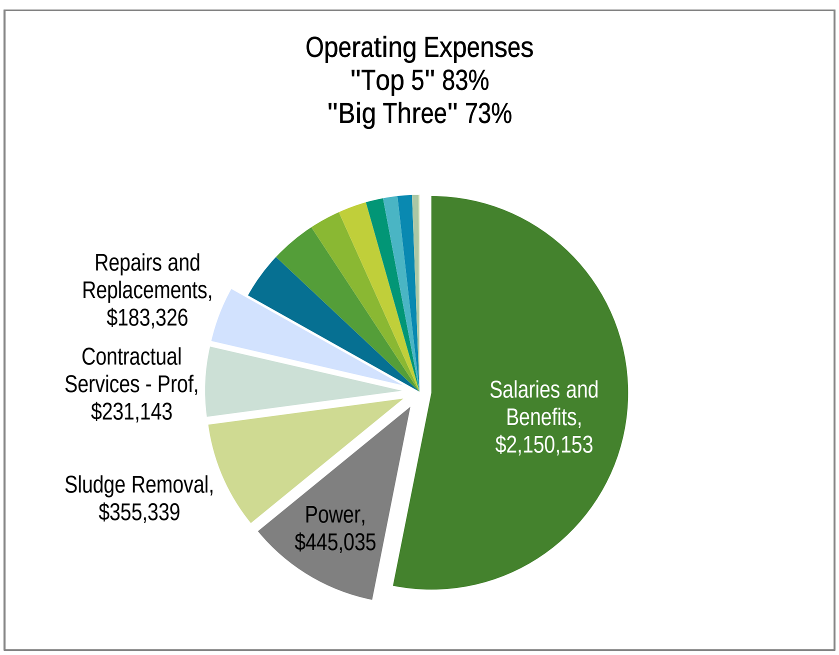
	3-Year Average Flows	Reported EDUs	Implicit Charge per EDU	Fixed Charge	Variable Charge	Annual Charge Adjustment	Total
Annual Charges:							
City of Big Bear Lake	356,584	11,506.2	$218.39	$1,774,620	$631,293	$106,882	$2,512,795
Big Bear City CSD	290,532	12,234.0	$203.39	1,886,870	514,355	87,084	2,488,308
CSA 53 B	27,146	1,261.0	$198.80	194,486	48,059	8,137	250,682
Total	674,262	25,001.2		$3,855,976	$1,193,706	$202,103	$5,251,785
Standby Charges:							
City of Big Bear Lake							$29,880
Big Bear City CSD							47,480
CSA 53 B							5,840
Total Annual Charges							$83,200
Connection Fee:							
Connection Fee per EDU Effective July 1, 2018 (subject to change based on Board Adoption 2018 Connection Fee Study)							$3,670

Standby Charges and Rental Income

Both Standby Charges and Rental Income are stable and predictable. Standby Charges are the fees paid by the owners of vacant parcels and are collected from the member agencies at the same time as the Annual Charges. These charges decline annually as parcels are developed and connect to the system or are combined. Rental Income is related to leased property and is contractual in nature.

Operating Expenses

The Agency's top five operating expenses account for 83% of the Agency's total operating expenses before depreciation. The "Big Three" -Salaries and Benefits, Power and Sludge Removal expense- account for 73% of operating expenses before depreciation, with salaries and benefits expense being the largest line item at 53%.



Discussion and Analysis of Top Five Operating Expense Categories

Salaries and Benefits Expense

It should be noted that while future increases in salaries and benefits expense exceed those levels the Agency has experienced historically, the Agency remains in compliance with its target growth rate set in 2009. In 2009, the Agency targeted an average annual growth rate not to exceed 5%. As can be seen in the chart below, the Average Annual Change since 2009 is expected to be 2% in 2019, increasing to 4% by 2023.

	Actual FY 2013	Actual FY 2014	Actual FY 2015	Actual FY 2016	Actual FY 2017	Projected FY 2018	Budget FY 2019	Forecast FY 2020	Forecast FY 2021	Forecast FY 2022	Forecast FY 2023	5-Year CAGR
SALARIES AND BENEFITS:												
Salaries and Wages	1,162,667	1,159,003	1,171,981	1,221,821	1,271,829	1,263,471	1,358,972	1,474,971	1,584,381	1,679,340	1,775,860	7%
Employee Benefits	633,717	624,023	553,247	601,956	671,354	709,019	771,572	848,732	937,800	1,010,489	1,079,815	9%
Unemployment Expense	10,228	503	2,002	742	8,661	16,252	0	0	0	0	0	-100%
Payroll Taxes	17,965	18,472	17,811	19,165	19,673	18,231	19,609	21,275	22,846	24,211	25,598	7%
Total Salaries and Benefits	1,824,577	1,802,001	1,745,041	1,843,684	1,971,517	2,006,973	2,150,153	2,344,978	2,545,028	2,714,039	2,881,273	8%
% Change	6%	-1%	-3%	6%	7%	2%	7%	9%	9%	7%	6%	
Average Annual Change (a)	1%	0%	0%	1%	1%	1%	2%	3%	3%	3%	4%	

(a) Base Year FY 2009

Salaries and Benefits expense is budgeted to increase by 7% in FY 2019, driven by an 8% increase in salaries and wages and a 9% increase in benefits expense. The increase in salaries and wages is driven by the composition of the employee base and higher inflation rates. Separations during 2017 and 2018 combined with a change in pay schedules resulting from the 2017 Compensation and Classification Study has resulted in the majority of the Agency's employees (14 of 15 employees) being within the pay range and thus eligible for annual merit adjustments in addition to annual cost of living adjustments. This results in potentially higher annual changes in salaries and wages than if all employees were at the top of the pay range and only eligible for a cost of living adjustment. As employees cycle through the pay scale, the growth in the Agency's salaries and wages is expected to peak in 2020 and begin to slow through 2023 as more employees reach the top of their respective pay scale.[13] Further, the Agency is experiencing higher inflation than anticipated for the budget and forecast period. The November CPI for the Los Angeles, Riverside, Orange County area was 3.6% compared to 1.8% last year. *(It should be noted that while annual changes in both dollar and percentage terms are higher during the next five-year period, than the previous five-year period, the Agency is expecting lower overall salaries and benefits expense than forecast during the last budget cycle due to the separations noted above, which resulted in lower pay for new hires.)* The 9% increase in benefits expense is driven by higher pension contribution expense and to a lesser extent, medical premium expense. CalPERS will lower the discount rate, also known as the assumed rate of return, to 7% from 7.5% over a 3-year period which will increase the Agency's pension contributions beginning in FY 2019.

For the forecast period, salaries and wages expense is expected to grow at rates faster than the prior five-year period, 7% on average compared to 2% historically, due to the composition of the employee base noted above. Benefits expense is expected to grow at an average annual rate of 9% over the next five years, compared to 2%

[13] Using the Plant Operator position as an example, it would take 6 years to cycle through the pay scale assuming annual merit adjustments of 5%.

historically and is driven by increases in pension contribution expense resulting from the reduction in the discount rate from 7.5% to 7% by CalPERS. The normal cost[14] is expected to increase 2.3 points, from 12.5% of payroll in FY 2018 to 14.8% of payroll in FY 2023, and the payment of the unfunded liability is expected to increase substantially, from $63,814 to an estimated $206,000 in FY 2023. These increases represent an average annual growth rate of 15% for the next five years compared to -1% per year for the prior five years (due in part to the reduction in the Agency's UAL and Side Fund).

Power Expense

The Agency expects to experience inflationary growth in power expense for the budget and forecast period. The Agency utilizes power from Bear Valley Electric (BVE) to run its pumping stations and purchases natural gas under a five-year contract to run its generators which supply power to the Agency's Treatment Plant and Administration Building. The Agency has experienced declining fuel costs since FY 2016. The Agency extended its natural gas contract in December 2016 in order to take advantage of lower market rates. This has resulted in lower natural gas prices and lower budgeted and projected costs for fuel compared to prior periods. The Agency also incurred lower natural gas transportation costs in FY 2017 and FY 2018, as a result of a credit from SW Gas (natural gas transporter) for prior overcharging. The Agency incurred a rate increase from BVE in FY 2015 (effective December 2014) and has incorporated a subsequent rate increase beginning in FY 2019 through FY 2021.

	Actual FY 2013	Actual FY 2014	Actual FY 2015	Actual FY 2016	Actual FY 2017	Projected FY 2018	Budget FY 2019	Forecast FY 2020	Forecast FY 2021	Forecast FY 2022	Forecast FY 2023	5-Year CAGR
POWER:												
Fuel for Power Production	331,479	319,045	389,373	400,699	365,628	296,440	300,642	303,114	305,722	308,408	311,175	1%
Gas Admin Building	3,232	3,823	3,649	3,692	4,060	3,103	3,833	3,948	4,066	4,188	4,314	7%
Gas Treatment Plant	9,584	8,442	7,472	5,497	4,887	4,752	7,351	7,572	7,799	8,033	8,274	12%
Electricity Treatment Plant	31,117	31,841	47,421	61,931	61,865	64,913	65,761	69,707	73,192	73,192	73,192	2%
Electricity Stations	47,972	35,090	36,231	39,537	78,065	55,586	61,529	65,221	68,482	68,482	68,482	4%
Electricity Admin Building	132	195	1,510	8,284	6,925	8,456	4,967	5,265	5,528	5,528	5,528	-8%
Electricity Lucerne	750	803	807	791	751	925	953	981	1,011	1,041	1,072	3%
Total	424,266	399,239	486,463	520,431	522,181	434,175	445,035	455,806	465,799	468,872	472,036	2%
% Change	-10%	-6%	22%	7%	0%	-17%	3%	2%	2%	1%	1%	

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[14] The information relates to classic CalPERS members only.

Sludge Removal Expense

Over the last three years, changes in sludge removal have resulted in higher sludge removal costs. In FY 2017, the Agency began budgeting for higher solids removal as a result of an increase in expected sludge due in part to higher BOD levels (lower flows), but mostly to a change in the methodology used to estimate sludge production, and thus sludge removal. The Agency increased its sludge removal estimates from 2,100 tons in FY 2015, to 3,400 tons in FY 2017 and 2018, and to approximately 4,000 tons in FY 2019, and thereafter. To lower costs, the Agency began self-hauling in FY 2013, hauling approximately 11% of its own sludge and increased this to approximately 58% in FY 2016. With frequent breakdowns and costly maintenance of the Agency's bin truck, the Agency lowered expected tons hauled in FY 2018 to 572 tons, or 14% of budgeted tons, in an effort to better determine the hauling capacity of the truck, with the goal of re-evaluating the economics of the self-hauling operation. The Agency's plan is to exit the self-hauling operations, and to enter into longer-term contracts with new haulers that provide lower costs per ton than prior experience. The Agency has utilized the current terms of a recent contract to budget and project sludge removal costs through FY 2023; however, it is possible that more competitive terms could be realized.

	Actual FY 2013	Actual FY 2014	Actual FY 2015	Actual FY 2016	Actual FY 2017	Projected FY 2018	Budget FY 2019	Forecast FY 2020	Forecast FY 2021	Forecast FY 2022	Forecast FY 2023	5-Year CAGR
SLUDGE REMOVAL	242,838	221,541	162,627	225,990	281,096	356,627	355,339	365,999	376,979	388,288	399,937	2%
% Change	31%	-9%	-27%	39%	24%	27%	0%	3%	3%	3%	3%	

Contractual Services - Professional Expense

Contractual Services - Professional expense contains engineering, legal and other expense (IT, audit, actuarial, and other services). Multiple projects in FY 2018 and FY 2019 have elevated this line item, as well as the need to contract for IT services beginning at the end of FY 2016. Special projects in 2019 include the Bear Valley Water Sustainability Project (BVWSP) and legal fees associated with the new debt, and in 2018 included a rate study and government advocacy efforts related to the BVWSP.

	Actual FY 2013	Actual FY 2014	Actual FY 2015	Actual FY 2016	Actual FY 2017	Projected FY 2018	Budget FY 2019	Forecast FY 2020	Forecast FY 2021	Forecast FY 2022	Forecast FY 2023	5-Year CAGR
CONTRACT SRVC - PROF												
Engineering	10,911	2,715	12,261	6,293	67,736	55,510	30,000	15,450	15,914	16,391	16,883	-21%
Legal	102,474	190,766	58,735	54,575	92,501	116,004	147,238	102,743	105,825	109,000	112,270	-1%
Other	22,874	30,564	28,802	90,539	31,220	52,347	53,905	60,527	57,053	64,213	60,527	3%
Total	136,259	224,045	99,798	151,407	191,457	223,861	231,143	178,720	178,791	189,604	189,679	-3%
% Change	-3%	64%	-55%	52%	26%	17%	3%	-23%	0%	6%	0%	

Repairs and Replacements Expense

Repairs and replacements expense is projected to increase in FY 2018 and again in FY 2019. In FY 2018 the Agency is projected to have higher mainline and generator expense, offset by lower vehicle repairs expense. Higher mainline expense in FY 2018 is mostly due to ongoing manhole repairs that occur each year and were not completed in FY 2017. Higher generator expense is the result of ongoing, operational issues with the generators. Lower vehicle repairs is directly related to not hauling sludge and reduced repairs on the bin truck. In FY 2019, the Agency has budgeted for higher mainline and "other" expense. Higher mainline expense is the result of added station repairs related to carbon drum replacements and wet well sealing. Higher other expense is related to a one-time inclusion of $30,000 in the Agency's budget for unidentified, but likely repairs. The Agency, as a matter of practice, does not budget for "unknown" repairs'; however, the Agency's Plant Manager position is unfilled at the time of budget development, and given recent unexpected but needed repairs with the Agency's power producing equipment and fire suppression system, there may be needed repairs that have not been identified during the budget process. While staff may request appropriations for unexpected repairs, we believe the current approach is prudent and provides the most flexibility and efficiency to make repairs when needed.

	Actual FY 2013	Actual FY 2014	Actual FY 2015	Actual FY 2016	Actual FY 2017	Projected FY 2018	Budget FY 2019	Forecast FY 2020	Forecast FY 2021	Forecast FY 2022	Forecast FY 2023	5-Year CAGR
REPAIRS AND REPLACEMENTS:												
Mainline	74,507	20,251	19,429	61,540	3,855	18,250	44,832	19,361	19,942	20,541	21,157	3%
Pumps, Motors, Bearings	25,325	21,569	20,449	20,727	14,126	18,500	19,055	19,627	20,215	20,822	21,447	3%
Equipment and Machinery*	5,554	9,022	68,460	22,511	17,987	18,480	19,034	41,413	26,374	27,165	27,980	9%
Vehicles	23,467	15,944	25,355	19,129	27,193	17,350	18,600	12,978	13,367	13,768	14,181	-4%
Generators	15,253	29,892	20,229	20,030	56,331	63,848	46,186	52,342	48,999	55,530	51,983	-4%
Irrigation System - Lucerne	0	779	0	4,997	5,227	5,000	3,201	3,297	3,396	3,497	3,602	-6%
Other	15,713	89,349	7,903	1,830	3,926	1,500	32,419	2,491	2,566	2,643	2,722	13%
Total	159,819	186,806	161,825	150,764	128,645	142,928	183,326	151,510	134,859	143,966	143,072	0%
% Change	-6%	17%	-13%	-7%	-15%	11%	28%	-17%	-11%	7%	-1%	

Capital Contributions - Connection Fees

Connection Fees are expected to remain relatively flat and are projected at 55 annually over the forecast period. New connections to the wastewater system have remained low. Excluding multi-unit developments, connections have averaged 46 per year for the last 3 years, with the highest annual connections of 53 in FY 2016. While connections are trending up, the Agency has taken a conservative approach when projecting connections considering that a recovery to pre-recession averages of 200 per year is unlikely. The Agency's connection fee has remained at $3,670 since the last connection fee study in FY 2011. While the new 2018 Connection Fee Study reflects an increase to the Connection Fee, the study has not been adopted by the Board, and thus the increased fee has not been incorporated into the forecast.

	Actual FY 2013	Actual FY 2014	Actual FY 2015	Actual FY 2016	Actual FY 2017	Projected FY 2018	Budget FY 2019	Forecast FY 2020	Forecast FY 2021	Forecast FY 2022	Forecast FY 2023	5-Year CAGR
Connections	30	45	84	69	63	55	55	55	55	55	55	
Connection Fee	$3,670	$3,670	$3,670	$3,670	$3,670	$3,670	$3,670	$3,670	$3,670	$3,670	$3,670	
Connection Fees	110,100	165,150	308,280	253,230	231,210	201,850	201,850	201,850	201,850	201,850	201,850	-3%
% Change	36.4%	50.0%	86.7%	-17.9%	-8.7%	-12.7%	0.0%	0.0%	0.0%	0.0%	0.0%	

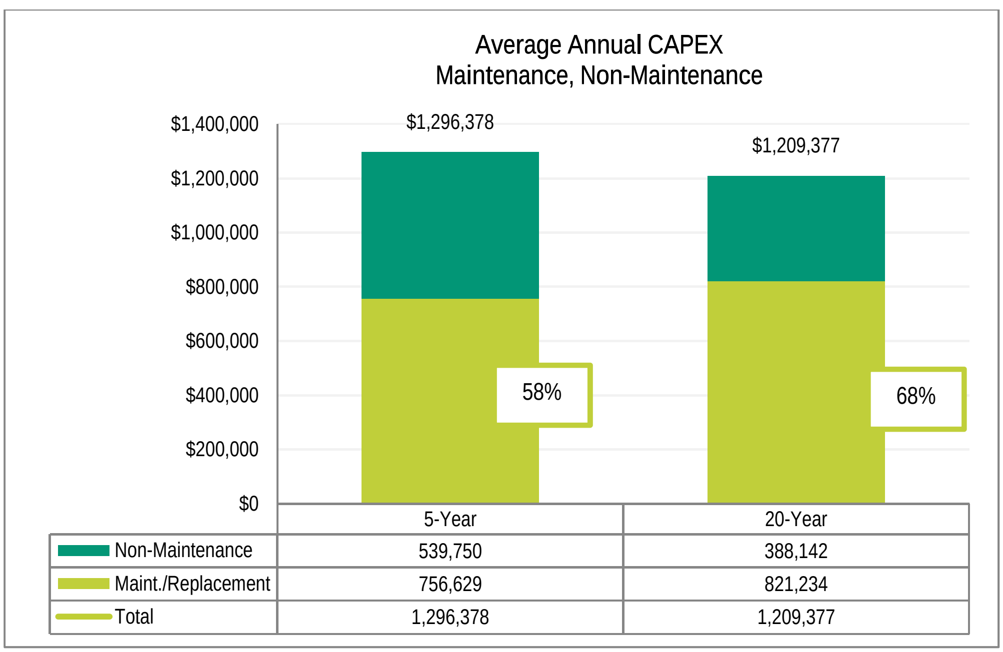
Debt Service and Bond Covenant Calculations

Decreasing operating income will drive a reduction in the Agency's debt service coverage from 2.9x in FY 2019 to 2.7x in FY 2023. The Agency's debt service coverage covenant requires a minimum of 1.2 x coverage and measures the Agency's ability to cover its annual debt service with current year earnings. While the debt service coverage declines over the period, the levels are still very strong.

	Actual FY 2013	Actual FY 2014	Actual FY 2015	Actual FY 2016	Actual FY 2017	Projected FY 2018	Budget FY 2019	Forecast FY 2020	Forecast FY 2021	Forecast FY 2022	Forecast FY 2023
Debt Service	589,321	579,284	576,084	576,084	576,083	576,084	569,983	563,882	563,882	563,882	563,882
Net Rev / Debt Srv	2.7	2.7	3.7	3.2	2.9	2.8	2.9	2.9	2.8	2.7	2.7
Covenant Test	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
PASS / FAIL	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS	PASS

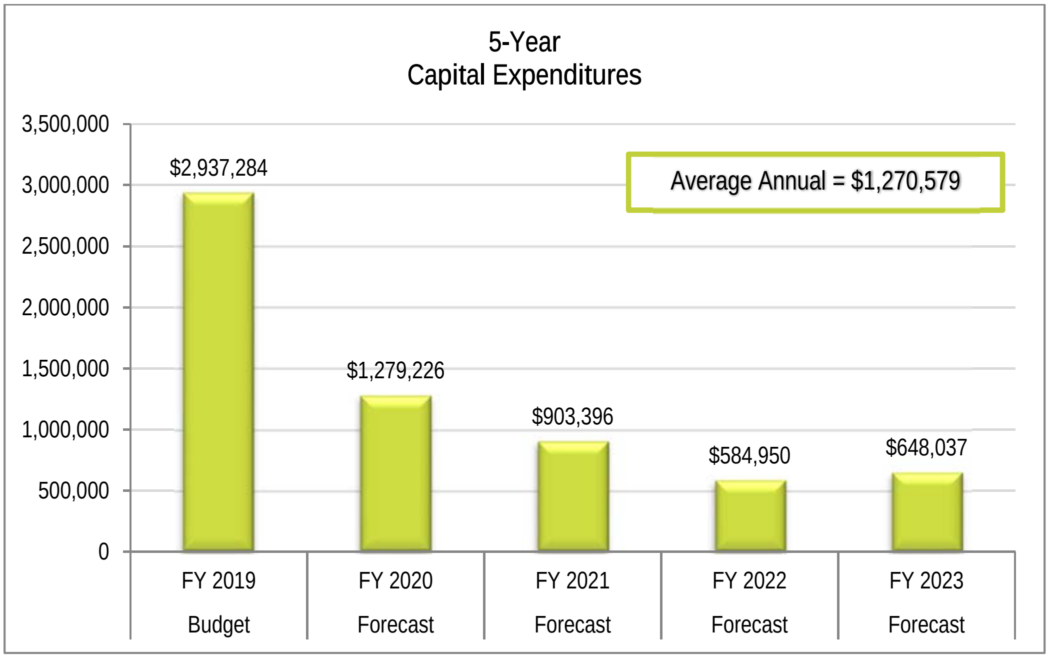
Capital Expenditures

The Agency's long-term annual depreciation expense averages approximately $830,000 and is a general indicator of the level of annual maintenance capital expenditures needed to maintain the Agency's assets. The Agency's 20-year Capital Improvement Plan indicates an average annual maintenance requirement of approximately $820,000. Over the long-term the Agency expects maintenance CAPEX to be approximately 70% of total capital expenditures and non-maintenance CAPEX to be 30%.

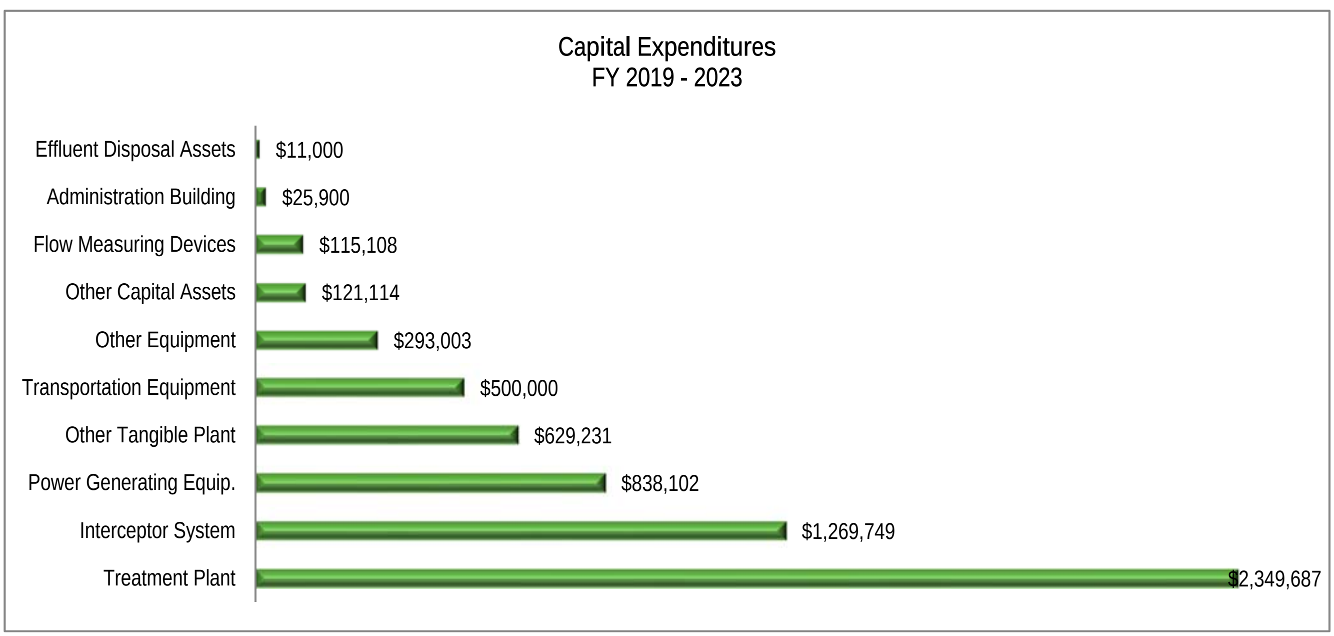


During the five-year forecast, CAPEX totals $6.4 million and averages $1.3 million per year. The five-year capital plan includes two larger capital projects that total $2.4 million. Maintenance and replacement CAPEX over the period averages approximately $760,000 per year and is in line with expected annual maintenance.

Approximately $2.4 million of the planned capital expenditures is forecast to be debt financed, with the remaining $4 million funded through cash.



The following chart summarizes the projects in the five-year plan by primary asset account and amount.



5-YEAR CAPITAL IMPROVEMENT PLAN, FY 2019 - 2023

	Budget FY 2019	Forecast FY 2020	Forecast FY 2021	Forecast FY 2022	Forecast FY 2023	5-Year FY 2018-2022
ADMINISTRATION BUILDING						
Admin Building - Land Improvements	18,100	0	0	0	0	18,100
Admin Building - Painting, Cabinetry	7,800	0	0	0	0	7,800
Total	25,900	0	0	0	0	25,900
EFFLUENT DISPOSAL ASSETS						
Outfall Lines						
Cactus Flats Repair	85,000	0	0	0	0	85,000
Storage						
Monitoring Wells Rehabilitation	0	0	0	0	36,114	36,114
Total	85,000	0	0	0	36,114	121,114
FLOW MEASURING DEVICES						
RAS Flow Meter (10 year replacement)	0	0	0	15,289	0	15,289
WAS Meter (10 year maint replacement)	0	0	0	9,909	0	9,909
CBBL Flow Meter and Software (10 year replacement)	0	47,289	0	0	0	47,289
CSA Flow Meter (10 year replacement)	0	0	0	0	15,819	15,819
Auxiliary Flow Meter (15 year replacement)	0	0	0	0	26,802	26,802
Total flow measuring devices	0	47,289	0	25,198	42,621	115,108
INTERCEPTOR SYSTEM						
Pipeline						
Engineering Gravity Sewer Pipeline	195,346	0	0	0	0	195,346
15 Inch Gravity Sewer Pipeline NEW	659,868	0	0	0	0	659,868
8 Inch Gravity Sewer Pipeline NEW	414,535	0	0	0	0	414,535
Total interceptor system	1,269,749	0	0	0	0	1,269,749
OTHER EQUIPMENT						
Communications						
SCADA System Replacement	30,000	225,000	225,000	0	0	480,000
Electrical						
VFD T/P - Rotor 2 60 HP (7 yr)	0	0	0	0	15,378	15,378
VFD T/P - Rotor 5 60 HP (7 yr)	13,931	0	0	0	0	13,931
VFD T/P - Rotor 7 60 HP (7 yr)	14,076	0	0	0	0	14,076
VFD T/P - Rotor 8 60 HP (7 yr)	0	14,280	0	0	0	14,280
VFD Interceptor - Station 3 (7 yr)	0	0	0	0	18,042	18,042
VFD Interceptor - LPS (7 yr)	0	26,225	0	0	0	26,225

5-YEAR CAPITAL IMPROVEMENT PLAN, FY 2019 – 2023 Cont.

	Budget FY 2019	Forecast FY 2020	Forecast FY 2021	Forecast FY 2022	Forecast FY 2023	5 Year FY 2018 2022
Office Equipment						
Copier	0	0	16,680	0	0	16,680
Other						0
Pipeline Detection Equipment	0	0	0	0	6,892	6,892
Backflow Device	10,000	0	0	0	0	10,000
Security						
Fire Alarm System Ops	0	13,726	0	0	0	13,726
Total	68,007	279,231	241,680	0	40,312	629,231
OTHER CAPITAL ASSETS						
Web Site	0	11,000	0	0	0	11,000
Total	0	11,000	0	0	0	11,000
OTHER TANGIBLE PLANT						
Admin Parking Lot Grind and Overlay	0	100,000	0	0	0	100,000
Asphalt and Paving	0	0	0	250,000	250,000	500,000
Total	0	100,000	0	250,000	250,000	600,000
POWER GENERATING EQUIPMENT						
Cummins Rebuild	0	0	303,704	0	0	303,704
Waukesha Rebuild	0	0	0	82,741	0	82,741
Station 1 Generator + Fuel System	67,328	0	0	0	0	67,328
Station 2 Generator + Fuel System	0	72,116	0	0	0	72,116
Station 3 Mobile Install + Fuel System	0	0	120,000	0	0	120,000
LPS Generator + Fuel System	0	0	0	152,213	0	152,213
Station 1,2,3, LPS StdBy Connections	40,000	0	0	0	0	40,000
Total	107,328	72,116	423,704	234,954	0	838,102
TRANSPORTATION EQUIPMENT						
Vehicles						
2002 Vehicle - Utility Cart Electric	0	0	16,958	0	0	16,958
2010 GMC 1/2 Ton	0	45,912	0	0	0	45,912
2004 Toyota 4-Runner	0	0	47,704	0	0	47,704
2004 Toyota Tundra	0	46,541	0	0	0	46,541
Utility Cart Gas	0	0	0	0	27,519	27,519
Heavy Equipment and Accessories						
Plow	10,000	0	0	0	0	10,000
Trailer	9,000	0	0	0	0	9,000
Bobcat Backhoe	0	0	0	0	89,369	89,369
Total transportation equipment	19,000	92,453	64,662	0	116,888	293,003

5-YEAR CAPITAL IMPROVEMENT PLAN, FY 2019 – 2023 Cont.

	Budget FY 2019	Forecast FY 2020	Forecast FY 2021	Forecast FY 2022	Forecast FY 2023	5 Year FY 2018 2022
TREATMENT PLANT						
Miscellaneous Equipment:						
AQMD Emissions Tester	0	14,462	0	0	0	14,462
Piping						
High Pressure Effluent Line	0	0	157,594	0	0	157,594
Processing Equipment:						
Polyblend Unit Backup 1	0	0	0	9,980	0	9,980
Shaft Mount Reducer - Ditch #3	0	0	15,756	0	0	15,756
New Belt Press	1,300,000	0	0	0	0	1,300,000
Pumping Equipment:						
Clarifier 3:						
Scum and Tank Drain Pump - 10 HP	0	0	0	18,318	0	18,318
Cannibal Building:						
Submersible Pump - 15 HP (2)	0	0	0	0	8,559	8,559
Auxiliary Pump Building:						
Auxiliary Pump 3	0	0	0	46,500	0	46,500
Main Pump Building:						
Effluent Pump 1 40 HP	0	0	0	0	12,681	12,681
Effluent Pump 2 40 HP	0	0	0	0	12,681	12,681
Effluent Pump 3 100 HP	0	26,169	0	0	0	26,169
Effluent Pump 4 100 HP	0	0	0	0	28,181	28,181
Structures						
OAC Roof	12,300	0	0	0	0	12,300
Headworks	50,000	404,811	0	0	0	454,811
Treatment Equipment						
Bar Screen	0	129,289	0	0	0	129,289
Grit Aeration, Air Lift Difuser	0	47,573	0	0	0	47,573
Grit Washer	0	54,833	0	0	0	54,833
Total treatment plant equipment	1,362,300	677,137	173,350	74,798	62,102	2,349,687
STUDIES AND MAPS						
New Pipeline Maps	0	0	0	0	100,000	100,000
Total Studiws and Maps	0	0	0	0	100,000	100,000
TOTAL	2,937,284	1,279,226	903,396	584,950	648,037	6,352,893

Capital Projects – FY 2019

Administration Building

Office Cabinets ($7,800): The administrative office contains no storage in the central work area for office supplies and equipment. The Agency plans to purchase approximately 16 linear feet of upper and lower closed cabinets and have them installed to support better organization, accountability, and productivity.

Budget:	$7,800
Start Date:	August 1, 2018
Target Completion Date:	August 31, 2018

Land Improvements ($18,100): The administration building, treatment plant and lake pump station are in need of new landscaping and irrigation system repairs. We are planning to install new landscaping and irrigation equipment that will utilize our own high-quality effluent, in allowed areas, to water the plants. This will include ongoing maintenance.

Budget:	$18,100
Start Date:	July 1, 2018
Target Completion Date:	October 31, 2018

Effluent Disposal Assets

Cactus Flats Repair ($85,000): A section of our pipeline was exposed due to storm water runoff from the County dump site storm drain line. Approximately 75 feet of BBARWA 18-inch pipeline has been exposed along with a Southwest Gas line. The repair is needed due to storm water washout which is believed to have occurred in 2016. The repair will be a joint project with Southwest Gas and BBARWA and will consist of a concrete encasement of the pipelines.

Budget:	$85,000
Start Date:	September 12, 2018
Target Completion Date:	September 29, 2018

Interceptor System

New Gravity Sewer Pipelines ($1,269,749): The Agency is going to put a new, parallel pipeline in at Teal Dr. to Shay Rd. to relieve restricted flow through a series of turns in our existing pipeline. This pipeline will be approximately 4,000 feet of 15-inch pipeline. This new parallel system will help relieve the gravity line during periods of peak flow to the treatment plant. The new, 8-inch line was also identified in the Master Plan as needed capacity during peak flows. This line is estimated at 1,648 feet.

Budget:	$1,269,749
Start Date:	September 1, 2018
Target Completion Date:	October 31, 2018

Other Equipment

SCADA System Replacement ($30,000): The SCADA System is in need of updating. The Agency will start to purchase new ditch probes and monitoring equipment for the SCADA system. This will involve installing new equipment and programing the equipment to talk to our existing SCADA system. The SCADA system is a critical part of operations.

Budget:	$30,000
Start date:	July 7, 2018
Target completion date:	June 11, 2019

Variable Frequency Drive Rotor 5 and 7 ($28,007): Rotor # 1 and Rotor # 4 VFDs are due for replacement and are at the end of their useful lives. The VFDs are used to control the amount of air injected during the treatment process. The scope of work will include the purchase and installation by a qualified electrical contractor.

Budget:	$28,007
Start date:	December 11, 2018
Target completion date:	December 28, 2018

Back Flow Device ($10,000): The Agency uses secondary effluent to cool its generator systems. The Agency will install a backflow device on the potable water supply so that an alternative source of cooling water is available. This gives the Agency the ability, in an emergency situation, to continue operating without Bear Valley Electric power.

Budget:	$10,000
Start date:	October 3, 2018
Target completion date:	November 1, 2018

Power Generating Equipment

Station One Generator and Fuel System ($67,328): The standby generator at station one is old and is in need of replacement. The parts for the existing unit are getting hard to find and are very costly to replace. The scope of work will include the purchase of an approved generator and fuel system to be installed by an approved factory representative with the help of BBARWA staff.

Budget:	$67,328
Start date:	July 1, 2018
Target completion date:	November 30, 2018

Station 1,2,3, LPS Standby Connections ($40,000): The Agency has purchased a standby rolling generator to act as a backup for all the Agency's lift stations. The Agency will utilize its staff and a certified electrician to install quick-connect systems at each station for our new rolling generator. This will allow BBARWA staff to safely and efficiently plug in our standby generator in an emergency situation.

Budget:	$40,000
Start date:	July 1, 2018
Target completion date:	July 31, 2018

Transportation – Heavy Equipment and Accessories

Snow Plow ($10,000): The Agency is in need of a new snow plow for the duty truck (vehicle used by the on-call operator). This plow will be used for emergency snow removal at the lift stations and for normal plowing operations at the treatment plant.

Budget:	$10,000
Start Date:	July 3, 2018
Target completion date:	July 20, 2018

<u>Trailer ($9,000):</u> This new trailer will allow the grit and rags that are a byproduct of the Agency's treatment process to be hauled to the transfer station.

Budget:	$9,000
Start date:	July 2, 2018
Target completion date:	July 31, 2018

Treatment Plant

<u>New Belt Press ($1,300,000):</u> The Agency needs a new belt press to replace the aging belt press that is currently in use. The new belt press can process more than 360 gallons per min and produces 17%-18% solids compared to the old belt press which can process 180 gallons per min and produces 13% solids. The new belt press will be installed in the covered drying bed and will utilize a conveyor belt system to disperse the solids. The new belt press is less labor intensive and will help eliminate overtime during periods of high flow.

Budget	$1,300,000
Start Date	September 1, 2018
Target completion date:	September 30, 2018

<u>OAC Roof ($12,300):</u> The Operations and Control Building is the main office for the operations and lab staff. The roof has a few areas that are leaking and that need repair. The scope of work will include repair of ice dam over an entry way and new composite shingles over the record storage room.

Budget:	$12,300
Start date:	August 6, 2018
Target completion date:	August 10, 2018

<u>Headworks ($50,000):</u> The Headworks area of the treatment plant is the first stage of treatment at BBARWA. The building is old and needs to be updated. BBARWA will work with WSC to assess Headworks and redesign the first stage in the treatment process.

Budget:	$50,000
Start date:	October 2, 2018
Target completion date:	October 16, 2018

<u>Capital Projects – FY 2020 – FY 2023</u>

Projects discussed below are in the 5-year capital plan, beyond the budget year, and exceed $100,000.

<u>New Pipeline Maps ($100,000):</u> The Agency has pipeline maps that depict the original locations of Agency facilities with varying degrees of accuracy. The Agency will begin to update its maps which will help BBARWA staff with line locations for dig alerts.

<u>Asphalt and Paving ($500,000):</u> The asphalt needs replacement due to age and climate. The asphalt work includes the grading and paving of areas within the treatment plant.

<u>Cummins Generator Major Overhaul ($303,704):</u> The Cummins generator system was installed in 2007 and put into operations in 2008. The generators run approximately 4,500 hours a year to supply power for the treatment plant, the administration building and supply heat to the covered drying bed. The generator system is a critical part of operations and ensures reduced expenditures for electricity. The generators require a major overhaul every

40,000 hour and will be due shortly. The scope of work will include new crankshaft, camshaft, piston kits, cylinder heads, turbocharger and the generator end to be checked for any electrical shorts.

Admin Parking Lot Grind and Overlay ($100,000): The administration building parking lot is in need of paving due to age and climate. This will include grinding and overlay of new asphalt.

SCADA System Replacement ($450,000): The SCADA system (Supervisory Control and Data Acquisition) will be updated to an industry standard level. BBARWA staff is working closely with Allen Bradley representatives to acquire new equipment and will work closely with licensed contractors to install, program and maintain a new SCADA system. The SCADA system is a crucial part of BBARWA operations.

Station Three and LPS Generator and Fuel Systems ($272,213): The Agency is going to be replacing the old standby generators at the lift stations. The parts for the existing units are getting hard to find and are very costly to replace. The scope of work will include the purchase of an approved generator and fuel system to be installed by an approved factory representative with the help of BBARWA staff. During power outage situations these generators serve as standby power to keep pumps moving wastewater to the treatment plant.

High Pressure Effluent Lines ($157,594): The treatment plant utilizes its secondary effluent for many different applications. It is utilized in almost all the hose bibs and serves as the water supply to most of the buildings at the treatment plant.

Headworks Reconstruction ($636,506): The headworks area of the treatment plant is the first stage of treatment at BBARWA. The building is old and needs to be updated. This project will include the coating of the concrete aeration chamber. New equipment will also be installed (i.e. Bar screen, Grit Aeration, Air Lift Diffuser, Grit Washer). By rebuilding the headworks, the treatment plant should see a significant change in the amount of trash and grit that is introduced into the oxidation ditches and ultimately disposed of at the local transfer station. The scope of work (and the amount included above) includes the purchase and installation of the new bar screen.

Cash and Designated Fund Balances

All references to Agency funds and designated fund balances are related to internal reserve funds maintained by the Agency for various operating and capital related purposes. The following is a summary of the Agency's internally designated funds:

Fund	Description
Capital and Replacement	Fund balance is maintained for capital expenditure requirements. The current year portion reflects capital expenditures appropriated for the budget and goes up and down as funds are appropriated or expensed during the budget year. The current year portion of the fund balance is reestablished annually prior to July 1 for the ensuing budget year. The future year portion reflects cash available for future capital requirements identified in the Agency's 20-Year CIP.
Debt Service	Fund balance is maintained for debt service requirements appropriated for the budget and goes down as funds are expensed during the budget year. The fund balance is reestablished annually prior to July 1 for the ensuing budget year.
Liquidity	Fund balance is maintained to meet the Agency's operating requirements due to the timing and infrequent nature of the Agency's revenues. The Agency, in general, needs approximately $1.9 million as of July 1 of each fiscal year. This amount will go up and down with changes in operating expense. The fund balance is reestablished annually prior to July 1 for the ensuing budget year.
Contingency	The Agency has established an 1) emergency fund of $500,000 and 2) operating fund in the amount of two months operating expense. The operating portion of the contingency fund required balance will go

	up and down with changes in operating expense. The fund balance is reestablished annually prior to July 1 for the ensuing budget year.
Connection Fees	The use of connection fee revenue is restricted by law. The Agency accounts for accrued and unspent connection fee revenue through this internal fund.

CASH AND DESIGNATED FUND BALANCES

	Projected FY 2018	Budget FY 2019	Forecast FY 2020	Forecast FY 2021	Forecast FY 2022	Forecast FY 2023	Total Change
ENDING BALANCE:							
Cash Balance	6,370,807	6,682,104	6,290,065	6,245,156	6,669,905	6,981,894	611,088
Designated Fund Balances:							
Capital and Replacement Fund							
Current Year	562,881	1,279,226	903,396	584,950	648,037	464,460	-98,422
Future Years	2,041,714	1,527,532	1,396,967	1,530,580	1,800,269	2,201,104	159,391
Total C & R	2,604,595	2,806,757	2,300,363	2,115,530	2,448,306	2,665,564	60,969
Debt Service Fund	576,084	569,983	563,882	563,882	563,882	563,882	-12,201
Liquidity Fund	2,015,504	2,101,841	2,201,192	2,319,378	2,388,959	2,460,628	445,124
Contingency Fund:							
Emergency	500,000	500,000	500,000	500,000	500,000	500,000	0
Operating	674,623	703,522	724,627	746,366	768,757	791,820	117,197
Total Contingency	1,174,623	1,203,522	1,224,627	1,246,366	1,268,757	1,291,820	117,197
Designated Funds	6,370,807	6,682,104	6,290,065	6,245,156	6,669,905	6,981,894	611,088

The Agency is projected to have a net source of cash of approximately $600,000 over the forecast period through FY 2023. At the end of FY 2023, the balance in the Agency's capital and replacement fund is estimated to be $2.7 million of which approximately $460,000 is planned for FY 2024 capital expenditures and the residual (future portion) of $2.2 million is earmarked for projects in the five-year period beginning in FY 2025. Capital expenditures for the next five-year investment cycle (FY 2025-2029) total $6.1 million or approximately $1.2 million a year. The Agency's rates beginning in FY 2019, are structured to collect $800,000 per year for cash-funded capital expenditures. Based on this collection rate, the shortfall is approximately $400,000 per year or $2 million during this five-year period (FY 2025 – 2029). The Agency plans to utilize the "future" component of the capital and replacement fund at the end of FY 2023 for this purpose. **The shortfall noted above is the result of the "timing" of projects, not "under collecting" from rates.**

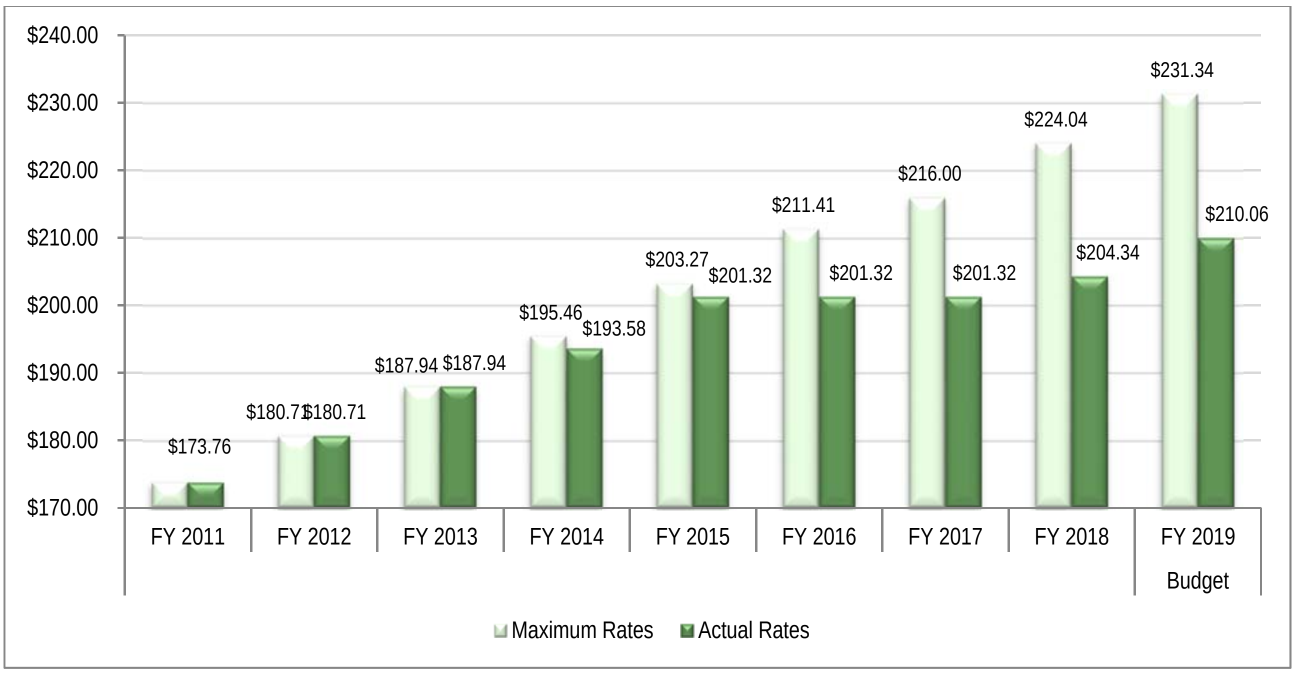
Rate Review

Adequacy of Rates

The budget and forecast period were prepared assuming annual inflationary changes in the Agency's sewer user fees ranging from 2.8% to 3% in FY 2019 - 2023. The rate adjustments should be adequate to cover future operating and capital requirements for the budget and forecast period. The forecast period is a "best estimate" of the Agency's future revenue requirements and may change as we move into the future, which could impact the timing and size of potential rate adjustments. The Agency completed a 2018 Rate Study, which confirms the need for the rate adjustments based on the Agency's current financial projections.

Maximum Rate Schedule

The Agency consulted with the engineering firm of HDR Engineering, Inc. to complete a comprehensive review of the Agency's sewer user fees, standby fees and connection fees in FY 2011 and updated this study in FY 2018. As a result of the FY 2011 Rate Study, the Governing Board of Directors approved a multi-year, maximum rate schedule. The maximum rate schedule determined the maximum rate the Agency could charge in any particular year. Further, beginning in FY 2017, the Governing Board of Directors could increase the rate up to the change in the 20-city construction cost index published by Engineering News Record for December of the preceding fiscal year (i.e. if effective July 1, 2018, the December 2017 CCI would be used). The following is a comparison between the actual rates and those allowed through the maximum rate schedule. Lower rates than the maximum rate schedule were achieved primarily through lower operating expenses due mostly to lower salaries and benefits expense.



FY 2019 Rate per EDU - $210.06 / EDU

Based on the Agency's current budget and five-year forecast, staff is recommending a rate of $210.06 per EDU, a 2.8% increase over the FY 2018 rate of $204.34.

Ratepayer Impact

The financial impact to the ratepayer in FY 2019, based on a 2.8% increase.

Annual Increase	Monthly Increase
$5.72	$0.48

Appendix
Five-Year Forecast

Income Statement

	Projected FY 2018	Budget FY 2019	Forecast FY 2020	Forecast FY 2021	Forecast FY 2022	Forecast FY 2023	5-Yr CAGR (a)	
Operating Revenue:								
Annual Charges	5,091,576	5,251,785	5,410,589	5,579,591	5,759,436	5,945,051	3%	
Standby Charges	85,180	83,200	81,998	80,886	79,775	78,663	-2%	
Rental Income	50,344	51,071	51,820	52,592	53,386	53,386	1%	
Waste Disposal	21,798	21,798	21,798	21,798	21,798	21,798	0%	
Other Revenue	-	-	-	-	-	-	nm	(b)
Total Operating Revenue	5,248,897	5,407,854	5,566,205	5,734,867	5,914,395	6,098,899	3%	
Operating Expenses:								
Salaries and Benefits	2,006,973	2,150,153	2,344,978	2,545,028	2,714,039	2,881,273	8%	
Power	434,175	445,035	455,806	465,799	468,872	472,036	2%	
Sludge Removal	356,627	355,339	365,999	376,979	388,288	399,937	2%	
Chemicals	43,901	47,864	75,728	50,726	52,221	82,668	13%	
Materials and Supplies	142,926	156,052	153,365	151,521	156,610	164,273	3%	
Repairs and Replacements	142,928	183,326	151,510	134,859	143,966	143,072	0%	
Equipment Rental	42,260	803	820	837	854	880	-54%	
Utilities Expense (other than power)	21,839	20,376	20,987	21,617	22,265	22,933	1%	
Communications Expense	47,766	47,734	49,166	50,641	52,160	53,725	2%	
Contractual Services - Other	90,602	94,285	98,735	101,336	109,157	112,431	4%	
Contractual Services - Prof	223,861	231,143	178,720	178,791	189,604	189,679	-3%	
Permits and fees	144,956	151,465	159,181	167,298	175,838	184,824	5%	
Property Tax Expense	3,602	3,652	3,703	3,755	3,808	3,862	1%	
Insurance	99,325	103,132	110,499	117,978	125,230	132,874	6%	
Other Operating Expense	57,518	57,382	51,934	53,492	55,097	56,750	0%	
Depreciation Expense	894,443	975,331	991,246	986,645	965,608	948,977	1%	
Total Operating Expense	4,753,701	5,023,071	5,212,377	5,407,302	5,623,618	5,850,195	4%	
Operating Income	495,196	384,783	353,828	327,565	290,777	248,704	-13%	
Nonoperating Income	-							
Gain (loss) on asset disposition	-	-	-	-	-	-	nm	(b)
Finance Charge Income	-	-	-	-	-	-	nm	(b)
Interest Income	48,817	72,043	78,088	81,712	88,750	97,009	15%	
Other Nonoperating Income	-	-	-	-	-	-	nm	(b)
Nonoperating income	48,817	72,043	78,088	81,712	88,750	97,009	15%	
Nonoperating Expense								
Other Expense	11,700	11,700	11,700	11,700	11,700	11,700	0%	
Interest Expense	102,489	128,264	155,700	141,865	127,560	112,771	2%	
Nonoperating expense	114,189	139,964	167,400	153,565	139,260	124,471	2%	
Income before Contributions	429,823	316,862	264,516	255,711	240,267	221,242	-12%	
Connection Fees	201,850	201,850	201,850	201,850	201,850	201,850	0%	
Net Income, Change in Net Position	631,673	518,712	466,366	457,561	442,117	423,092	-8%	

(a) Compound Annual Growth Rate (average annual change)

(b) "nm" means not meaningful

Cash Flow Statement and Designated Fund Balances

	Projected FY 2018	Budget FY 2019	Forecast FY 2020	Forecast FY 2021	Forecast FY 2022	Forecast FY 2023	Total
Cash from operating activities:							
Operating Income (Loss)	495,196	384,783	353,828	327,565	290,777	248,704	1,605,657
Depreciation expense	894,443	975,331	991,246	986,645	965,608	948,977	4,867,807
Other Miscellaneous Income (Exp)	0	0	0	0	0	0	0
Change in Working Capital	20,781	10,155	26,058	24,599	26,595	27,369	114,775
Net cash provided by op activities	1,410,420	1,370,268	1,371,131	1,338,809	1,282,980	1,225,050	6,588,238
Cash from noncapital financing:							
Payment of pension/OPEB related debt/liabil	-200,000	-200,000	-200,000	-200,000	0	0	-600,000
Cash from capital and related financing:							
Capital Expenditures	-1,631,763	-2,937,284	-1,279,226	-903,396	-584,950	-648,037	-6,352,893
Proceeds from Asset Disposition	0	0	0	0	0	0	0
Connection Fee (Capital Contrib)	201,850	201,850	201,850	201,850	201,850	201,850	1,009,250
Proceeds from Debt Issuance	0	2,374,403	0	0	0	0	2,374,403
Debt Service:							
Interest Expense	-102,489	-128,264	-155,700	-141,865	-127,560	-112,771	-666,160
Principal Debt Amortization	-473,594	-441,719	-408,182	-422,017	-436,322	-451,112	-2,159,352
Total Debt Service	-576,084	-569,983	-563,882	-563,882	-563,882	-563,882	-2,837,714
Net cash used for cap and related financing	-2,005,997	-931,014	-1,641,258	-1,265,429	-946,982	-1,010,069	-5,794,753
Cash from investing:							
(Increase) Decrease in Other Assets	0		0	0	0	0	0
Other Proceeds	0		0	0	0	0	0
Interest Income	48,817		78,088	81,712	88,750	97,009	417,602
Proceeds from the Sale of Investment	0		0	0	0	0	0
Net cash from investing	48,817		78,088	81,712	88,750	97,009	417,602
Net Change in Cash	-746,760		-392,039	-44,908	424,749	311,989	611,088
Beginning Cash Balance	7,117,566		6,682,104	6,290,065	6,245,156	6,669,905	6,370,807
Ending Cash Balance	6,370,807		6,290,065	6,245,156	6,669,905	6,981,894	6,981,894
Change in Cash Balance	-746,760		-392,039	-44,908	424,749	311,989	611,088

	Projected FY 2018	Budget FY 2019	Forecast FY 2020	Forecast FY 2021	Forecast FY 2022	Forecast FY 2023	Change
DESIGNATED FUND BALANCES (Ending)							
Cash Balance	6,370,807	6,682,104	6,290,065	6,245,156	6,669,905	6,981,894	611,088
Designated Fund Balances:							
Capital and Replacement Fund							
Current Year	562,881	1,279,226	903,396	584,950	648,037	464,460	-98,422
Future Years	2,041,714	1,527,532	1,396,967	1,530,580	1,800,269	2,201,104	159,391
Total C & R	2,604,595	2,806,757	2,300,363	2,115,530	2,448,306	2,665,564	60,969
Debt Service Fund	576,084	569,983	563,882	563,882	563,882	563,882	-12,201
Liquidity Fund	2,015,504	2,101,841	2,201,192	2,319,378	2,388,959	2,460,628	445,124
Contingency Fund:							
Emergency	500,000	500,000	500,000	500,000	500,000	500,000	0
Operating	674,623	703,522	724,627	746,366	768,757	791,820	117,197
Total Contingency	1,174,623	1,203,522	1,224,627	1,246,366	1,268,757	1,291,820	117,197
Total Designated Funds	6,370,807	6,682,104	6,290,065	6,245,156	6,669,905	6,981,894	611,088

Rate Analysis

	Projected FY 2018	Budget FY 2019	Forecast FY 2020	Forecast FY 2021	Forecast FY 2022	Forecast FY 2023	5-Year Total
Revenue Requirements:							
Op Expenses before Depreciation	3,859,258	4,047,740	4,221,131	4,420,657	4,658,010	4,901,218	22,248,756
Rate Funded Capital:							
Debt Service	455,106	376,553	362,032	362,032	362,032	362,032	1,824,683
Capital Expenditures (cash funded)	450,000	800,000	800,000	800,000	800,000	800,000	4,000,000
Total Rate Funded Capital	905,106	1,176,553	1,162,032	1,162,032	1,162,032	1,162,032	5,824,683
Subtotal	4,764,365	5,224,294	5,383,163	5,582,689	5,820,042	6,063,250	28,073,438
LESS Other Revenues:							
Other Revenue:							
Standby Charges	85,180	83,200	81,998	80,886	79,775	78,663	404,522
Rental Income	50,344	51,071	51,820	52,592	53,386	53,386	262,256
Waste Disposal	21,798	21,798	21,798	21,798	21,798	21,798	108,989
	157,322	156,069	155,616	155,276	154,959	153,848	775,767
Revenue Requirements	4,607,043	5,068,225	5,227,548	5,427,414	5,665,083	5,909,402	27,297,671
Proposed Rate	$204.34	$210.06	$215.94	$222.21	$228.87	$235.74	
Annual Change	1.5%	2.8%	2.8%	2.9%	3.0%	3.0%	
Rate Revenue per Proposed Rate							
EDUs	24,917	25,001	25,056	25,110	25,164	25,219	
Rate Revenues - Proposed Billing	5,091,576	5,251,785	5,410,589	5,579,591	5,759,436	5,945,051	27,946,452
Rate Revenue Excess (Shortfall) - Proposed	484,533	183,560	183,041	152,177	94,353	35,649	648,781
Bond Covenant with Proposed Rate							
Net Revenue / Debt Service Ratio	2.8	2.9	2.9	2.8	2.7	2.7	
Covenant Test Ratio	1.2	1.2	1.2	1.2	1.2	1.2	