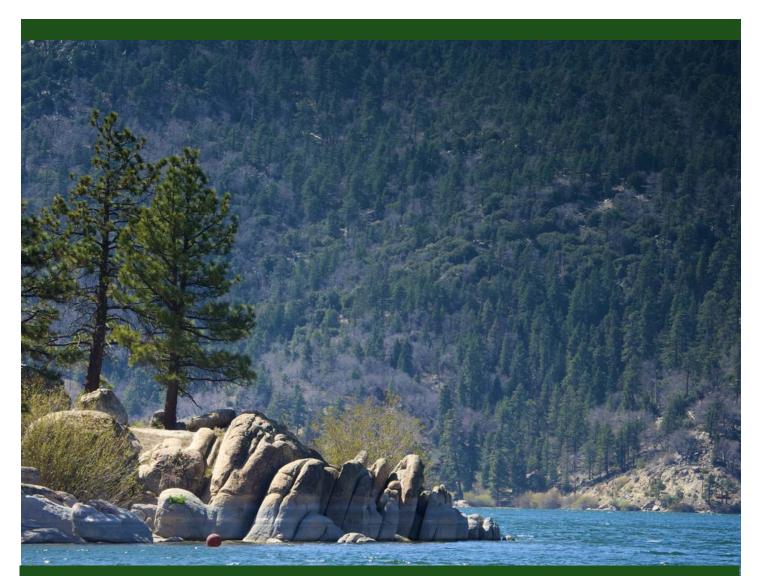


For the Year Ended June 30, 2020

2020



BIG BEAR AREA REGIONAL WASTEWATER AGENCY BIG BEAR CITY, CA 92314 Big Bear Area Regional Wastewater Agency

Budget and Forecast FY 2020 - 2024

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:

<u>Rate Increase</u>: The budget and forecast period were prepared assuming inflationary adjustments in the Agency's sewer user fee each year during the 5-year period, from FY 2020 - 2024.

	Actual <u>FY 2012</u>	Actual <u>FY 2013</u>	Actual <u>FY 2014</u>	Actual <u>FY 2015</u>		Actual <u>FY 2017</u>	Actual <u>FY 2018</u>	Actual <u>FY 2019</u>	5				Forecast <u>FY 2024</u>
Actual/Proposed Rates %Change	\$180.71 4.0%				\$201.32 0.0%		\$204.34 1.5%	\$210.06 2.8%				\$236.88 3.0%	\$243.99 3.0%
Prior Projected Rate Adjustment								2.9%	3.0%	3.0%	3.0%	3.0%	

The rates through FY 2024 have been structured to meet the Agency's current operating and capital needs during the next five years and assumes no new debt financing during the period. It should be noted that the Agency's rates have been structured to cover 85% of its annual debt service. The remaining 15% (approximately \$75,000) is projected to be funded through connection fee revenue.¹

Average Dry Weather Flow: The Agency budgets for dry weather. Based on historical experience, this is approximately 795 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 Riverside, San Bernardino, Ontario, CA CPI-U² (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. The overall inflationary outlook has been mixed with the Federal Reserve recently halting anticipated rate hikes. Consumer price inflation has slowed since October/November and the construction cost index has increased slightly.

¹ The Agency estimated what it can expect to collect in connection fee revenue during an economic downturn. During the last recession, the Agency's lowest annual rate of connections to the system was 18, which equates to \$75,240 in connection fee revenue.

² It should be noted that the regional CPI index previously used by the Agency in prior years is no longer available. The sample area was modified to split Los Angeles and Riverside. The new indices are 1) Los Angeles, Long Beach, Anaheim and 2) Riverside, San Bernardino, Ontario. The Agency's proximity is closer to Riverside and therefore the Agency will move forward using the Riverside, San Bernardino, Ontario index. The index began in December 2017 and therefore the November CPI utilized by the Agency reflects an 11-month change instead of 12 months.



Inflation

Month	Riverside, SB, Ontario CPI – U	West Region CPI-U	National CPI-U	CCI
November 2018	3.6%	3.3%	2.2%	2.9%
January 2019	3.0%	2.7%	1.6%	3.0%

Congressional Budget Office Forecast

Index	Period	Rate
CPI, All Urban Consumers	Calendar Years 2020- 2024, Annual Average	2.5%

The Agency has assumed inflation of 3% each year during the forecast period, unchanged from prior forecasts. This inflation assumption reflects the 2.5% national inflation expected by the Congressional Budget Office combined with higher regional inflation.

	Actual	Actual	Actual	Actual	Actual	Actual	Projected	Budget	Forecast	Forecast	Forecast	Forecast	5-Year
	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	Average
Inflation Rate	1.0%	1.8%	0.8%	1.8%	2.2%	4.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%	3.0%
Actual Inflation	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 2018 are periods of actual financial performance, FY 2019 is the projected performance, FY 2020 is the budget period, and FY 2020 – FY 2024 is the forecast period:

FY 2018	FY 2019	FY 2020	FY 2020 - FY 2024
Actual	Projected	Budget	Forecast Period

Items Impacting Financial Performance

<u>Rising Salaries and Wages Expense</u> - Separations during 2017 and 2018 combined with a change in pay schedules resulting from the Compensation and Classification Study resulted in the majority of the Agency's employees (14 of 15 employees) being within their respective pay scales and thus eligible for annual merit adjustments in addition to annual cost of living adjustments. This results in potentially higher annual percentage changes in salaries and wages than if all employees were at the top of their respective pay ranges 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 2024 as more employees reach the top of their respective pay scales.³

<u>Higher Pension Costs</u> - CalPERS lowered the discount rate, also known as the assumed rate of return, to 7% from 7.5%. The reduction has been transitioned over a three-year period beginning in FY 2019 and ending in FY 2021. The normal cost⁴ is expected to increase 2.3 points, from 12.5% of payroll in FY 2018 (before the discount rate adjustment) to 14.8% of payroll in FY 2021, and the payment of the unfunded accrued liability⁵ is expected to increase substantially, from \$61,710 in FY 2018 (before the discount rate adjustment) to an estimated \$144,400 in FY 2021. These increases will contribute to an average annual growth in pension costs of 11% over the forecast period.

<u>Lower Sludge Removal Expense</u> – The Agency has projected much lower sludge removal expense for FY 2019 due to a new hauling contract. The new contract lowered the transportation cost per ton by \$27. With annual tons of 4,038, the total reduction expected is \$109,000. Sludge removal expense is expected to lower again in FY 2020 by \$37,000 due to the new belt press which is expected to reduce the Agency's sludge tons by increasing the dryness of the sludge produced. Annual tons are budgeted to decline 700 tons, from 4,038 to 3,338.

<u>Higher Chemicals Expense</u> – The timing of a carbon tower replacement (every three years) and the increased use of polymer will contribute to higher chemicals expense of approximately \$55,000 in FY 2020. The increased use of polymer (approximately \$24,000 a year) will continue beyond FY 2020 and is the result of a higher rate of solids removal than in previous years and higher polymer use associated with the new belt press.

<u>Higher Repairs and Replacements Expense</u> – A higher level of repairs and replacements expense is expected to continue into FY 2020, with higher overall expense for the next five years. Average annual repairs and replacements expense is forecast to be \$224,000 per year compared to the previous five-year period of \$157,000 per year. The higher expense is consistent with historical expenditures and aging plant and equipment.

<u>No Change in Annual Connections</u> - The Agency has averaged 55 connections per year for the last three years (excluding multi-unit developments) and for the twelve-month period ending December 31, 2018, there are 58 connections. The Agency has assumed 55 annual connections through FY 2024.

<u>Unplanned Expenditures</u> – The Agency has incurred a substantial amount of unexpected expenditures resulting in lower capital and replacement fund reserves. This will reduce the Agency's flexibility over the next two years to absorb cost overruns or unexpected repairs. If the Agency continues to incur unplanned costs, it is likely that planned capital expenditures will need to be deferred or future rate adjustments will need to be higher than projected. Unplanned expenditures include \$500,000 in costs associated with the Replenish Big Bear Project⁶, \$460,000 in additional costs for the hopper (related equipment for the new belt press), and approximately \$1.2 million in additional appropriations primarily related to the pond rehabilitation project (\$720,000), Lucerne Valley Emergency Repair (\$200,000), general repairs (\$260,000), and unplanned equipment purchases (\$40,000).

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%.

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.

⁶ \$250,000 is projected to be incurred in FY 2019 and \$250,000 is budgeted in FY 2020.



These unplanned expenditures of approximately \$2.2 million are offset in part by \$1.3 million in new pipeline scheduled in FY 2019 that will not occur (a portion deferred).

<u>Reduction of OPEB Unfunded Accrued Liability (OPEB UAL)</u> - The Agency has budgeted to reduce its OPEB UAL by \$200,000 during FY 2020, and by \$400,000 over the five-year forecast. **If the Agency continues to have unplanned expenditures as noted on the previous page, this payment may be eliminated or reduced in FY 2020.** The reduction in the OPEB UAL is part of a five-year plan to reduce the liability annually by \$200,000 for a total of \$1 million. The Agency made annual reductions in 2017 and 2018 and plans to make an additional payment in 2019, leaving \$400,000 remaining in the next five-year period. Based on the most recent valuation (dated July 1, 2017), the unfunded OPEB Liability is \$1.3 million and represents a 52% funded ratio (ratio of assets to liability). If the Agency were to reduce its OPEB UAL as planned, the funded ratio would be greatly improved. Based on the current valuation, the funded ratio would be approximately 80%.

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 30 th of the year referenced, i.e. FY 2019 is the fiscal year ending June 30, 2019
nm	means "not meaningful". It is input as the outcome when dividing by "0" or when the percent change calculation includes a loss or negative number
Projected performance	is based on six months of actual performance through November 2018 and represents the Agency's best estimate of full-year, FY 2019 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. The following should be noted as it relates to the financial comparisons: 1) all references to the FY 2019 Budget are the revised budget unless noted otherwise, 2) actual results may not match audited financial statements due to the exclusion of GASB adjustments related to pension and OPEB expenses, and 3) an "nm" is notated when dividing by "0" or when the percent change calculation includes a loss or negative number. A written financial summary is provided for each comparison. A discussion and analysis of the NEW FY 2020 Budget follows.



INCOME STATEMENT Comparison Projected FY 2019 to Actual FY 2018 and Budget FY 2019 Actual FY 2018 Budget FY 2019 Actual **Budget** Projected FY 2018 FY 2019 FY 2019 \$ **Operating Revenues:** Annual Charges 5,091,576 5,251,785 5,251,785 160,209 3% 0 0% Standby Charges 85,180 83,200 83,200 -1,980 -2% 0 0% **Rental Income** 50,449 51,071 51,071 622 1% 0 0% 21,798 21,798 -1,315 Waste Disposal 23,113 -6% 0 0% Other Revenue 1,916 0 -1,916 -100% 0 nm Total Operating Revenue 5,252,233 5,407,854 5,407,854 155,621 3% 0 0% **Operating Expenses:** Salaries and Benefits 1,988,278 2,159,081 170,803 9% 8,928 0% 2,150,153 Power 386,367 445,035 472,976 86,609 22% 27,941 6% Sludge Removal 397,813 355,339 246,318 -151,495 -38% -109,021 -31% Chemicals 49,408 47,864 48,945 -463 -1% 1,081 2% 44% Materials and Supplies 127,277 161,757 183,067 55,789 21,310 13% Repairs and Replacements 155,447 531,399 574,311 418,864 269% 42,912 8% Equipment Rental 37,215 -98% 803 803 -36,412 0 0% Utilities Expense (other than power) 26,737 20,376 28,130 1,393 5% 7,754 38% 6,791 **Communications Expense** 37,064 47,734 43,855 18% -3,879 -8% Contractual Services - Other 74,947 102,054 125,205 50,258 67% 23,151 23% 11% Contractual Services - Professional 233,349 286,416 259,000 25,651 -27,416 -10% Permits and fees 145,515 151,465 151,465 5,950 0% 4% 0 Property Tax Expense 3,599 3,652 1% 0 0% 3,652 53 Insurance 99,428 1% -2,289 -2% 103,132 100,843 1,415 Other Operating Expense 50,470 57,382 62,931 12,460 25% 5,549 10% 975,331 975,331 **Depreciation Expense** 842,155 133,176 16% 0% 0 **Total Operating Expense** 5,435,912 780,842 17% -3,979 0% 5,439,891 4,655,070 Operating Expenses b/f Depreciation 3,812,915 4,464,560 4,460,581 647,666 17% -3,979 0% **Operating Income** -28,058 3,979 597,164 -32,037 -625,222 nm nm Nonoperating Income Gain (loss) on asset disposition -1,709,527 1,709,527 0 0 nm 0 nm Interest Income 73,866 72,043 71,768 -2,098 -3% -275 0% Other Nonoperating Income nm nm 72,043 71,768 1,707,429 -275 0% Nonoperating income -1,635,661 nm Nonoperating Expense Other Expense 31,477 271,700 271,700 240,223 763% 0 0% 102,489 128,264 128,264 25,775 25% 0 Interest Expense 0% 0% Nonoperating expense 133,966 399,964 399,964 265,998 199% 0 **Income before Contributions** -1,172,464 -359,958 -356,254 816,210 3,704 nm nm **Connection Fees** 249,560 201,850 201,850 -47,710 -19% 0% 0 3,704 Change in Net Position -922,904 -158,108 -154,404 768,500 nm nm

Statement Comparison: Projected FY 2019 to Actual FY 2018 and Budget FY 2019



CASH FLOW STATEMENT Comparison Projected FY 2019 to Actual FY 2018 and Budget FY 2019

	Actual FY 2018	Budget FY 2019	Projected FY 2019	Projected FY 2019 vs. Actual FY 2018	Projected FY 2019 vs. Budget FY 2019
Cash from operating activities:					
Operating Income (Loss)	597,164	-32,037	-28,058	-625,222	3,979
Depreciation expense	842,155	975,331	975,331	133,176	0
Other Miscellaneous Income (Exp)	0	0	0	0	0
Change in Working Capital, Other Adjustments	285,106	10,155	-178,392	-463,498	-188,547
Net cash provided by op activities	1,724,425	953,449	768,880	-955,544	-184,569
Cash from noncapital financing:					
Payment of pension related debt/liability	-200,000	-200,000	-200,000	0	0
Cash from capital and related financing:					
Interagency Expense	-19,777	-260,000	-260,000	-240,223	0
Capital Expenditures	-1,489,193	-3,583,666	-2,193,150	-703,957	1,390,516
Proceeds from Asset Disposition	4,700	0	0	-4,700	0
Connection Fee (Capital Contrib)	282,590	201,850	201,850	-80,740	0
Proceeds from Debt Issuance	0	1,731,500	1,731,500	1,731,500	0
Debt Service:					
Interest Expense	-102,489	-128,264	-129,293	-26,804	-1,029
Principal Debt Amortization	-473,594	-441,719	-469,141	4,453	-27,422
Total Debt Service	-576,083	-569,983	-598,434	-22,351	-28,451
Net cash used for cap and related financing	-1,797,763	-2,480,299	-1,118,234	679,529	1,362,065
Cash from investing:					
(Increase) Decrease in Other Assets	0	0	0	0	0
Other Proceeds	0	0	0	0	0
Interest Income	59,598	72,043	71,768	12,170	-275
Proceeds from the Sale of Investment	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Net cash from investing	59,598	72,043	71,768	12,170	-275
NET CHANGE IN CASH	-213,740	-1,654,807	-477,586	-263,845	1,177,222
Beginning Cash Balance	6,933,282	6,719,542	6,719,542	-213,740	0
Ending Cash Balance	6,719,542	5,064,734	6,241,956	-477,586	<u>1,177,222</u>
Change in Cash Balance	-213,740	-1,654,807	-477,586	-263,845	1,177,222

Discussion: Projected FY 2019 Compared to Actual FY 2018

Operating Revenues are projected to be \$5.4 million, up \$155,621 or 3% in FY 2018. The increase is driven by higher annual charges which are the result of a 2.8% rate increase and new connections during the period.

Operating Expenses (before depreciation) are projected to be \$4.5 million, up \$647,666 or 17% in FY 2019. The increase in operating expenses is due largely to higher Repairs and Replacements, Salaries and Benefits, Power,



Materials and Supplies and Contractual Services Other. These increases are expected to be offset in part by lower Sludge Removal expense.

- <u>Repairs and Replacements</u> expense is projected to be \$574,311, up \$418,864 or 269% in FY 2019 due to Lucerne Valley emergency repairs; generator troubleshooting, repairs and catalyst replacement; oxidation ditch repairs (splitter gates, rotor paddles, rotor adjustment, rotor reducer, end bearings, and motor), and belt press bearings and motor replacement.
- <u>Salaries and Benefits</u> expense is projected to be \$2,159,081, up \$170,803 or 9% in FY 2019. The increase is driven by an 8% increase is salaries and wages and a 13% increase in benefits expense. The increase in salaries and wages is the result of increases in base pay driven by combined annual merit and COLA adjustments. The increase in benefits expense is driven by an increase in pension contribution expense and medical premium expense. Please see the Discussion and Analysis section for a more detailed explanation of the increases
- <u>Power</u> expense is projected to be \$472,976, up \$86,609 or 22% in FY 2019 due to higher flows in the current period (compared to the year ago), higher gas transportation costs and the temporary use of utility power resulting from a generator shutdown in November and December 2018.
- <u>Materials and Supplies</u> expense is projected to be \$183,067, up \$55,789 or 44% driven largely by higher safety supplies expense and tools and equipment. Safety supplies expense includes the purchase of fall arrest equipment, delineators and two scot packs. Tools and equipment expense is expected to be higher due to a carryover (valve exerciser) from the prior period.
- <u>Contractual Services Other</u> expense is projected to be \$125,205, up \$50,258 or 67% in FY 2019. The increase is driven by higher HVAC maintenance and service costs and the carryover of testing and labor expense from the prior period.
- <u>Sludge Removal</u> expense is projected to be \$246,318, down \$151,495 or 38% in FY 2019 due to a reduction in hauling costs and lower sludge tons expected to be removed. The Agency's hauling costs were lowered by approximately \$27 a ton due to the negotiation of a contract with a new hauler. The Agency is expected to remove 4,038 tons in FY 2019 compared 4,777 in FY 2018, a reduction of approximately 740 tons. The Agency removed more tons in the prior period due to a change in operating plant parameters.

Operating Income is projected to be (\$28,058), down \$625,222 in FY 2019. The decrease in operating income is driven by the substantial and unusual increase in operating expenses for the period. Operating expenses are expected to increase \$780,842 (including depreciation expense). Higher operating expenses are due to large carryover appropriations during the period, nonrecurring operating expenses (temporary usage of utility power), and new appropriations for unplanned repairs.

Change in Net Position is projected to be (\$154,404), an increase of \$768,500 in FY 2019. The increase over the prior year is largely due to the large losses from asset disposals (primarily the cannibal system equipment) in the prior period.

Change in cash for the period is projected to be (\$477,586) in FY 2019 compared to (\$213,740) in the prior period, a decrease of \$263,845 in cash generated. Lower cash flow in FY 2019 is expected due to lower cash from operations (lower by \$955,544) offset by higher cash from capital and related financing (higher by \$679,529). Higher cash flow from capital and related financing in FY 2019 is related to new debt proceeds during the period.



Discussion: Projected FY 2019 Compared to Budget FY 2019

The comparison below is made to the Agency's budget, as amended during the year to include \$1.6 million in carry over and new appropriations during the period: 1) 420,000 operating expense, 2) \$ 260,000 for Replenish Big Bear preliminary engineering and environmental work and GSA administrative expense, and 3) \$880,000 in 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 \$5.4 million, on plan with the budget.

Operating Expenses (before depreciation) are projected to be \$4.5 million, on plan overall with the Agency's revised budget. The Agency experienced significant variances (although offsetting) in the following line items.

- <u>Sludge Removal</u> expense is projected to be \$246,318, down 109,021 or 31% from the budget. The Agency's hauling costs were lowered by approximately \$27 a ton due to the negotiation of a contract with a new hauler at the end of FY 2018.
- <u>Contractual Services Professional</u> expense is projected to be \$259,000, down \$27,416 or 10% from the budget. The decrease is due to lower debt issuance costs offset somewhat by safety consulting fees and Lucerne Valley project management fees.
- **<u>Repairs and Replacements</u>** expense is projected to be \$574,311, up \$42,912 or 8% from the budget due to generator catalyst replacement and troubleshooting and a Clarifier 3 valve repair.
- <u>Power</u> expense is projected to be \$472,976, up \$27,941 or 6% from the budget due to the temporary use of utility power resulting from a generator shutdown in November and December 2018 and higher gas transportation costs.
- <u>Materials and Supplies</u> expense is projected to be \$183,067, up \$21,310 or 13% from the budget due to higher safety supplies expense. The Agency purchased fall arrest equipment during the period which was unbudgeted.
- <u>Contractual Services Other</u> expense is projected to be \$125,205, up \$23,151 or 23% from the budget. The increase is driven by higher HVAC maintenance and service costs. The Agency entered into a new service contract during the period to manage regular maintenance on the HVAC system to increase system performance and lower recent repairs.

Operating Income is projected to be (\$28,058), up \$3,979 and on plan with the budget

Change in Net Position is projected to be (\$154,404), up \$3,704 and on plan with the budget.

Change in cash for the period is projected to be (\$477,586) in FY 2019, up approximately \$1.2 million compared to the budget. Higher cash flow is expected in FY 2019 when compared to the budget primarily due to lower capital expenditures of approximately \$1.4 million. The Agency had planned for new pipeline of \$1.3 million during the period and has eliminated a portion of the pipeline (8" pipeline) and deferred the remaining line (15" pipeline).



Statement Comparison: NEW Budget FY 2020 to Projected FY 2019

INCOME STATEMENT Comparison NEW Budget FY 2020 to Projected FY 2019										
	Projected FY 2019	NEW Budget FY 2020	NEW Budget F\ vs. Projected FY : \$							
Operating Revenues:	112017	112020	Ψ	70						
Annual Charges	5,251,785	5,437,076	185,291	4%						
Standby Charges	83,200	81,660	-1,540	-2%						
Rental Income	51,071	51,820	749	1%						
Waste Disposal	21,798	21,798	0	0%						
Other Revenue	0	0	<u>0</u>	nm						
Total Operating Revenue	5,407,854	5,592,354	184,501	3%						
Operating Expenses:										
Salaries and Benefits	2,159,081	2,400,883	241,803	11%						
Power	472,976	481,412	8,436	2%						
Sludge Removal	246,318	209,564	-36,754	-15%						
Chemicals	48,945	104,222	55,277	113%						
Materials and Supplies	183,067	164,512	-18,555	-10%						
	574,311	264,877	-309,434	-54%						
Repairs and Replacements										
Equipment Rental	803	820	17	nm						
Utilities Expense	28,130	28,638	508	2%						
Communications Expense	43,855	43,506	-349	-1%						
Contractual Services - Other	125,205	103,632	-21,573	-17%						
Contractual Services - Prof	259,000	210,077	-48,923	-19%						
Permits and fees	151,465	165,348	13,883	9%						
Property Tax Expense	3,652	3,703	51	1%						
Insurance	100,843	109,856	9,013	9%						
Other Operating Expense	62,931	48,501	-14,430	-23%						
Depreciation Expense	<u>975,331</u>	<u>895,524</u>	<u>-79,807</u>	<u>-8%</u>						
Total Operating Expenses	5,435,912	5,235,073	-200,838	-4%						
Operating Expenses b/f Depreciaiton	4,460,581	4,339,549	-643,479	-3%						
Operating Income	-28,058	357,281	385,339	nm						
Nonoperating Income										
Gain (loss) on asset disposition	0	0	0	nm						
Finance Charge Income	0	0	0	nm						
Interest Income	71,768	107,396	35,628	50%						
Other Nonoperating Income	<u>0</u>	<u>0</u>	<u>0</u>	<u>nm</u>						
Nonoperating income	71,768	107,396	35,628	50%						
Nonoperating Expense										
Other Expense	271,700	261,700	-10,000	-4%						
Interest Expense	<u>128,264</u>	136,848	<u>8,584</u>	<u>7%</u>						
Nonoperating expense	399,964	398,548	-1,416	0%						
Income before Contributions	-356,254	66,129	422,383	nm						
Connection Fees	<u>201,850</u>	229,900	<u>28,050</u>	<u>14%</u>						
Net Income, Change in Net Assets	-154,404	296,029	450,433	<u>1470</u> nm						
Net mouthe, Change III Net ASSES	-104,404	290,029	400,400	11[1]						



CASH FLOW STATEMENT Comparison NEW Budget FY 2020 to Projected FY 2019 NEW Budget FY 2020 Projected Budget FY 2019 FY 2020 Projected FY 2019 Cash from operating activities: Operating Income (Loss) -28,058 357,281 385,339 Depreciation expense 975,331 895,524 -79,807 Other Miscellaneous Income (Exp) 0 0 0 Change in Working Capital 6,707 -178,392 185,100 Net cash provided by op activities 768,880 1,259,512 490,632 Cash from noncapital financing: Payment of pension related debt/liability -200,000 -200,000 0 Cash from capital and related financing: Interagency Expenses -260,000 -250,000 Capital Expenditures -2,193,150 -1,786,653 406,497 Proceeds from Asset Disposition 0 0 0 Connection Fee (Capital Contrib) 201,850 229,900 28,050 Proceeds from Debt Issuance 1,731,500 -1,731,500 0 Debt Service: -129,293 Interest Expense -136,848 -7,555 Principal Debt Amortization -372,229 -469,141 96,912 **Total Debt Service** -598,433 -509,077 89,357 Net cash used for cap and related financing -1,118,233 -2,315,829 -1,197,596 Cash from investing: 0 0 (Increase) Decrease in Other Assets 0 0 Other Proceeds 0 0 71,768 107,396 Interest Income 35,628 Proceeds from the Sale of Investment 0 0 0 Net cash from investing 71,768 107,396 35,628 0 NET CHANGE IN CASH -477,585 -1,148,921 <u>-671,336</u> Beginning Cash Balance 6,719,539 6,241,954 -477,585 5,093,033 Ending Cash Balance 6,241,954 -1,148,921 Change in Cash Balance -477,585 -1,148,921 <u>-671,336</u>



Discussion: NEW Budget FY 2020 Compared to Projected FY 2019

Operating Revenues are budgeted to be \$5.6 million, up \$184,501 or 3% from FY 2019. The increase in operating revenues reflects a 3% increase in Annual Charges (increase in sewer user fees and new connections to the system).

For discussion purposes, the Agency "normalized" FY 2019 operating expenses by excluding carryover appropriations, new appropriations for unusual repairs, and nonrecurring expenses related to the temporary use of utility power. This will provide a more normalized year in order to compare the FY 2020 budget.

"Normalized" Operating Expenses and Operating Income FY 2019										
	"Normalized" Projected	NEW Budget	NEW Budget vs. "Normalized" Proje	cted FY 2019						
	FY 2019	FY 2020	\$	%						
Operating Expenses:										
Salaries and Benefits	2,159,081	2,400,883	241,803	11%						
Power	449,129	481,412	32,283	7%						
Sludge Removal	246,318	209,564	-36,754	-15%						
Chemicals	48,945	104,222	55,277	113%						
Materials and Supplies	177,362	164,512	-12,850	-7%						
Repairs and Replacements	226,238	264,877	38,639	17%						
Equipment Rental	803	820	17	nm						
Utilities Expense	28,130	28,638	508	2%						
Communications Expense	43,855	43,506	-349	-1%						
Contractual Services - Other	117,436	103,632	-13,804	-12%						
Contractual Services - Prof	203,728	210,077	6,349	3%						
Permits and fees	151,465	165,348	13,883	9%						
Property Tax Expense	3,652	3,703	51	1%						
Insurance	100,843	109,856	9,013	9%						
Other Operating Expense	62,931	48,501	-14,430	-23%						
Depreciation Expense	<u>975,331</u>	895,524	<u>-79,807</u>	<u>-8%</u>						
Total Operating Expenses	4,995,246	5,235,073	239,827	5%						
Operating Expenses b/f Depreciation	4,019,915	4,339,549	319,634	8%						
Operating Income	412,608	357,281	-55,327	-13%						

Operating Expenses (before depreciation) are budgeted to be \$4.3 million, up \$319,634 or 8% from FY 2019. The 8% increase in operating expenses is driven largely by increases in Salaries and Benefits and to a lesser extent increases is Chemicals, Repairs and Replacements, and Power expense. These increases are offset somewhat by lower Sludge Removal and Other expense. These changes are explained below.

• <u>Salaries and benefits</u> expense is budgeted to be \$2.4 million up \$241,803 or 11% from FY 2019. The increase is driven by increases in salaries and wages due to annual merit, COLA and longevity



adjustments⁷ (\$146,228) and an increase in benefits expense (\$91,143) driven by higher pension expense (\$45,721) and medical premium expense (\$27,980). Please see page 22, for a detailed discussion of the increases.

- <u>Chemicals</u> expense is budgeted to be \$104,222, up \$55,277 or 113% from FY 2019. The increase is related to a carbon tower replacement during the period (scheduled every three years) and increased polymer use related to higher levels of sludge removal from the plant and requirements associated with the new belt press.
- **<u>Repairs and Replacements</u>** expense is budgeted to be \$264,877, up \$38,639 or 17% from FY 2019. The increase is related to Oxidation Ditch 3 repairs, treatment plant door replacements, OAC storage room leak repairs, and treatment plant surface repairs.
- **Power** expense is budgeted to be \$481,412, up \$32,283 or 7% from FY 2019 and primarily reflects an increase in SW Gas transportation costs offset by a reduction in the Bear Valley Electric standby fee.
- <u>Sludge Removal</u> expense is budgeted to be \$209,564, down \$36,754 from FY 2019 due to a reduction in solids resulting from the new belt press. The new belt press is expected to increase the dryness of the sludge and lower the Agency's overall tons by 700, from 3,338 tons to 4,038 tons.
- <u>Other</u> expense is budgeted to be \$48,501, down \$14,430 or 23% from FY 2019 and reflects lower education and training expense.

Operating Income is budgeted to be \$357,281, a decrease of \$55,327 or 13% from FY 2019. The decrease in Operating Income is primarily due to the increase in Operating Expenses of \$239,827 offset somewhat by the increase in Operating Revenues of \$184,501.

Financial Summary

Based on the current forecast, the Agency will need inflationary rate adjustments through 2024. This is consistent with the Agency's prior plan and the 2018 Rate Study. During the next five-year period, growth in operating expenses will outpace that of revenues —revenues will grow at an average annual rate of 3%, reflecting the inflationary rate adjustments, while expenses grow at an average annual rate of 5%. Expense growth in excess of inflation is being driven by higher salaries and benefits, with other operating expenses averaging 1% annually on a combined basis. Operating income over the forecast period is stable and at acceptable levels, and when combined with connection fee revenue and interest income, provides good cash flow with sufficient funds for operating and capital requirements.

Although the Agency incurred new debt in FY 2019, the Agency's debt service will be lower in FY 2020 due to lowering amortization requirements under its existing debt. The lower debt service will contribute approximately \$70,000 annually to the Agency's cash flow and contribute to higher debt service coverage. Debt service coverage at the end of FY 2020 is expected to be 3.1 x and is expected to remain close to this level over the forecast period. Minimum debt service coverage pursuant to the Agency's borrowing agreements is 1.2 x. The Agency's debt capacity is estimated⁸ at \$3.8 million in FY 2020, increasing to \$4 million by FY 2024.

⁷ 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.

⁸ The calculation utilizes a 2.0 x debt service coverage and assumes borrowing terms of 20 years at 4%.



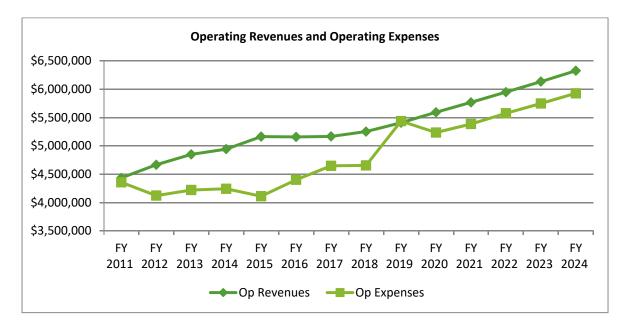
At the end of FY 2024, the Agency is projected to have \$526,155 in the "future" component of the capital and replacement fund. This amount reflects the cash that is available for future capital projects beginning in FY 2026. Based on the current capital improvement plan, the Agency is expected to fall short by approximately \$190,000 to cover the five-year period beginning FY 2026. Based on the Agency's plans for lower-cost, solar energy, we believe much of the generator maintenance in the capital improvement plan will be eliminated and as a result, the projected funds in the capital and replacement fund will likely be sufficient.

The Agency is expected to have a net use of cash over the five-year period of approximately \$76,000.

Operating Trends and Outlook

Operating Income Stabilizes as Operating Expense Growth Slows

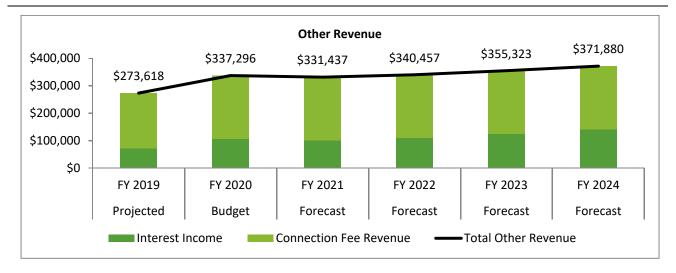
The Agency's Operating Expenses (before depreciation) are expected to grow at an average annual rate of 5% over the next five years, outpacing expected inflation of 3% for the same period. The growth in operating expenses over the period is being driven by salaries and benefits expense which is expected to peak in FY 2020 at 11% annual growth and slow to 5% growth in FY 2024. This slowdown in salaries and benefits expense growth combined with relatively flat growth in other operating expenses, will help manage the Agency's overall growth in operating expenses to around 4% annually beginning in FY 2021 and will contribute to stable operating income over the period.



Other Revenue Grows Slightly

Other revenue sources, Interest Income and Connection Fee Revenue, are projected to increase slightly over the period with combined totals of approximately \$340,000 - \$370,000 annually, driven by increasing interest income from slightly increasing interest rates (0.6% over the period) and slightly higher connection fee revenue driven by the increase in the Agency's connection fee.





Capital

Maintenance Capital Expenditures Increase

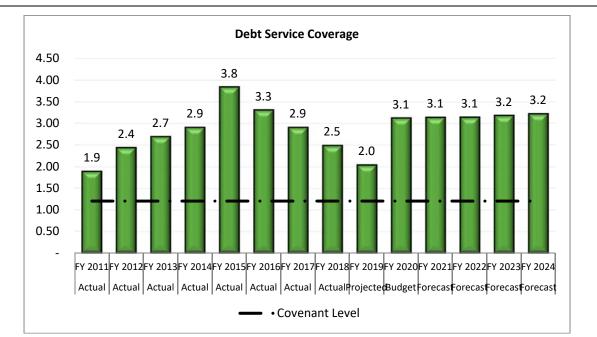
The next five-year period is a relatively heavy maintenance period for the Agency. Capital expenditures total \$5 million and average \$1 million per year, with maintenance and replacement capital expenditures averaging approximately \$950,000 per year. This amount exceeds long-term historical depreciation of approximately \$830,000 and exceeds the annual maintenance requirement of \$880,00 indicated in the Agency's current 20-year CIP.

Debt Outstanding Increases, Debt Service Decreases

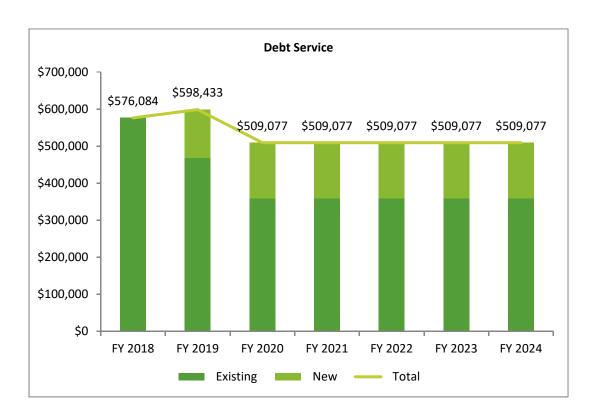
Leverage and Debt Service

The Agency's debt outstanding will be approximately \$4 million at the end of FY 2019, up from \$2.8 million at the end of FY 2020. The increase is the result of the \$1.8 million new borrowing in September 2018. Over the last 10 years, the Agency's highest debt outstanding has been \$6.1 million in FY 2010. 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 operating income (before depreciation) plus other income (connection fees and interest income) 1.2 times. The Agency is projected to have a 2x debt service coverage at the end of FY 2019 increasing to 3.2x by the end of FY 2024.





The Agency's debt service (annual principal and interest payment) declines from \$598,433 in FY 2019 to \$509,077 reflecting reduced amortization under the existing debt that more than offsets the new debt service and contributes to improving debt service coverage.





Discussion and Analysis

Operations

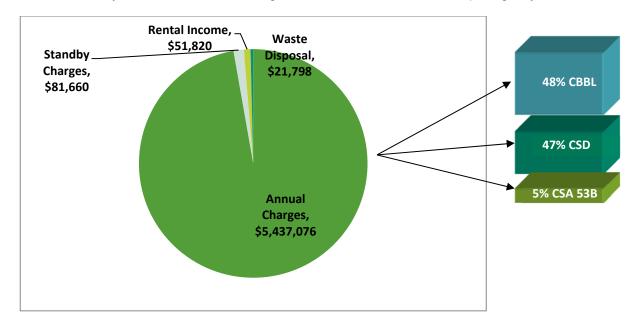
Operating Revenues

Operating Revenues are budgeted to increase 3% in FY 2020 and each year over the forecast period. This growth reflects 3% annual rate adjustments during the period and new connections to the system.

	Actual FY 2014	Actual FY 2015	Actual FY 2016	Actual FY 2017	Actual FY 2018	Projected FY 2019	Budget FY 2020	Forecast FY 2021	Forecast FY 2022	Forecast FY 2023	Forecast FY 2024	5-Year <u>CAGR</u>
Operating Revenues:												
Annual Charges	4,778,215	4,979,690	4,991,166	5,007,070	5,091,576	5,251,785	5,437,076	5,612,469	5,793,493	5,980,326	6,173,155	3%
Standby Charges	91,400	90,860	89,250	86,930	85,180	83,200	81,660	80,541	79,422	78,302	77,183	-2%
Rental Income	47,745	48,291	49,232	49,918	50,449	51,071	51,820	52,592	53,386	53,386	53,386	1%
Waste Disposal	22,433	19,829	22,869	22,033	23,113	21,798	21,798	21,798	21,798	21,798	21,798	-1%
Other Revenue	2,007	24,575	5,104	488	1,916	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	nm
Total Op Revenues	4,941,801	5,163,247	5,157,621	5,166,439	5,252,233	5,407,854	5,592,354	5,767,400	5,948,099	6,133,813	6,325,523	3%
Annual Change	2%	4%	0%	0%	2%	3%	3%	3%	3%	3%	3%	

Annual Charges

Operating Revenues are largely driven by 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

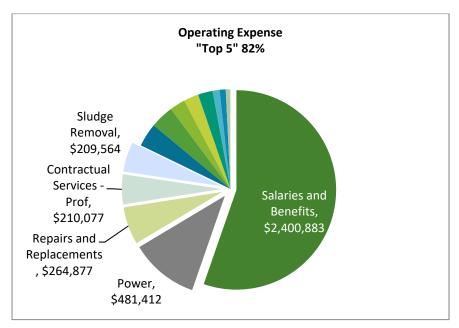
	3-Year Average <u>Flows</u>	Reported EDUs	Implicit Charge per EDU	Fix ed Charge	Variable <u>Charge</u>	Annual Charge Adjustment	Total
Annual Charges:							
City of Big Bear Lake	356,624	11,558.7	\$224.89	\$1,837,181	\$656,173	\$106,089	\$2,599,443
Big Bear City CSD	295,005	12,260.0	\$210.38	1,948,649	542,797	87,758	2,579,204
CSA 53 B	27,062	1,262.0	\$204.78	200,587	49,792	8,050	258,430
Total	678,691	25,080.7		\$3,986,417	\$1,248,762	\$201,897	\$5,437,076
Standby Charges:							
City of Big Bear Lake							\$29,280
Big Bear City CSD							46,560
CSA 53 B							5,820
Total Annual Charges							\$81,660
Connection Fee:							
Connection Fee per ED	U						\$4,180

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 82% of the Agency's total operating expenses before depreciation, with salaries and benefits expense being the largest line item at 55%.





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 growth rate cap 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 3% in 2020, increasing to 4% in 2024.

	Actual	Actual	Actual	Actual	Actual	Projected	Budget	Forecast	Forecast	Forecast	Forecast	5-Year
	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	CAGR
SALARIES AND BENEFITS:												
Salaries and Wages	1,159,003	1,171,981	1,221,821	1,271,829	1,253,739	1,355,818	1,502,045	1,602,133	1,689,046	1,782,693	1,873,750	7%
Employ ee Benefits	624,023	553,247	601,956	671,354	686,944	779,181	870,224	962,642	1,053,836	1,123,111	1,182,971	9%
Unemploy ment Expense	503	2,002	742	8,661	28,631	4,514	6,944	6,944	6,944	6,944	6,944	9%
Payroll Taxes	18,472	17,811	19,165	19,673	18,964	19,568	21,670	23,161	24,411	25,759	27,070	7%
Total Salaries and Benefits	1,802,001	1,745,041	1,843,684	1,971,517	1,988,278	2,159,081	2,400,883	2,594,879	2,774,238	2,938,507	3,090,735	7%
% Change	-1%	-3%	6%	7%	1%	9%	11%	8%	7%	6%	5%	
Average Annual Change (a)	0%	0%	1%	1%	1%	2%	3%	3%	3%	4%	4%	
(a) Base Year FY 2009						-						

Salaries and Benefits expense is budgeted to increase by 11% in FY 2020, driven by an 11% increase in salaries and wages and a 12% increase in benefits expense.

Salaries and Wages - 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 scales resulting from the Compensation and Classification Study have resulted in the majority of the Agency's employees (14 of 15 employees) being within their respective pay scales 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 scale 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 slow through 2024 as more employees reach the top of their respective pay scales. Higher inflation rates have driven higher COLAs than anticipated. The November 2018 CPI⁹ (for Riverside, San Bernardino, Ontario) was 3.6%. This represents a higher COLA than anticipated for the second year in a row.

Employee Benefits - The 12% increase in benefits expense is driven by higher pension contribution expense and to a lesser extent, medical premium expense. CalPERS lowered the discount rate, also known as the assumed rate of return, to 7% from 7.5%. The reduction has been transitioned over a three-year period beginning in FY 2019 and ending in FY 2021. The normal cost¹⁰ is expected to increase 2.3 points, from 12.5% of payroll in FY 2018 (before the discount rate adjustment) to 14.8% of payroll in FY 2021, and the payment of the unfunded accrued liability¹¹ is expected to increase substantially, from \$61,710 in FY 2018 (before the discount rate

⁹ The Agency began utilizing the November CPI in 2016 as the budget assumption for employee COLA adjustments.

¹⁰ 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.

¹¹ 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.



adjustment) to an estimated \$144,400 in FY 2021. These increases will contribute to an average annual growth in pension costs of 11% over the forecast period. Growth in medical premium expense is due to a 14% increase in premiums beginning in January 2019 combined with a 7.3% increase in premiums budgeted in January 2020.

Power Expense

The Agency expects a 3% average growth in power expense over the forecast period driven by a 7% increase in FY 2020, slowing to 1 to 2% thereafter. Historically, the Agency's power expense has been volatile and is primarily impacted by flow, natural gas transportation costs, and utility power rates. The Agency utilizes power from Bear Valley Electric (BVE) to run its pumping stations, purchases natural gas under a five-year contract from Just Energy to run its generators which supply power to the Agency's Treatment Plant and Administration Building, and contracts for natural gas transportation with SW Gas.

The Agency experienced flat to decreasing costs in FY 2017 and FY 2018 due to changes in natural gas costs. The Agency extended its natural gas contract in FY 2017 in order to take advantage of lower market rates. This 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 for prior overcharging. The Agency is expected to experience an increase in costs in FY 2019 resulting from higher flows than in FY 2018 and higher gas transportation costs. Higher power costs are expected to continue in FY 2020 due to the higher gas transportation costs noted above (approximately \$66,000 annually) but will be offset in part by a reduction in the standby fee charged by BVE (lowered by approximately \$33,000 as part of the most recent rate case).

Normalized											
Actual	Actual	Actual	Actual	Actual	Projected	Budget	Forecast	Forecast	Forecast	Forecast	5-Year
FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	CAGR
319,045	389,373	400,699	365,628	271,509	304,537	366,604	371,117	375,765	380,552	385,484	5%
3,823	3,649	3,692	4,060	3,627	3,833	3,948	4,066	4,188	4,314	4,443	3%
8,442	7,472	5,497	4,887	3,886	7,351	7,572	7,799	8,033	8,274	8,522	3%
31,841	47,421	61,931	61,865	61,865	61,865	29,317	30,264	31,128	31,539	31,539	-13%
35,090	36,231	39,537	78,065	35,015	61,529	63,621	65,530	67,299	67,299	67,299	2%
195	1,510	8,284	6,925	9,703	9,000	9,306	9,585	9,844	9,844	9,844	2%
803	807	791	751	762	1,014	1,044	1,076	1,108	1,141	1,176	3%
399,239	486,463	520,431	522,181	386,367	449,129	481,412	489,436	497,364	502,963	508,306	3%
-6%	22%	7%	0%	-26%	16%	7%	2%	2%	1%	1%	
	FY 2014 319,045 3,823 8,442 31,841 35,090 195 <u>803</u>	FY 2014 FY 2015 319,045 389,373 3,823 3,649 8,442 7,472 31,841 47,421 35,090 36,231 195 1,510 803 807 399,239 486,463	FY 2014 FY 2015 FY 2016 319,045 389,373 400,699 3,823 3,649 3,692 8,442 7,472 5,497 31,841 47,421 61,931 35,090 36,231 39,537 195 1,510 8,284 803 807 791 399,239 486,463 520,431	FY 2014 FY 2015 FY 2016 FY 2017 319,045 389,373 400,699 365,628 3,823 3,649 3,692 4,060 8,442 7,472 5,497 4,887 31,841 47,421 61,931 61,865 35,090 36,231 39,537 78,065 195 1,510 8,284 6,925 803 807 791 751 399,239 486,463 520,431 522,181	Actual FY 2014Actual FY 2015Actual FY 2016Actual FY 2017Actual FY 2018319,045389,373400,699365,628271,5093,8233,6493,6924,0603,6278,4427,4725,4974,8873,88631,84147,42161,93161,86561,86535,09036,23139,53778,06535,0151951,5108,2846,9259,703803807791751762399,239486,463520,431522,181386,367	Actual Actual Actual Actual Actual Actual Projected FY 2014 FY 2015 FY 2016 FY 2017 FY 2018 FY 2019 319,045 389,373 400,699 365,628 271,509 304,537 3,823 3,649 3,692 4,060 3,627 3,833 8,442 7,472 5,497 4,887 3,886 7,351 31,841 47,421 61,931 61,865 61,865 61,865 35,090 36,231 39,537 78,065 35,015 61,529 195 1,510 8,284 6,925 9,703 9,000 803 807 791 751 762 1,014 399,239 486,463 520,431 522,181 386,367 449,129	Actual Actual Actual Actual Actual Actual Projected Budget FY 2014 FY 2015 FY 2016 FY 2017 FY 2018 FY 2019 FY 2020 319,045 389,373 400,699 365,628 271,509 304,537 366,604 3,823 3,649 3,692 4,060 3,627 3,833 3,948 8,442 7,472 5,497 4,887 3,886 7,351 7,572 31,841 47,421 61,931 61,865 61,865 61,865 29,317 35,090 36,231 39,537 78,065 35,015 61,529 63,621 195 1,510 8,284 6,925 9,703 9,000 9,306 803 807 791 751 762 1,014 1,044 399,239 486,463 520,431 522,181 386,367 449,129 481,412	ActualActualActualActualActualActualProjectedBudgetForecastFY 2014FY 2015FY 2016FY 2017FY 2018FY 2018FY 2019FY 2020FY 2021319,045389,373400,699365,628271,509304,537366,604371,1173,8233,6493,6924,0603,6273,8333,9484,0668,4427,4725,4974,8873,8867,3517,5727,79931,84147,42161,93161,86561,86561,86529,31730,26435,09036,23139,53778,06535,01561,52963,62165,5301951,5108,2846,9259,7039,0009,3069,585803 $\frac{807}{29}$ $\frac{791}{22}$ $\frac{751}{22}$ $\frac{762}{21}$ 1,0141,0441,076399,239486,463520,431522,181386,367449,129481,412489,436	ActualActualActualActualActualProjectedBudgetForecastForecastForecastFY 2014FY 2015FY 2016FY 2017FY 2018FY 2019FY 2020FY 2021FY 2022319,045389,373400,699365,628271,509304,537366,604371,117375,7653,8233,6493,6924,0603,6273,8333,9484,0664,1888,4427,4725,4974,8873,8867,3517,5727,7998,03331,84147,42161,93161,86561,86561,86529,31730,26431,12835,09036,23139,53778,06535,01561,52963,62165,53067,2991951,5108,2846,9259,7039,0009,3069,5859,844803 807 7917517621,0141,0441,0761,108399,239486,463520,431522,181386,367449,129481,412489,436497,364	ActualActualActualActualActualProjectedBudgetForecastForecastForecastForecastForecast $FY 2014$ $FY 2015$ $FY 2016$ $FY 2017$ $FY 2018$ $FY 2019$ $FY 2019$ $FY 2020$ $FY 2021$ $FY 2022$ $FY 2023$ $319,045$ $389,373$ $400,699$ $365,628$ $271,509$ $304,537$ $366,604$ $371,117$ $375,765$ $380,552$ $3,823$ $3,649$ $3,692$ $4,060$ $3,627$ $3,833$ $3,948$ $4,066$ $4,188$ $4,314$ $8,442$ $7,472$ $5,497$ $4,887$ $3,886$ $7,351$ $7,572$ $7,799$ $8,033$ $8,274$ $31,841$ $47,421$ $61,931$ $61,865$ $61,865$ $61,865$ $29,317$ $30,264$ $31,128$ $31,539$ $35,090$ $36,231$ $39,537$ $78,065$ $35,015$ $61,529$ $63,621$ $65,530$ $67,299$ $67,299$ 195 $1,510$ $8,284$ $6,925$ $9,703$ $9,000$ $9,306$ $9,585$ $9,844$ $9,844$ 803 807 791 751 762 $1,014$ $1,044$ $1,076$ $1,108$ $1,141$ $399,239$ $486,463$ $520,431$ $522,181$ $386,367$ $449,129$ $481,412$ $489,436$ $497,364$ $502,963$	ActualActualActualActualActualActualProjectedBudgetForecastFor



Repairs and Replacements Expense

Repairs and replacements expense is projected to increase in FY 2020 and again in FY 2021. In FY 2020 the Agency is planning for additional needed repairs: drain valve in Oxidation Ditch 3; door replacements in the treatment plant; OAC storage room leak; and plant surface repairs. In FY 2021, the Agency has scheduled TVing and Hydro cleaning which is scheduled every four years (previously completed in 2016).

The Agency anticipates the higher level of repairs experienced recently to continue in the future. The Agency's long-term historical average (2003 - 2018) is approximately \$180,000 a year for repairs and replacements expense. During the last five years, the Agency has averaged only \$157,000 a year. If we exclude the last five years in order to determine a more normalized average, the average expense is approximately \$191,000 a year and a level that we would consider a baseline for future projections. The average over the forecast period is approximately \$224,000 a year.

						Normalized						
	Actual	Actual	Actual	Actual	Actual	Projected	Budget	Forecast	Forecast	Forecast	Forecast	5-Year
	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	CAGR
REPAIRS AND REPLACEMI	ENTS:											
Mainline	20,251	19,429	61,540	3,855	16,017	44,832	46,250	123,427	48,041	21,157	28,291	-9%
Pumps, Motors, Bearings	21,569	20,449	20,727	14,126	6,469	19,055	40,648	30,054	30,405	25,607	26,375	7%
Equipment and Machinery	9,022	68,460	22,511	17,987	13,785	54,886	33,660	30,035	30,936	31,864	32,820	-10%
Vehicles	15,944	25,355	19,129	27,193	11,956	18,600	14,400	14,832	15,277	15,735	16,207	-3%
Generators	29,892	20,229	20,030	56,331	86,872	46,186	48,500	49,955	76,566	52,997	54,587	3%
Irrigation System - Lucerne	779	0	4,997	5,227	2,321	5,260	5,419	5,581	5,748	5,921	6,099	3%
Other	89,349	7,903	1,830	3,926	18,027	37,419	76,000	18,409	18,961	19,530	20,116	-12%
Total	186,806	161,825	150,764	128,645	155,447	226,238	264,877	272,292	225,934	172,811	184,495	-4%
% Change	17%	-13%	-7%	-15%	21%	46%	17%	3%	-17%	-24%	7%	

Sludge Removal Expense

Sludge removal expense has been volatile over the last five years. The Agency began removing more solids from the plant beginning in FY 2016 and was able to manage the higher costs of increased sludge removal with self-hauling. The Agency began self-hauling in FY 2013. The Agency hauled approximately 11% of its own sludge in 2013 and increased this to approximately 58% in FY 2016. With frequent breakdowns and costly maintenance of the Agency's bin truck, the Agency terminated self-hauling operations in FY 2018. At the end of FY 2018, the Agency entered into a contract with a new hauler which provided a \$27 per ton reduction in hauling costs for an annual reduction of approximately \$109,000. The new contract is the primary reason for the decrease in sludge removal costs in FY 2019. The Agency will be installing a new belt press in the second half of FY 2019, which is expected to reduce the Agency's sludge production by 700 tons, lowering sludge removal costs by an additional \$38,000 in FY 2020.

	Actual	Actual	Actual	Actual	Actual	Projected	Budget	Forecast	Forecast	Forecast	Forecast	5-Year
	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	CAGR
SLUDGE REMOVAL	221,541	162,627	225,990	281,096	397,813	246,318	209,564	212,413	215,349	218,372	221,486	-2%
% Change	-9%	-27%	39%	24%	42%	-38%	-15%	1%	1%	1%	1%	



Contractual Services - Professional Expense

Contractual Services - Professional expense contains engineering, legal and other expense (IT, audit, actuarial, and other services). Multiple projects in 2018, 2019 and 2020 have elevated this line item, as well as the need to contract for IT services beginning at the end of 2016. FY 2020 includes an Arc Flash Study and the continued use of a safety consultant hired in FY 2019 to shore up the Agency's safety plans and programs; FY 2019 includes approximately \$48,000 in special studies at the Lucerne Valley facilities (carried over from FY 2018), an engineer's assessment of the Agency's Sewer System Management Plan, and a new contract with a Safety Consultant; and FY 2018 included a rate study and special studies at the Lucerne Valley facilities.

	Actual	Actual	Actual	Actual	Actual	Projected	Budget	Forecast	Forecast	Forecast	Forecast	5-Year
	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	CAGR
CONTRACT SRVC -	PROF											
Engineering	2,715	12,261	6,293	67,736	57,699	30,000	15,450	15,914	16,391	16,883	17,389	-10%
Legal	190,766	58,735	54,575	92,501	92,907	100,000	92,700	95,481	98,345	101,296	104,335	1%
Other	30,564	28,802	90,539	31,220	82,742	129,000	101,927	68,795	76,308	72,984	75,174	-10%
Total	224,045	99,798	151,407	191,457	233,349	259,000	210,077	180,189	191,044	191,163	196,898	-5%
% Change	64%	-55%	52%	26%	22%	11%	-19%	-14%	6%	0%	3%	

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 during the current economic cycle. Excluding multi-unit developments, connections have averaged 55 per year for the last 3 years with trailing, twelve-month connections of 58 as of December 31, 2018. The Agency increased its connection fee as a result of the 2018 Connection Fee Study to \$4,180 from \$3,670.

	Actual	Actual	Actual	Actual	Actual	Projected	Budget	Forecast	Forecast	Forecast	Forecast	5-Year
	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	CAGR
Connections	45	84	69	63	55	55	55	55	55	55	55	
Connection Fee	\$3,670	\$3,670	\$3,670	\$3,670	\$3,670	\$3,670	\$4,180	\$4,180	\$4,180	\$4,180	\$4,180	
Connection Fees	165,150	308,280	253,230	231,210	201,850	201,850	229,900	229,900	229,900	229,900	229,900	3%
% Change	50.0%	86.7%	-17.9%	-8.7%	-12.7%	0.0%	13.9%	0.0%	0.0%	0.0%	0.0%	

Debt Service and Bond Covenant Calculations

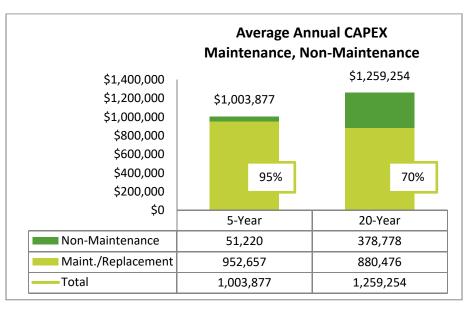
The Agency borrowed \$1.8 million of new debt in FY 2019 to fund the new belt press, conveyor and hopper. Although the Agency incurred new debt in FY 2019, the Agency's debt service will be lower in FY 2020 due to lowering amortization requirements under its existing debt. The lower debt service will contribute approximately \$70,000 annually to the Agency's cash flow and contribute to higher debt service coverage. Debt service coverage at the end of FY 2020 is expected to be 3.1 x and is expected to remain close to this level over the forecast period.

	Actual	Actual	Actual	Actual	Actual	Projected	Budget	Forecast	Forecast	Forecast	Forecast
	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Debt Service	\$579,284	\$576,084	\$576,084	\$576,083	\$576,084	\$598,433	\$509,077	\$509,077	\$509,077	\$509,077	\$509,077
Net Rev / Debt Srv	2.7	3.7	3.2	2.9	2.5	2.0	3.1	3.1	3.1	3.2	3.2
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										



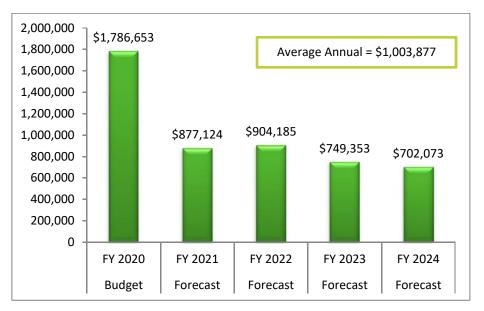
Capital Expenditures

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, capital expenditures total \$5 million and include two larger capital projects that total \$1.2 million (Headworks and SCADA replacement projects). Maintenance and replacement capital expenditures over the period average approximately \$950,000 per year and exceed expected annual maintenance. The Agency's long-term annual depreciation expense averages approximately \$830,000 (general indicator of the level of annual maintenance capital expenditures needed to maintain the Agency's assets) and the Agency's current 20-year Capital Improvement Plan indicates an average annual maintenance requirement of approximately \$880,000.

All capital expenditures in the 5-year plan will be cash funded.





5-YEAR C	5-YEAR CAPITAL IMPROVEMENT PLAN, FY 2020 – 2024								
	Budget FY 2020	Forecast FY 2021	Forecast FY 2022	Forecast FY 2023	Forecast FY 2024	5 Year FY 2020 2024			
ADMINISTRATION BUILDING									
Admin Building - HVAC Boiler and Controls	<u>0</u>	<u>0</u>	<u>0</u>	0	296,251	296,251			
Total	0	0	0	0	296,251	296,251			
EFFLUENT DISPOSAL ASSETS									
Storage						0			
Monitoring Wells Rehabilitation	<u>0</u>	0	0	36,114	<u>0</u>	36,114			
Total	<u><u> </u></u>	<u>0</u> 0	<u>0</u> 0	36,114	<u>0</u>	36,114			
				,					
FLOW MEASURING DEVICES									
RAS Flow Meter (10 year replacement)	0	0	15,289	0	0	15,289			
WAS Meter (10 year maint replacement)	9,431	0	0	0	0				
CBBL Flow Meter and Software (10 year r€	0	48,471	0	0	0				
CSA Flow Meter (10 year replacement)	0	0	0	15,819	0	15,819			
Auxiliary Flow Meter (15 year replacement)	0	<u>0</u>	0	26,802	0	26,802			
Total flow measuring devices	9,431	48,471	15,289	42,621	ō	115,812			
INTERCEPTOR SYSTEM									
Pumping Equipment									
Pump 3, Flygt 150 HP Rebuild	<u>0</u>	0	84,419	0	0	84,419			
Total interceptor system	<u>0</u>	<u>0</u> 0	<u>84,419</u>	<u>0</u> 0	<u>0</u> 0	84,419			
Communications	15 500	0	0	0	0	15 500			
Radio Communication Equipment	15,500	0	0	0	0	15,500			
SCADA System Replacement	450,000	0	0	0	0	450,000			
IT System Electrical	27,000	0	0	0	0	27,000			
		0	0	10.010		10.040			
VFD Interceptor - Station 3 (7 yr)	0	0	0	18,042	0	18,042			
VFD Interceptor - LPS (7 yr)	0	0	0	0	28,242	28,242			
Utility Transfer Switch	25,000	0	0	0	0	25,000			
Laboratory	0.000	-	<u>,</u>	<u>_</u>		0.000			
Effluent Composite Sampler	8,000	0	0	0	0	8,000			
Fume Hood and Fan	15,635	0	0	0		15,635			
Office Equipment		45 070	<u>^</u>	^		45.070			
Copier	0	15,273	0	0	0	15,273			
Plotter / Scanner	6,100	0	0	0	0	6,100			



5-YEAR CAPITAL IMPROVEMENT PLAN, FY 2020 – 2024 Cont.								
	Budget	Forecast	Forecast	Forecast	Forecast	5 Year		
	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2020 2024		
Security								
Fire Alarm System OAC	150,000	0	<u>0</u>	0	0	150,000		
Total	697,235	15,273	0	18,042	28,242	758,792		
OTHER TANGIBLE PLANT								
Palomino Drive Repave	0	0	0	0	200,000			
Asphalt and Paving	<u>0</u>	<u>0</u>	250,000	250,000	0	500,000		
Total	0	0	250,000	250,000	200,000	700,000		
POWER GENERATING EQUIPMENT								
Cummins #1 Overhaul (3-year life)	0	152,684	0	0	0			
Cummins #2 Overhaul (3-year life)	0	152,684	0	0	0			
Cummins #1 Top End (3-year life)	0	0	0	61,793	0	61,793		
Cummins #2 Totp End (3-year life)	0	0	0	61,793	0	61,793		
Waukesha Rebuild (6-year life)	0	0	0	0	87,406	87,406		
Waukesha Overhaul (6-year life)	172,142	0	0	0	0	172,142		
Station 2 Generator + Fuel System	72,116	0	0	0	0	72,116		
Station 3 Generator + Fuel System	0	120,000	0	0	0	120,000		
LPS Generator + Fuel System	0	0	152,213	0	0	152,213		
Total	244,258	425,368	152,213	123,586	87,406	1,032,831		
Vehicles								
1989 Dump Truck Replacement	0	0	94,493	0	0	94,493		
2002 Vehicle - Utility Cart Electric	0	16,958	0	0	0	16,958		
2010 GMC 1/2 Ton	0	0	48,236	0	0	48,236		
2004 Toyota 4-Runner	0	47,704	0	0	0	47,704		
2004 Toy ota Tundra - Replace with 1 Ton	65,000	0	0	0	0	65,000		
Utility Cart Gas	0	0	0	27,519	0	27,519		
Heavy Equipment and Accessories								
Bobcat Backhoe	0	0	0	89,369	0	89,369		
Total transportation equipment	65,000	64,662	142,729	116,888	0	389,279		
TREATMENT PLANT								
Piping								
High Pressure Effluent Line	0	157,594	0	0	0	157,594		
Processing Equipment:		,						
Polyblend Unit Backup 1	0	0	9,980	0	0	9,980		
Shaft Mount Reducer - Ditch #3	0	15,756	0	0	0	15,756		
Pumping Equipment:	0	10,700	0	0	0	10,700		
Clarifier 3:								
Scum and Tank Drain Pump - 10 HP	0	0	18,318	0	0	18,318		
	0	0	10,010	0	0	10,510		



5-YEAR CAPITAL IMPROVEMENT PLAN, FY 2020 – 2024 Cont.									
	Budget	Forecast	Forecast	Forecast	Forecast	5 Year			
	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2020 2024			
Cannibal Building:									
Submersible Pump - 15 HP (2)	0	0	0	8,559	0	8,559			
Auxiliary Pump Building:									
Auxiliary Pump 2	0	0	0	0	21,136	21,136			
Auxiliary Pump 3	0	0	38,003	0	0	38,003			
Main Pump Building:									
Skylights	20,000	0	0	0	0	20,000			
RAS Pump 1 7.5 HP Rebuild	0	0	0	0	5,633	5,633			
RAS Pump 4 7.5 HP Rebuild	0	0	0	0	5,633	5,633			
Effluent Pump 1 40 HP	0	0	0	12,681	0	12,681			
Effluent Pump 2 40 HP	0	0	0	12,681	0	12,681			
Effluent Pump 3 100 HP	26,169	0	0	0	0	26,169			
Effluent Pump 4 100 HP	0	0	0	28,181	0	28,181			
Effluent Pump 5 100 HP	0	0	0	0	28,886	28,886			
Effluent Pump 6 100 HP	0	0	0	0	28,886	28,886			
Headers and check valves	0	150,000	0	0	0	150,000			
Structures									
Headworks	404,811	0	0	0	0	404,811			
Treatment Equipment									
Carbon Tower Headworks	0	0	193,234	0	0	193,234			
Bar Screen	129,289	0	0	0	0	129,289			
Grit Aeration, Air Lift Difuser	47,573	0	0	0	0	47,573			
Grit Washer	54,833	0	0	0	0	54,833			
Wash Press Raptor Headworks	88,053	0	0	0	0	88,053			
Total treatment plant equipment	770,728	323,350	259,535	62,102	90,17 4	1,505,889			
STUDIES AND MAPS									
New Pipeline Maps	<u>0</u>	<u>0</u>	<u>0</u>	100,000	<u>0</u>	100,000			
Total Studis and Maps	0	0	0	100,000	0	100,000			
TOTAL	<u>1,786,653</u>	877,124	<u>904,185</u>	<u>749,353</u>	702,073	<u>5,019,387</u>			

Capital Expenditures - FY 2020

Flow Measuring Devices

WAS Meter (\$9,431): The treatment plant WAS metering equipment measures the Waste Activated Sludge flow from the Main Pump Building to a variety of locations throughout the treatment plant. This meter is no longer able to be calibrated and is not supported by the manufacturer. We will be replacing this meter with new equipment that can be calibrated on an annual basis.

Start Date:	August 1, 2019
Target Completion Date:	August 31, 2019



Other Equipment, Communications

<u>Radio Communications Equipment (\$15,500)</u>: The existing analog radio equipment is old and in need of replacement. The scope of work will include modification of our existing FCC licenses to digital frequency, new base stations and handheld radios, and a new repeater at LPS. The radio communications equipment is a crucial part of BBARWA operations while implementing traffic control measures and emergency operations.

Start Date:	July 1, 2019
Target Completion Date:	October 31, 2019

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.

Start Date:	July 1, 2019
Target Completion Date:	June 30, 2020

IT System (\$27,000): The Agency needs an IT system. The new IT system is a cost-effective data processing and storage solution that will host all the Agency data and programs and allow business continuity in the event of disaster recovery. Staff will work with our IT provider, Accent Computer Solutions, Inc., for the purchase, configuration, and implementation.

Start Date:	July 1, 2019
Target Completion Date:	December 31, 2019

Other Equipment, Electrical

<u>Utility Transfer Switch (\$25,000)</u>: The treatment plant power generation equipment is set up to automatically transfer power in the event of a power outage. This equipment needs to be upgraded and is necessary for integration with the SCADA system replacement.

Start Date:	May 1, 2020
Target Completion Date:	May 30, 2020

Other Equipment, Laboratory

Effluent Composite Sampler (\$8,000): BBARWA discharge order requires composite samples. This sampler is located in the Auxiliary Pump Building. The Effluent Composite sampler is outdated, and replacement parts are difficult to obtain.

Start Date:	July 1, 2019
Target Completion Date:	July 31, 2019

Fume Hood and Fan (\$15,635): The current fume hood is not up to the current standards and regulations for laboratory fume hoods. This equipment is used for acid digestion and is needed twice a week for ventilation of vaporous chemicals.

Start Date:	July 1, 2019
Target Completion Date:	July 31, 2019



Other Equipment, Office Equipment

Plotter / Scanner (\$6,100): The Agency is in the process of implementing a new document retention system in accordance with the Agency's Record Retention Policy. The purchase of a plotter/scanner will allow staff the ability to scan large scale historical drawings and maps for retention and print large scale maps and engineered drawings for use by staff.

Start Date:	October 1, 2019
Target Completion Date:	January 31, 2020

Other Equipment, Security

Fire Alarm System (\$150,000): The treatment plant has a hard-wired fire alarm system. Due to aging wiring and equipment, this system has started to send out false alarms. BBARWA will be upgrading the fire alarm system with new equipment for better reliability of the system.

Start Date:	July 1, 2019
Target Completion Date:	October 31, 2019

Power Generating Equipment

<u>Waukesha Overhaul (\$172,142)</u>: The Waukesha generator is the main source of power for the treatment plant. This engine was last overhauled in 2015. This engine overhaul schedule is based on run hours and recommended factory O&M, which includes removing and replacing all internal parts of the engine.

Start date:	July 1, 2019
Target completion date:	July 31, 2019

Station Two Generator and Fuel System (\$72,116): The standby generator at Station Two is old and in need of replacement. The parts for the existing unit are getting difficult 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.

Start date:	April 1, 2020
Target completion date:	April 30, 2020

Transportation – Vehicles

Dodge Ram One Ton (\$65,000): The Agency needs a one-ton truck with a regular pickup bed for daily operations and towing of plant equipment. This truck will be replacing the half-ton Toyota Tundra.

Start Date:	July 1, 2019
Target completion date:	July 31, 2019



Treatment Plant

<u>Main Pump Building Skylights (\$20,000)</u>: These skylights act as access panels for the Agency's effluent pumps in the Main Pump Building. These panels are cracked which allows rain water and snow to enter the Main Pump Building. The scope of work includes purchase and installation of the skylights.

Start Date	September 1, 2019
Target completion date:	September 30, 2019

<u>Effluent Pump 3 (\$26,169)</u>: Effluent Pump Three is one of four, 100 HP pumps in the Main Pump Building. This pump will be removed and sent to the manufacturer for a rebuild.

Start date:	August 1, 2019
Target completion date:	August 31, 2019

Headworks and Related Treatment Equipment (\$724,599): 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.

Start date:	April 1, 2020
Target completion date:	October 31, 2020

Capital Expenditures - FY 2021 - FY 2024

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

<u>Admin Building HVAC Boiler (\$296,251)</u>: The Administration Building HVAC system has been having a lot of breakdowns and an upgrade to a newer more efficient system is recommended. The current system has been found to be undersized which puts too much strain on the current boiler creating multiple failures.

<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 (\$700,000)</u>: The asphalt needs replacement due to age and climate. The asphalt work includes the grading and paving of areas within the treatment plant and repaying of Palomino Drive.

Cummins Generators Major Overhaul (\$305,368) and Top End Service (\$123,586): 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 and 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 major overhaul and top-end services, which rotate every 20,000 hours. 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.

<u>Station Three and LPS Generator and Fuel Systems (\$272,213)</u>: 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.

Headers and Check Valves (\$150,000): The piping from the RAS pumps and the Effluent pumps in the Main Pump Building are getting older and need replacement. Over time these pipes start to deteriorate due to the inherent effects of flowing water. This will include check valves, gate valves and all piping in the Main Pump Building.

<u>High Pressure Effluent Lines (\$157,594)</u>: 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.

<u>Carbon Tower Headworks (\$193,234)</u>: The Carbon Tower is used to filter sewer gas from the headworks before it gets released into the atmosphere. This carbon tower is aging and is scheduled for replacement.

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:

	CASH AND DESIGNATED FUND BALANCES
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 \$2.2 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.



	Projected FY 2019	Budget FY 2020	Forecast FY 2021	Forecast FY 2022	Forecast FY 2023	Forecast FY 2024	Total Change
ENDING BALANCE:							
Cash Balance	6,241,954	5,093,033	5,123,971	5,331,746	5,714,783	6,165,889	-76,066
Designated Fund Balances:							
Capital and Replacement Fund							
Current Year	1,786,653	877,124	904,185	749,353	391,328	1,137,254	-649,399
Future Years	<u>535,897</u>	<u>188,601</u>	<u>66,383</u>	<u>308,077</u>	<u>922,726</u>	<u>526,155</u>	<u>-9,742</u>
Total C & R	2,322,550	1,065,725	970,567	1,057,430	1,314,053	1,663,409	-659,141
Debt Service Fund	509,077	509,077	509,077	509,077	509,077	509,077	0
Liquidity Fund	2,187,069	2,268,158	2,362,917	2,453,781	2,548,779	2,625,242	438,173
Contingency Fund:							
Emergency	500,000	500,000	500,000	500,000	500,000	500,000	0
Operating	<u>723,258</u>	<u>750,074</u>	<u>781,411</u>	<u>811,459</u>	<u>842,875</u>	868,161	<u>144,903</u>
Total Contingency	1,223,258	1,250,074	1,281,411	1,311,459	1,342,875	1,368,161	144,903
Designated Funds	6,241,954	5,093,033	5,123,971	5,331,746	5,714,783	6,165,889	-76,066

At the end of FY 2024, the Agency is projected to have \$526,155 in the "future" component of the Capital and Replacement Fund. This amount reflects the cash that is available for future capital projects beginning in FY 2026. Based on the current capital improvement plan, the Agency is expected to fall short by approximately \$190,000 to cover the five-year period beginning in FY 2026. Based on the Agency's plans for lower-cost, solar energy, we believe much of the generator maintenance in the capital improvement plan will be eliminated and as a result, the projected funds in the Capital and Replacement Fund will likely be sufficient.

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 3% to 3.2% in FY 2020 - 2024. 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.

FY 2020 Rate per EDU - \$216.78 / EDU

Based on the Agency's current budget and five-year forecast, staff is recommending a rate of \$216.78 per EDU, a 3.2% increase over the FY 2019 rate of \$210.06.

Ratepayer Impact

The financial impact to the ratepayer in FY 2020, based on a 3.2% increase to the established rate is as follows:

Annual Increase	Monthly Increase
\$6.72	\$0.56



Appendix

Five-Year Forecast

Income Statement

FY 2019 as presented below is based on expected performance and has not been "normalized" as previously presented for discussion purposes.

	Projected	Budget	Forecast	Forecast	Forecast	Forecast	5 Yr	
	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	CAGR (a)	
Operating Revenue:	_							
Annual Charges	5,251,785	5,437,076	5,612,469	5,793,493	5,980,326	6,173,155	3%	
Standby Charges	83,200	81,660	80,541	79,422	78,302	77,183	-1%	
Rental Income	51,071	51,820	52,592	53,386	53,386	53,386	1%	
Waste Disposal	21,798	21,798	21,798	21,798	21,798	21,798	0%	
Other Revenue	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>nm</u>	(b)
Total Operating Revenue	5,407,854	5,592,354	5,767,400	5,948,099	6,133,813	6,325,523	3%	
Operating Expenses:								
Salaries and Benefits	2,159,081	2,400,883	2,594,879	2,774,238	2,938,507	3,090,735	7%	
Power	472,976	481,412	489,436	497,364	502,963	508,306	1%	
Sludge Removal	246,318	209,564	212,413	215,349	218,372	221,486	-2%	
Chemicals	48,945	104,222	80,076	82,454	113,810	87,426	12%	
Materials and Supplies	183,067	164,512	149,326	154,166	161,579	169,531	-2%	
Repairs and Replacements	574,311	264,877	272,292	225,934	172,811	184,495	-20%	
Equipment Rental	803	820	837	854	880	906	2%	
Utilities Expense (other than power)	28,130	28,638	29,497	30,382	31,293	32,232	3%	
Communications Expense	43,855	43,506	44,811	46,155	47,540	48,966	2%	
Contractual Services - Other	125,205	103,632	102,698	109,642	111,037	118,802	-1%	
Contractual Services - Prof	259,000	210,077	180,189	191,044	191,163	196,898	-5%	
Permits and fees	151,465	165,348	173,744	182,575	191,866	201,640	6%	
Property Tax Expense	3,652	3,703	3,755	3,808	3,862	3,916	1%	
Insurance	100,843	109,856	116,534	123,043	130,075	137,320	6%	
Other Operating Expense	62,931	48,501	49,956	51,454	52,998	54,588	-3%	
Depreciation Expense	975,331	895,524	885,098	886,085	879,015	869,866	<u>-2%</u>	
Total Operating Expense	5,435,912	5,235,073	5,385,542	5,574,548	5,747,769	5,927,113	2%	
Operating Income	-28,058	357,281	381,858	373,551	386,043	398,410	nm	(b)
Nonoperating Income								
Gain (loss) on asset disposition	0	0	0	0	0	0	nm	(b)
Finance Charge Income	0	0	0	0	0	0	nm	(b)
Interest Income	71,768	107,396	101,537	110,557	125,423	141,980	15%	
Other Nonoperating Income	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>nm</u>	(b)
Nonoperating income	71,768	107,396	101,537	110,557	125,423	141,980	15%	
Nonoperating Expense	,				,			
Other Expense	271,700	261,700	11,700	11,700	11,700	11,700	-47%	
Interest Expense	128,264	136,848	124,101	110,916	97,279	83,173	-8%	
Nonoperating expense	399,964	398,548	135,801	122,616	108,979	94,873	-25%	
						-		
Income before Contributions	-356,254	66,129	347,594	361,492	402,487	445,516	nm	
Connection Fees	<u>201,850</u>	229,900	229,900	229,900	229,900	229,900	<u>3%</u>	
Net Income, Change in Net Position	-154,404	296,029	577,494	591,392	632,387	675,416	nm	

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

(b) "nm" means not meaningful



Cash Flow Statement and Designated Fund Balances

	Projected FY 2019	Budget FY 2020	Forecast FY 2021	Forecast FY 2022	Forecast FY 2023	Forecast FY 2024	Total Change
Cash from operating activities:							
Operating Income (Loss)	-28,058	357,281	381,858	373,551	386,043	398,410	1,897,142
Depreciation expense	975,331	895,524	885,098	886,085	879,015	869,866	4,415,587
Change in Working Capital	<u>-178,392</u>	<u>6.707</u>	<u>18,746</u>	<u>20,944</u>	<u>21.085</u>	<u>22,100</u>	<u>89,582</u>
Net cash provided by op activities	768,880	1,259,512	1,285,701	1,280,579	1,286,143	1,290,375	6,402,312
Cash from noncapital financing:							
Payment of pension related debt/lia	-200,000	-200,000	-200,000	0	0	0	-400,000
Cash from capital and related financing	g:						
Interagency expense	-260,000	-250,000	0	0	0	0	
Capital Expenditures	-2,193,150	-1,786,653	-877,124	-904,185	-749,353	-702,073	-5,019,387
Connection Fee (Capital Contrib)	201,850	229,900	229,900	229,900	229,900	229,900	1,149,500
Proceeds from Debt Issuance	1,731,500	0	0	0	0	0	-3,869,887
Debt Service:							
Interest Expense	-129,293	-136,848	-124,101	-110,916	-97,279	-83,173	-552,318
Principal Debt Amortization	<u>-469,141</u>	<u>-372,229</u>	<u>-384,976</u>	<u>-398,160</u>	<u>-411,798</u>	<u>-425,903</u>	<u>-1,993,065</u>
Total Debt Service	<u>-598,433</u>	<u>-509,077</u>	<u>-509,077</u>	<u>-509,077</u>	<u>-509,077</u>	<u>-509,077</u>	<u>-2,545,383</u>
Net cash used for cap and related fin	-1,118,233	-2,315,829	-1,156,300	-1,183,361	-1,028,530	-981,250	-10,285,158
Cash from investing:							
Interest Income	<u>71,768</u>	<u>107,396</u>	<u>101,537</u>	<u>110,557</u>	<u>125,423</u>	<u>141,980</u>	<u>586,893</u>
Net cash from investing	71,768	107,396	101,537	110,557	125,423	141,980	586,893
NET CHANGE IN CASH	-477,585	-1,148,921	30,938	207,775	383,036	451,106	-76,066
Beginning Cash Balance	6,719,539	6,241,954	5,093,033	5,123,971	5,331,746	5,714,783	6,241,954
Ending Cash Balance	<u>6.241.954</u>	<u>5.093.033</u>	5.123.971	<u>5.331.746</u>	5.714.783	<u>6.165.889</u>	<u>6.165.889</u>
Change in Cash Balance	-477,585	-1,148,921	30,938	207,775	383,036	451,106	-76,066

	Projected FY 2019	Budget FY 2020	Forecast FY 2021	Forecast FY 2022	Forecast FY 2023	Forecast FY 2024	Total Change
DESIGNATED FUND BALANCES (Ending)						
Cash Balance	6,241,954	5,093,033	5,123,971	5,331,746	5,714,783	6,165,889	-76,066
Capital and Replacement Fun	d						
Current Year	1,786,653	877,124	904,185	749,353	391,328	1,137,254	-649,399
Future Years	<u>535,897</u>	<u>188,601</u>	<u>66,383</u>	<u>308,077</u>	<u>922,726</u>	<u>526,155</u>	<u>-9,742</u>
Total C & R	2,322,550	1,065,725	970,567	1,057,430	1,314,053	1,663,409	-659,141
Debt Service Fund	509,077	509,077	509,077	509,077	509,077	509,077	0
Liquidity Fund	2,187,069	2,268,158	2,362,917	2,453,781	2,548,779	2,625,242	438,173
Contingency Fund:							
Emergency	500,000	500,000	500,000	500,000	500,000	500,000	0
Operating	<u>723,258</u>	<u>750,074</u>	<u>781,411</u>	<u>811,459</u>	<u>842,875</u>	<u>868,161</u>	<u>144,903</u>
Total Contingency	1,223,258	1,250,074	1,281,411	1,311,459	1,342,875	1,368,161	144,903
Designated Funds	6,241,954	5,093,033	5,123,971	5,331,746	5,714,783	6,165,889	-76,066



Rate Analysis

	_						
Revenue Requirements:							
Op Expenses before Depreciation	4,460,581	4,339,549	4,500,444	4,688,463	4,868,755	5,057,248	23,454,459
Rate Funded Capital:							
Debt Service	500,243	433,672	433,672	433,672	433,672	433,672	2,168,362
Capital Expenditures (cash funded)	800,000	<u>800,000</u>	<u>800,000</u>	<u>800,000</u>	<u>800,000</u>	<u>800,000</u>	<u>4,000,000</u>
Total Rate Funded Capital	1,300,243	1,233,672	1,233,672	1,233,672	1,233,672	1,233,672	6,168,362
Subtotal	5,760,824	5,573,222	5,734,117	5,922,136	6,102,427	6,290,920	29,622,821
LESS Other Revenues: Other Revenue:							
Standby Charges	83,200	81,660	80,541	79,422	78,302	77,183	397,108
Rental Income	83,200 51,071	51,820	52,592	53,386	53,386	53,386	264,571
Waste Disposal	21.798	21.798	21.798	<u>21.798</u>	21.798	<u>21.798</u>	108.989
Waste Disposal	156,069	155,278	<u>21.798</u> 154,930	<u>21.798</u> 154,606	<u>21.798</u> 153,487	152,367	770,668
	130,009	133,278	154,950	154,000	155,487	152,507	770,008
Revenue Requirements	5,604,755	5,417,944	5,579,186	5,767,530	5,948,940	6,138,553	28,852,153
	5,00 .,, 50	0,127,011	0,070,200	0,707,0000	0,0 10,0 10	0,200,000	20,002,200
Proposed Rate	\$210.06	\$216.78	\$223.29	\$229.99	\$236.88	\$243.99	
Annual Change	2.8%	3.2%	3.0%	3.0%	3.0%	3.0%	
Rate Revenue per Proposed Rate	25.004	25.004	25 426	25 4 9 4	25.246	25.204	
EDUs	25,001	25,081	25,136	25,191	25,246	25,301	20.000 520
Rate Revenues - Proposed Billing	5,251,785	5,437,076	5,612,469	5,793,493	5,980,326	6,173,155	28,996,520
Rate Revenue Excess (Shortfall) - Propos	-352,970	19,133	33,283	25,963	31,386	34,603	144,367
Bond Covenant with Proposed Rate							
Net Revenue / Debt Service Ratio	2.0	3.1	3.1	3.1	3.2	3.2	
Covenant Test Ratio	2.0	1.2	3.1 1.2	3.1 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	



Historical Income Statement

The historical information presented below does not match the audited financial statements and excludes GASB adjustments for pension and OPEB expense.

							NEW
	Actual	Actual	Actual	Actual	Actual	Projected	Budget
Operating Revenues:	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Annual Charges	4,778,215	4,979,690	4,991,166	5,007,070	5,091,576	5,251,785	5,437,076
Standby Charges	4,778,213 91,400	4,979,090 90,860	4,991,100	86,930	85,180	83,200	81,660
Rental Income	47,745		49,230	-			-
Waste Disposal	22,433	48,291 19,829	22,869	49,918	50,449	51,071	51,820
Other Revenue	22,433 <u>2,007</u>	19,829 <u>24,575</u>	22,869 <u>5,104</u>	22,033 <u>488</u>	23,113 <u>1,916</u>	21,798	21,798
						<u>0</u>	<u>0</u>
Total Operating Revenue	4,941,801	5,163,247	5,157,621	5,166,439	5,252,233	5,407,854	5,592,354
Operating Expenses:							
Salaries and Benefits	1,797,691	1,745,041	1,843,684	1,971,517	1,988,278	2,159,081	2,400,883
Power	399,239	486,463	520,431	522,181	386,367	472,976	481,412
Sludge Removal	221,541	162,627	225,990	281,096	397,813	246,318	209,564
Chemicals	37,376	45,636	48,561	71,097	49,408	48,945	104,222
Materials and Supplies	153,454	147,264	136,371	138,226	127,277	183,067	164,512
Repairs and Replacements	186,806	161,825	150,764	128,645	155,447	574,311	264,877
Equipment Rental	0	3,659	165	2,242	37,215	803	820
Utilities Expense (other than power	19,757	16,062	11,773	13,023	26,737	28,130	28,638
Communications Expense	45,613	33,491	38,610	44,062	37,064	43,855	43,506
Contractual Services - Other	95,678	81,627	102,120	94,182	74,947	125,205	103,632
Contractual Services - Professional	224,045	99,798	151,407	191,457	233,349	259,000	210,077
Permits and fees	131,361	142,310	145,866	148,687	145,515	151,465	165,348
Property Tax Expense	3,265	3,426	3,476	3,524	3,599	3,652	3,703
Insurance	69,622	83,561	87,406	85,386	99,428	100,843	109,856
Other Operating Expense	58,032	57,964	59,474	56,329	50,470	62,931	48,501
Depreciation Expense	<u>799,443</u>	<u>840,229</u>	<u>875,328</u>	<u>896,429</u>	<u>842,155</u>	<u>975,331</u>	<u>895,524</u>
Total Operating Expense	4,242,923	4,110,983	4,401,426	4,648,083	4,655,070	5,435,912	5,235,073
Total Op Expense b/f Depreciation	3,443,480	3,270,754	3,526,098	3,751,654	3,812,915	4,460,581	4,339,549
Operating Income	698,878	1,052,264	756,194	518,356	597,164	-28,058	357,281
Nonoperating Income							
Gain (loss) on asset disposition	-28,326	-21,553	-2,678	-91,973	-1,709,527	0	0
Interest Income	11,305	12,430	22,889	29,101	73,866	71,768	107,396
Other Nonoperating Income	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Nonoperating income	-17,021	-9,123	20,211	-62,872	-1,635,661	71,768	107,396
Nonoperating Expense							
Other Expense	11,700	11,700	11,700	11,700	31,477	271,700	261,700
Interest Expense	<u>111,747</u>	<u>145,012</u>	<u>130,669</u>	<u>117,739</u>	<u>102,489</u>	<u>128,264</u>	<u>136,848</u>
Nonoperating expense	123,447	156,712	142,369	129,439	133,966	399,964	398,548
Income before Contributions	558,410	886,429	634,036	326,045	-1,172,464	-356,254	66,129
Connection Fees	165,150	308,280	253,230	231,210	249,560	201,850	229,900
Change in Net Position	723,560	1,194,709	887,266	557,255	-922,904	-154,404	296,029