ORANGE WATER AND SEWER AUTHORITY

A public, non-profit agency providing water, sewer and reclaimed water services to the Carrboro-Chapel Hill community.

MEMORANDUM

TO: **Finance Committee**
Jeff Danner (Chair)
Ray DuBose
Heather Payne
Ruchir Vora
Robert Morgan (*ex-officio*)

THROUGH: Ed Kerwin

FROM: Stephen Winters, CPA

DATE: April 16, 2018

SUBJECT: Finance Committee Meeting – April 18, 2018

The Finance Committee will meet on Wednesday, April 18, 2018, at 5:30 PM in the OWASA Community Room. The agenda will be to review and discuss draft FY 2019 budget and rate adjustment information.

Committee Action Requested: Provide guidance regarding the draft budget and rate adjustment information for Fiscal Year 2019. The Board will continue to discuss these topics at their April 26, 2018 meeting.

Stephen Winters, CPA
Director of Finance and Customer Service

Attachments
cc: Board of Directors
Ed Kerwin
Bob Epting

Purpose:

This memo builds on the information in the April 12, 2018 Board of Directors agenda package. Some of the information is unchanged from the agenda package and is included here to provide context to the discussion.

The purpose of this discussion is to provide the Board of Directors with information about the draft budget for Fiscal Year (FY) 2019 as well as options for potential rate adjustments. The Board will continue to discuss these topics, as necessary, in order to be prepared to hold public hearings on May 24, 2018 and make final budget and rates decisions at the June 14, 2018 Work Session.

Summary of the Draft Budget:

Expenditures in the draft FY 2019 budget include:

Category	Amount (in thousands)
Operating Expense	$22,524
Capital Equipment Expenditures	871
Capital Improvements Program (CIP)	22,636
Debt Service on Outstanding Bonds and Loans	7,156
Total	$53,187

The draft operating expense budget is about $117,000 less than the version the Board reviewed at its meeting on April 12, 2018. The reduction is result of a decrease in the amount budgeted for health insurance expenses. The previous draft assumed no increase in health insurance costs; we now expect a 6% decrease.

Rate Adjustment Information:

Projections from last year's financial plan are shown below.

Projections from Last Year					
	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Rate Increase	0.0%	3.0%	3.0%	3.0%	4.0%
Drinking Water Sales (mgd)	6.20	6.25	6.30	6.35	6.32
(dollar amounts below in thousands)					
Operating Revenue	$37,763	$38,933	$40,387	$41,947	$43,609
Operating Expenses	22,612	23,218	23,993	24,863	25,770
Net Income	15,151	15,715	16,394	17,084	17,839
Debt Service	7,764	7,299	7,862	8,841	9,042
CIP Expenditures	23,189	18,493	17,866	22,151	20,081
OWASA Policy Stipulates Net Income Should Be At Least Two Times Debt Service					
Debt Service Coverage	2.0	2.2	2.0	1.9	2.0

Information in our 15-year financial plan is based on estimates and projections. We revise these estimates and projections each year and update the plan to analyze the need for increases in monthly water and

sewer rates. Based on updated information, our projections for rate increases over the five-year period from FY 2019 to FY 2023 are higher than they were for the same period in last year's financial plan.

Drinking water sales, operating revenue and operating expenses are in-line with last year's projections. The notable differences between last year's and this year's projections are CIP expenditures, the debt service related to projected borrowing to help fund CIP expenditures, and the rate increases necessary to support these expenditures. The primary reasons for projecting higher rate increases for FY 2022 and FY 2023 include:

- CIP spending for FY 2018 is projected to be about $5 million more than the amount budgeted.
- CIP expenditures for FY 2019 and FY 2020 are about $6.6 million more than we projected last year for the same period.
- As a result, the debt service in FY 2022-2023 related to borrowing that is projected to be needed over the next five years is more than the debt service projected in last year's financial plan.

Rate Increases					
Projections	**FY 2019**	**FY 2020**	**FY 2021**	**FY 2022**	**FY 2023**
Last year's	0.0%	3.0%	3.0%	3.0%	4.0%
This year's[1]	0.0%	3.0%	3.0%	4.5% [2]	6.0%

CIP Expenditures (thousands)					
Projections	**FY 2019**	**FY 2020**	**FY 2021**	**FY 2022**	**FY 2023**
Last year's	$23,189	$18,493	$17,866	$22,151	$20,081
This year's[1]	$22,636	$25,634	$16,844	$18,938	$13,698
Increase (Decrease)	($553)	$7,141	($1,022)	($3,213)	($6,383)

Debt Service (thousands)					
Projections	**FY 2019**	**FY 2020**	**FY 2021**	**FY 2022**	**FY 2023**
Last year's	$7,764	$7,299	$7,862	$8,841	$9,042
This year's[1]	$7,156	$7,726	$7,038	$9,438	$9,960
Increase (Decrease)	($608)	$427	($824)	$597	$918

[1] Information shown as "This year's" projections is based on information shown in rate adjustment Option 1.

[2] The projected rate increase for FY 2022 has been reduced to 4.5% from 6% as a result of decreasing the budget for health insurance expense in FY 2019. Projected health insurance expense for FY 2020-23 has also been reduced.

Rate Adjustment Options:

The following are six rate adjustment options for the Board's consideration. Each option is designed to meet our financial management policy objectives, including targets for debt service coverage ratio and reserve levels. Options 1, 2 and 3 are based on the operating and CIP budgets recommended by staff. Option 4 is presented for the Board's information and is based on a CIP budget reduced for certain discretionary projects. Options 5 and 6 are new since April 12th and each reflects a 5% reduction in CIP expenditures for FY 2019-2023. Operating expense in each option has been updated for the reduction in health insurance expense.

In Options 1-4, information that has changed from the versions reviewed on April 12th is shown in red. In each of the options, operating expenses have been decreased because of the reduction in health insurance expense. The lower operating expenses facilitated a reduction of projected rate increases in Options 1 and 2.

Option 1 – No Rate Increase in FY 2019

Option 1					
	FY 2019	**FY 2020**	**FY 2021**	**FY 2022**	**FY 2023**
Rate Increase	0.0%	3.0%	3.0%	4.5%	6.0%
Drinking Water Sales (mgd)	6.18	6.23	6.28	6.34	6.30
(dollar amounts below in thousands)					
Revenue	$37,574	$38,724	$40,172	$42,397	$44,769
Operating Expenses	22,524	22,920	23,661	24,522	25,447
Net Income	15,050	15,804	16,511	18,256	19,873
Debt Service	7,156	7,720	7,032	9,439	9,962
CIP Expenditures	22,636	25,634	16,844	18,938	13,698
OWASA Policy Stipulates Net Income Should Be At Least Two Times Debt Service					
Debt Service Coverage	2.1	2.0	2.3	1.9	2.0
Projected Borrowing		$21,700		$21,100	

Option 2 – 2% Rate Increase for FY 2019

Option 2					
	FY 2019	**FY 2020**	**FY 2021**	**FY 2022**	**FY 2023**
Rate Increase	2.0%	2.0%	3.0%	4.0%	4.0%
Drinking Water Sales (mgd)	6.18	6.23	6.28	6.34	6.30
(dollar amounts below in thousands)					
Revenue	$38,152	$39,173	$40,548	$42,666	$44,462
Operating Expenses	22,524	22,920	23,661	24,522	25,447
Net Income	15,628	16,253	16,887	18,144	19,015
Debt Service	7,156	7,637	6,949	9,259	9,781
CIP Expenditures	22,636	25,634	16,844	18,938	13,698
OWASA Policy Stipulates Net Income Should Be At Least Two Times Debt Service					
Debt Service Coverage	2.2	2.1	2.4	2.0	1.9
Projected Borrowing		$20,500		$20,300	

Option 3 – 2.75% Rate Increase for FY 2019

Option 3					
	FY 2019	**FY 2020**	**FY 2021**	**FY 2022**	**FY 2023**
Rate Increase	2.75%	2.75%	2.75%	2.75%	2.75%
Drinking Water Sales (mgd)	6.18	6.23	6.28	6.34	6.30
(dollar amounts below in thousands)					
Revenue	$38,346	$39,641	$41,033	$42,820	$44,154
Operating Expenses	22,524	22,920	23,661	24,522	25,447
Net Income	15,822	16,721	17,372	18,298	18,707
Debt Service	7,156	7,619	6,932	9,248	9,770
CIP Expenditures	22,636	25,634	16,844	18,938	13,698
OWASA Policy Stipulates Net Income Should Be At Least Two Times Debt Service					
Debt Service Coverage	2.2	2.2	2.5	2.0	1.9
Projected Borrowing		$20,000		$19,500	

Option 4 – No Rate Increase for FY 2019 with Reduced CIP

Option 4					
	FY 2019	**FY 2020**	**FY 2021**	**FY 2022**	**FY 2023**
Rate Increase	0.0%	3.0%	3.0%	3.0%	3.0%
Drinking Water Sales (mgd)	6.18	6.23	6.28	6.34	6.30
(dollar amounts below in thousands)					
Revenue	$37,574	$38,720	$40,170	$42,016	$43,422
Operating Expenses	22,524	22,920	23,661	24,522	25,447
Net Income	15,050	15,800	16,509	17,494	17,975
Debt Service	7,156	7,446	6,759	8,876	9,398
CIP Expenditures	22,529	22,718	12,366	18,551	14,018
OWASA Policy Stipulates Net Income Should Be At Least Two Times Debt Service					
Debt Service Coverage	2.1	2.1	2.4	2.0	1.9
Projected Borrowing		$17,400		$16,700	

Option 4 is based on the same information as Options 1-3, except CIP expenditures have been reduced by approximately $7.6 million. Attachment 2, Table 2 indicates in green the projects which have been deleted or reduced in scope to support this option.

Significant projects deleted for Option 4 include Cane Creek Solar Photovoltaic System, Creek Crossing Access Improvements, and the WWTP Warehouse. Projects with significant reductions in scope include the WTP Belt Filter Press Replacement and Sanitary Sewer Condition Evaluation. Additionally, Option 4 includes the deferrals of funding for several projects; in most of these cases, funding was deferred by two or three fiscal years; these project deferrals are not specifically identified in the Table.

Option 5 – No Rate Increase for FY 2019 with 5% Reduction if 5-year CIP

Option 5 is based on the same assumptions as Options 1-3 except that CIP expenditures for FY 2019-2023 have been reduced by 5% (specific projects to be cut to achieve a 5% reduction have not yet been identified). Differences between Option 1 and Option 5 are shown in green.

Option 5					
	FY 2019	**FY 2020**	**FY 2021**	**FY 2022**	**FY 2023**
Rate Increase	0.0%	3.0%	3.0%	4.5%	6.0%
Drinking Water Sales (mgd)	6.18	6.23	6.28	6.34	6.30
(dollar amounts below in thousands)					
Revenue	$37,574	$38,724	$40,172	$42,397	$44,769
Operating Expenses	22,524	22,920	23,661	24,522	25,447
Net Income	15,050	15,804	16,511	18,256	19,873
Debt Service	7,156	7,619	6,930	9,079	9,602
CIP Expenditures	22,636	25,634	16,844	18,938	13,698
5% Reduction	(300)	(300)	(3,600)	(400)	(400)
Net CIP Expenditures	22,336	25,334	13,244	18,538	13,298
OWASA Policy Stipulates Net Income Should Be At Least Two Times Debt Service					
Debt Service Coverage	2.1	2.0	2.4	2.0	2.0
Projected Borrowing		$20,200		$17,500	

Option 6 – 2% Rate Increase for FY 2019 with 5% Reduction if 5-year CIP

Option 6 is based on the same assumptions as Option 5. Since this option is comparable to Option 2, differences between Option 2 and Option 6 are shown in green.

Option 6					
	FY 2019	**FY 2020**	**FY 2021**	**FY 2022**	**FY 2023**
Rate Increase	2.0%	2.0%	2.0%	4.0%	4.0%
Drinking Water Sales (mgd)	6.18	6.23	6.28	6.34	6.30
(dollar amounts below in thousands)					
Revenue	$38,152	$39,173	$40,271	$42,280	$44,060
Operating Expenses	22,524	22,920	23,661	24,522	25,447
Net Income	15,628	16,253	16,610	17,758	18,613
Debt Service	7,156	7,548	6,860	8,999	9,521
CIP Expenditures	22,636	25,634	16,844	18,938	13,698
5% Reduction	(300)	(300)	(3,600)	(400)	(400)
Net CIP Expenditures	22,336	25,334	13,244	18,538	13,298
OWASA Policy Stipulates Net Income Should Be At Least Two Times Debt Service					
Debt Service Coverage	2.2	2.2	2.4	2.0	2.0
Projected Borrowing		$19,200		$17,300	

Each rate adjustment option results in meeting our target reserve levels.

Projected Estimated Year-End Reserve Balance				
FY 2019	**FY 2020**	**FY 2021**	**FY 2022**	**FY 2023**
$18 million	$16 million	$16.5 million	$17.5 million	$20.5 million

Rate Adjustment Impact to Individually-Metered Residential Customers:

The dollar impact of the rate increases shown in the table below is for one month's bill for a single-family residence using the system average of 4,000 gallons. The difference is the amount the bill increases from the previous year. The current bill for 4,000 gallons is $70.66.

Rate Increase Options – % Increase and Average Bill Impact												
	FY 2019		**FY 2020**		**FY 2021**		**FY 2022**		**FY 2023**		**5-Year Cumulative**	
	%	**$**	**%**	**$**	**%**	**$**	**%**	**$**	**%**	**$**	**%**	**$**
Option 1	0.0	0.00	3.0	2.10	3.0	2.18	4.5	3.37	6.0	4.70	17.5	12.35
Option 2	2.0	1.41	2.0	1.44	3.0	2.21	4.0	3.03	4.0	3.15	15.9	11.24
Option 3	2.75	1.95	2.75	1.98	2.75	2.05	2.75	2.11	2.75	2.17	14.5	10.26
Option 4	0.0	0.00	3.0	2.10	3.0	2.18	3.0	2.25	3.0	2.32	12.5	8.85
Option 5	0.0	0.00	3.0	2.10	3.0	2.18	4.5	3.37	6.0	4.70	17.5	12.35
Option 6	2.0	1.41	2.0	1.44	2.0	1.47	4.0	3.00	4.0	3.12	14.8	10.44

Rate Adjustments Beyond FY 2023:

In our financial plan, we project financial information, including rate adjustments, over the next 15 years. Because the plan consists of estimates and projections, the information becomes less reliable further into the future. This is one of the reasons we update the plan each year and make budget and rate adjustment decisions annually. Beyond FY 2023, rate adjustments are projected to be between 3% and 6%.

Staff Rate Adjustment Recommendation:

Considering the financial requirements presented herein, projections of future rate increases for each of the identified options, and our ability to avoid rate increases for the past six years, staff and our independent rate consultant recommend that we implement a modest rate increase, as shown in Option 2 or 3, in FY 2019 (Option 2 preferred).

Staff does not favor Options 5 and 6. While some CIP projects are less critical than others, all are important to fulfilling our mission and related goals. Eliminating 5% of the 5-year CIP's projects does not seem to be justified the by the relatively insignificant impact on rates it would have.

Budget and Rate Setting Process Next Steps:

Public hearings on the budget and rates are tentatively scheduled for May 24, 2018. A final budget and proposed rate schedule are tentatively scheduled to be presented for approval at the Board Work Session on June 14, 2018.

1. Staff will prepare a revised draft of the FY 2019 budget and rate adjustment information for presentation at the April 26, 2018 Board meeting and May 24, 2018 public hearings.
2. At the April 26, 2018 meeting, staff will present a draft of the Schedule of Rates, Fees and Charges and request permission from the Board to publicize budget and rate information in advance of the public hearings. The rates schedule will include proposed adjustments to:
    a. Monthly water and sewer rates, based on the Board's guidance.
    b. System Development Fees, based on the new calculation method approved by the Board.
    c. Adjustments to other miscellaneous fees based on changes in the cost of providing the service.
3. At the public hearings, the Board will receive and consider comments from customers and other stakeholders.
4. After considering public input, the Board of Directors will discuss and provide guidance to staff on the final draft of the FY 2019 budget and rate adjustment.
5. Staff will finalize the FY 2019 budget and rate adjustment recommendation and is scheduled to present it for adoption by the Board of Directors at its meeting on June 14, 2018.

Explanation of the Need for a Rate Increase:

Staff has drafted a one-page explanation of why a rate increase is needed in FY 2019 (see Attachment 3).

Action requested:

Review the draft FY 2019 budget and rate adjustment information and provide guidance.

Information:

- Attachment 1 – Projected Operating Expenses

- Attachment 2 – Table 1 shows the draft FY 2019 CIP budget. Projects highlighted in blue have already been initiated.

- Attachment 2 – Table 2 shows the draft FY 2019 – FY 2023 CIP. Cells highlighted in green indicate projects for which funding was adjusted (from what is shown in Table 2) in order to support rate adjustment Option 4.

- Attachment 3 – Draft message explaining the need for a rate increase.

Projected Operating Expenses in Long-term Financial Plan
OWASA Finance Committee
April 18, 2018

Attachment 1

Projected Operating Expenses	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Salaries and Wages	8,609,906	8,954,302	9,312,474	9,684,973	10,072,372
Payroll Taxes and Employee Benefits	3,910,366	4,144,988	4,393,687	4,657,308	4,936,747
Materials and Supplies	2,993,454	3,045,840	3,106,757	3,176,659	3,256,075
Utilities	1,696,703	1,726,395	1,760,923	1,800,544	1,845,558
Maintenance	3,065,911	3,119,564	3,181,956	3,253,550	3,334,888
Professional Services	1,641,677	1,670,406	1,703,814	1,742,150	1,785,704
Communication and Printing	194,337	197,738	201,693	206,231	211,387
Education and Development	173,830	176,872	180,409	184,469	189,080
Other	397,796	404,757	412,853	422,142	432,695
Projected AMI Savings	(156,000)	(521,000)	(594,000)	(606,000)	(618,000)
Total	22,527,980	22,919,863	23,660,566	24,522,025	25,446,506
Total Annual Projected Increase		1.74%	3.23%	3.64%	3.77%

Escalation Rates for Operating Expenses		FY 2020	FY 2021	FY 2022	FY 2023
Salaries and Wages		4.00%	4.00%	4.00%	4.00%
Payroll Taxes and Employee Benefits		6.00%	6.00%	6.00%	6.00%
Materials and Supplies		1.75%	2.00%	2.25%	2.50%
Utilities		1.75%	2.00%	2.25%	2.50%
Maintenance		1.75%	2.00%	2.25%	2.50%
Professional Services		1.75%	2.00%	2.25%	2.50%
Communication and Printing		1.75%	2.00%	2.25%	2.50%
Education and Development		1.75%	2.00%	2.25%	2.50%
Other		1.75%	2.00%	2.25%	2.50%

Table 1
Draft FY 2019 CIP

CIP No.	Project	FY2019	Comments
270-04	Jordan Lake Raw Water Supply Allocation	$ 5,000	Ongoing required payment
270-09	Quarry Reservoir Development	$ 15,000	Ongoing required payment
270-11	University Lake Pump Station Improvements	$ 1,500,000	Replacement of aging pumps #1 - #3 with new, more efficient pumps and variable frequency drives (VFD's)
270-28	University Lake Permanganate Facility	$ 450,000	New chemical storage and feed facility to improve water treatment
272-14	Water Facility Security Upgrades	$ 38,000	Security improvements at remote sites including Cane Creek Reservoir, University Lake, and booster pump stations; construction commenced in FY 2018
272-37	WTP Belt Filter Press Replacement	$ 512,000	Replacement of existing, aging dewatering equipment that does not have redundancy; construction to occur in FY 2019 and FY 2020
272-38	WTP Sedimentation Basin Rehabilitation	$ 1,800,000	Concrete rehabilitation of sedimentation basin walls and channels; construction to occur in FY 2019 and FY 2020
272-40	WTP Filter Media and Backwash Improvements	$ 100,000	Completion of construction which commenced in FY 2018
275-15	Water Main Upgrades - Road Improvement Projects	$ 181,000	Water main upgrades undertaken as part of North Carolina Department of Transportation roadway projects; FY 2019 funds are for payment for prior work along Smith Level Road
275-20	Brandywine Road Water Main Replacement	$ 862,000	Completion of construction expected to commence in FY 2018
275-20	Fordham Service Road Water Main Replacement	$ 250,000	Construction along service road south of Fordham Boulevard; being coordinated with adjacent development
275-21	High Priority Water Main Replacement	$ 2,341,000	FY 2019 funds are primarily for construction of Pritchard Avenue Water Main, and the start of construction for Manning Drive Water Main and Country Club Road Water Main
275-46	Dobbins Drive Water Main Replacement	$ 288,000	Completion of design and start of construction; coordinated with Dobbins Drive Sewer Main project
275-52	West Cameron Avenue Water Main	$ 25,000	Planning, design, and construction; majority of construction to occur in summer of calendar year 2020
275-76	Advanced Metering Infrastructure (AMI) System	$ 1,225,000	Completion of deployment of AMI System
275-77	Galvanized Water Main Replacements	$ 1,100,000	Start of construction to replace or abandon 1.6 miles of galvanized water mains
276-18	Sanitary Sewer Rehabilitation	$ 2,091,000	Near-term identified needs for rehabilitation of collection system
276-45	Bolinwood Drive Interceptor	$ 100,000	Capacity improvements as identified by 2010 Collection System Master Plan; FY 2019 funding is for design
276-48	Dobbins Drive Interceptor Upgrades	$ 315,000	Completion of design and start of construction to increase collection system capacity; coordinated with Dobbins Drive Water Main project
276-53	Creek Crossing Access Improvements	$ 20,000	Sitework to improve vehicular access as needed to maintain facilities (primarily aerial sewer crossings at creeks); FY 2019 funding is for stakeholder engagement and planning
276-57	Sanitary Sewer Hydraulic Model	$ 334,000	Updated capacity analysis and master planning for the collection system; flow monitoring is ongoing as of March 2018
277-31B	Rogerson Drive Pump Station Rehabilitation Phase 2	$ 2,025,000	FY 2019 funds are for Phase 2 construction including electrical, HVAC, and odor control upgrades to improve reliability and odor control at the second largest wastewater pump station
278-46	Comprehensive Coatings Program	$ 150,000	Continuation of programmatic coating of priority equipment and structures to protect assets and extend their useful life
278-51	WWTP Solids Thickening Improvements	$ 1,200,000	Replace aging gravity belt thickeners with new rotary drum thickeners; construction to occur in FY 2019 and FY 2020
278-54	WWTP Intermediate Pump Station (IPS) Rehabilitation	$ 400,000	Completion of construction in FY 2019 for electrical, HVAC, and VFD's
278-58	WWTP Non-potable Water Pump Replacements	$ 50,000	Completion of construction work commencing in FY 2018 to replace aging pumps
278-68	Roofing / Building Envelope Rehabilitation	$ 34,000	FY 2019 includes design funds for roof replacements as prioritized and scoped from a FY 2017 assessment
278-72A	WWTP Secondary Clarifier (SC) Rehabilitation	$ 750,000	Funding is for rehabilitation of concrete and aging equipment in SC #2 and #3
278-72B	WWTP Secondary Clarifier Pumping Improvements	$ 100,000	Improvements to the return activated pumping system for the secondary clarifiers to improve clarifier performance
278-73	Wastewater Treatment Plant (WWTP) SCADA System Upgrade	$ 60,000	Completion of improvements to the WWTP's control system which commenced in FY 2018 to improve functionality and operator awareness
278-78A	WWTP Fermenter Tank and Pumps Rehabilitation	$ 100,000	Funds are for cleaning, draining, inspection and recommendations for fermenter tank rehabilitation; improvements to be included with Solids Thickening construction
278-80A	Primary Sludge Pump Station Reabilitation and Old Lab Building Demolition	$ 25,000	Funding for near-term work that may be identified by FY 2018 study
278-80B	WWTP Chemical Building and Bulk Tank Piping Rehabilitation	$ 100,000	Completion of design and construction as recommended by ongoing FY 2018 study to improve chemical feed and storage facilities
278-80B	WWTP Spray Water System	$ 100,000	Completion of design and construction as recommended by ongoing FY 2018 study to improve operational efficiency
278-82	WWTP Headworks Concrete Rehabilitation	$ 1,700,000	Completion of design and construction on fast-tracked project to rehabilitate a critical WWTP structure; construction to occur in FY 2019 and FY 2020
280-06	Administration Building HVAC System Upgrade	$ 820,000	Completion of construction which commenced in FY 2018
270-new	University Lake Dam Flashboard Replacement	$ 325,000	Flashboard (part of the dam used to increase the depth of the impoundment) replacement as recommended by recent inspection
271-05	Cane Creek Raw Water Transmission Main Capacity Study	$ 40,000	Condition assessment of raw water main
272-42	WTP Finished Water Pump (FWP) Improvements	$ 25,000	Improvements to FWP #5 VFD and electrical, and FWPs #4 and #6 pumps/motors
272-46A	WTP Chemical Feed Upgrades	$ 75,000	Upgrades to several chemical feed systems as identified by risk evaluation and other needs to improve reliability and treatment
272-new	WTP Supervisory Control and Data Acquisition (SCADA) Equipment Replacement	$ 15,000	FY 2019 funds are for design to replace critical process control equipment which will not be supported by manufacturer after 2023
272-new	Heating, Ventilation, and Air Conditioning (HVAC) Replacement Program	$ 45,000	Age, condition, and energy efficiency-based equipment replacement based on Advanced Energy audit
273-09	Barbee Chapel Road Booster Pump Station (BPS) Study	$ 75,000	Study to re-evaluate BPS location, needed improvements, timing, and cost estimate.

Table 1
Draft FY 2019 CIP

CIP No.	Project	FY2019	Comments
275-53	Water Distribution System Hydraulic Model	$ 30,000	Placeholder funding for on-call modeling, plus FY 2020-2021 update of full hydraulic model
275-new	Distribution System SCADA integration	$ 25,000	Upgrades to allow for real-time monitoring of distribution system pressure
275-new	Distribution System Prioritization Model	$ 75,000	Comprehensive overhaul of prioritization model used to determine distribution system rehabilitation; work is planned to occur in FY 2019 and FY 2020
275-new	Distribution System Sampling Stations	$ 85,000	Additional sampling sites to improve water quality monitoring capabilities for the distribution system
275-new	Kensington Drive Water Main Replacement	$ 100,000	Funds for completion of design in FY 2019 and construction in FY 2020
276-46	Willow Drive Interceptor Replacement	$ 25,000	Capacity improvements as identified by 2010 Collection System Master Plan
276-58	Prince Street common service replacement	$ 30,000	FY 2019 funds for design of the replacement of a common (shared by more than one property) service lateral that is in poor condition
277-new	Pump Station Operational Assessments	$ 25,000	Motor and pump efficiency assessments at identified pump stations
277-new	Rogerson Drive Force Main (Highway 54 crossing and northern routing study)	$ 50,000	Initial funding of routing study for future alignment of Rogerson Drive Force Main, including alternatives analysis for crossing Highway 54
278-77	WWTP Bar Screen Replacement	$ 150,000	Replacement of two bar screens at plant headworks
278-new	WWTP Server Room	$ 75,000	Architectural modifications, and installation of equipment and HVAC to support new technology infrastructure
278-new	Fixed Continuous Gas Monitoring Systems	$ 100,000	Installation of gas monitoring systems in identified WWTP structures to provide continuous air monitoring
278-new	WWTP Security Improvements	$ 100,000	FY 2019 funding for plant-wide security assessment and initial improvements
	Total FY 2019	**$ 22,636,000**	

Projects Underway as of 4-4-2018	**$ 21,166,000**

Table 2
Draft FY 2019 - 2023 CIP

CIP No.	Project	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total FY 2019 - FY 2023
270-04	Jordan Lake Raw Water Supply Allocation	$ 5,000	$ 5,000	$ 5,000	$ 5,000	$ 5,000	$ 25,000
270-09	Quarry Reservoir Development	$ 15,000	$ 15,000	$ 15,000	$ 15,000	$ 15,000	$ 75,000
270-11	University Lake Pump Station Improvements	$ 1,500,000	$ 455,000	$ -	$ -	$ -	$ 1,955,000
270-16	Cane Creek Pump Station Improvements	$ -	$ 100,000	$ 1,200,000	$ -	$ -	$ 1,300,000
270-28	University Lake Permanganate Facility	$ 450,000	$ 750,000	$ -	$ -	$ -	$ 1,200,000
270-29	University Lake Fishing Pier and Boat Launch	$ -	$ -	$ 70,000	$ -	$ -	$ 70,000
270-30	Cane Creek Dam Rehabilitation	$ -	$ -	$ 50,000	$ 500,000	$ -	$ 550,000
270-31	Cane Creek Resurfacing	$ -	$ -	$ -	$ 70,000	$ -	$ 70,000
270-new	Cane Creek Solar Photovoltaic System	$ -	$ 25,000	$ 1,600,000	$ -	$ -	$ 1,625,000
270-new	University Lake Dam Flashboard Replacement	$ 325,000	$ 250,000	$ -	$ -	$ -	$ 575,000
271-05	Cane Creek Raw Water Transmission Main Capacity Study	$ 40,000	$ -	$ -	$ -	$ -	$ 40,000
272-10	Long Term Funding for Water Facility Asset Rehabilitation or Replacement	$ -	$ -	$ -	$ 2,083,000	$ 2,714,000	$ 4,797,000
272-14	Water Facility Security Upgrades	$ 38,000	$ -	$ -	$ -	$ -	$ 38,000
272-35	WTP Flash Mix Basins Isolation Valve Replacement	$ -	$ -	$ -	$ 70,000	$ 300,000	$ 370,000
272-37	WTP Belt Filter Press Replacement	$ 512,000	$ 975,000	$ -	$ -	$ -	$ 1,487,000
272-38	WTP Sedimentation Basin Rehabilitation	$ 1,800,000	$ 1,630,000	$ -	$ -	$ -	$ 3,430,000
272-40	WTP Filter Media and Backwash Improvements	$ 100,000	$ -	$ -	$ -	$ -	$ 100,000
272-41	WTP Process, Sedimentation Basin, and Pulsator Turbidimeters	$ -	$ 150,000	$ -	$ -	$ -	$ 150,000
272-42	WTP Finished Water Pump (FWP) Improvements	$ 25,000	$ 150,000	$ 1,200,000	$ -	$ -	$ 1,375,000
272-43	WTP Track Vac System Replacement	$ -	$ -	$ -	$ 116,000	$ -	$ 116,000
272-46A	WTP Chemical Feed Upgrades	$ 75,000	$ 500,000	$ -	$ -	$ -	$ 575,000
272-46B	WTP Chemical Storage Improvements	$ -	$ 25,000	$ -	$ -	$ -	$ 25,000
272-new	WTP Filter Console / Operator Console Replacement	$ -	$ -	$ 25,000	$ 150,000	$ -	$ 175,000
272-new	WTP SCADA Master Plan	$ -	$ 100,000	$ -	$ -	$ -	$ 100,000
272-new	WTP Supervisory Control and Data Acquisition (SCADA) Equipment Replacement	$ 15,000	$ 200,000	$ -	$ -	$ -	$ 215,000
272-new	Heating, Ventilation, and Air Conditioning (HVAC) Replacement Program	$ 45,000	$ 10,000	$ 25,000	$ 125,000	$ -	$ 205,000
273-09	Barbee Chapel Road Booster Pump Station (BPS) Study	$ 75,000	$ -	$ -	$ -	$ -	$ 75,000
274-new	Storage Tank Water Quality Monitors	$ -	$ -	$ 100,000	$ -	$ -	$ 100,000
275-15	Water Main Upgrades - Road Improvement Projects	$ 181,000	$ -	$ -	$ -	$ -	$ 181,000
275-20	Long Term Funding for Water Distribution System Asset Rehabilitation or Replacement	$ -	$ -	$ -	$ 2,259,000	$ 2,497,000	$ 4,756,000
275-20	Fordham Service Road Water Main Replacement	$ 250,000	$ -	$ -	$ -	$ -	$ 250,000
275-20	Brandywine Road Water Main Replacement	$ 862,000	$ -	$ -	$ -	$ -	$ 862,000
275-21	High Priority Water Main Replacement	$ 2,341,000	$ 5,313,000	$ 4,278,000	$ 5,247,000	$ -	$ 17,179,000
275-46	Dobbins Drive Water Main Replacement	$ 288,000	$ 1,150,000	$ -	$ -	$ -	$ 1,438,000
275-52	West Cameron Avenue Water Main	$ 25,000	$ 298,000	$ 1,487,000	$ -	$ -	$ 1,810,000
275-53	Water Distribution System Hydraulic Model	$ 30,000	$ 250,000	$ 50,000	$ 30,000	$ 30,000	$ 390,000
275-76	Advanced Metering Infrastructure (AMI) System	$ 1,225,000	$ -	$ -	$ -	$ -	$ 1,225,000
275-77	Galvanized Water Main Replacements	$ 1,100,000	$ 600,000	$ -	$ -	$ -	$ 1,700,000
275-new	MLK Boulevard Water Main Abandonment	$ -	$ 100,000	$ 1,000,000	$ -	$ -	$ 1,100,000
275-new	Distribution System Large Vault Replacement	$ -	$ 40,000	$ 100,000	$ -	$ -	$ 140,000
275-new	Valve Insertion Program	$ -	$ 30,000	$ 30,000	$ 30,000	$ -	$ 90,000
275-new	Porthole Alley Water Main Abandonment	$ -	$ -	$ 30,000	$ -	$ -	$ 30,000
275-new	Distribution System SCADA integration	$ 25,000	$ 25,000	$ -	$ -	$ -	$ 50,000
275-new	Distribution System Prioritization Model	$ 75,000	$ 100,000	$ -	$ -	$ -	$ 175,000
275-new	Distribution System Sampling Stations	$ 85,000	$ 85,000	$ -	$ -	$ -	$ 170,000
275-new	Kensington Drive Water Main Replacement	$ 100,000	$ 1,220,000	$ -	$ -	$ -	$ 1,320,000
276-17	Sanitary Sewer Condition Evaluation	$ -	$ 744,000	$ -	$ 906,000	$ -	$ 1,650,000
276-18	Long Term Funding for Wastewater Collection System Asset Rehabilitation or Replacement	$ -	$ -	$ -	$ 2,290,000	$ 2,771,000	$ 5,061,000
276-18	Sanitary Sewer Rehabilitation	$ 2,091,000	$ 2,429,000	$ 2,730,000	$ -	$ -	$ 7,250,000
276-45	Bolinwood Drive Interceptor	$ 100,000	$ 900,000	$ -	$ -	$ -	$ 1,000,000

Table 2
Draft FY 2019 - 2023 CIP

CIP No.	Project	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	Total FY 2019 - FY 2023
276-46	Willow Drive Interceptor Replacement	$ 25,000	$ 100,000	$ -	$ -	$ -	$ 125,000
276-48	Dobbins Drive Interceptor Upgrades	$ 315,000	$ 1,259,000	$ -	$ -	$ -	$ 1,574,000
276-52	Rocky Branch Interceptor Upgrade (Phase 1)	$ -	$ 62,000	$ 706,000	$ -	$ -	$ 768,000
276-53	Creek Crossing Access Improvements	$ 20,000	$ 563,000	$ 263,000	$ -	$ -	$ 846,000
276-57	Sanitary Sewer Hydraulic Model	$ 334,000	$ 150,000	$ -	$ -	$ -	$ 484,000
276-58	Prince Street common service replacement	$ 30,000	$ 50,000	$ -	$ -	$ -	$ 80,000
276-new	Manhole Installations	$ -	$ 35,000	$ 80,000	$ -	$ -	$ 115,000
277-21	Force Main Condition Evaluation	$ -	$ -	$ 50,000	$ -	$ 300,000	$ 350,000
277-31B	Rogerson Drive Pump Station Rehabilitation Phase 2	$ 2,025,000	$ -	$ -	$ -	$ -	$ 2,025,000
277-37	Knolls PS Rehab	$ -	$ -	$ 15,000	$ -	$ -	$ 15,000
277-39A	North Lakeshore Drive Pump Station	$ -	$ -	$ 15,000	$ -	$ -	$ 15,000
277-39B	Chapel Hill North Pump Station Rehabilitation	$ -	$ 25,000	$ 75,000	$ -	$ -	$ 100,000
277-39C	Clayton Rd Pump Station Replacement	$ -	$ -	$ 15,000	$ -	$ -	$ 15,000
277-39-F	Patterson Place Pump Station	$ -	$ -	$ 15,000	$ -	$ -	$ 15,000
277-new	Rogerson Drive Force Main Gravity Interconnect to Meeting of the Waters Interceptor	$ -	$ -	$ 25,000	$ -	$ -	$ 25,000
277-new	Pump Station Operational Assessments	$ 25,000	$ 25,000	$ -	$ -	$ -	$ 50,000
277-new	Rogerson Drive Force Main (Highway 54 crossing and northern routing study)	$ 50,000	$ 200,000	$ -	$ -	$ -	$ 250,000
278-11	Long Term Funding for Wastewater Facility Asset Rehabilitation or Replacement	$ -	$ -	$ -	$ 4,608,000	$ 4,466,000	$ 9,074,000
278-46	Comprehensive Coatings Program	$ 150,000	$ 100,000	$ -	$ -	$ -	$ 250,000
278-50	WWTP Warehouse	$ -	$ 75,000	$ 600,000	$ -	$ -	$ 675,000
278-51	WWTP Solids Thickening Improvements	$ 1,200,000	$ 2,700,000	$ -	$ -	$ -	$ 3,900,000
278-54	WWTP Intermediate Pump Station (IPS) Rehabilitation	$ 400,000	$ -	$ -	$ 100,000	$ 600,000	$ 1,100,000
278-58	WWTP Non-potable Water Pump Replacements	$ 50,000	$ -	$ -	$ -	$ -	$ 50,000
278-61	WWTP Pavement	$ -	$ -	$ -	$ 25,000	$ -	$ 25,000
278-68	Roofing / Building Envelope Rehabilitation	$ 34,000	$ 226,000	$ 285,000	$ 184,000	$ -	$ 729,000
278-72A	WWTP Secondary Clarifier (SC) Rehabilitation	$ 750,000	$ -	$ -	$ -	$ -	$ 750,000
278-72B	WWTP Secondary Clarifier Pumping Improvements	$ 100,000	$ -	$ -	$ -	$ -	$ 100,000
278-73	Wastewater Treatment Plant (WWTP) SCADA System Upgrade	$ 60,000	$ -	$ -	$ -	$ -	$ 60,000
278-75	WWTP Facilities Planning / Capacity Upgrade	$ -	$ 150,000	$ 150,000	$ -	$ -	$ 300,000
278-77	WWTP Bar Screen Replacement	$ 150,000	$ -	$ -	$ -	$ -	$ 150,000
278-78A	WWTP Fermenter Tank and Pumps Rehabilitation	$ 100,000	$ -	$ -	$ -	$ -	$ 100,000
278-80A	Primary Sludge Pump Station Reabilitation and Old Lab Building Demolition	$ 25,000	$ -	$ -	$ -	$ -	$ 25,000
278-80B	WWTP Chemical Building and Bulk Tank Piping Rehabilitation	$ 100,000	$ 350,000	$ -	$ -	$ -	$ 450,000
278-80B	WWTP Spray Water System	$ 100,000	$ -	$ -	$ -	$ -	$ 100,000
278-80C	WWTP Scum Pump Station Rehabilitation	$ -	$ 200,000	$ -	$ -	$ -	$ 200,000
278-80C	On-Site Biosolids Storage Tanks – Hyperboloid Mixing System	$ -	$ 150,000	$ -	$ -	$ -	$ 150,000
278-82	WWTP Headworks Concrete Rehabilitation	$ 1,700,000	$ 500,000	$ -	$ -	$ -	$ 2,200,000
278-new	Primary Clarifier Rehab	$ -	$ 90,000	$ 500,000	$ -	$ -	$ 590,000
278-new	WWTP Flow Monitoring	$ -	$ -	$ 25,000	$ 125,000	$ -	$ 150,000
278-new	WWTP Server Room	$ 75,000	$ -	$ -	$ -	$ -	$ 75,000
278-new	Fixed Continuous Gas Monitoring Systems	$ 100,000	$ -	$ -	$ -	$ -	$ 100,000
278-new	WWTP Security Improvements	$ 100,000	$ -	$ -	$ -	$ -	$ 100,000
280-06	Administration Building HVAC System Upgrade	$ 820,000	$ -	$ -	$ -	$ -	$ 820,000
280-13	Admin Building Locker Room Rehabilitation and Improvements	$ -	$ -	$ 30,000	$ -	$ -	$ 30,000
	Recommended FY 2019 - 2023 CIP	**$ 22,636,000**	**$ 25,634,000**	**$ 16,844,000**	**$ 18,938,000**	**$ 13,698,000**	**$ 97,750,000**
	With potential program reductions	*$ 22,529,000*	*$ 22,718,000*	*$ 12,366,000*	*$ 18,551,000*	*$ 14,018,000*	***$ 90,182,000***

Rate adjustment Options 1 - 3 are based on funding as shown; Option 4 is based on funding that has been **deleted** or **reduced** for this project.

OWASA's x% Increase in Rates to Sustain High-Quality Service

April 16, 2018

OWASA is committed to providing high-quality, safe, and reliable water and wastewater services, and our rates reflect the true cost of providing these services.

- OWASA is a non-profit, community-owned water and wastewater utility; investments in water and wastewater infrastructure are not supported by taxes nor federal grants.
- We reinvest the rates and fees paid by our customers directly into the plants, pipes, and people that will serve our community for years to come.
- The investments we make in our infrastructure help prevent water main breaks and sewer overflows. They allow us to maintain, replace and upgrade the equipment, facilities and resources we need to make sure that water is available, safe, and good-tasting and that treated wastewater recycled is safe for the environment. They allow us to provide all our employees a fair and competitive wage.

Our Capital Program is a necessary investment in the long-term sustainability of our community.

- Delivering safe drinking water and recycling clean wastewater is very capital intensive.
- Every year we take a long-term look at what is needed to sustain the essential services we provide, and we prioritize those projects based on their criticality. We also take a long-term approach to operations and maintenance expenses and invest in projects like the Agua Vista Metering Initiative and Energy Management Program that will provide the community financial returns in years to come.
- The five-year Capital Improvements Program projects nearly $100 million of capital spending needed to maintain nearly 800 miles of underground pipe; invest in the renewal or replacement of existing equipment at our treatment plants, pump stations, and reservoirs; and mitigate operational expenses in future years. This year, about three-quarters of our capital improvements budget will be spent on repairing and rehabilitating existing infrastructure.
- No individual project is driving the need for a rate increase; rather it is attributable to an increase in the true costs to provide high-quality, safe, and reliable water and wastewater services, so as not to short-change future generations.
- We appreciate our customers for their partnership. Beyond paying their OWASA bill every month, the cost and commitment borne by our community to use water wisely and protect the wastewater system pays dividends, ecologically and economically.

A modest increase in rates later this year will help mitigate the need for larger rate increases in future years and helps to maintain our strong credit rating.

- OWASA's rates remain competitive in our state and region. The median monthly bill for 4,000 gallons of water use in our region is $65.60; the highest is $114.23. OWASA customers currently pay $70.66 for 4,000 gallons of water and wastewater service.
- A rate increase of 2% would increase the average OWASA family's bill by $1.41 per month.
- The majority of water and wastewater utilities in the state increased their rates within the last two years. The median rate increase for these utilities was 4%.
- OWASA was recently rated AAA (the best credit score available) by the Standard and Poor's Rating Agency due to our current financial position and management practices. Our strong financial rating helps to keep borrowing costs low.
- Through the Care to Share program, OWASA customers can contribute funds to help provide temporary bill assistance to those in-need.

DRAFT