



ORANGE WATER AND SEWER AUTHORITY

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

Agenda

Meeting of the OWASA Board of Directors

Thursday, April 27, 2017, 7:00 P.M.

Chapel Hill Town Hall

In compliance with the "Americans with Disabilities Act," interpreter services are available with five days prior notice. If you need this assistance, please contact the Clerk to the Board at 919-537-4217 or aorbich@owasa.org.

The Board of Directors appreciates and invites the public to attend and observe its meetings. Public comment is invited either by petition upon topics not on the Board's agenda, or by comments upon items appearing on the Board's agenda. Speakers are invited to submit more detailed comments via written materials, ideally submitted at least three days in advance of the meeting to the Clerk to the Board via email or US Postal Service (aorbich@owasa.org/400 Jones Ferry Road, Carrboro, NC 27510).

Public speakers are encouraged to organize their remarks for delivery within a four-minute time frame allowed each speaker, unless otherwise determined by the Board of Directors.

Announcements

1. Announcements by the Chair
 - A. Any Board Member who knows of a conflict of interest or potential conflict of interest with respect to any item on the agenda tonight is asked to disclose the same at this time.
2. Announcements by Board Members
3. Announcements by Staff
 - A. Wastewater Management Video (Ed Kerwin)

Petitions and Requests

1. Public
2. Board
3. Staff

CONSENT AGENDA

Information and Reports

1. 12 Month Board Meeting Schedule (John Young/Ed Kerwin)

Action

2. Resolution Awarding Audit Contract to Martin Starnes & Associates, CPAS, P.A. and Authorizing Chair of the Board of Directors and the Finance Officer to Execute Said Contract (Stephen Winters)
3. Minutes of the February 17, 2017 Special Work Session of the Board of Directors (Andrea Orbich)
4. Minutes of the April 13, 2017 Closed Session of the Board of Directors for the Purpose of Discussing a Personnel Matter (Robert Morgan)

REGULAR AGENDA

Discussion and Action

5. Review Draft Fiscal Year 2018 Budget, Rates, and Reserves and Authorize Staff to Publish Draft Fiscal 2018 Budget and Rates Information (Stephen Winters)

Discussion

6. Approach to Advance Employee Compensation Based on Performance (Stephanie Glasgow)
7. Opportunities to Improve Strategic Communications During OWASA-Related Emergencies (Ed Kerwin)

Information and Reports

8. Financial Report for the Nine Month Period Ended March 31, 2017 (Stephen Winters)

Summary of Board Meeting Action Items

9. Executive Director will summarize the key action items from the Board meeting and note significant items for discussion and/or action expected at the next meeting

OWASA Board of Directors – 12 Month Board Meeting Schedule (April 21, 2017)

Month	Board Meetings		Committee & Other Meetings and Reports
	Work Session	Business Meeting	
April 2017	<p><i>Discuss Draft Energy Management Plan</i> Discuss Employee Health and Dental Insurance Renewal - Update Award the Eastowne, Eubanks and Meadowmont 1 Pump Station Improvements Contract Approve Action Plan to resume fluoride CS – ED Interim Review</p> <p style="text-align: right;">4/13/2017</p>	<p>FY 18 Draft Budget, Rates and Reserves and authorize staff to publish proposed rates Approach to Advance Employee Compensation Based on Performance Q3 Financial Report Appoint Audit Firm Opportunities to Improve Strategic Communications During OWASA related Emergencies</p> <p style="text-align: right;">4/27/2017</p>	<p><i>Nominating Committee Meeting (TBD)</i></p>
May 2017	<p><i>Review AMI System Procurement Contract</i> Discuss Employee Health and Dental Insurance Renewal Discuss Employee Merit Pay for FY 18 Award the Rogerson Drive Pump Station Rehabilitation Contract CS – ED Interim Review</p> <p style="text-align: right;">5/11/2017</p>	<p><i>Approve AMI System Procurement Contract</i> <i>Overview of Land Management</i> Public Hearings – FY 18 Budget and Rates Approve Employee Health and Dental Insurance Renewal Award the Water Treatment Plant Filter Media and Backwash Improvements Contract Approve Rogers Road Sewer Operating Agreement with Orange County Approve minor changes to Water and Sewer Management, Planning and Boundary Agreement</p> <p style="text-align: right;">5/25/2017</p>	
June 2017	<p><i>Discuss LRWSP – Demands & Yield</i> Approve FY 18 Budget and Rates Approve Employee Merit/Cost of Labor Pay Increases for FY 18 Award the Hillsborough Street Water Main Replacement Contract Discuss KPI Trends Election of Officers</p> <p style="text-align: right;">6/8/2017</p>	TBD	<p><i>Progress Report on Diversity and Inclusion</i></p>
July 2017	TBD	TBD	
August 2017	<p>Award the Brandywine Drive Water Main Replacement Contract CS – General Counsel Review</p> <p style="text-align: right;">8/10/2017</p>	<p>Preliminary 12 Month Financial Report CIP Semiannual Report EEO/Affirmative Action Report Award the Administration Building HVAC Replacement Contract CS – General Counsel Review</p> <p style="text-align: right;">8/24/2017</p>	
September 2017	<p>Diversity and Inclusion Progress Report Award the Dobbins Drive Water and Sewer Main Replacement Contract CS – ED Review</p> <p style="text-align: right;">9/14/2017</p>	<p>Annual Report and Financial Audit Approve General Counsel Engagement CS – ED Review</p> <p style="text-align: right;">9/28/2016</p>	<p><i>Progress Report on Diversity and Inclusion</i></p> <p><i>NRTS Committee Meeting on Biogas-to-Energy (TBD)</i></p>
October 2017	<p><i>Discuss AMI Policies and Manual Read Charge</i> Discussion of impact on MFMM rate change CS – ED Review</p> <p style="text-align: right;">10/12/2017</p>	<p><i>Approve AMI Policies and Manual Read Charge</i> Q1 Financial Report Strategic Trends Report CS – ED Review</p> <p style="text-align: right;">10/26/2017</p>	

OWASA Board of Directors – 12 Month Board Meeting Schedule (April 21, 2017)

November 2017	TBD 11/9/2017	<i>Holiday - no meeting</i>	
December 2017	Discuss KPI Trends Affordability Outreach Program Update 12/14/2017	<i>Holiday - no meeting</i>	
January 2018	FY 19 Budget Calendar and Assumptions (C) Employee Health and Dental Insurance Update (C) CY 17 Biosolids Report 1/11/2018	Annual Lakes Recreation Report (regular agenda) (C) Q2 Financial Report (C) CIP Semiannual Report (C) 1/25/2018	
February 2018	Energy Management Plan Update CS - General Counsel Interim Review (C) 2/8/2018	CS - General Counsel Interim Review (C) 2/22/2018	
March 2018	FY 19 Draft Budget & Rates (C) Set date for Public Hearings – FY 19 Budget & Rates (C) CS - ED Interim Review (C) 3/8/2018	FY 19 Draft Budget & Rates (C) CS – ED Interim Review (C) 3/22/2018	

The 12 Month Board Meeting Schedule shows Strategic Plan initiatives and other priority efforts that the Board and staff plan to give greatest consideration to during the next twelve months. The schedule also shows major recurring agenda items that require Board action, or items that have been scheduled in response to the Board's prior standing request. This schedule does not show all the items the Board may consider in a work session or business meeting. It also does not reflect meetings at which the Board will discuss and act on the update of the Strategic Plan.

The 12 Month Board Meeting Schedule will be reviewed and updated at each monthly work session and may also be discussed and updated at the Board's business meetings.

In addition to the initiatives shown in this schedule, staff will be working on other Strategic Plan and organizational priorities that are not expected to require major additional discussion with the Board except as part of budget deliberations.

The schedule implies that the following Strategic Plan initiatives would be addressed beyond the 12-month period. The Board may conclude that one or more of the following initiatives are higher priority. The schedule will be revised as needed to reflect the Board's priorities, and any additional initiatives that the Board may decide to address.

- Development of a plan and policy framework for OWASA lands is considered a longer-term priority.
- Improve effectiveness as a learning organization is considered a longer-term priority.
- Water Conservation Plan will be prepared concurrent with update of the Long-Range Water Supply Plan.

The OWASA Board determines which topics it wants to explore as a full Board (potentially in a work session format) and which topics it wants to assign to Board committees or committee chairs for further analysis and development of recommendations. Board also determines priorities and desired timeframes for addressing topics. Committee meetings will be updated on the schedule routinely.

OWASA Board of Directors – 12 Month Board Meeting Schedule (April 21, 2017)

Abbreviations Used in Draft Schedule:

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| <ul style="list-style-type: none"> Ⓞ Recurring agenda item (generally these are “required” items) AMI Advanced Metering Infrastructure CE Community Engagement CEP Community Engagement Plan CIP Capital Improvements Program COLA Cost of Labor Adjustment CS Closed Session of the Board CY Calendar Year ED Executive Director FY Fiscal Year | <ul style="list-style-type: none"> JLP Jordan Lake Partnership LRWSP Long-Range Water Supply Plan MST Mountains-to-Sea Trail MFMM Multi-Family Master Meter NRTS Natural Resources/Technical Services Q Quarter SOW Scope of Work TBD To Be Determined WTP Water Treatment Plant WWTP Wastewater Treatment Plant |
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Current and Pending Key Projects and Stages

Project	Strategic Initiative	Project Lead	Apr-17	May-17	Jun-16	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17	Jan-18	Feb-18	Mar-18
AMI	6	Taylor		Contract										
Total Compensation Study		Glasgow	<i>Schedule To Be Determined</i>											
MFMM Rate Structure Study	4	Winters												
LRWSP	1	Rouse			Demand & Yield									
Energy Plan	5	Tiger												

Stages	Committee Discussion	Feasibility Study	Board Review	Community Engagement	Action	Procurement	
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AGENDA ITEM

- **Resolution Awarding Audit Contract to Martin Starnes & Associates, CPAS, P.A. And Authorizing Chair of the Board of Directors and the Finance Officer to Execute Said Contract**

BACKGROUND

- General Statutes of the State of North Carolina and OWASA's Bond Order require that Orange Water and Sewer Authority have its financial records audited annually by an independent Certified Public Accountant.
- In January of 2015, OWASA solicited audit proposals based upon the established criteria recommended by the North Carolina Local Government Commission.
- A panel consisting of one board member and three staff members reviewed and evaluated the proposals received based on qualifications and cost. After interviewing the eligible respondents, Martin Starnes & Associates, CPAs, P.A. was identified as presenting the best proposal.
- Martin Starnes & Associates, CPAs, P.A. has proposed to conduct the audit for Fiscal Year (FY) 2017 for a fee of \$31,250 for the basic audit and, if required, an additional \$1,500 for single audits of state and federal grant monies received and expended.

RECOMMENDATION

- Approve the FY 2017 audit contract with Martin Starnes & Associates, CPAs, P.A. for total base fees not to exceed \$33,000.

ACTION NEEDED

- Adopt the Resolution Awarding Audit Contract to Martin Starnes & Associates, CPAs, P.A. and Authorizing Chair of the Board of Directors and the Finance Officer to execute the contract.

April 27, 2017



ORANGE WATER AND SEWER AUTHORITY

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MEMORANDUM

TO: Board of Directors
THROUGH: Ed Kerwin *EK*
FROM: Stephen Winters, CPA
DATE: April 21, 2017
SUBJECT: Approval of Annual Audit Contract

Background

General Statute 159-34 requires Orange Water and Sewer Authority to have its accounts audited by an independent auditor after the close of each fiscal year. OWASA must prepare and publish an annual financial report in conjunction with its annual audit. The auditor's conclusions are to be set out in a report in the form of an opinion and comments relating to the financial statements. The auditor must be approved by, and reports to, the Board of Directors, and is engaged through a contract executed by the Board Chair and the Finance Officer.

In January of 2015, OWASA solicited audit proposals based upon the established criteria recommended by the North Carolina Local Government Commission. We received responses from 10 firms and selected three for in-person interviews. Interviews were conducted by a panel consisting of one board member and three OWASA staff members. Based on the proposals and the interviews, the panel unanimously chose Martin Starnes & Associates, CPAs, P.A. to conduct the audit for FY 2015, and subject to annual approval, to conduct the audits for FY 2016 and FY 2017. The firm has conducted OWASA's audit for the last five fiscal years and we have been very pleased with the service the firm has delivered. In addition, the firm is Minority and Women-owned Business Enterprise.

Martin Starnes & Associates, CPAs, P.A. has proposed to conduct OWASA's FY 2017 audit for \$31,250 for the basic audit and, if required, an additional \$1,500 for single audits of state and federal grant monies received and expended.

Recommendation

Approve the attached resolution appointing Martin Starnes & Associates, CPAs, P.A. to perform the FY 2017 audit for a base fee not to exceed \$33,000.

Stephen Winters, CPA
Director of Finance and Customer Service

**RESOLUTION APPROVING AND AWARDED AUDIT CONTRACT TO
MARTIN STARNES & ASSOCIATES, CPAS, P.A. AND AUTHORIZING CHAIR OF
THE BOARD OF DIRECTORS AND THE FINANCE OFFICER
TO EXECUTE THE CONTRACT**

WHEREAS, Orange Water and Sewer Authority is required by the General Statutes of the State of North Carolina and the Series 2001 Bond Order to have its financial records audited at the termination of each fiscal year; and

WHEREAS, in January of 2015, the Authority solicited audit proposals based upon the established criteria recommended by the North Carolina Local Government Commission; and

WHEREAS, Martin Starnes & Associates, CPAs, P.A. provided satisfactory service related to the Fiscal Years 2011 through 2016 financial audits;

NOW, THEREFORE, BE IT RESOLVED:

1. That the contract between Orange Water and Sewer Authority and Martin Starnes & Associates, CPAs, P.A. for financial audit of the Fiscal Year Ending June 30, 2017, for charges not to exceed \$33,000 is hereby approved subject to approval by the North Carolina Local Government Commission.

2. That the Chair of the OWASA Board of Directors and the Finance Officer are hereby authorized to execute such contract.

Adopted this 27th day of April 2017.

John A. Young, Chair

ATTEST:

Barbara M. Foushee, Secretary

ORANGE WATER AND SEWER AUTHORITY
SPECIAL WORK SESSION OF THE BOARD OF DIRECTORS

FEBRUARY 17, 2017

The Board of Directors of the Orange Water and Sewer Authority (OWASA) held a Special work session on Friday, February 17, 2017, at 7:00 P.M. in OWASA’s Community Room, 400 Jones Ferry Road, Carrboro.

Board Members present: John A. Young (Chair), Jeff Danner (Vice Chair), Barbara Foushee (Secretary), Yinka Ayankoya, Terri Buckner, David (Dave) Moreau, Robert Morgan and Heather Payne. Board Member absent: Ruchir Vora.

OWASA staff present: Ed Kerwin, Mary Darr, Monica Dodson, Vishnu Gangadharan, Katie Harrold, Kenneth Loflin, Andrea Orbich, Todd Taylor, Stephen Winters, Robin Jacobs (Epting and Hackney) and Robert Epting (Epting and Hackney).

Others present: Bill Camp; Fred Hall and Tas Simmons, Time Warner Cable News; Meg Holton, Water, Wastewater and Stormwater Manager at the University of North Carolina at Chapel Hill (UNC); Molly Horak, Daily Tar Heel; Michael Hyland, WNCN; and Brian Payne.

There being a quorum present, Chair John Young called the meeting to order.

MOTION ACTED UPON

1. Heather Payne made a motion to adjourn the meeting; second by John Young and unanimously approved.

ANNOUNCEMENTS

Conflict of Interest

John Young said any Board Member who knows of a conflict of interest or potential conflict of interest with respect to any item on the agenda tonight is asked to disclose at this time; none were disclosed.

ITEM ONE: DISCUSS THE CONSULTANTS’ REPORTS ON THE FEBRUARY 2, 2017 FLUORIDE OVERFEED AND THE FEBRUARY 3, 2017 WATER MAIN BREAK

John Young said the focus of this special meeting is to review and comment on the consultants' reports and questions from the Board. Mr. Young said Jeff Danner, Vice Chair, will facilitate tonight's meeting.

The Board discussed the February 2, 2017 fluoride overfeed and agreed to consider these focus areas:

- risk assessment for water and wastewater treatment plants;
- potential capital investments to improve system resiliency;
- Standard Operating Procedures and training;
- staffing (communications, teamwork, resources); and
- regional preparedness for future emergencies.

The Board discussed and determined the need for improvements in communication protocols to better inform the community about how to prepare their homes and businesses for water emergencies, and how to identify and make productive use of other water resources. Staff will also encourage customers to sign up for OC Alerts.

The Board agreed that staff will prepare a final report on what happened, questions that came up, a plan for corrective actions, and what are the corrective actions.

The Board agreed to schedule a closed session item to review individual personnel performance at the Board's February 23, 2017, meeting.

Heather Payne made a motion to adjourn the meeting; second by John Young and unanimously approved. Please see Motion 1 above.

The meeting was adjourned at 8:21 P.M.

Respectfully submitted,

Andrea Orbich
Executive Assistant/Clerk to the Board

ORANGE WATER AND SEWER AUTHORITY
CLOSED SESSION OF THE BOARD OF DIRECTORS

APRIL 13, 2017

The Board of Directors of Orange Water and Sewer Authority met in Closed Session on Thursday, April 13, 2017, following the Board meeting.

Board Members present: John A. Young, Chair; Barbara M. Foushee, Secretary; Yinka Ayankoya; Terri Buckner; David (Dave) Moreau; Robert Morgan; and Heather Payne.
Board Members absent: Jeff Danner, Vice Chair; and Ruchir Vora.

ITEM ONE

The Board of Directors met in Closed Session to discuss Executive Director's semiannual performance review.

No official action was taken at the meeting.

The meeting was adjourned at 9:20 P.M.

Robert Morgan, Chair
Human Resources Committee

AGENDA ITEM

- **Review Draft Fiscal Year (FY) 2018 Budget, Rates, and Reserves and Authorize Staff to Publish Draft Fiscal 2018 Budget and Rates Information**

PURPOSE

- To provide information about:
 - The draft operating, capital improvements program (CIP) and capital equipment budgets for FY 2018.
 - The draft Schedule of Rates, Fees and Charges that would go into effect October 1, 2017.
 - Staff's recommendation to accept low-interest loans from the state of North Carolina to fund certain CIP projects.
 - OWASA's financial reserves policy and how the organization is performing.

ACTION REQUESTED

- Review the draft FY 2018 budget information and provide guidance, if desired.
- Authorize staff to publicize budget and rates information.
- Provide guidance regarding accepting low-interest loans from the state of North Carolina.
- Provide guidance regarding the financial reserve policy, if desired.

April 27, 2017



ORANGE WATER AND SEWER AUTHORITY

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MEMORANDUM

TO: Board of Directors

THROUGH: Ed Kerwin *EK*

FROM: Stephen Winters, CPA

DATE: April 21, 2017

SUBJECT: Review Draft Fiscal Year (FY) 2018 Budget, Rates, and Reserves and Authorize Staff to Publish Draft Fiscal 2018 Budget and Rates Information

Purpose

The purpose of this discussion is as follows:

1. To provide information about the draft operating, capital improvements program (CIP) and capital equipment budgets for Fiscal Year (FY) 2018.
 - Action Requested: Review the draft FY 2018 budget information and provide guidance, if desired.
2. To provide information about the draft Schedule of Rates, Fees and Charges that would go into effect October 1, 2017.
 - Action Requested: Authorize staff to publicize budget and rates information.
3. To provide information about staff's recommendation to accept low-interest loans from the state of North Carolina to fund certain CIP projects.
 - Action Requested: Provide guidance regarding accepting low-interest loans from the State of North Carolina.
4. To provide information about OWASA's financial reserves policy and how the organization is performing.
 - Action Requested: Provide guidance regarding the financial reserve policy, if desired.

FY 2018 Draft Budget Information

The Board reviewed draft FY 2018 budget information at its meeting on March 23, 2017. At that meeting, staff recommended no increase in the rates OWASA charges for monthly water and sewer services. The Board is scheduled to hold public hearings on May 25, 2017 and make final budget and rates decisions at the June 8, 2017 Board meeting.

The following summarizes the draft FY 2018 Budget (thousands):

	FY 2017 Approved Budget	FY 2018 Draft Budget	Amount Variance	Percent Variance
Water and Sewer Revenue	\$34,941	\$35,009	\$68	0.2%
Rents, Royalties, Other	927	883	(44)	(4.7)
Customer Fees	996	1,455	459	46.1
Total Revenue	36,864	37,347	483	1.3
Operating Expenses	(21,007)	(21,945)	938	4.5
Net Income	15,857	15,402	(455)	(2.9)
Debt Service	(6,932)	(6,950)	18	0.3
CIP and Capital Equipment	(14,875)	(16,430)	1,555	10.5
Net decrease reserves from Operating, Debt Service and Capital Investment activities	(\$5,950)	(\$7,978)		
Approximate year-end reserves balance	\$26,600	\$21,500		

Note that CIP and capital equipment spending is \$610,000 higher than provided in the March 23, 2017 agenda information. Most of this increase is needed to fund replacement of two sewer interceptors in Kenan Stadium in coordination with other improvements being funded by the University.

Draft Schedule of Rates, Fees and Charges

Based on the draft FY 2018 budget, staff recommends no increase in the rates OWASA charges for monthly water and sewer services. This would position the Board to be able to approve a budget with no increase in monthly rates for the sixth consecutive year. We also project that no rate increase will be needed in FY 2019. Projected rate adjustments over the next five years are:

FY 2018	FY 2019	FY 2020	FY 2021	FY 2022
0.0%	0.0%	3.0%	3.0%	3.0%

Attachment 3 is a draft of the Schedule of Rates, Fees and Charges that would be effective as of October 1, 2017. No changes are proposed to the monthly rates for water and sewer services. Several adjustments have been proposed to the fees OWASA charges for miscellaneous services such as meter installations, meter testing, etc. Changes are also proposed for service availability fees.

Service Availability Fees

Service availability fees are one-time amounts charged for new connections (development) to OWASA’s system. They are calculated to recover a portion of the capital costs of providing water and sewer system capacity. Service availability fees are calculated separately for water and sewer connections.

The proposed changes are based on cost of service principles and an update of the calculation of those costs. The calculation considers:

- Assets that have been added to the system, and depreciation of all system assets, since the last analysis was conducted.

- Improvements (CIP) planned through FY 2022.
- Average water use by residential customers based on the size (square footage) of the residence.
- Average water use by nonresidential customers based on meter-size.

Based on the consultant's analysis, we recommend changing water and sewer service availability fees as follows:

Water

Property Description	Current Fee	Proposed Fee	Change
5/8" Meter or 3/4" Combination Fire and Domestic Service, Single-family Residential:			
<1300 square feet	\$1,265	\$1,033	(\$232)
1300-1700 square feet	\$1,545	\$1,207	(\$338)
1701-2400 square feet	\$1,956	\$1,552	(\$404)
2401-3100 square feet	\$3,344	\$2,470	(\$874)
3101-3800 square feet	\$4,546	\$3,429	(\$1,117)
>3800 square feet	\$7,631	\$5,406	(\$2,225)
1" Meter, Single-Family Residential (all square footages)	\$9,260	\$8,143	(\$1,117)
5/8" Meter or 3/4" Combination Fire and Domestic Service Meter, Multi-family Residential	\$1,363	\$1,112	(\$251)
5/8" Meter or 3/4" Combination Fire and Domestic Service Meter, Nonresidential*	\$3,704	\$3,255	(\$449)
1" Meter, Multi-Family Residential and Nonresidential*	\$9,260	\$8,143	(\$1,117)
1-1/2" Meter, Multi-Family Residential and Nonresidential*	\$18,519	\$16,275	(\$2,244)
2" Meter, Multi-Family Residential and Nonresidential*	\$29,631	\$26,040	(\$3,591)
3" Meter, Multi-Family Residential and Nonresidential*	\$59,262	\$52,081	(\$7,181)
4" Meter, Multi-Family Residential and Nonresidential*	\$92,596	\$81,376	(\$11,220)
6" Meter, Multi-Family Residential and Nonresidential*	\$185,192	\$162,752	(\$22,440)
8" Meter, Multi-Family Residential and Nonresidential*	\$296,308	\$260,403	(\$35,905)

*Same fee for Irrigation-Only accounts

Sewer

Property Description	Current Fee	Proposed Fee	Change
5/8" Meter or 3/4" Combination Fire and Domestic Service, Single-family Residential:			
<1300 square feet	\$2,938	\$2,829	(\$109)
1301-1700 square feet	\$3,549	\$3,270	(\$279)
1701-2400 square feet	\$3,611	\$3,384	(\$227)
2401-3100 square feet	\$4,425	\$3,859	(\$566)
3101-3800 square feet	\$4,781	\$4,256	(\$525)
>3800 square feet	\$5,431	\$4,541	(\$890)
1" Meter, Single-Family Residential (all square footages)	\$12,301	\$13,088	\$787
5/8" Meter or 3/4" Combination Fire and Domestic Service, Multi-family Residential	\$3,183	\$3,064	(\$119)
1" Meter, Multi-Family Residential	\$12,301	\$13,088	\$787
5/8" Meter or 3/4" Combination Fire and Domestic Service, Nonresidential	\$6,317	\$6,553	\$236
1" Meter, Nonresidential	\$15,792	\$16,392	\$600
1-1/2" Meter, Multi-family Residential and Nonresidential	\$31,584	\$32,763	\$1,179
2" Meter, Multi-family Residential and Nonresidential	\$50,535	\$52,421	\$1,886
3" Meter, Multi-family Residential and Nonresidential	\$101,070	\$104,842	\$3,772
4" Meter, Multi-family Residential and Nonresidential	\$157,922	\$163,816	\$5,894
6" Meter, Multi-family Residential and Nonresidential	\$315,844	\$327,632	\$11,788
8" Meter, Multi-family Residential and Nonresidential	\$505,350	\$524,211	\$18,861

Low-interest Loan from the State of North Carolina

On September 22, 2016, the Board authorized staff to apply for low-interest loans from the state of North Carolina for the purpose of funding the following CIP projects:

Project Name	Amount of Loan Not to Exceed
Brandywine Road Water Main Rehabilitation	\$1,056,000
Wastewater Treatment Plant Intermediate Pump Stations Rehabilitation	1,071,000
Advanced Meter Infrastructure System	6,132,000
Dobbins Drive Sewer Interceptor Rehabilitation	1,658,000
Dobbins Drive Water Main Rehabilitation	1,525,000
Water Treatment Plant Sedimentation Basin Rehabilitation	3,390,000
Total	\$14,832,000

In February, the state approved these projects as "eligible to receive funding." The interest rate for the loans will be no more than 1.53% (compared to the current interest rate for bonds in the public market of 3% to 3.5%).

Based on our long-range financial planning, we had projected that we would likely need to issue bonds to fund a portion of our capital improvements program in FY 2018 or FY 2019. By accepting the state's low-interest loans, we now project that issuing public market bonds will most likely be delayed until FY 2021. Therefore, staff recommends accepting the state's offer. When the loans will be funded and the precise amount of the loans will be

determined once contracts for the projects have been approved; loans will not exceed the amounts shown in the above table.

Financial Reserves Policy

On [February 25, 2016, the Board discussed OWASA’s financial reserves policy](#). No changes were suggested but the Board agreed to review the policy again during the FY 2018 budget development process.

OWASA’s Current Reserve Policy

Our [Financial Management Policy](#) includes provisions for three reserve funds.

Reserve	Purpose (paraphrased)	Funding Strategy	Approx. Funding Target as of FYE 2017 (thousands)
Rate/Revenue Stabilization	Provide sufficient funding for operations during extended times when expenses are higher and/or revenues are lower than budgeted while offsetting the need for rate increases or spending changes during the fiscal year	5% of projected water and sewer revenue	\$1,747
Capital Improvements	Ensure more sustainable CIP funding and cover major unplanned increases in CIP costs	2% of annual depreciated capital costs	6,019
Working Capital	Provide sufficient cash flow for daily needs plus funds to counter revenue instability and unanticipated expenses	Greater of 4 months of Operating or 20% of the succeeding 3 years CIP budget	11,087
Total			\$18,853

All of the funds are unrestricted – meaning that the Board can decide to expend the funds for any lawful purpose, not just the purposes specified in the fund definitions.

Projected Reserve Levels

Reserves are projected to be about \$26.6 million at the end of FY 2017. Based on the draft FY 2018 Budget, reserve balances are projected to be approximately \$21.5 million at the end of FY 2018 which will be approximately \$2.7 million above our minimum target levels. Based on our long-range financial planning, we are projecting that our reserve levels will decline to balances about equal to our minimum funding targets by FY 2019.

For several years, staff has projected that reserve levels will decline to approximately equal our policy’s minimum targets. Actual results have not matched projections. Primarily because we have not expended all of our planned CIP budget, we have not spent reserve funds as projected.

Staff Recommendation Regarding OWASA’s Reserve Policy

As we pointed out in February 2016, the issue to address is whether our current reserve policy is sufficient to provide the resources needed to sustain the organization financially. Based on our research, there is no standard approach to setting reserve levels. A November 2014 Journal AWWA article states, “The reality of uncertain

water demand, increasing supply costs, large capital costs inherent in providing water service, and potential liabilities from system failures faced by water enterprises illustrates the importance of adopting reserve policies that are specifically tailored to each utility.”

OWASA is rated “AA+” by the major bond rating agencies, in part, due to the financial strength provided by our reserves policy and our adherence to it. As you know, Fitch Ratings reasserted their AA+ rating of OWASA shortly after the February 2017 water emergency event, citing the strength of our financial reserves as a key factor.

Staff continues to believe OWASA’s financial reserves policy is appropriate for the organization and recommends no changes to it.

Next Steps

Public hearings for the budget and rates are scheduled for May 25, 2017 with the Board’s final approval tentatively set for June 8, 2017.

Action Requested

1. Review the draft FY 2018 budget information and provide guidance, if desired.
2. Authorize staff to publicize budget and rates information.
3. Authorize staff to proceed with necessary actions to accept low-interest loans from the State of North Carolina:
4. Provide guidance regarding the financial reserves policy, if desired.



Stephen Winters, CPA
Director of Finance and Customer Service

Attachments: Attachment 1, Table 1 – Draft FY 2018 Operating Budget
Attachment 2, Table 1 – Draft FY 2018 CIP Budget
Attachment 2, Table 2 – Draft FY 2018-22 CIP Budget
Attachment 3 – Draft Schedule of Rates, Fees and Charges

DRAFT FY 2018 - 2022 CIP

Required project or project underway

CIP No.	Project Name	FY '18 Funding	Comment
270-04	Jordan Lake Raw Water Supply Allocation	\$ 5,000	ongoing required payment
270-09	Stone Quarry Reservoir Development	\$ 15,000	ongoing required payment
270-26	Cane Creek Permanganate Facility	\$ 20,000	Completion of construction started in FY '17
272-14	Water Facility Security Upgrades	\$ 110,000	Completion of construction started in FY '17
272-21	WTP Switchgear Upgrade	\$ 60,000	Completion of construction to be awarded in FY '17
272-34	WTP Generator Building Louver Replacement	\$ 105,000	Completion of construction to be awarded in FY '17
272-38	WTP Sedimentation Basin Rehabilitation	\$ 182,000	Study underway; funds are for initiation of detailed design
272-39	Concrete Condition Assessment	\$ 75,000	Condition assessment is underway; funds are for design and construction of priority rehabilitation needs identified by study.
272-40	WTP Filter Media and Backwash Improvements	\$ 880,000	Completion of construction to be awarded in FY '17
275-20	Lake Ellen Water Main Replacement	\$ 160,000	Design is underway; funds are for completion of construction
275-20	Brandywine Road Water Main	\$ 985,000	Completion of construction to be awarded in FY '17
275-46	Dobbins Drive Water Main	\$ 60,000	Study underway; funds are for initiation of detailed design
275-53	Water Distribution System Hydraulic Model	\$ 30,000	Minor modeling assistance periodically required to support CIP project needs
275-76	Advanced Metering Infrastructure (AMI) System	\$ 1,000,000	Funds are for initial implementation/installation efforts for system
275-77	Galvanized Water Main Replacements	\$ 150,000	Funds are for completion of design and start of construction for small water main replacements at multiple locations
275-87	Hillsborough St Water Main Replacement	\$ 800,000	Funds are for completion of construction
276-17	Sanitary Sewer Condition Evaluation	\$ 259,000	Funds are completion of prioritized sanitary sewer inspection (currently underway) and programming of rehabilitation
276-18	Sanitary Sewer Rehabilitation	\$ 990,000	Funds are for ongoing sewer rehabilitation under existing multi-year contract
276-45	Bolinwood Dr Interceptor	\$ 150,000	Completion of construction to be awarded in FY '17
276-47	Little Creek Interceptor	\$ 200,000	Completion of construction started in FY '16
276-48	Dobbins Drive Interceptor	\$ 65,000	Study underway; funds are for initiation of detailed design
276-53	Creek Crossing Access Improvements	\$ 393,000	vehicular creek crossing improvements at several locations; design is nearly complete
276-57	Sanitary Sewer Hydraulic Model	\$ 130,000	Funds for flow monitoring and analysis to verify need and timing of several capacity-based projects
277-24	Eastowne, Eubanks, Meadowmont 1 Pump Station Rehab	\$ 820,000	Completion of construction awarded in FY '17
277-29	Rogerson Drive Force Main Redundancy Evaluation	\$ 45,000	Completion of study commenced in FY '17
277-31	Rogerson Drive Pump Station Rehabilitation	\$ 1,550,000	Completion of construction to be awarded in FY '17
277-37	Knolls Pump Station Rehab	\$ 75,000	Study is underway; funds are for design of recommended improvements
277-38	Rogerson Drive Force Main Emergency Repair and Rehabilitation	\$ 1,200,000	Completion of construction awarded in FY '17
278-46	Comprehensive Coatings Program	\$ 200,000	Corrosion control of key facilities, components and structures (annual program)
278-51	WWTP Solids Thickening Improvements	\$ 450,000	Study is underway; funds are for completion of detailed design
278-52	WWTP Digesters #1 & #2 Rehabilitation	\$ 25,000	Completion of construction started in FY '16
278-54	WWTP IPS Rehabilitation	\$ 535,000	Completion of construction to be awarded in FY '17
278-58	WWTP Non Potable Water Pump Replacements	\$ 120,000	Completion of construction started in FY '17
278-61	WWTP Pavement Improvements	\$ 20,000	Completion of construction to be awarded in FY '17
278-68	Building Envelope Rehabilitation	\$ 250,000	Design is underway; funds are for completion of construction (roof replacements)
278-71	WWTP Main Potable Water Line – Backflow Prevention	\$ 25,000	Completion of construction to be awarded in FY '17
278-72	WWTP Secondary Clarifier Rehab	\$ 150,000	Completion of clarifier rehabilitation and improvements identified by ongoing FY '17 study
278-73	WWTP SCADA System Upgrade	\$ 300,000	Further rollout of system upgrades which were piloted in FY'17
280-06	Administration Building HVAC System Upgrade	\$ 900,000	Commencement of construction to be completed in FY '18 and '19
270-11	University Lake Pump Station Improvements	\$ 65,000	Preliminary engineering study is underway; funds are for completion of detailed design in FY '18
272-35	WTP Flash Mix Basins Isolation Valve Replacement	\$ 25,000	Funds are for preliminary study of alternatives to improve resiliency/redundancy
272-37	Belt Filter Press Rehab	\$ 100,000	Funds are for preliminary study of alternatives and completion of detailed design
272-47	WTP Risk Assessment	\$ 75,000	Analysis of failure modes and risk mitigation measures for plant
272-48	WTP Fluoride System Improvements	\$ 150,000	Completion of capital work as recommended by Action Plan
275-21	High Priority Water Main Replacement	\$ 170,000	Program of ten identified high priority water main replacements, mostly AC pipe and on the eastern side of 640-zone
275-52	Cameron Avenue Water Main	\$ 50,000	FY '18 funds are for updating the alternatives analysis and commencement of detailed design
276-60	Kenan Stadium Interceptor Replacement	\$ 575,000	Reimbursement to UNC for replacement/upsizing of sewer interceptors to be completed by their contractor
277-39	WWPS Rehabilitation and Replacement FY18-20	\$ 90,000	FY '18 funds are for critical safety improvements identified at wastewater pump stations
278-50	WWTP Warehouse	\$ 25,000	FY'18 funds are for a planning/feasibility study
278-78	Digester/Fermenter Rehab and Mixing and Pumping Improvements	\$ 40,000	FY'18 funds are for a planning/feasibility study to evaluate potential digester mixing improvements
278-79	Primary Sludge PS Rehab and Old Lab Building Demo	\$ 50,000	FY '18 funds are for structural evaluation, alternatives analysis, and near-term electrical safety work
278-80	WWTP Rehabilitation and Replacement FY18-20	\$ 125,000	Funds are for initiation of design for chemical building and piping improvements
278-81	WWTP Risk Assessment	\$ 75,000	Analysis of failure modes and risk mitigation measures for plant
280-12	Admin Building LED Lighting Retrofit	\$ 95,000	Funds are for a retrofit of all interior incandescent lighting and fluorescent lighting fixtures at the Administration Building with light emitting diodes.
TOTAL Draft CIP		\$ 15,199,000	

Subtotal - Required Projects and Projects Underway \$ 13,554,000

DRAFT FY 2018 - 2022 CIP

Required project or project underway

CIP No.	Project Name	FY '18 Funding	FY '19 Funding	FY '20 Funding	FY '21 Funding	FY '22 Funding	Total Funding FY '18-'22
270-04	Jordan Lake Raw Water Supply Allocation	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000	\$ 25,000
270-09	Stone Quarry Reservoir Development	\$ 15,000	\$ 15,000	\$ 15,000	\$ 15,000	\$ 300,000	\$ 360,000
270-26	Cane Creek Permanganate Facility	\$ 20,000	\$ -	\$ -	\$ -	\$ -	\$ 20,000
272-14	Water Facility Security Upgrades	\$ 110,000	\$ -	\$ -	\$ -	\$ -	\$ 110,000
272-21	WTP Switchgear Upgrade	\$ 60,000	\$ -	\$ -	\$ -	\$ -	\$ 60,000
272-34	WTP Generator Building Louver Replacement	\$ 105,000	\$ -	\$ -	\$ -	\$ -	\$ 105,000
272-38	WTP Sedimentation Basin Rehabilitation	\$ 182,000	\$ 1,648,000	\$ 1,466,000	\$ -	\$ -	\$ 3,296,000
272-39	Concrete Condition Assessment	\$ 75,000	\$ 200,000	\$ -	\$ -	\$ -	\$ 275,000
272-40	WTP Filter Media and Backwash Improvements	\$ 880,000	\$ 220,000	\$ -	\$ -	\$ -	\$ 1,100,000
275-20	Lake Ellen Water Main Replacement	\$ 160,000	\$ -	\$ -	\$ -	\$ -	\$ 160,000
275-20	Brandywine Road Water Main	\$ 985,000	\$ -	\$ -	\$ -	\$ -	\$ 985,000
275-46	Dobbins Drive Water Main	\$ 60,000	\$ 1,438,000	\$ -	\$ -	\$ -	\$ 1,498,000
275-53	Water Distribution System Hydraulic Model	\$ 30,000	\$ 30,000	\$ 50,000	\$ 150,000	\$ -	\$ 260,000
275-76	Advanced Metering Infrastructure (AMI) System	\$ 1,000,000	\$ 2,500,000	\$ 1,825,000	\$ -	\$ -	\$ 5,325,000
275-77	Galvanized Water Main Replacements	\$ 150,000	\$ 300,000	\$ 300,000	\$ 300,000	\$ -	\$ 1,050,000
275-87	Hillsborough St Water Main Replacement	\$ 800,000	\$ 1,160,000	\$ -	\$ -	\$ -	\$ 1,960,000
276-17	Sanitary Sewer Condition Evaluation	\$ 259,000	\$ 510,000	\$ 744,000	\$ 780,000	\$ 906,000	\$ 3,199,000
276-18	Sanitary Sewer Rehabilitation	\$ 990,000	\$ 2,621,000	\$ 1,436,000	\$ 1,267,000	\$ -	\$ 6,314,000
276-45	Bolinwood Dr Interceptor	\$ 150,000	\$ -	\$ -	\$ -	\$ -	\$ 150,000
276-47	Little Creek Interceptor	\$ 200,000	\$ -	\$ -	\$ -	\$ -	\$ 200,000
276-48	Dobbins Drive Interceptor	\$ 65,000	\$ 1,574,000	\$ -	\$ -	\$ -	\$ 1,639,000
276-53	Creek Crossing Access Improvements	\$ 393,000	\$ -	\$ 250,000	\$ -	\$ -	\$ 643,000
276-57	Sanitary Sewer Hydraulic Model	\$ 130,000	\$ -	\$ -	\$ -	\$ -	\$ 130,000
277-24	Eastowne, Eubanks, Meadowmont 1 Pump Station Rehab	\$ 820,000	\$ -	\$ -	\$ -	\$ -	\$ 820,000
277-29	Rogerson Drive Force Main Redundancy Evaluation	\$ 45,000	\$ -	\$ -	\$ -	\$ -	\$ 45,000
277-31	Rogerson Drive Pump Station Rehabilitation	\$ 1,550,000	\$ 1,300,000	\$ -	\$ -	\$ -	\$ 2,850,000
277-37	Knolls Pump Station Rehab	\$ 75,000	\$ 400,000	\$ -	\$ -	\$ -	\$ 475,000
277-38	Rogerson Drive Force Main Emergency Repair and Rehabilitation	\$ 1,200,000	\$ -	\$ -	\$ -	\$ -	\$ 1,200,000
278-46	Comprehensive Coatings Program	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 200,000	\$ 1,000,000
278-51	WWTP Solids Thickening Improvements	\$ 450,000	\$ 2,300,000	\$ 1,550,000	\$ -	\$ -	\$ 4,300,000
278-52	WWTP Digesters #1 & #2 Rehabilitation	\$ 25,000	\$ -	\$ -	\$ -	\$ -	\$ 25,000
278-54	WWTP IPS Rehabilitation	\$ 535,000	\$ -	\$ -	\$ -	\$ -	\$ 535,000
278-58	WWTP Non Potable Water Pump Replacements	\$ 120,000	\$ -	\$ -	\$ -	\$ -	\$ 120,000
278-61	WWTP Pavement Improvements	\$ 20,000	\$ -	\$ -	\$ -	\$ -	\$ 20,000
278-68	Building Envelope Rehabilitation	\$ 250,000	\$ 75,000	\$ 300,000	\$ 75,000	\$ 300,000	\$ 1,000,000
278-71	WWTP Main Potable Water Line – Backflow Prevention	\$ 25,000	\$ -	\$ -	\$ -	\$ -	\$ 25,000
278-72	WWTP Secondary Clarifier Rehab	\$ 150,000	\$ -	\$ -	\$ -	\$ -	\$ 150,000
278-73	WWTP SCADA System Upgrade	\$ 300,000	\$ -	\$ -	\$ -	\$ -	\$ 300,000
280-06	Administration Building HVAC System Upgrade	\$ 900,000	\$ 1,050,000	\$ -	\$ -	\$ -	\$ 1,950,000
270-11	University Lake Pump Station Improvements	\$ 65,000	\$ 700,000	\$ -	\$ -	\$ -	\$ 765,000
270-16	Cane Creek Pumping Improvements	\$ -	\$ 100,000	\$ 700,000	\$ -	\$ -	\$ 800,000
270-28	University Lake Permanganate Facility	\$ -	\$ 100,000	\$ 1,100,000	\$ -	\$ -	\$ 1,200,000
270-29	University Lake Fishing Pier and Boat Launch	\$ -	\$ 65,000	\$ -	\$ -	\$ -	\$ 65,000
270-30	Cane Creek Dam Spillway Horizontal Caulking	\$ -	\$ 40,000	\$ 250,000	\$ -	\$ -	\$ 290,000
270-31	Cane Creek Resurfacing	\$ -	\$ 70,000	\$ -	\$ -	\$ -	\$ 70,000
271-05	Cane Creek Raw Water Transmission Main Capacity Study	\$ -	\$ 40,000	\$ -	\$ -	\$ -	\$ 40,000
272-10	Water Facility Recapitalization	\$ -	\$ -	\$ -	\$ 2,460,000	\$ 1,979,000	\$ 4,439,000
272-35	WTP Flash Mix Basins Isolation Valve Replacement	\$ 25,000	\$ 70,000	\$ 215,000	\$ -	\$ -	\$ 310,000
272-37	Belt Filter Press Rehab	\$ 100,000	\$ 743,000	\$ -	\$ -	\$ -	\$ 843,000
272-41	WTP Process, Sedimentation Basin, and Pulsator Turbidimeters	\$ -	\$ -	\$ 150,000	\$ -	\$ -	\$ 150,000

DRAFT FY 2018 - 2022 CIP

Required project or project underway

CIP No.	Project Name	FY '18 Funding	FY ' 19 Funding	FY ' 20 Funding	FY ' 21 Funding	FY '22 Funding	Total Funding FY '18-'22
272-42	WTP Finished Water Pump Rehabilitation/Replacement	\$ -	\$ -	\$ -	\$ 125,000	\$ 750,000	\$ 875,000
272-43	WTP Track Vac System Rehab	\$ -	\$ -	\$ 116,000	\$ -	\$ -	\$ 116,000
272-46	WTP Alum Storage and Containment Area	\$ -	\$ 25,000	\$ -	\$ -	\$ -	\$ 25,000
272-47	WTP Risk Assessment	\$ 75,000	\$ -	\$ -	\$ -	\$ -	\$ 75,000
272-48	WTP Fluoride System Improvements	\$ 150,000	\$ -	\$ -	\$ -	\$ -	\$ 150,000
273-09	Barbee Chapel Road Booster Pump Station	\$ -	\$ 75,000	\$ -	\$ -	\$ -	\$ 75,000
275-20	Fordham Service Road (CREW)	\$ -	\$ 150,000	\$ -	\$ -	\$ -	\$ 150,000
275-20	Water Distribution System Recapitalization	\$ -	\$ -	\$ -	\$ 3,463,000	\$ 5,535,000	\$ 8,998,000
275-21	High Priority Water Main Replacement	\$ 170,000	\$ 1,718,000	\$ 3,638,000	\$ 1,452,000	\$ -	\$ 6,978,000
275-52	Cameron Avenue Water Main	\$ 50,000	\$ 1,050,000	\$ 900,000	\$ -	\$ -	\$ 2,000,000
275-67	Operational Evaluation of Future 740-Foot Zone	\$ -	\$ -	\$ 46,000	\$ -	\$ -	\$ 46,000
275-88	Stancell Drive Water Main	\$ -	\$ -	\$ -	\$ -	\$ 75,000	\$ 75,000
275-89	Abandon 6" CI in Main Street	\$ -	\$ 50,000	\$ 200,000	\$ -	\$ -	\$ 250,000
276-01	Bolin Creek Interceptor - Estes to Pathway	\$ -	\$ -	\$ 390,000	\$ 2,200,000	\$ 2,000,000	\$ 4,590,000
276-18	Collection System Recapitalization	\$ -	\$ -	\$ -	\$ -	\$ 1,283,000	\$ 1,283,000
276-46	Willow Drive Interceptor	\$ -	\$ 50,000	\$ 225,000	\$ -	\$ -	\$ 275,000
276-52	Rocky Branch Interceptor Upgrade (Phase 1)	\$ -	\$ 62,000	\$ 706,000	\$ -	\$ -	\$ 768,000
276-58	Prince St common service replacement	\$ -	\$ 30,000	\$ 50,000	\$ -	\$ -	\$ 80,000
276-60	Kenan Stadium Interceptor Replacement	\$ 575,000	\$ -	\$ -	\$ -	\$ -	\$ 575,000
277-01	Pump Station Recapitalization	\$ -	\$ -	\$ -	\$ 326,000	\$ 343,000	\$ 669,000
277-13	Lake Ellen Force Main Replacement	\$ -	\$ 35,000	\$ 100,000	\$ -	\$ -	\$ 135,000
277-21	Force Main Condition Evaluation	\$ -	\$ -	\$ 338,000	\$ -	\$ -	\$ 338,000
277-23	Eubanks Road Force Main	\$ -	\$ -	\$ -	\$ -	\$ 55,000	\$ 55,000
277-39	WWPS Rehabilitation and Replacement FY18-20	\$ 90,000	\$ 105,000	\$ 608,000	\$ -	\$ -	\$ 803,000
278-11	WWTP Recapitalization	\$ -	\$ -	\$ -	\$ 3,774,000	\$ 4,760,000	\$ 8,534,000
278-43	WWTP Biogas-to-Energy Combined Heat and Power	\$ -	\$ 100,000	\$ -	\$ 250,000	\$ 3,000,000	\$ 3,350,000
278-50	WWTP Warehouse	\$ 25,000	\$ 50,000	\$ 450,000	\$ -	\$ -	\$ 525,000
278-75	WWTP Capacity Upgrade	\$ -	\$ -	\$ 100,000	\$ 100,000	\$ -	\$ 200,000
278-77	Bar Screen Rehab	\$ -	\$ 150,000	\$ -	\$ -	\$ -	\$ 150,000
278-78	Digester/Fermenter Rehab and Mixing and Pumping Improvements	\$ 40,000	\$ 35,000	\$ 70,000	\$ 750,000	\$ -	\$ 895,000
278-79	Primary Sludge PS Rehab and Old Lab Building Demo	\$ 50,000	\$ -	\$ -	\$ -	\$ -	\$ 50,000
278-80	WWTP Rehabilitation and Replacement FY18-20	\$ 125,000	\$ 475,000	\$ 300,000	\$ -	\$ -	\$ 900,000
278-81	WWTP Risk Assessment	\$ 75,000	\$ -	\$ -	\$ -	\$ -	\$ 75,000
279-01	Reclaimed Water Rehabilitation	\$ -	\$ -	\$ -	\$ -	\$ 162,000	\$ 162,000
280-09	Administration Building Recapitalization	\$ -	\$ -	\$ -	\$ 186,000	\$ 195,000	\$ 381,000
280-10	Operations Center Recapitalization	\$ -	\$ -	\$ -	\$ 288,000	\$ 303,000	\$ 591,000
280-12	Admin Building LED Lighting Retrofit	\$ 95,000	\$ -	\$ -	\$ -	\$ -	\$ 95,000
280-13	Remodeling of the Men's and Women's Locker Rooms at the	\$ -	\$ 30,000	\$ -	\$ -	\$ -	\$ 30,000
TOTAL Draft CIP		\$ 15,199,000	\$ 23,664,000	\$ 18,793,000	\$ 18,166,000	\$ 22,151,000	\$ 97,973,000

Subtotal - Required Projects and Projects Underway \$ 13,554,000

**ORANGE WATER AND SEWER AUTHORITY
SCHEDULE OF RATES, FEES, AND CHARGES**

APPLICABLE TO ALL BILLINGS AND SERVICES ON AND AFTER OCTOBER 1, 2017

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Background and Authorization

In providing essential public water, sewer and reclaimed water services to Chapel Hill, Carrboro and portions of southern Orange County, Orange Water and Sewer Authority (OWASA) incurs substantial operating and capital expenses. As a community-owned non-profit public utility, OWASA has no authority to levy taxes, nor does it receive tax revenues from local governments for ongoing operations. OWASA finances its water, sewer and reclaimed water operations and extensive capital improvements almost entirely through customer paid fees and charges.

North Carolina G.S. 162A-9 requires that OWASA's "rates, fees and charges shall be fixed and revised so that the revenues of the Authority, together with any other available funds, will be sufficient at all times" to fund operating and maintenance expenses and to pay the principal and interest on all debt issued or assumed by OWASA. OWASA's rates are established under cost-of-service rate-making methodology. OWASA's customers pay for the cost of providing the services and/or facility capacity required to meet customer demand.

The OWASA Board of Directors has determined that the provisions in this Schedule of Rates, Fees, and Charges are necessary to adequately sustain OWASA's near-term and long-range utility operations. Revenues generated by these rate adjustments will provide OWASA with the financial resources necessary to: (1) fund operating costs; (2) adequately maintain existing water, sewer, and reclaimed water facilities; (3) fully comply with increasingly stringent environmental and public health standards; (4) meet debt service requirements; (5) create additional facility capacity to stay abreast of water, reclaimed water and sewer service demand in a growing, dynamic community; and (6) maintain adequate reserves.

The attached Schedule of Rates, Fees, and Charges will replace the schedule adopted on June 9, 2016, which became effective on October 1, 2016.

**ORANGE WATER AND SEWER AUTHORITY
SCHEDULE OF RATES, FEES, AND CHARGES**

SECTION I: WATER RATES AND FEES

MONTHLY WATER RATES

Water charges are billed monthly at approximately 30-day intervals. Charges are due upon receipt of the bill, and become delinquent 25 days after the billing date. Monthly water rates consist of two components; a monthly service charge and a commodity (volume) charge.

Water Service Charge No Change

This charge recovers costs related to certain direct and indirect customer service efforts, meter and lateral maintenance, and capital costs associated with supplying water to the customer's property. Applicable to all metered water accounts, independent of the quantity of water consumed, the monthly charge is based on meter size as follows:

Meter Size	Monthly Service Charge
5/8"	\$14.70
3/4" Combination Fire and Domestic Service Meter	\$15.20
1"	\$29.53
1" Combination Fire and Domestic Service Meter	\$30.03
1-1/2"	\$63.86
2"	\$96.38
3"	\$198.22
4"	\$323.58
6"	\$704.66
8"	\$1,002.06

Water Irrigation Service Charge No Change

This charge is calculated to recover certain direct and indirect customer service, meter and lateral maintenance, and capital costs associated with supplying water for irrigation through irrigation-only meters. Applicable to all metered irrigation water accounts, regardless of the quantity of water consumed, the monthly charge is based on meter size as follows:

Meter Size	Monthly Service Charge
5/8"	\$23.54
1"	\$47.05
1-1/2"	\$87.10
2"	\$133.96
3"	\$265.15
4"	\$407.02
6"	\$800.67
8"	\$1,273.30

Monthly service charges for compound meter arrangements are based on the largest meter in the grouping. In addition to the applicable charge for the primary meter, existing OWASA-owned sub-meters

**ORANGE WATER AND SEWER AUTHORITY
SCHEDULE OF RATES, FEES, AND CHARGES**

are billed according to the above schedule. OWASA-owned sub-meters are no longer available and no additional sub-meters will be installed. Meter readings and service charges for first and final bills are prorated based on days of service.

(NOTE: In accordance with State law, all new in-ground irrigation systems installed on lots platted and recorded in the office of the register of deeds in the county or counties in which the real property is located after July 1, 2009 and supplied by a public drinking water system are required to have a separate meter to measure the volume of water used through the irrigation system.)

Water Commodity Charge

This charge recovers the direct and indirect costs of water supply and treatment, water distribution, general administration and capital costs not recovered by the monthly service charge. This charge is applicable to all water accounts based on meter readings of water consumed. When a billing period includes a change in commodity rates, the charges are prorated based on the ratio of days in the billing period at the old and new rates. Metered monthly consumption will be billed in thousand gallon increments rounded down to the nearest thousand gallons. Unbilled consumption due to rounding will be carried forward and billed in the month when the next thousand gallon increment is registered by the meter.

When no meter reading is available due to an inoperative, damaged or inaccessible meter, consumption will be estimated based on prior usage at the location.

Individually Metered Residential Accounts Except Irrigation-only Accounts **No Change**

Individually metered residential accounts will be billed under an increasing block rate structure designed to encourage efficient water use by applying increasing commodity charges (rate per thousand gallons) to incremental increases in water use.

	Volume of Use (Gallons)	Commodity Rate per 1,000 Gallons
Block 1	1,000 to 2,000	\$2.63
Block 2	3,000 to 5,000	\$6.39
Block 3	6,000 to 10,000	\$7.83
Block 4	11,000 to 15,000	\$10.94
Block 5	All use 16,000 and up	\$19.79

Multi-family Master-metered Residential Accounts **No Change**

Multi-family master-metered residential accounts have one (or more) OWASA meter that serves more than one residential dwelling. Examples include apartment complexes, duplexes and condominiums. Multi-family master-metered residential accounts shall be charged the following year-round commodity rate.

\$5.67 per thousand gallons

**ORANGE WATER AND SEWER AUTHORITY
SCHEDULE OF RATES, FEES, AND CHARGES**

Non-residential Accounts Except Irrigation Accounts **No Change**

To achieve demand reduction during peak water use periods, a seasonal conservation rate structure will be applied to all non-residential accounts other than irrigation-only accounts. A reduced water commodity charge is in effect during lower demand months (October through April), and a higher commodity charge is in effect during high demand months (May through September).

Off-peak seasonal rate per 1,000 gallons (October through April)	\$4.16
Peak seasonal rate per 1,000 gallons (May through September)	\$7.91

Irrigation-only Accounts **No Change**

To promote conservation of water used for irrigation and to achieve greater equity between rates for irrigation-only use and irrigation use through a domestic meter, irrigation-only accounts shall be charged the following year-round commodity rate.

\$8.51 per thousand gallons

WATER COMMODITY SURCHARGES APPLICABLE UNDER WATER SHORTAGE
DECLARATION STAGES

Conservation Water Commodity Charges Under Mandatory Water Use Restrictions **No Change**

Water commodity charges will be temporarily increased during periods of declared Water Shortages and mandatory water use restrictions regardless of the time of year. These applicable surcharges are summarized in the following table.

Individually-Metered Residential						Multi-family Master-metered Residential	Non-Residential and Irrigation- Only
Block:	Res. Block 1	Res. Block 2	Res. Block 3	Res. Block 4	Res. Block 5		
Use Level: (gallons)	1,000 to 2,000	3,000 to 5,000	6,000 to 10,000	11,000 to 15,000	16,000 and up		
Stage 1	No surcharge	No surcharge	1.25 times normal Block 3 rate	1.5 times normal Block 4 rate	2 times normal Block 5 rate	1.15 times year- round rate	1.15 times seasonal and irrigation-only rate
Stage 2	No surcharge	1.25 times normal Block 2 rate	1.5 times normal Block 3 rate	2 times normal Block 4 rate	3 times normal Block 5 rate	1.25 times year- round rate	1.25 times seasonal and irrigation-only rate
Stage 3 and Emergency	No surcharge	1.5 times normal Block 2 rate	2 times normal Block 3 rate	3 times normal Block 4 rate	4 times normal Block 5 rate	1.5 times year- round rate	1.5 times seasonal and irrigation- only rate

**ORANGE WATER AND SEWER AUTHORITY
SCHEDULE OF RATES, FEES, AND CHARGES**

INTERLOCAL WATER TRANSFER CHARGES

The purpose of this charge is to recover costs associated with the provision of supplemental water supply under contractual agreement with other water purveyors. The specific rates to be charged will be negotiated with the other party based upon specific conditions using the cost-of-service rate-making approach and approved by OWASA.

TEMPORARY HYDRANT METER CHARGE

Subject to availability, a Customer may obtain a temporary hydrant meter from OWASA for a period of up to 60 days. A customer may submit a written request to use the hydrant meter for one additional 60 day period but granting said request will be subject to availability and is at OWASA’s sole discretion. Service from a fire hydrant is subject to interruption when the hydrant is needed for fire protection, compliance with water conservation standards, and other applicable law. For situations where temporary water service is needed for a period longer than 120 days, the user can purchase a metering device of a size, make and model specified by OWASA. A \$300.00 (**\$320 proposed**) service charge, payable in advance, shall be collected for setting and removing the meter. In addition, a security deposit shall be required in accordance with the following schedule:

Security Deposit
\$1,000

Monthly billings for temporary hydrant meters consist of two charges: (1) a service charge for that size meter, and (2) the seasonal commodity charge, including surcharges where applicable, based on monthly readings of the meter. When the hydrant meter is returned, the security deposit shall be applied to the final bill plus any damages. The Customer is responsible for paying OWASA for damages that exceed the amount of the Security Deposit. Any credit balance will be refunded within thirty (30) days.

WATER AVAILABILITY FEE

Water availability fees are calculated to recover a portion of the capital costs of providing water system facility capacity. The availability fee is applicable to each new connection to a water main, regardless of who may have paid for the installation of the water main to which the connection is to be made. For the purpose of availability fees, customer accounts are divided into three categories: (1) Single-family Residential, (2) Multi-family Residential, Individually- metered; and (3) Non-residential. The Non-residential category includes master-metered multi-family customers and all commercial, University, and other institutional accounts. The use of these categories is justified by distinctive patterns of water and sewer consumption.

Property Description	Current Fee	Proposed Fee
5/8” Meter or 3/4" Combination Fire and Domestic Service, Single-family Residential:		
<1300 square feet	\$1,265	\$1,033
1300-1700 square feet	\$1,545	\$1,207
1701-2400 square feet	\$1,956	\$1,552
2401-3100 square feet	\$3,344	\$2,470

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Property Description	Current Fee	Proposed Fee
3101-3800 square feet	\$4,546	\$3,429
>3800 square feet	\$7,631	\$5,406
1" Meter, Single-Family Residential (all square footages)	\$9,260	\$8,143
5/8" Meter or 3/4" Combination Fire and Domestic Service Meter, Multi-family Residential	\$1,363	\$1,112
5/8" Meter or 3/4" Combination Fire and Domestic Service Meter, Nonresidential*	\$3,704	\$3,255
1" Meter, Multi-Family Residential and Nonresidential*	\$9,260	\$8,143
1-1/2" Meter, Multi-Family Residential and Nonresidential*	\$18,519	\$16,275
2" Meter, Multi-Family Residential and Nonresidential*	\$29,631	\$26,040
3" Meter, Multi-Family Residential and Nonresidential*	\$59,262	\$52,081
4" Meter, Multi-Family Residential and Nonresidential*	\$92,596	\$81,376
6" Meter, Multi-Family Residential and Nonresidential*	\$185,192	\$162,752
8" Meter, Multi-Family Residential and Nonresidential*	\$296,308	\$260,403

* Same fee for Irrigation-Only accounts.

A person or party completing a development or re-development project may be eligible to request and receive a credit on the Water Availability Fees due if their project directly results in the permanent abandonment of previously existing water meters which were connected to residences, buildings or facilities connected to and having a documented demand on the OWASA water system.

If OWASA determines that a credit is due, the amount of the credit shall be based on the current Water Availability Fees that would apply to the size of the water meters that are permanently abandoned as a direct result of the project. However, the credit due shall not exceed the amount of the Water Availability Fees that would otherwise apply to the development or re-development project. Availability Fee credits are not transferrable to any other project or property.

If an existing water meter is removed from service and/or is replaced with a smaller meter, OWASA will not issue any credit or refund to the customer for any previously paid Availability Fees.

WATER SERVICE AND METER INSTALLATION CHARGE

This charge is to recover costs of extending service from the OWASA distribution system to individual properties, and includes the installation of a service connection from the water main to the meter and the setting of the meter to serve the customer's premises, subject to satisfactory easement or license being provided by the applicant. Where a suitable OWASA stub-out for service has been made and is available, the "meter-only" charge shall apply. Customer requested meter/water service relocations shall be performed on a time and materials basis. Complete new and/or additional water service installation and meter-only charges are as follows:

Service Description	Fee	
	Existing	Proposed
Complete Water Service Installation, 5/8" meter	\$3,570	\$3,650
Complete Water Service Installation, 3/4" Combination Fire and Domestic Service Meter	\$3,650	\$3,860

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Service Description	Fee	
	Existing	Proposed
Complete Water Service Installation, 1" meter	\$3,790	\$3,770
Meter Only Installation, 5/8" meter	\$260	\$270
Meter Only Installation, 3/4" Combination Fire and Domestic Service Meter	\$360	\$400
Meter Only Installation, 1" Combination Fire and Domestic Service Meter	\$360	No change
Meter Only Installation, 1" meter	\$360	No change
Meter Only Installation, 1-1/2" meter	\$600	\$810
Meter Only Installation, 1-1/2" Combination Fire and Domestic Service Meter	\$610	\$840
Meter Only Installation, 2" meter	\$790	\$810
Meter Only Installation, 2" Combination Fire and Domestic Service Meter	\$720	\$740
Remote Read Box with 5/8" Detector Meter	\$470	\$420

Complete installation costs are determined on a time and materials basis for 1-1/2 inch and 2-inch meters. For 3-inch and larger meters, the applicant shall be responsible for providing a meter box or vault constructed to OWASA standards. All meters, regardless of size, shall be purchased from OWASA at cost plus 10%. A \$140.00 (**\$110 proposed**) delivery fee for 3-inch and larger meters shall also apply.

A remote read box and 5/8" detector meter shall be required on all private fire protection service connections. The remote read box shall be purchased from OWASA and installed by the applicant. OWASA shall install the 5/8" detector meter at the applicant's expense.

WATER MAIN TAPPING FEE

This charge is for making a tap into an OWASA water main. The tap fee shall be paid in advance of OWASA performing the work, with a minimum of 48 hours advance notice given to OWASA.

The applicant shall be responsible for opening the ditch, providing adequate working clearance at the point of tap, adequately shoring the trench sidewalls, dewatering and such other associated activities as may be needed to provide a suitable and safe condition for OWASA personnel to complete the tap. Additionally, the applicant shall be responsible for providing an appropriate size tapping sleeve and tapping valve, and a backhoe or similar device shall be available on-site for lowering the tapping unit into the ditch line. All permits, bonds and paving shall be the responsibility of the applicant. The charge shall be for time and equipment plus an allowance for overhead, but not less than \$340 (**Proposed \$350**).

The base fee noted above includes one (1) site visit by OWASA to determine if the applicant is ready for OWASA to perform the tap. A re-inspection fee of \$125.00 will be charged for each additional site visit required to determine if the water main is accessible and all required material and safety measures are in place. The tap will not be performed until any applicable reinspection fees are paid in full.

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HYDRAULIC FIRE FLOW TESTING

This charge is calculated to recover the cost of hydrant ‘fire flow’ testing of the water distribution system. Test results provide data to developers and engineers to determine available flows and pressures in the systems they are designing for new developments.

\$290 per test (**\$300 proposed**)

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SECTION II: SEWER RATES AND FEES

MONTHLY SEWER RATES

Sewer charges are billed monthly at approximately 30-day intervals. Charges are due upon receipt of the bill, and become delinquent 25 days after the billing date. Monthly sewer rates consist of two components: a monthly service charge and a sewer commodity (volume) charge.

Sewer Service Charge **No Change**

This charge is calculated to recover the direct and indirect customer service, service and inspection maintenance, and capital costs associated with providing sewer service to the customer's property. Meter readings and service charges for first and final bills are prorated based on days of service. Applicable to all sewer accounts, regardless of whether or not there is a commodity charge, the monthly service charge is based on the size of the meter where sewer usage is measured as follows:

Meter Size	Monthly Service Charge
5/8" or 3/4" Combination Fire and Domestic Service	\$12.00
1"	\$20.61
1-1/2"	\$35.53
2"	\$53.72
3"	\$101.58
4"	\$155.28
6"	\$284.70
8"	\$485.82

The monthly sewer service charge shall apply to any meter(s) used to directly or indirectly measure the volume of wastewater discharged from a customer's premises, regardless of whether the water source to the customer is from OWASA's drinking water and/or reclaimed water system, or a non-OWASA water source including but not limited to harvested rainwater or groundwater.

Sewer Commodity Charge **No Change**

This charge is calculated to recover the remaining direct and indirect costs of wastewater treatment and collection, maintenance, inspection, customer service and administration and sewer capital costs not recovered by the monthly service charge. When a billing period includes a change in commodity rates, the charges are prorated based on the ratio of days in the billing period at the old and new rates. Metered monthly consumption will be billed in thousand gallon increments rounded down to the nearest thousand gallons. Unbilled consumption due to rounding will be carried forward and billed in the month when the next thousand gallon increment is registered by the meter. This charge is applicable to all accounts receiving sewer service based on the water meter reading, sewer meter reading if applicable, or estimated volume of discharge as determined by OWASA.

The sewer commodity charge is applicable to all customers discharging wastewater into the OWASA sewer system, regardless of whether or not that discharge results from the customer's use of OWASA's drinking water or reclaimed water, or their use of a non-OWASA water source, including but not limited to harvested rainwater or groundwater.

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\$6.48 per thousand gallons

Individually-metered residential customers will not be charged for monthly sewer use in excess of 15,000 gallons.

INTERLOCAL WASTEWATER COLLECTION, TREATMENT AND DISPOSAL CHARGES

The purpose of this charge is to recover costs associated with the provision of wastewater collection, treatment and disposal services under contractual agreements with other wastewater service providers. The specific rates to be charged will be negotiated with the other party based upon specific conditions using the cost-of-service rate-making approach and approved by OWASA.

MONTHLY RATES FOR SEWER-ONLY ACCOUNTS

For sewer-only accounts where there is no OWASA meter for directly or indirectly measuring the volume of wastewater discharged by the customer, the monthly sewer service and commodity charges shall be fixed and be the total of:

- (1) a monthly service charge which shall be determined by the water meter size which would be required to supply water service to the property,

plus

- (2) a sewer commodity charge of \$6.48 per 1,000 gallons times the estimated volume of wastewater expected to be discharged by the customer (using national engineering standards as the basis); provided however, that in no case shall the billable quantity be less than 6,000 (4,000 proposed) gallons per month (based on the current average household water use).

For special commercial and industrial customer classifications where the proportion of water consumed to wastewater discharged is extremely large, a metered sewer account may be approved. Metered sewer accounts must also pay the appropriate monthly sewer service charge based on the sewer meter size.

If a customer that has a standard metered water and sewer service (sewer gallons billed are based on the water gallons billed) also discharges wastewater resulting from the use of OWASA reclaimed water, harvested rainwater, groundwater, or sources other than OWASA drinking water, that customer shall be billed a monthly service charge and commodity charges calculated in accordance the *OWASA Rainwater Harvesting Systems Requirements and Charges Policy* for said additional discharge; provided, however, that the minimum threshold for which the charges shall apply is 3,000 gallons per month. For this purpose, such systems serving single-family residential customers are deemed to fall below this threshold, provided there is also a standard metered water and sewer service.

SEWER AVAILABILITY FEE

The purpose of this fee is to recover a portion of the capital costs of providing sewer system facility capacity. The availability fee is applicable to each new connection to a sewer main, regardless of who may have paid for the installation of the main to which the connection is to be made. For the purpose of the availability fee, customer accounts are divided into three categories: (1) Single-family Residential; (2) Multi-family Residential, Individually-metered; and (3) Non-residential. The Non-residential category includes master-metered Multi-family customers plus all other commercial, University, and other

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institutional accounts. The use of these categories is justified by distinctive patterns of water and sewer consumption.

Property Description	Current Fee	Proposed Fee
5/8" Meter or 3/4" Combination Fire and Domestic Service, Single-family Residential:		
<1300 square feet	\$2,938	\$2,829
1301-1700 square feet	\$3,549	\$3,270
1701-2400 square feet	\$3,611	\$3,384
2401-3100 square feet	\$4,425	\$3,859
3101-3800 square feet	\$4,781	\$4,256
>3800 square feet	\$5,431	\$4,541
1" Meter, Single-Family Residential (all square footages)	\$12,301	\$13,088
5/8" Meter or 3/4" Combination Fire and Domestic Service, Multi-family Residential	\$3,183	\$3,064
1" Meter, Multi-Family Residential	\$12,301	\$13,088
5/8" Meter or 3/4" Combination Fire and Domestic Service, Nonresidential	\$6,317	\$6,553
1" Meter, Nonresidential	\$15,792	\$16,392
1-1/2" Meter, Multi-family Residential and Nonresidential	\$31,584	\$32,763
2" Meter, Multi-family Residential and Nonresidential	\$50,535	\$52,421
3" Meter, Multi-family Residential and Nonresidential	\$101,070	\$104,842
4" Meter, Multi-family Residential and Nonresidential	\$157,922	\$163,816
6" Meter, Multi-family Residential and Nonresidential	\$315,844	\$327,632
8" Meter, Multi-family Residential and Nonresidential	\$505,350	\$524,211

In addition to the sewer availability fee, an excess sewer capacity fee of four percent (4%) of the applicable sewer availability fee shall be charged to recover the costs of excess sewer capacity installed in an area covered by an agreement between OWASA and a developer for credit payments to the constructing developer. This fee shall apply to residential and non-residential customers.

A person or party completing a development or re-development project may be eligible to request and receive a credit on the Sewer Availability Fees due if their project directly results in the permanent abandonment of previously existing water meters and sewer services which were connected to residences, buildings or facilities connected to and having a documented demand on the OWASA sanitary sewer system.

If OWASA determines that a credit is due, the amount of the credit shall be based on the current Sewer Availability Fees that would apply to the size water meters that are permanently abandoned as a direct result of the project. However, the credit due shall not exceed the amount of the Sewer Availability Fees that would otherwise apply to the development or re-development project. Availability Fee credits are not transferrable to any other project or property.

If an existing water or sewer meter upon which consumption is based is removed from service and/or is replaced with a smaller meter, OWASA will not issue any credit or refund to the customer for any previously paid Availability Fees.

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SEWER TAP CHARGE No Change

This charge is for making a tap of the applicant's private sewer lateral into the main sewer line or sewer manhole of OWASA. The tap fee must be paid in advance of OWASA performing the work, with a minimum of 48 hours advance notice given to OWASA.

The applicant shall be responsible for opening the ditch, providing adequate working clearance at the point of tap, adequately shoring the trench sidewalls, dewatering and such other associated activities as may be needed to provide a suitable and safe condition for OWASA to connect the service lateral of the applicant into the facilities of OWASA. The minimum charge is based on a standard 4" service tap to the OWASA sewer line. All lines 6" in diameter and larger must be tapped into a manhole. All permits, bonds and pavement repairs are the responsibility of the applicant.

The charge shall be for time and equipment plus an allowance for overhead, but not less than \$340.

The base fee noted above includes one (1) site visit by OWASA to determine if the applicant is ready for OWASA to perform the tap. A re-inspection fee of \$125 will be charged for each additional site visit required to determine if the sewer main is accessible and all required material and safety measures are in place. The tap will not be performed until any applicable reinspection fees are paid in full.

HIGH STRENGTH WASTE SURCHARGE No Change

The purpose of this charge is to recover operation and maintenance costs from customers whose wastewater discharge into the system is in excess of certain parameters for normal strength domestic wastewater as determined by OWASA. Based on local sampling and analysis, normal strength domestic wastewater has been determined to have the following pollutant characteristics.

Normal Strength Domestic Wastewater	
Carbonaceous Biochemical Oxygen Demand (CBOD)	205 mg/l
Suspended Solids (SS)	235 mg/l
Ammonia Nitrogen (NH ₃ -N)	25 mg/l
Phosphorus (P)	6.5 mg/l

High Strength Waste Surcharges shall apply at the following rates to all wastes exceeding the above concentrations:

Carbonaceous Biochemical Oxygen Demand (CBOD)	\$0.43 per pound for all CBOD in excess of 205 mg/l
Suspended Solids (SS)	\$0.52 per pound for all SS in excess of 235 mg/l
Ammonia Nitrogen (NH ₃ -N)	\$3.04 per pound for all NH ₃ -N in excess of 25 mg/l
Phosphorus (P)	\$12.26 per pound for all P excess of 6.5 mg/l

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SECTION III: RECLAIMED WATER RATES AND CHARGES

MONTHLY RECLAIMED WATER RATES

Reclaimed water (RCW) charges will be billed monthly at approximately 30-day intervals. Charges are due upon receipt of the bill, and become delinquent 21 days after the original billing date. Monthly reclaimed water rates consist of two components: a monthly service charge and a commodity (volume) charge.

The University of North Carolina at Chapel Hill (UNC) funded the construction of the first phase of the reclaimed water system, and the methodology for determining reclaimed water charges applicable to UNC is stipulated by a contract between OWASA and UNC. For this reason, reclaimed water charges have been established for two major customer classes: UNC uses and non-UNC uses. As determined necessary by OWASA, and in accord with OWASA’s contractual obligations to UNC, reclaimed water service to non-UNC customers may be temporarily interrupted to ensure the UNC’s reclaimed water demand can be met from the facilities and capacity paid for by UNC.

Reclaimed Water Service Charge **No Change**

This fixed monthly charge is calculated to recover direct and indirect costs including but not limited to customer service and billing, meter and lateral maintenance, general and administrative services, and fixed costs associated with supplying reclaimed water to the customer’s property. The Reclaimed Water service charge is applicable to all metered reclaimed water accounts, independent of the quantity of reclaimed water consumed. Meter readings and service charges for first and final bills are prorated based on days of service.

UNC Reclaimed Water Use (covers all UNC reclaimed water uses served by the facilities paid for by UNC) \$24,000 per month.

Non-UNC RCW Customers	
Meter Size	Per Month
5/8”	\$8.37
1”	\$16.74
1.5”	\$30.96
2”	\$47.62

Service charges for non-UNC reclaimed water meters larger than 2” will be determined on a case-by-case basis following an evaluation of the reclaimed water demands of the customer.

Reclaimed Water Commodity Charge **No Change**

This charge is calculated to recover the direct costs for reclaimed water treatment and distribution and all other direct and indirect costs not recovered by fixed monthly service charges. This charge is applicable to all reclaimed water accounts based on meter readings of reclaimed water consumed.

When a billing period includes a change in commodity rates, the charges are prorated based on the ratio of days in the billing period at the old and new rates. Metered monthly consumption will be billed in thousand gallon increments rounded down to the nearest thousand gallons. Unbilled

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consumption due to rounding will be carried forward and billed in the month when the next thousand gallon increment is registered by the meter.

Customer Type	Rate per 1,000 gallons
UNC Accounts	\$0.60
Non-UNC Accounts	\$2.18
Bulk (tanker) Sales	\$0.00

RECLAIMED WATER SERVICE AVAILABILITY AND CONNECTION FEES

Reclaimed Water Availability Fees **No Change**

The purpose of this fee is to recover the capital costs of providing reclaimed water system facility capacity and to fund future expansion of that capacity. Since the University (UNC) has paid to construct the reclaimed water system, UNC will not be required to pay a reclaimed water availability fee for UNC facilities that are connected to and can be served by capacity available in the reclaimed water facilities paid for by the UNC.

Reclaimed water availability fees are applicable to each non-UNC connection to the reclaimed water system, regardless of who may have paid for the installation of the main to which the connection is to be made. Reclaimed water availability fees for non-UNC customers are as follows:

Meter Size	Fee
5/8"	\$1,229
1"	\$3,073
1-1/2"	\$6,146
2"	\$9,833

Reclaimed water availability fees for connections to be served by meters larger than 2 inches shall be determined on a case-by-case basis following an evaluation of the reclaimed water demands of the customer.

Reclaimed Water Service Connection Fees

Reclaimed water service connection fees, including meter installation and meter fees, shall be the same as the fees applicable to potable water system service connections, as specified in Section I of this schedule.

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SECTION IV: MISCELLANEOUS CHARGES

SERVICE INITIATION FEE **No Change**

The purpose of this charge is to defray the labor and administrative costs associated with the establishment of a water and/or sewer account. This includes establishing service and account records for billing and is applicable to all accounts.

\$45 per event
\$80 per event, outside of normal business hours of OWASA

RETURNED CHECK CHARGE **No Change**

Checks or automatic bank drafts made payable to OWASA are accepted as payment on account subject to collection. When a check or bank draft is not honored for payment by the bank or other institution on which it is drawn, a Returned Check Charge will be applied to the customer's account as follows:

Returned Check:	\$25
Dishonored Draft:	\$25

The customer will be notified of the returned check charge and instructed to pay the amount due immediately. Failure to respond within the time allowed will result in disconnection of water service and an additional charge for reconnection. The customer may also be required to pay a security deposit or an additional security deposit.

CHARGE FOR DELINQUENT ACCOUNTS **No Change**

The purpose of this charge is to offset the costs of special handling of delinquent accounts, which may include, but is not limited to, the disconnection and reconnection of service due to nonpayment of the customer's bill. This charge applies to all accounts scheduled for disconnection for nonpayment and is applicable on or after the specified disconnect date, regardless of whether the service was disconnected or not. Reconnection resulting from disconnection due to nonpayment will be made within 24 hours of receipt of full payment of the balance due plus the delinquency charge and applicable security deposit.

\$45 per event, during OWASA's normal business hours
\$80 per event, outside OWASA's normal business hours

CHARGE FOR TEMPORARY DISCONNECTION/SUBSEQUENT RECONNECTION AT CUSTOMER'S REQUEST **No Change**

OWASA customers may request to have their service temporarily disconnected and subsequently reconnected. In emergency conditions, there will be no charge to the customer for this service. Additionally, no more than once in any twelve month period, a customer may request to have their service temporarily disconnected and subsequently reconnected at no charge for routine plumbing system maintenance. For requests to temporarily disconnect and subsequently reconnect service in any situation other than those listed above, the charges listed below will apply.

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The purpose of this charge is to recover the cost to temporarily disconnect and subsequently reconnect water service at the request of a customer. In situations where charges apply, the charge may be waived if the customer provides documentation that a master cutoff valve has been installed within thirty (30) days of the date of the temporary service disconnection.

\$45 per event, during OWASA's normal business hours
\$80 per event, outside OWASA's normal business hours

LATE PAYMENT FEE No Change

This fee is designed to recover a portion of the cost of delinquent payment collection efforts that arise prior to service termination and are not recovered by charges for reconnection of delinquent accounts, and to encourage customers to make timely payments, thereby reducing the overall cost of a delinquent account to the customer base. The late payment fee applies when a customer's account is delinquent as defined above.

Late Payment Fee: For past due balances of \$10.00 or more, \$2.40 plus 0.42% a month (5% APR) of the outstanding balance.

SECURITY DEPOSITS No Change

OWASA requires security deposits from customers to ensure payment of the final bill. To offset administrative costs in handling these monies, no interest is paid on security deposits.

Security deposits shall be required on all accounts other than those of (1) residential customers, whether detached or attached units, who have a satisfactory credit history as determined by a credit check, and (2) local, State and Federal governments or agencies thereof. Security deposits shall be required for accounts other than those in (1) and (2) above and shall be \$50 or \$100 depending on credit worthiness for residential customers. All security deposits must be paid at the time application for service is made and in advance of service initiation.

Any residential customer whose service has been disconnected for non-payment of billing charges twice within a six month period and for whom OWASA does not have a security deposit will be required to pay a \$50 or \$100 deposit depending on credit worthiness prior to reconnection of service.

Non-residential security deposits are required based on credit worthiness and will be computed as one or two times the average monthly bill of the previous customer at the same location over the past calendar year. If there is no previous customer at the service location, the security deposit will be determined by OWASA based on the best information available, such as OWASA's experience with similar types, sizes, etc. of businesses.

Repeated disconnections will require additional security deposits until the customer has accumulated a security deposit balance, which will cover an average of three months' billing charges.

Security deposits may be refunded upon written request after the customer has established a satisfactory payment history for twelve (12) consecutive months. Otherwise, security deposits will be applied to the final bill when a customer's account is terminated with any remaining balance refunded to the customer.

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BULK WASTEWATER CHARGES No Change

Normal Domestic Septage

The purpose of these charges is to recover the costs associated with the service rendered by OWASA to those customers who discharge normal domestic septic tank wastes into the wastewater treatment facilities of OWASA. Applicable to those customers who have an account established at OWASA's Customer Service Office, charges for handling normal domestic septage will be billed to the customer on a monthly basis. The monthly bill will include two components: (1) an administrative charge for special services required to receive this type waste and rendering the monthly bill; and (2) a charge for the treatment of the septage as determined by OWASA. This charge is calculated as follows:

Administrative Charge	\$30/ trip, plus
Volume Charge and High Strength Surcharge	\$140/ thousand gallons

Other High Strength Waste

Other wastes may be discharged to OWASA's septage facilities only with prior approval by OWASA and upon OWASA's direct inspection of the actual discharge. The costs associated with these services will be as follows:

- NH₃-N = Ammonia Nitrogen
- CBOD = Carbonaceous Biochemical Oxygen Demand
- TSS = Total Suspended Solids
- P = Phosphorus

Administrative Charge of \$30 / trip, plus Volume and High Strength Surcharge calculated as follows:

A + B + C + D + E = Calculated Dollars per Thousand Gallons, where:
A = pounds of NH ₃ -N/thousand gallons in waste x \$3.04/pound
B = pounds of CBOD/thousand gallons in waste x \$0.43/pound
C = pounds of TSS/thousand gallons in waste x \$0.52/pound
D = \$6.48/per 1,000 gallons Sewer Commodity Charge
E = pounds of P/thousand gallons in waste x \$12.26/pound
Waste concentrations shall be determined by OWASA

TANK SALES OR BULK WATER SALES No Change

The purpose of this charge is to recover the labor and administrative costs associated with the supply of bulk quantities of water to tank trucks or trailers from a metering point on the premises of OWASA. Applicable to all tank or bulk water sales, the following charges apply for each loading.

Administrative Charge	\$25 per trip, plus
Commodity Charge	\$6.02 per thousand gallons or portion thereof

Bulk sales are subject to administrative regulations and controls for protection of the wastewater system and efficient operation. Water tank trucks or trailers are only authorized to withdraw water from locations approved by OWASA and for which adequate usage monitoring measures are

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provided. Charges for bulk sales are not subject to seasonal adjustments.

DIRECT SALES OF SUPPLIES

Applicable to the direct sale of supplies from inventory to municipalities or contractors, the supplies will be billed at the most recent cost plus a handling charge of 10%.

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BOAT RENTAL AND LAKE USE FEES No Change

Fees are applicable to all persons using row boats and canoes on University Lake and Cane Creek Reservoir during scheduled hours of operation as established by OWASA. Boat rental and lake user charges are:

OWASA Customers and Orange County Residents	
Charge for each flat-bottomed boat or canoe rental	\$4.50 for one-half day plus the applicable lake use fee for each person
Trolling motor rental	\$15.00 for one-half day
Kayak rental	\$15.00 for one-half day plus the applicable lake use fee for each person
Private Boat Launching Fee	\$3.50 per boat plus the applicable lake use fee for each person
Lake Use Fee, Under 12 Years Old	\$2.00 per person
Lake Use Fee, 12-64 Years	\$4.50 per person
Lake Use Fee, 65 Years and over	No charge

Individual Season Pass	
Boat or canoe rental	\$82.00 per person. Each additional person pays appropriate lake use fee.
Lake Use Pass – Adult	\$46.00
Boat with trolling motor rental	\$163.00 per person. Each additional person pays appropriate lake use fee.

Group Season Pass	
Boat or canoe rental	\$163.00 (maximum of 3 people per pass.) Each additional person pays appropriate lake use fee.
Boat with trolling motor rental	\$245.00 (maximum of 3 people per pass.) Each additional person pays appropriate lake use fee.

For visitors who are not OWASA Customers or Orange County Residents	
Charge for each flat-bottomed boat or canoe rental	\$8.00 for one-half day plus the applicable lake use fee for each person
Trolling motor rental	\$22.00 for one-half day
Kayak rental	\$20.00 for one-half day plus the applicable lake use fee for each person
Private Boat Launching Fee	\$7.00 per boat plus the applicable lake use fee for each person
Lake Use Fee, Under 12 years old	\$2.50 per person
Lake Use Fee, 12-64 Years	\$5.50 per person
Lake Use Fee, 65 Years and over	\$2.50 per person
UNC Men’s Crew Club and Women’s Rowing Team	By agreement between UNC-Chapel Hill and OWASA

**ORANGE WATER AND SEWER AUTHORITY
SCHEDULE OF RATES, FEES, AND CHARGES**

FIELD TEST OF 5/8" METER OR 3/4" COMBINATION FIRE AND DOMESTIC SERVICE METER No Change

Upon a customer's written request, OWASA will conduct a special field test of the customer's 5/8" water meter or 3/4" combination fire and domestic service meter. There will be no charge for testing meters (1) which have not been tested during the past five years, or (2) which are found to be over-registering. Over-registering meters will be replaced by OWASA at no charge to the customer.

If, however, the meter has been tested within the past five years and the results of the meter test indicate proper or under-registering, the customer will be charged \$100 for the meter test.

SHOP TESTING OF METER No Change

Upon a customer's written request, OWASA will conduct a special shop test of water meters that are larger than 3/4 inches. There will be no charge for testing meters (1) which have not been tested during the past five years, or (2) which are found to be over-registering. Over-registering meters will be replaced by OWASA at no charge to the customer.

If, however, the meter has been tested within the past five years and the results of the meter test indicate proper or under-registering, the customer will be charged \$160 for the shop meter test.

FIELD TEST OF LARGE METERS No Change

Upon a customer's written request, OWASA will conduct a special field test of water meters that are larger than 5/8 inches. There will be no charge for testing meters (1) which have not been tested during the past five years, or (2) which are found to be over-registering. Over-registering meters will be replaced by OWASA at no charge to the customer.

If, however, the meter has been tested within the past five years and the results of the meter test indicate proper or under-registering, the customer will be charged a meter test fee based on the actual time and equipment required to complete the field test. This charge shall not be less than \$260.

REINSPECTION FEE No Change

OWASA will initially inspect grease traps, cross connections and water and sewer taps at no cost to the customer. Should a subsequent reinspection be required for any of these fixtures, a \$125 fee will apply to each reinspection.

PLAN REVIEW AND CONSTRUCTION OBSERVATION FEES No Change

The purpose of this charge is to recover the operating cost for providing review of construction plans for the extension of water and sewer facilities. The charge also recovers the operating cost for providing field observation, water sampling, laboratory testing, video inspection, pressure testing, etc. associated with the installation of these facilities. The plan review and construction observation fees are applicable to all extensions of the public water and/or sewer system regardless of the party which may be undertaking the improvements. The fees will be applied separately to water main and sewer main extensions, but in no case shall the fee be less than \$100.

**ORANGE WATER AND SEWER AUTHORITY
SCHEDULE OF RATES, FEES, AND CHARGES**

Service	Water	Sewer
Plan Review	\$3.63/lf	\$3.63/lf
Construction Observation	\$3.69/lf	\$3.69/lf

CHARGES FOR MISCELLANEOUS SERVICES

Charges for miscellaneous services provided by OWASA shall be on a time and materials basis and include out-of-pocket expenses, cost of materials and services supplied by third parties, and overhead. Typical applications would be for repair of damages to water and sewer lines by outside parties, relocation of mains, services and meters, special services for billing information, expenses related to spill containment responses, etc.

TRANSFER OF CHARGES

Any unpaid balance from past due charges for water and/or sewer services of terminated accounts or Charges for Miscellaneous Services will be transferred to any available active account(s) through which the customer is receiving services. The payment status of the active account through which the customer is receiving service will be determined by the payment status of transferred accounts.

OWASA may temporarily withhold service from a customer, or refuse service to a customer when such a customer (including but not limited to individuals, corporations, or partnerships), owes OWASA any past due balance.

Accounts or portions of accounts, including charges for material or damaged property that are disputed and delinquent fees and delinquent assessment charges, may be submitted to the courts by the Executive Director, upon approval by General Counsel, for collection if such amounts do not exceed \$1,500. For amounts exceeding \$1,500, approval of the Board of Directors shall also be required prior to filing an action for collection.

AGENDA ITEM

- **Approach to Advance Employee Compensation Based on Performance**

PURPOSE

- To provide an approach to advance employee compensation based on performance for the Board's consideration.

BACKGROUND

- The purpose of OWASA's compensation program is to attract, retain and motivate employees by offering pay opportunities commensurate with their position's internal and external value.
- The Board agreed on October 31, 2016, that staff will propose a process/approach for the Board's review as it pertains to a majority (~70%) of our employees being below their pay range mid-point.
- On January 12, 2017, the Board agreed to focus in the near term on health insurance and improving pay range progression for employees.

STAFF RECOMMENDATION

- Discuss the proposed approach to advance employee compensation based on performance and provide direction to staff.

April 27, 2017




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: Board of Directors

THROUGH: Ed Kerwin 

FROM: Stephanie S. Glasgow

DATE: April 21, 2017

SUBJECT: Approach to Advance Employee Compensation Based on Performance

Purpose

To provide an approach to advance employee compensation based on performance for the Board's consideration.

Background

The purpose of OWASA's compensation program is to attract, retain and motivate employees by offering pay opportunities commensurate with their position's internal and external value.

On August 31, 2016, the Human Resources (HR) Committee met with staff to prepare for Board discussion of compensation alternatives at the October 31, 2016 Work Session. After discussion, the Board agreed on October 31, 2016, that staff will prepare an employee total benefit data comparison with other benchmark organizations. The Board also agreed that staff will propose a process/approach for the Board's review as it pertains to a majority (~70%) of our employees being below their pay range mid-point.

On January 12, 2017, the Board reviewed and discussed a comparison of benefits provided OWASA employees with ten (10) benchmark organizations. After discussion, the Board agreed on January 12, 2017, to focus in the near term on health insurance and improving pay range progression for employees.

As noted above and as shown on Figure 1 (attached), approximately 70% of our employees are below the mid-point of their pay range. While we have existing practices to bring new employees into the organization at the appropriate position within the pay range based on their years of experience and qualifications, current employees receiving annual increases are moving slowly through their pay ranges. This is the basis for the Board's request to consider an approach to advance employees more quickly through their pay range based on performance.

Approach to Advance Employee Compensation Based on Performance

Employees would move more quickly through their pay range, and therefore be compensated at the market rate for their job performance, if the spread between their annual merit pay increase and the annual cost of labor increase were greater. Conversely, compression between the annual cost of labor increase and the annual merit pay increase necessarily slow the progression of individual employees through their pay range for their salary grades.

For a successfully performing employee starting at the minimum of their pay range, Table 1 shows the pace at which they advance in the pay range depending on the percentage that the annual merit pay increase exceeds the annual cost of labor increase.

Table 1.

Number of Years for Employee Starting at Minimum of Pay Range to Reach Mid-Point of Pay Range	Number of Years for Employee Starting at Minimum of Pay Range to Reach Maximum of Pay Range	Percentage that Annual Merit Pay Increase Exceeds Cost of Labor Adjustment
9	15	2.9%
11	20	2.2%
14	25	1.8%
16	30	1.5%

For example, should the Board decide to target 11 years as the time for an employee starting at the minimum of the pay range to reach the mid-point, the Board would need to approve an annual merit pay increase that exceeded cost of labor increase by 2.2% each year.

Should the Board agree to take such an approach, no change to the existing Board approved Pay Administration Guidelines is needed. Staff would simply provide a cost of labor and merit increase proposal for the Board’s consideration as part of the annual budget cycle to meet the Board’s target for pay progression. The Board is currently scheduled to discuss employee pay increases for Fiscal Year 2018 at the May 11, 2017 Work Session.

Incremental Adjustment for Current Employees

The Board may want to consider one-time or incremental salary adjustments spread over a number of years for current employees who are performing successfully. An approach to accomplish this would be to establish a target where employees should be within their pay range based on the number of years of successful performance in their current position with OWASA and adjust their pay accordingly (in addition to annual merit pay increase).

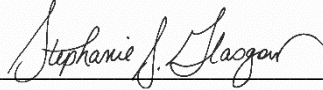
Should the Board be interested in considering such an approach, staff will prepare a specific proposal with options to be reviewed by the Board at a future date. If such an approach is to be considered, we also recommend providing our employees an opportunity to comment on same before the Board makes a decision.

Advance Employee Compensation Based on Performance

April 21, 2017

Page 3

Staff appreciates the Board's work on this important matter and we look forward to your guidance.



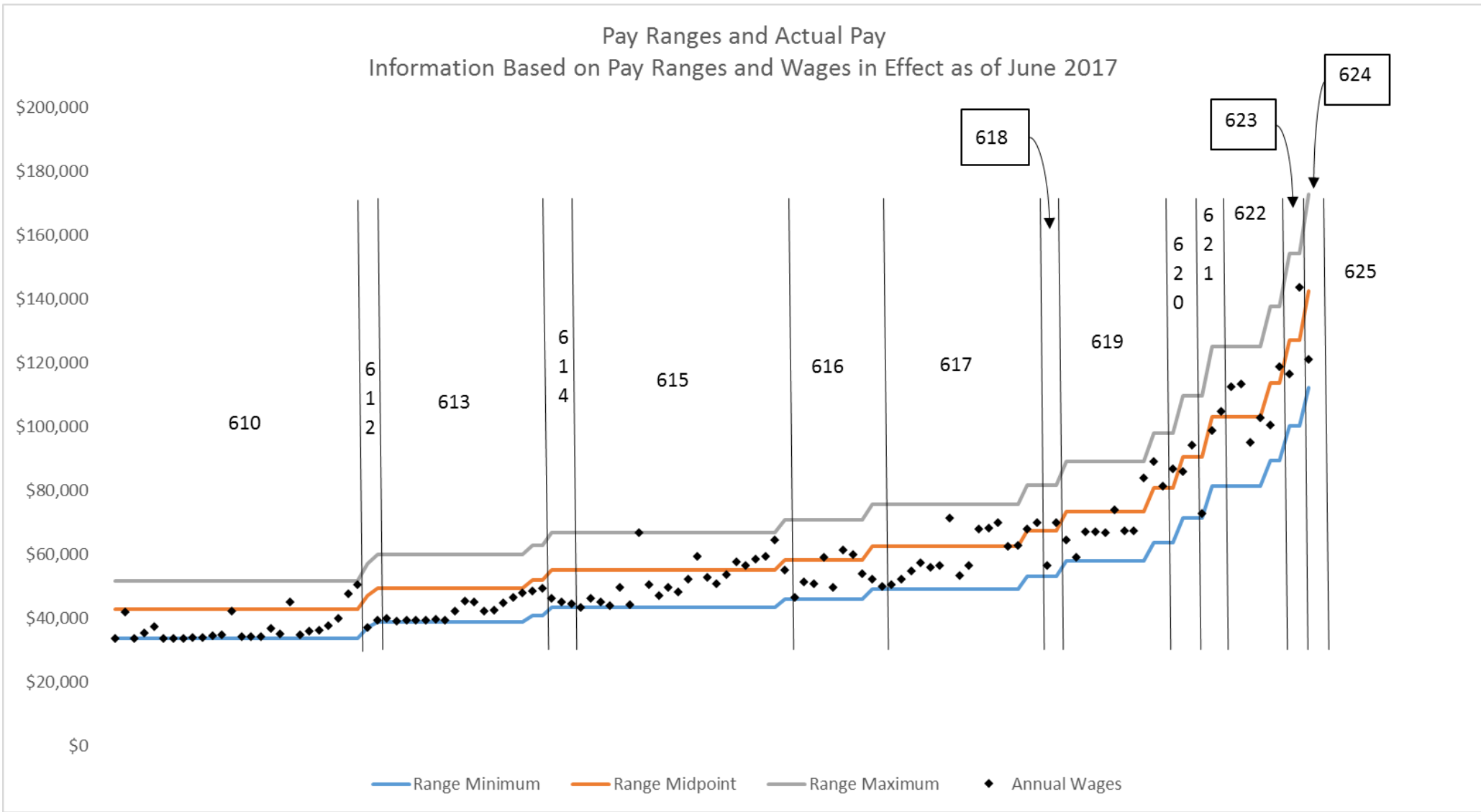
Stephanie S. Glasgow, MESH, MPM, PHR, SHRM-CP
Director of Human Resources and Safety

Attachments:

Figure 1 – Pay Range and Actual Pay in Effect as of June 2017

Figure 2 – Board Approved Increases from Fiscal Year 2012 through Fiscal Year 2017

Figure 1



Board Approved Increases from FY2012 through FY2017

Year	Pay Increases	Salary Range Adjustments
FY 2017	Cost of Labor - 1.5% (“S” and/or “E”) Merit - 1.5% for “S” and 3% for “E”;	1.5%
FY 2016	Merit - 3% for “S” and 6% for “E”	3%
FY 2015	Merit - 2% for “S” and 3% for “E”	1.5%
FY 2014	Cost of Labor - 1% (“S” and/or “E”) Merit - 1.5% for “S” and 3% for “E”	1%
FY 2013	2.5%	No range movement
FY 2012	2.5%	2.1%

Employee Performance Management System

Our performance management system provides four overall ratings for employee performance:

- * Exceptional (approximately 10% of employees maximum)
- * Successful (the majority of employees are rated in this category)
- * Needs Improvement
- * Unsuccessful

Only employees with Exceptional or Successful performance ratings are to receive an increase in compensation. A Performance Improvement Plan will be developed for employees receiving an Unsuccessful rating.

Regarding increases for employees receiving an Exceptional or Successful rating, the Pay Administration Guidelines state that the amount recommended for merit increases for employees receiving Exceptional ratings should receive a percent increase of at least twice the level of the increase for a Successful rating.

AGENDA ITEM

- Opportunities to Improve Strategic Communications During OWASA-Related Emergencies

PURPOSE

- Propose actions to improve strategic communications during OWASA-related emergencies.

BACKGROUND

- OWASA staff provided extensive public communications in response to the water emergency in early February 2017.
- A subsequent After Action Reviewed identified opportunities for improving communications during OWASA-related emergencies.

ACTION NEEDED

- Board review and feedback on the action items.

April 27, 2017



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: Board of Directors
FROM: Ed Kerwin
DATE: April 21, 2017
SUBJECT: Opportunities to Improve Strategic Communications During OWASA-Related Emergencies

Purpose

Propose actions to improve strategic communications during OWASA-related emergencies.

Background

The shut-down of the Jones Ferry Road Water Treatment Plant on Thursday, February 2, 2017, as a result of an overfeed of fluoride triggered a service area-wide public communication campaign (no water with elevated levels of fluoride entered the public drinking water system). OWASA distributed news releases about the event and called for conservation. The subsequent and compounding event of a water main break on the morning of Friday, February 3, 2017 intensified the importance and complexity of the communication campaign. The Orange County Emergency Operations Center (EOC) was immediately activated at OWASA's request and became a critical partner in communicating with the public. Once activated, the EOC assumed the lead role in communicating news regarding the emergency, and OWASA transitioned to a supporting role as the primary information source for key stakeholders and a partner in community-wide messaging.

Beginning on Friday, February 3, 2017, a "Do Not Use, Do Not Drink" directive was in place for about 26 hours for OWASA customers. On Saturday, February 4, 2017, OWASA resumed the primary role in communicating directly with the public about the water emergency after the directive was lifted.

Scope

The Scope of this work is limited to those external strategic communications for which OWASA is solely responsible.

Orange County Emergency Services is facilitating an After Action Review (AAR) with the Town of Chapel Hill, Town of Carrboro, Orange County, the University of North Carolina at Chapel Hill and OWASA regarding community-wide communications during emergencies.

Work on this AAR will likely be assisted by an outside consultant and last several months. A specific scope of work and schedule for this AAR has not yet been established.

Opportunities to Improve Strategic Communications During OWASA-Related Emergencies

Mary Tiger, Sustainability Manager, facilitated an OWASA AAR of strategic communications during the February 2017 water emergency. In addition to OWASA staff, representatives from the Town of Chapel Hill, Orange County and the Orange County Health Department participated.

What went well?

We received a lot of feedback regarding communications of the water emergency, and the feedback was quite diverse. While there were complaints and suggestions for improvement, we also received feedback that communication was effective, transparent, clear, and appropriate in terms of frequency. The following table outlines factors that contributed to successful public communications and suggestions for how we can repeat this success in future events.

Successes	Actions to sustain in the future
<p>Extensive media coverage: By the very nature of the emergency and its impact on the community, media interest was high and served as a valuable resource in getting information out to the community. In some cases, the media were even able to fill information gaps of community importance. For example, we heard accounts that one media outlet created a map of stores where bottled water was available for purchase in the area.</p>	<p>1. Maintain active and responsive relationships with media in non-emergency times. Consider the media a critical communication outlet in times of emergency communication and provide them with the information that they need to accurately inform the public.</p>
<p>Communication network was primed and activated quickly: OWASA has strong relationships with administrators and communication professionals of the Towns, the County, and the University. Through these relationships and previous planning efforts (such as the November 2016 table top demonstration), we were able to quickly set in motion the communication networks and skills of these partners. Furthermore, because we had communicated early with Orange County Emergency Management, the EOC was able to activate quickly.</p>	<p>2. Continue to meet on a regular basis with leadership and communication professionals of the Towns, the County, City Schools and the University to discuss emergency preparedness and response, as well as opportunities to partner on less extreme community communication.</p> <p>3. Actively participate in the AAR being organized by Orange County Emergency Services and take initiative on action items identified in it.</p>

Successes	Actions to sustain in the future
<p>Access to multiple outlets to communicate with the public: Through established use of OC Alerts, Constant Contact, and (to a lesser degree) Twitter, we were ready to distribute necessary messages to a wide breadth of our customer base.</p>	<p>4. Update contacts and maintain communication in these outlets to ensure that they are up-to-date and relevant.</p>
<p>Message consistency: Orange County and OWASA were using the same news releases to communicate to the public, and officials from both organizations stood side-by-side at both press conferences. These helped to ensure consistency of the publicized message. The press conference provided the opportunity to relay a lot of information, directly answer media questions, and show unity in response to the emergency.</p>	<p>5. Continued participation with Orange County, the Towns, the University, and other partners.</p>

What can be improved?

The following are specific areas where we can improve public communications during emergency events and some initial suggestions on how we can better be prepared to do that. Some of these areas were recognized during the emergency, and we adapted our approach during the event. These areas for improvement were also informed by OWASA Board Members and members of our community.

Areas for improvement	Action Items
<p>Provide more situational context: Public communication, particularly on Friday when the “Do Not Use/Do Not Drink” Order was issued, did not provide a great deal of context and actionable information. While, the objective of the succinct communication was to get the message across clearly and concisely, there was no reference for more information. Furthermore, the message was not entirely clear given the prior communication about the onsite fluoride overfeed.</p> <p>As a result, some people did not have information that they needed in order to react appropriately. Some were worried about the gap between when the message was sent and when it was received. (“What happened if I drank the water at noon, but didn’t open the notice that I wasn’t to drink it</p>	<p>6. Communicate the steps (and timing of those steps) that OWASA is taking to inform a decision on a change in status. Although, we could not say with certainty when water service would be restored, we could have clearly identified the steps that we were taking and when we would have information that might change the status.</p> <p>7. Better utilize our website as an informational hub with more context for the public. (On Saturday morning, we began doing this.) This information should include background information on the situation and concrete recommendations on how people should respond. Members of the community requested that sustainability should be</p>

Areas for improvement	Action Items
<p>until 2 p.m.?”). Stores sold out of bottled water because people did not know when they could use water again. Some restaurants told their staff to take all day off on Saturday and were not able to call them back to work when the water was available later that day.</p>	<p>incorporated into recommendations for how people respond (i.e. use of rain barrel to flush toilets, reminder to recycle empty bottles of water, and how to donate unused bottles of water).</p> <p>8. Provide regular “Event Digests” to help call centers and other front-line personnel respond appropriately.</p>
<p>Provide more frequent updates through certain outlets: The internet, social media, and text messaging give us the ability, but also the expectation to provide regular updates to the community. After the press conference on Friday, February 3, we did not provide substantive updates on a regular basis. By Saturday, we were using some outlets to do this (Orange County was using text alerts; we posted more details on our website), but not all. The updates should be thoughtfully considered, so as to prevent desensitization.</p>	<p>9. During the period of high community-impact, provide regular updates, even if the situation has not substantially changed.</p> <p>10. Each release should provide information about when the next release will be issued, even if the situation has not substantially changed.</p>
<p>Ensure communication is coordinated and outlets are functioning correctly: We believe that OC Alerts malfunctioned and attempted to send the same message to a small percentage of individuals more than two times per delivery method. As a result, some people felt barraged with the same message. Furthermore, given the nature of the event and the activation of the EOC, individuals with overlapping networks received the same messages from different sources and through different outlets. Of course, any response to this must be balanced with the need to communicate with everyone.</p>	<p>11. Update staff training on how to use OC Alerts and work with Everbridge to identify and fix what went wrong.</p> <p>12. Actively participate in the AAR being organized by Orange County Emergency Services and pursue strategies to better coordinate communications.</p>
<p>Extend communication networks to reach hard-to-reach customers: Our communication networks and outlets were ill-equipped to comprehensively provide timely information to Non-English-Speaking populations; tenants of multi-family, master metered OWASA</p>	<p>13. Conduct regular audit of contact information in OC Alerts (as well as our billing system): Contact information for some of our customers that had been uploaded from our billing system to OC Alerts was inaccurate or out-of-date.</p>

Areas for improvement	Action Items
<p>customers; and people not “connected” to the internet or TV.</p>	<p>14. Explore and implement how language preferences can be set and utilized on OC Alerts.</p> <p>15. Identify translators for Spanish, Burmese, Karen, and other languages spoken by our customers that are willing to assist an emergency (In collaboration with Orange County to the maximum extent practical).</p>
<p>Identify a strategy for handling increased volume of phone calls: Directly following the news release at 11:30 AM on Friday, February 3, the call volume into OWASA exceeded the number of lines available (25), and callers received busy signals.</p>	<p>16. Investigate alternatives to address high-call volumes, such as:</p> <ul style="list-style-type: none"> – The engagement of an off-site, on-call call center (either a private call center or in a more limited use of the EOC, if possible) – Increased use of social media – Increasing number of phone lines
<p>Proactively prepare the public to respond to a water emergency: Many of our customers were unprepared for a water emergency (i.e. had no back-up water supply).</p>	<p>17. Communicate with public about emergency readiness (e.g. how much bottled water you should have ready at-home).</p>
<p>Make better use of social media: Social media are changing emergency management and communication. It is an active and demonstrated platform for community communication during times of an emergency. Not only can it be used to directly respond to customer questions (live chat-type feature), but it can be used to coordinate and communicate with other jurisdictions. OWASA did not have a strong following on Twitter before the water emergency; we about tripled our number of followers during the water emergency (to more than 1,100).</p>	<p>18. Evaluate expanded use of social media.</p>
<p>More clearly communicate the affected area: There was confusion about the affected area. Some non-OWASA residents of Hillsborough and Orange County were not sure if they could use their water. In part, that could be due to our name (Orange Water and Sewer Authority) and</p>	<p>19. Use maps in communication.</p> <p>20. Evaluate use of interactive map on the website that allows residents to type in their address to see if they’re affected.</p>

Areas for improvement	Action Items
the fact that communications were coming from the Orange County EOC.	
Lack objective way to gauge the effectiveness of public communications during the water emergency: While extensive, the feedback that we received during and directly following the water emergency is not representative of the experiences of our entire service area.	21. In the future, consider use of a community survey to collect more extensive feedback on the effectiveness of public communication during and after the water emergency, as well as to demonstrate OWASA’s commitment to continuous improvement.
Lack internal resources and expertise to effectively manage communications during a large-scale emergency: While existing staff is experienced and capable, a large-scale event such as the February 2017 emergency made it difficult to meet expectations.	22. Identify consultant(s) to assist staff to prepare for and respond to such events. 23. Consider partnership opportunities with other local partners for such consultant services.

Staff Recommendation

Assuming the Board concurs with our comprehensive list of action items, we will develop a specific action plan with target completion dates for each. We will also identify the resources we believe are necessary (internal and external) to fully implement and sustain our strategic communications during OWASA related emergencies.

We expect to have this ready for Board review no later than your June 8, 2017 Work Session.



Ed Kerwin
Executive Director

AGENDA ITEM

- **Financial Report for the Nine Month Period Ended March 31, 2017**

PURPOSE

- To inform the Board of Directors of OWASA's financial performance and fiscal position.

BACKGROUND

- The financial report consists of a Statement of Net Position, an Income Statement that includes a budget to actual comparison, graphical presentations of financial performance indicators and a Financial Management Policy Report Card.
- Highlights of the report include:
 - All financial performance targets were met.
 - Operating Revenues for the period were about \$233,000 or 0.9% over budget.
 - Customer Fees (Service Availability Fees) exceeded budget for the period by approximately \$860,000.
 - Operating Expenses were under budget by about \$27,000.
 - Net Income less Debt Service was 15.5% or roughly \$1.1 million over budget.
 - Capital Improvement Program expenditures were under budget for the nine month period by approximately \$2.9 million.
 - Capital equipment expenditures were about \$107,000 greater than budget for the period.
- A forecast for Fiscal Year 2018 has been included in the financial report memo.

ACTION NEEDED

- Receive and discuss the Financial Report for the nine month period ended March 31, 2017.


April 27, 2017



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: Board of Directors
THROUGH: Ed Kerwin 
FROM: Stephen Winters, CPA
DATE: April 21, 2017
SUBJECT: Financial Report for the nine month period ended March 31, 2017

Purpose

The financial report for the nine month period ended March 31, 2017 is presented to inform the Board of Directors of OWASA's financial position and financial performance in relation to budget.

Contents

- Statement of Net Position
- Income Statement
- Graphs of Key Performance Indicators
- Financial Management Policy Report Card

Fiscal Performance

- As shown on page 10 of the financial report, all financial performance measurement targets were met for the period.
- Average drinking water sales for the period was 6.02 million gallons per day (MGD), 6.14 was projected. Combined drinking and reclaimed water sales for the period averaged 6.61 MGD versus a projection of 6.77.
- Total Operating Revenue was 0.9% or about \$233,000 over budget.
- Revenue from new system connections was over budget by about \$860,000. We budgeted for system growth to be 160, 5/8" meter equivalents for the year; 187 had been set as of the end of March 2017. About \$350,000 of the variance relates to meter sets for CVS Ram's Plaza, AutoZone and Village Plaza; these were originally scheduled for FY 2016 but were delayed until the current year. Additionally, ten large meters were set for which revenue was significantly greater than the "average per-meter equivalent price" used in developing the FY 2017 budget.
- Total operating expenses for the period were 0.2% or about \$27,000 under budget.
 - General and Administrative expenses were under budget by about \$204,000 due primarily to not incurring consulting fees when expected.
 - The Water Supply and Treatment department was over budget by about \$306,000; the variance is made up of a variety of accounts including:
 - Chemicals were over budget by about \$163,000. Our raw water has been unusually

anoxic (depleted of dissolved oxygen) much of the year requiring greater use of chemicals to treat the water. Also higher than normal total organic carbon (TOC) has required higher than expected chemical use.

- Overtime and part time wages were over budget by about \$47,000.
 - Water Distribution expenses were under budget by about \$54,000. OWASA crews performed more construction work during the nine month period than was projected; this resulted in capitalizing \$60,000 (which reduces expenses) more in costs than was budgeted for the period.
 - Wastewater Collection expenses were under budget by about \$82,000. The variance is made up of a variety of accounts including maintenance costs which were about \$39,000 less than projected for the period.
- Net Income less Debt Service for the period was approximately \$1.1 million or 15.5% more than budget.
- As of March 31, capital equipment expenditures were about \$107,000 over the FY 2017 annual budget. As we reported to the Board previously, delivery of equipment (a utility truck, backhoe, and a truck for cleaning sewers) that were scheduled to be purchased in FY 2016 was delayed until FY 2017. Based on the estimated costs of capital equipment remaining to be purchased this year, we project that we will be over budget by approximately \$275,000 for FY 2017. This does not represent over-budget spending. The cost of the items deferred from FY 2016 to FY 2017 is a little over \$280,000.

The FY 2017 Budget will need to be amended to account for these transactions and staff plans to submit a budget amendment for the Board's approval in the agenda for the May 11, 2017 Board meeting.

- The CIP remained active through the third quarter with over 50 ongoing projects; however, progress was slowed due to staff effort related to the February water emergency, incorporation of state loan funding process into project schedules, and most notably, the resignation in March of one of our two Utilities Engineers.

At the close of the third quarter, we are projecting to spend \$9.5 million in FY 2017 for the Capital Improvements Program (CIP), excluding the Rogers Road Sanitary Sewer Extension Project which will be reimbursed by Orange County. This expenditure projection equates to about 70% of budget, and accounts for the successful completion of the Rosemary, Henderson, and Hillsborough Street Water Main Replacement project, as well as both the emergency repair (completed in September) and the expedited project to rehabilitate the Rogerson Drive Force Main. Along with the latter project, the third quarter CIP expenditure projection is highly dependent on the continued progress of several projects either commencing or continuing construction in the final quarter of FY 2017, including Cane Creek Permanganate Facility, Little Creek Interceptor Replacement, Sanitary Sewer Rehabilitation, and the Eastowne, Eubanks, and Meadowmont 1 Pump Station Rehabilitation projects.

FY 2017 Forecast

The following forecast is based on actual financial results through February 28, 2017 plus what we expect to spend for the five-month period from March through June 2017.

	FY 2017 Forecast	FY 2017 Budget	Variance	Percent Variance
	(in thousands)			
Operating revenue	\$35,923	\$35,854	\$69	0.2%
Operating expense	(20,941)	(21,008)	(67)	(0.3)
Non-operating income	1,838	1,011	827	81.8
Debt service	(6,910)	(6,932)	(22)	(0.3)
CIP and capital equipment	(11,121)	(14,875)	3,754	25.2
Net impact on reserves	(1,211)	(5,950)	4,739	79.6
Beginning reserve balance	27,872	27,872		
Projected ending reserve balance	\$26,661	\$21,922		



Stephen Winters, CPA
Director of Finance and Customer Service

Orange Water and Sewer Authority

**Financial Report
For the Nine Month Period Ended
March 31, 2017**

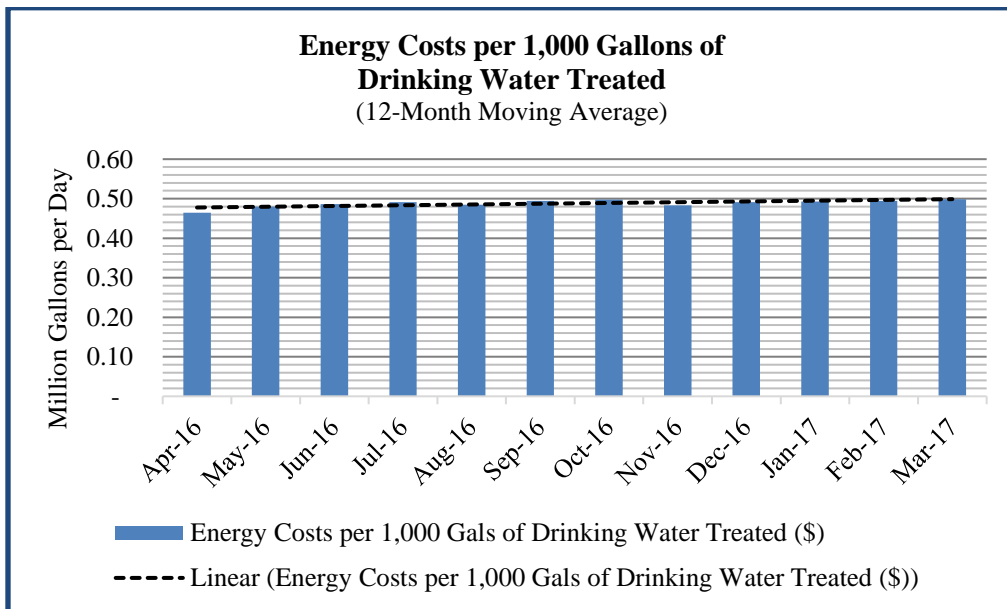
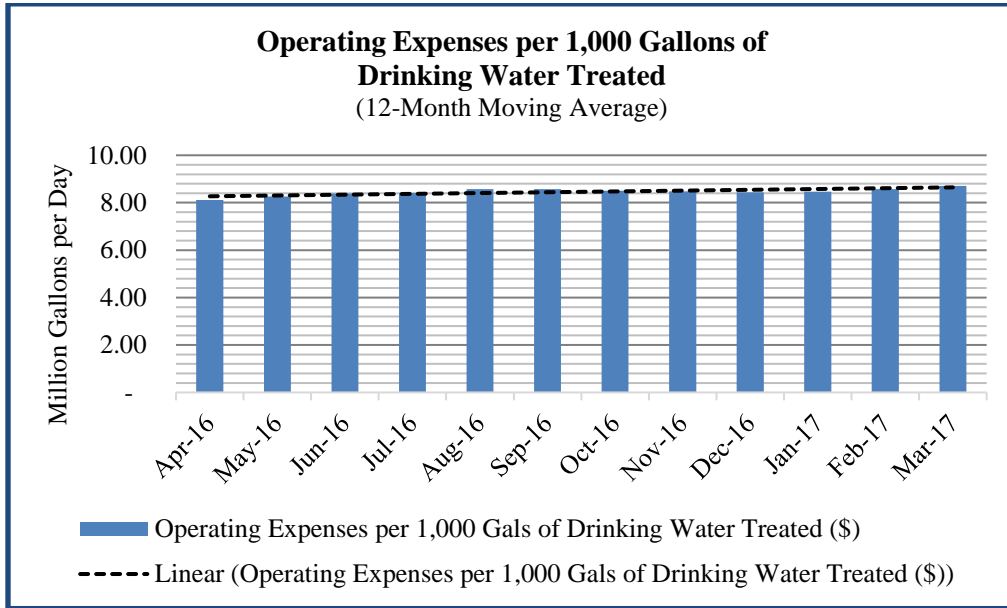
Orange Water and Sewer Authority
Statement of Net Position
March 31, 2017
(unaudited)

Assets	
Current Assets	
Cash	\$28,509,671
Receivables	3,982,507
Inventory	995,386
Prepaid expenses	115,514
Restricted cash	4,199,349
	<hr/>
Total Current Assets	37,802,427
	<hr/>
Noncurrent Assets	
Capital assets (net of depreciation)	264,759,188
Other noncurrent assets	37,704,069
	<hr/>
Total Noncurrent Assets	302,463,257
	<hr/>
Total Assets	\$340,265,684
	<hr/> <hr/>
Liabilities and Net Position	
Current Liabilities	
Accounts payable and accrued expenses	\$1,244,677
Unearned income	268,500
Customer deposits	1,252,603
	<hr/>
Total Current Liabilities	2,765,780
	<hr/>
Noncurrent Liabilities	
Bonds payable	67,739,000
Other noncurrent liabilities	7,657,415
	<hr/>
Total Noncurrent Liabilities	75,396,415
	<hr/>
Net Position	
Contributed capital	115,531,256
Net position at the beginning of the year	140,328,762
Year-to-date accrual basis net income	6,243,471
	<hr/>
Total Liabilities and Net Position	\$340,265,684
	<hr/> <hr/>
Net income reconciliation:	
Accrual basis net income	\$6,243,471
Depreciation, other post-employment benefits, and interest expense	7,169,345
	<hr/>
Modified accrual basis net income	\$13,412,816
	<hr/> <hr/>

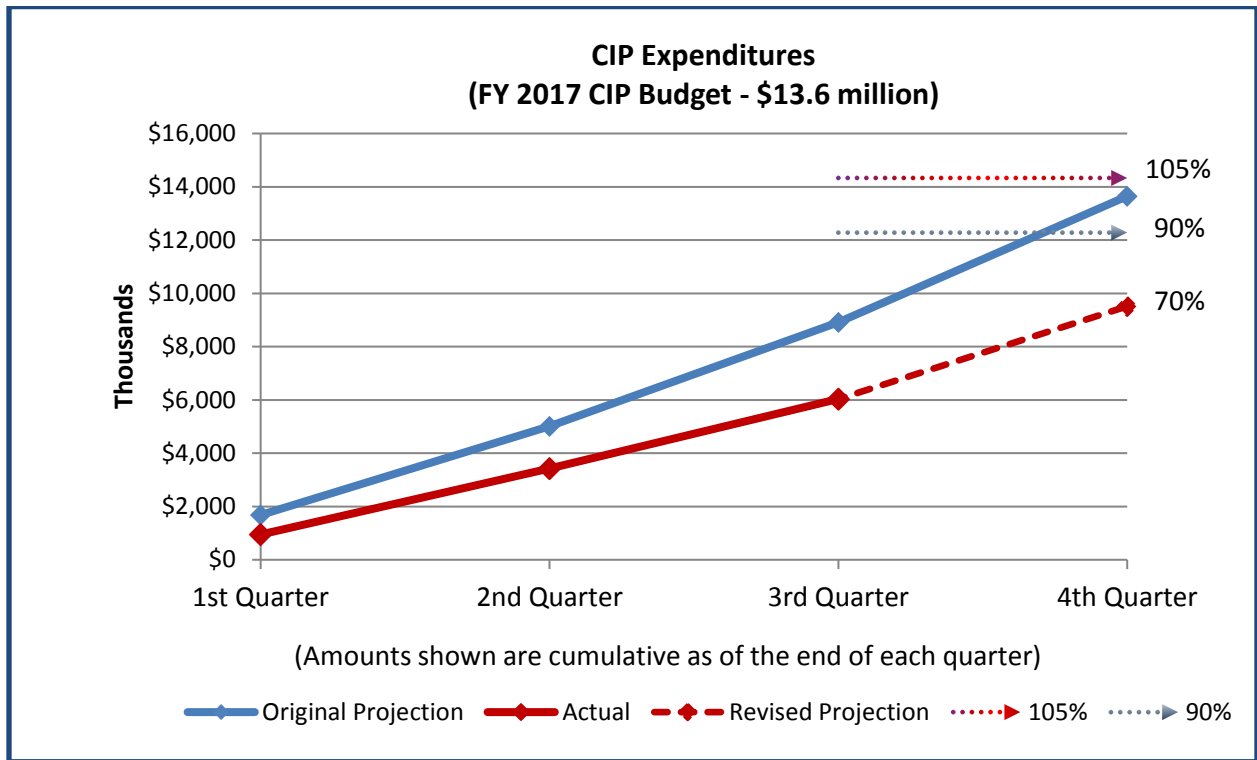
Orange Water and Sewer Authority
Income Statement
For the Nine Month Period Ended March 31, 2017
(unaudited)

	Actual through March 31, 2017	Budget through March 31, 2017	Variance (effect on net change in Fund Balance)	Percent Variance
Operating Revenue:				
Water	\$13,245,114	\$13,245,150	(\$36)	(0.0%)
Sewer	12,583,327	12,417,579	165,748	1.3
Reclaimed Water	312,520	318,679	(6,159)	(1.9)
Service Initiation Fees	113,690	118,818	(5,128)	(4.3)
Other	754,587	794,662	(40,075)	(5.0)
Refunds and Allowances	(125,850)	(244,323)	118,473	48.5
	<hr/>	<hr/>	<hr/>	<hr/>
Total Operating Revenue	26,883,388	26,650,565	232,823	0.9
	<hr/>	<hr/>	<hr/>	<hr/>
Non-operating Income:				
Customer Fees	1,717,650	857,875	859,775	100.2
Interest	19,910	11,034	8,876	80.4
	<hr/>	<hr/>	<hr/>	<hr/>
Total Non-operating Income	1,737,560	868,909	868,651	100.0
	<hr/>	<hr/>	<hr/>	<hr/>
Total Income	28,620,948	27,519,474	1,101,474	4.0
	<hr/>	<hr/>	<hr/>	<hr/>
Operating Expense:				
General and Administrative	4,873,145	5,077,174	204,029	4.0
Water Supply and Treatment	3,860,556	3,554,063	(306,493)	(8.6)
Water Distribution	2,082,178	2,136,480	54,302	2.5
Wastewater Treatment	3,491,784	3,484,891	(6,893)	(0.2)
Wastewater Collection	900,469	982,270	81,801	8.3
	<hr/>	<hr/>	<hr/>	<hr/>
Total Operating Expense	15,208,132	15,234,878	26,746	0.2
	<hr/>	<hr/>	<hr/>	<hr/>
Net Income (modified accrual)	13,412,816	12,284,596	1,128,220	9.2
	<hr/>	<hr/>	<hr/>	<hr/>
Debt Service	4,941,984	4,953,044	11,060	0.2
	<hr/>	<hr/>	<hr/>	<hr/>
Net Income less Debt Service	8,470,832	7,331,552	1,139,280	15.5
	<hr/>	<hr/>	<hr/>	<hr/>
Less: CIP Expenditures	6,036,000	8,910,000	2,874,000	32.3
Capital Equipment	1,334,141	1,227,000	(107,141)	(8.7)
Expenditures	<hr/>	<hr/>	<hr/>	<hr/>
Net Change in Fund Balance	\$1,100,691	(\$2,805,448)	\$3,906,139	
	<hr/> <hr/>	<hr/> <hr/>	<hr/> <hr/>	

Orange Water and Sewer Authority
Select Financial Data
For the Nine Month Period Ended March 31, 2017



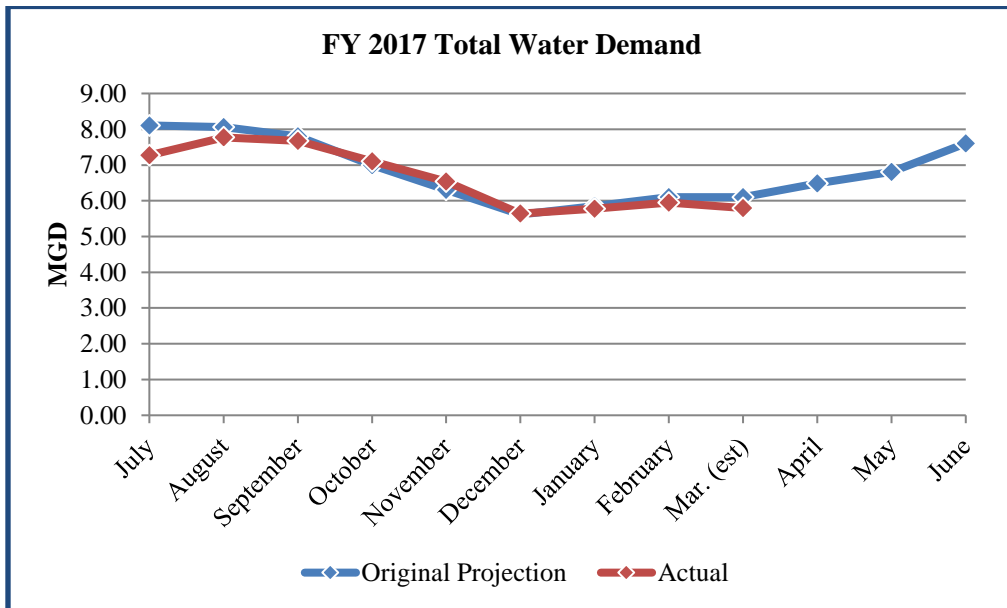
**Orange Water and Sewer Authority
 Select Financial Data
 For the Nine Month Period Ended March 31, 2017**



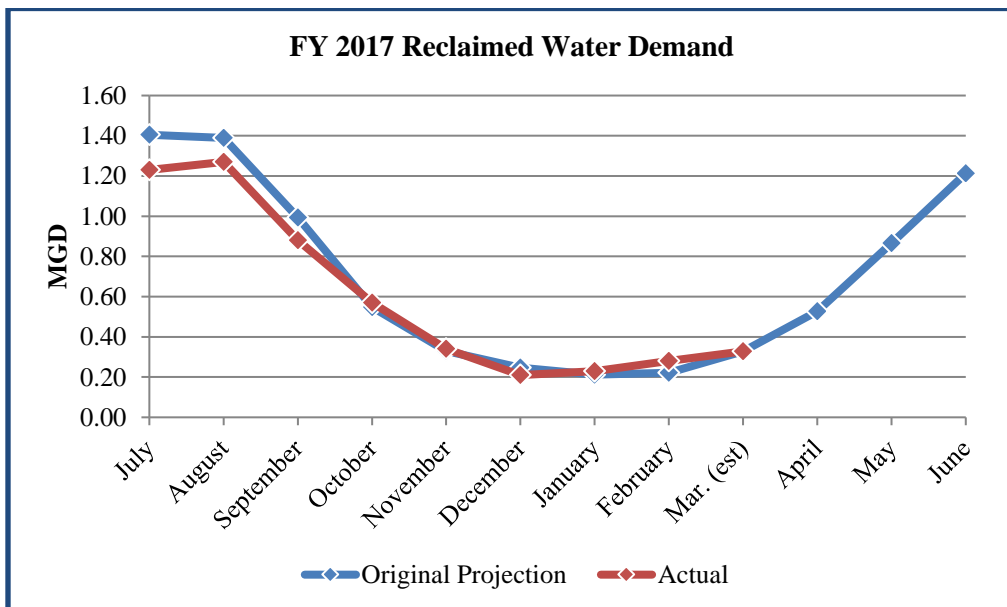
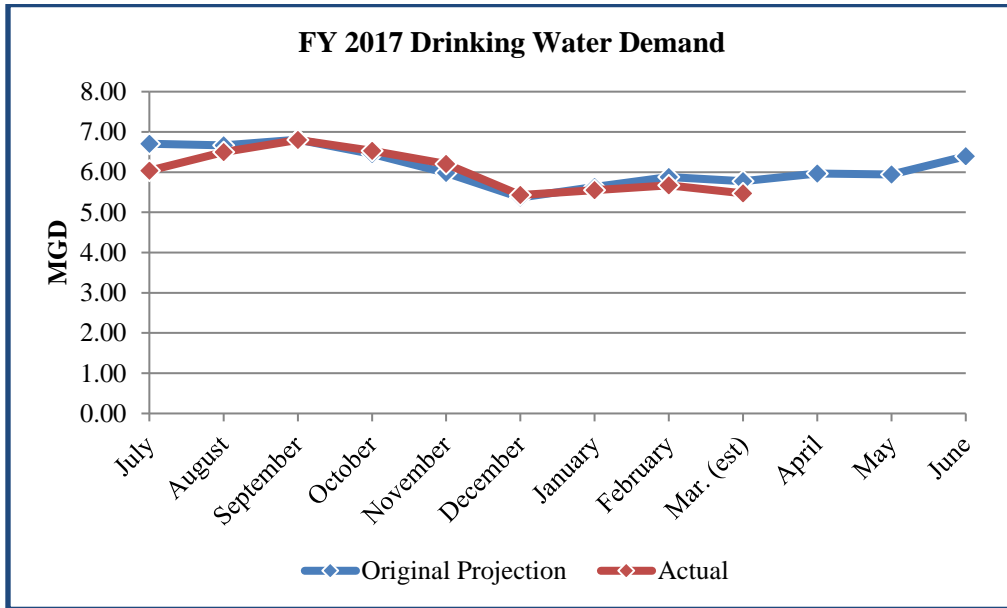
**Orange Water and Sewer Authority
Select Financial Data
For the Nine Month Period Ended March 31, 2017**

FY 2017 Water Sales Projection (Average Day)						
	Original FY 2017 Sales Projections		Actual FY 2017 Water Sales		Revised FY 2017 Sales Projections	
	DW	RCW	DW	RCW	DW	RCW
July	6.70	1.40	6.04	1.23	6.04	1.23
August	6.67	1.39	6.50	1.27	6.50	1.27
September	6.81	0.99	6.80	0.88	6.80	0.88
October	6.45	0.55	6.53	0.57	6.53	0.57
November	5.98	0.33	6.20	0.34	6.20	0.34
December	5.37	0.25	5.43	0.21	5.43	0.21
January	5.63	0.21	5.55	0.23	5.55	0.23
February	5.88	0.22	5.67	0.28	5.67	0.28
March	5.77	0.33	5.47	0.33	5.77	0.33
April	5.96	0.53			5.96	0.53
May	5.94	0.87			5.94	0.87
June	6.39	1.21			6.39	1.21
Average	6.13	0.69	6.02	0.59	6.07	0.66

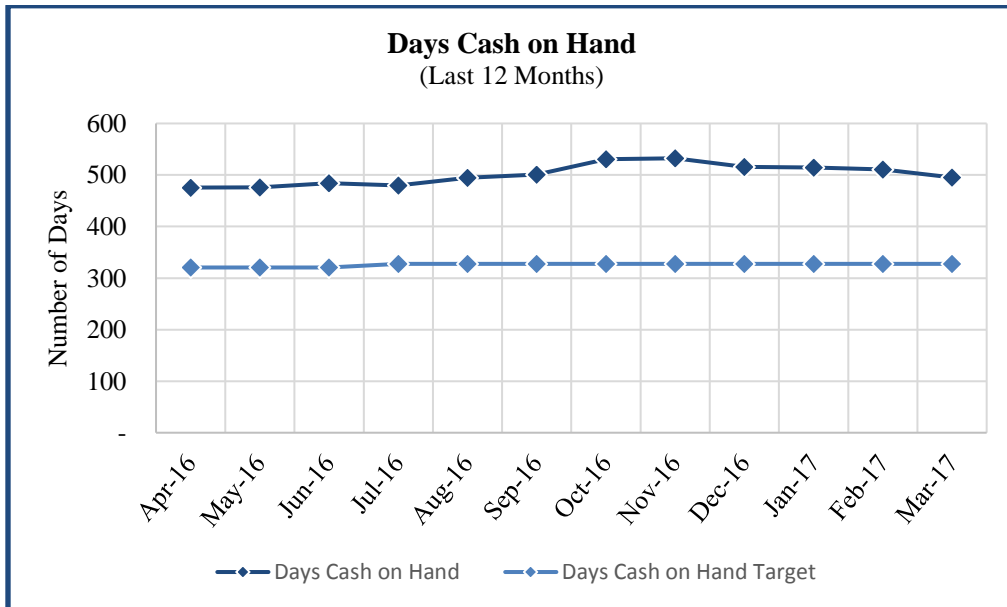
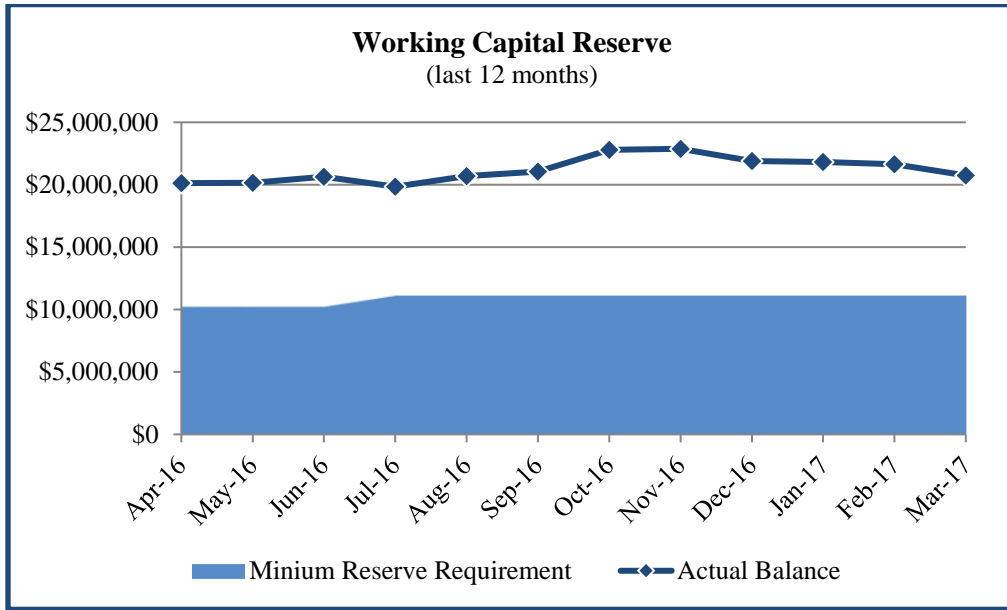
Estimates shown in red



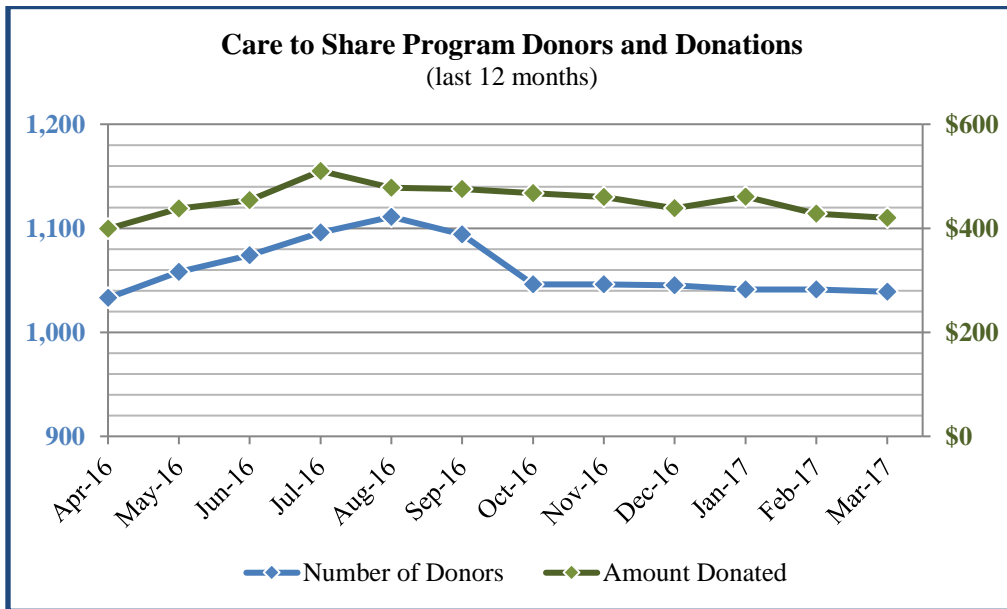
**Orange Water and Sewer Authority
 Select Financial Data
 For the Nine Month Period Ended March 31, 2017**



Orange Water and Sewer Authority
Select Financial Data
For the Nine Month Period Ended March 31, 2017



**Orange Water and Sewer Authority
 Financial Management Policy Report Card
 For the Nine Month Period Ended March 31, 2017**



**Orange Water and Sewer Authority
Financial Management Policy Report Card
For the Nine Month Period Ended March 31, 2017**

Measurement	Objective	FY16 Results	FY17 Goal	YTD FY17 Results
Working Capital Reserves	Greater of four months Operating expenses or 20% of succeeding three years CIP	\$20.6M	\$11.1M	\$20.7M
Capital Improvements Reserve	2% of Net Capital Assets (Funding \$400,000 per year until reach goal of approximately \$6M)	\$2.8M	\$3.2M	\$3.2M
Rate / Revenue Stabilization Reserve	5% of annual Water and Sewer Revenue	\$1.7M	\$1.7M	\$1.7M
Debt Burden to Asset Value	Total Debt not more than 50% of Total Assets	25%	≤ 50%	23%
Sufficiency of Revenues above Debt Requirements ¹	Annual Debt Service no more than 35% of Gross Revenue	23%	≤ 35%	19%
Cash Financing of Capital ³	Annual revenues and reserves provide at least 30% of CIP funding	77%	≥ 30%	54%
Debt Service Coverage Ratio ¹	Annual Net Income not less than two times Annual Debt Service	2.3	2.0	2.2
Service Affordability Ratio ²	Average annual OWASA bill not more than 1.5% of area median household income	1.42%	1.5%	1.35%

M = million

¹ Calculation based on the FY 2017 Annual Budget until full-year results are available.

² FY 2017 Calculation based on median household income of \$62,620 (per 2015 U.S. Census Bureau, American Community Survey, 5-Year Estimates) and average monthly household water use of 4,000 gallons.

³ Cash Financing of Capital based on 5-Year CIP Budget and potential borrowing during the same period.