



# 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, January 26, 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](mailto: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](mailto:aorbich@owasa.org)/400 Jones Ferry Road, Carrboro, NC 27510).

Public speakers are encouraged to organize their remarks for delivery within the four-minute time frame allowed each speaker.

### **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
  - A. Update on the January 26, 2017, Chapel Hill Town Council OWASA Committee and Chapel Hill Appointees to the OWASA Board of Directors Meeting (Jeff Danner)
  - B. OWASA's Annual Update to the Orange County Board of County Commissioners on Tuesday, February 21, 2017, at 7:00 P.M. at Southern Human Services Center (Barbara Foushee)
3. Announcements by Staff

### **Petitions and Requests**

1. Public
2. Board
3. Staff

### **CONSENT AGENDA**

#### **Information and Reports**

1. Capital Improvements Program Semiannual Report (Vishnu Gangadharan)
2. 12 Month Board Meeting Schedule (John Young/Ed Kerwin)

### **Action**

3. Minutes of the January 12, 2017 Work Session of the Board of Directors (Andrea Orbich)

**REGULAR AGENDA**

**Information and Reports**

4. Friends of Bolin Creek Presentation (Julie McClintock, President, Friends of Bolin Creek)
5. 2016 Annual Lakes Recreation Report (Johnny Riley, Kenneth Loflin)
6. Financial Report for the Six-Month Period Ended December 31, 2016 (Stephen Winters)

**Discussion**

7. Scope and Schedule for Evaluating Future Rate Changes (Stephen Winters)

**Summary of Board Meeting Action Items**

8. 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



# ORANGE WATER AND SEWER AUTHORITY

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**TO:** Board of Directors  
**THROUGH:** Ed Kerwin *EKL*  
**FROM:** Vishnu Gangadharan, P.E., PMP  
**DATE:** January 19, 2017  
**SUBJECT:** Capital Improvements Program (CIP) Semiannual Report

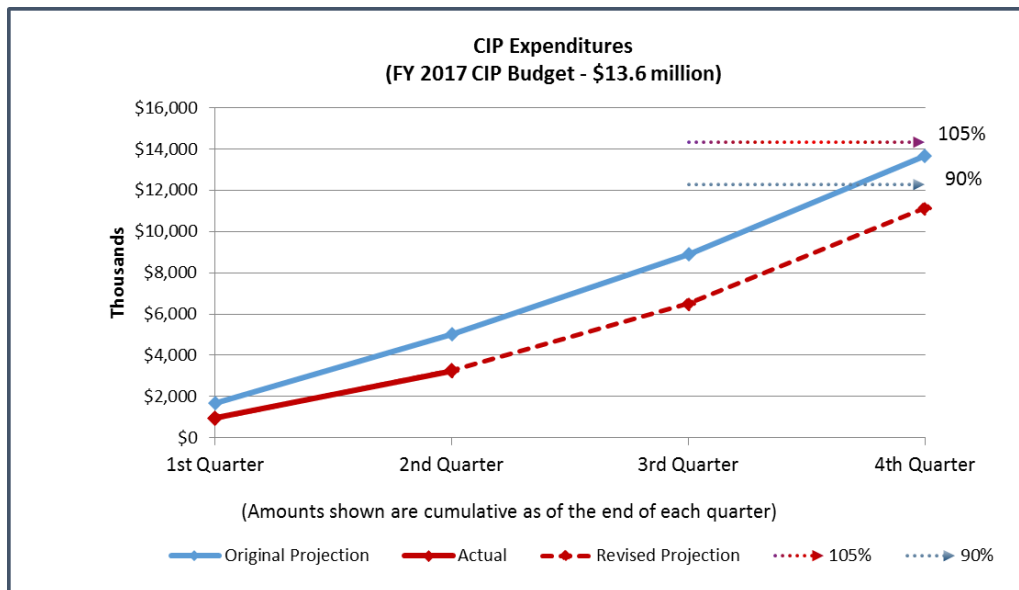
**PURPOSE**

This report summarizes project and program performance for OWASA’s Capital Improvements Program (CIP) for the first two quarters of fiscal year (FY) 2017.

**DISCUSSION**

**Program Summary**

During the first two quarters of FY 2017, approximately \$3.3 million was invested in over 60 CIP projects, including \$1.8 million spent on four ongoing construction projects: the Rosemary Street Water Main Replacement, Little Creek Sewer Interceptor, Comprehensive Coating Rehabilitation, and the Wastewater Treatment Plant Digester #1 and 2 Rehabilitation projects. While FY 2017 expenditures to date represent 24% of the total FY 2017 CIP budget, the current projections indicate that total FY 2017 spending will reach 82% of FY 2017 budget as shown in Figure 1 below. This value is roughly unchanged from the projection provided in the first quarter financial report.



**Figure 1 – FY 2017 CIP Expenditures**

The revised projection (shown in red) lags the original baseline projection (in blue) primarily due to slower than originally projected progress on the Advanced Metering Infrastructure (AMI) and the Administration Building HVAC projects, as well as cost efficiencies expected to be realized on the Sanitary Sewer Rehabilitation, Sanitary Sewer Condition Evaluation, and Bolinwood Drive Interceptor projects.

The revised FY 2017 projection also accounts for the Rogerson Drive Force Main Emergency Repair and Rehabilitation project, a new project added to the CIP as a result of the failure and subsequent inspection and emergency repair of this critical asset in September. Design of the future rehabilitation work is nearly complete, and construction is expected in late spring and summer. Depending on the exact timing of construction, roughly one-quarter to one half of this \$1.1 million project may be complete within FY 2017.

### **Project Performance Summary**

Attachment A includes a summary of project performance for all active projects during this reporting period. Schedule performance is assessed for projects which are far enough along to have a final completion established for the project. Conversely, budget performance is assessed against the budgeted funds for FY 2017. Explanations are provided for any schedule or budget variances indicated by red stoplights.

### **Minority and Women Business Enterprise (MWBE) Participation**

Formal and informal construction contracts awarded during this reporting period included approximately \$315,000 participation by MWBE businesses (or 52% of the total awarded contract value), with 4 out of the 6 awarded contracts meeting the 10% participation goal. The contracts which fell below the goal either provided evidence of Good Faith Efforts to secure MWBE participation or else did not utilize subcontracts on the project.

The five-year averages for the CIP program include 36% MWBE participation on formal and informal contracts, and 55% of awarded contracts meeting the 10% participation goal. A review of contract information available since FY 2014 shows the following MWBE breakdown during that time period (out of total MWBE participation of \$7.0 million): Woman-Owned (88.2%), Hispanic-owned (6.0%), Black/African American-owned (5.5%), Other (0.3%).

Recent MWBE outreach efforts (beyond our standard MWBE advertising practices) have included online postings to MWBE contractors and subcontractors of upcoming capital project contracting opportunities as well as development of an enhanced database of over 200 MWBE subcontractors for use in direct solicitation of specific future opportunities. This spring, in conjunction with the finalization of the FY 2018 CIP, staff will assess the potential interest and value of conducting an informational open house for MWBE businesses.

### **Additional Information**

Customers may visit our website ([www.owasa.org](http://www.owasa.org)) for information about our current major CIP projects and our [FY 2017 - 2021 CIP book](#) which provides additional information about the CIP and projects planned for the next five fiscal years.

The CIP program continues to evolve through the ongoing development and maturation of the Comprehensive Asset Management Program, which provides both the overall framework and various

decision support tools which guide CIP investments. In particular, the Asset Management program is currently providing valuable guidance in the development of the draft FY 2018 – 2022 CIP budget.

Other focal points for the program moving forward include addressing staffing needs; improving various budgeting, project development, and project execution processes; strengthening the coordination efforts with other local agencies; integrating the processes and projects stemming from the Energy Management Program; and further developing our working relationships with the consultant and contractor communities, including MWBE outreach.

Please feel free to contact me at (919) 537-4248 or [vgangadharan@owasa.org](mailto:vgangadharan@owasa.org) if you have any questions regarding the CIP program or projects.



Vishnu Gangadharan, P.E., PMP  
Engineering Manager - Capital Improvements

Attachment – Project Performance Summary Table

**TABLE 1  
PROJECT PERFORMANCE SUMMARY**

<b>CIP No.<sup>1</sup></b>	<b>Project Name</b>	<b>Current Status</b>	<b>FINAL COMPLETION<sup>2</sup></b>	<b>SCHEDULE<sup>3</sup></b>	<b>BUDGET<sup>4</sup></b>	<b>Discussion of budget or schedule variance</b>
270-04	Jordan Lake Raw Water Supply Allocation	n/a	-			
270-09	Stone Quarry Reservoir Development	n/a	-			
270-11	University Lake Pump Station Improvements	Planning	-			
270-26	Cane Creek Permanganate Facility	Construction	Apr-17			
272-10	Water Treatment Plant Hypo Tank Replacement	Complete	May-16			<b>schedule (3 month delay):</b> delays during initiation, design, and procurement
272-14	Water Facility Security Upgrades	Construction	Jun-17			<b>budget (299k vs \$200k):</b> ahead of schedule - will complete some FY 2018 work in FY 2017
272-21	WTP Switchgear Upgrade	Planning	Jun-17			
272-31	Water Treatment Plant and Adjacent Facilities Paving	Planning	May-16			<b>schedule (12 month delay):</b> delays in planning, procurement, weather <b>budget (\$66k vs \$0k):</b> unfunded for FY 2017 (expected completion in FY 2016)
272-32	Water Treatment Plant Spill Containment	Construction	May-16			<b>schedule (10 month delay):</b> delays in planning and procurement <b>budget (\$72k vs \$0k):</b> unfunded for FY 2017 (expected completion in FY 2016)
272-34	WTP Generator Building Louver Replacement	Design	May-17			<b>budget (\$106k vs \$80k):</b> actual construction costs greater than expected
272-36	WTP Lighting Improvements	Complete	Mar-17			
272-38	WTP Sedimentation Basin Rehabilitation	Planning	-			
272-39	Concrete Condition Assessment	Planning	-			
272-40	WTP Filter Media and Backwash Improvements	Design	-			
272-44	WTP Energy Monitors	Construction	Jun-17			<b>budget (\$37k vs \$0k):</b> unfunded Energy Management project for FY 2017
274-13	Nunn Mountain Pump Station Evaluation	Planning	May-16			<b>schedule (10 month delay):</b> additional options generated and evaluated during planning study <b>budget (\$38k vs \$0k):</b> unfunded for FY 2017 (completion expected in FY 2016)
275-15	Water Main - Road Improvement Projects	n/a	-			
275-20	Hilltop Area WM (CREW)	Design	Jun-17			
275-20	Emory Drive WM (CREW)	Complete	Nov-16			
275-20	Fordham Service Road (CREW)	Design	Jun-17			
275-20	Chase Ave WM (CREW)	Complete	Oct-16			<b>budget (\$83k vs \$69k):</b> paving costs greater than anticipated
275-20	Chase Park WM (CREW)	Complete	May-16			<b>budget (\$22k vs \$0k):</b> unfunded for FY 2017 (completion expected in FY 2016)
275-20	Lake Ellen Water Main Replacement	Planning	-			<b>budget (\$45k vs \$0k):</b> unfunded for FY 2017; new project with schedule urgency due to ongoing risk (slope stabilization)
275-20	Brandywine Road WM	Design	Jun-18			<b>budget (\$106k vs \$88k):</b> design costs above expected
275-20	Hillview Rd WM abandonment	Complete	Sep-16			<b>budget (\$67k vs \$0k):</b> unfunded for FY 2017 (completion expected in FY 2016)
275-46	Dobbins Drive Water Main	Planning	Jun-18			
275-53	Water Distribution System Hydraulic Model	Planning	-			<b>budget (\$53k vs \$30k):</b> additional modeling needs identified
275-71	Rosemary, Henderson, and Hillsborough Streets Water Mains	Construction	May-17			
275-73	Distribution System Pressure Monitors	Complete	Sep-16			<b>budget (\$4k vs \$0k):</b> unfunded for FY 2017 (completion expected in FY 2016)
275-76	Advanced Meter Infrastructure (AMI) System	Design	Dec-18			
275-77	West Main Street WM Replacement (CREW)	Complete	Jun-17			
275-77	Andrews Lane WM (CREW)	Complete	Aug-16			
275-77	Galvanized Water Main Replacements	Planning	-			
275-87	Hillsborough St Water Main Replacement	Design	Jun-18			
276-17	Sanitary Sewer Condition Evaluation	Planning	Jun-17			
276-18	Sanitary Sewer Rehabilitation	Construction	Jun-19			

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<b>CIP No.<sup>1</sup></b>	<b>Project Name</b>	<b>Current Status</b>	<b>FINAL COMPLETION<sup>2</sup></b>	<b>SCHEDULE<sup>3</sup></b>	<b>BUDGET<sup>4</sup></b>	<b>Discussion of budget or schedule variance</b>
276-45	Bolinwood Dr Interceptor	Design	Jun-17			
276-47	Little Creek Interceptor	Construction	Dec-16			<b>schedule (4 month delay):</b> site conditions delayed construction progress <b>budget (\$1226k vs \$550k):</b> some FY 2016 scope was instead completed in FY 2017; site conditions required additional measures
276-48	Dobbins Drive Interceptor	Planning	Jun-18			
276-53	Creek Crossing Access Improvements	Design	Jun-18			
276-54	Rogers Road Gravity Sanitary Sewer Extension	Design	Jun-18			
276-57	Sanitary Sewer Hydraulic Model	Planning	Jun-18			
277-24	Eastowne, Eubanks, Meadowmont 1 Pump Station Rehab	Design	Mar-18			
277-29	Rogerson Drive Force Main Redundancy Evaluation	Planning	Jul-17			
277-31	Rogerson Drive Pump Station Rehabilitation	Design	Jun-18			
277-34	Piney Mountain Pump Station Rehabilitation	Complete	Jun-16			<b>budget (\$20k vs \$0k):</b> unfunded for FY 2017 (completion expected in FY 2016)
277-35	Knolls and Manning Pump Station Sitework	Complete	Jun-16			<b>budget (\$7k vs \$0k):</b> unfunded for FY 2017 (completion expected in FY 2016)
277-36	Heritage Hills PS Rehab - Controls	Complete	Mar-16			<b>budget (\$16k vs \$0k):</b> unfunded for FY 2017 (completion expected in FY 2016 - administrative closeout delay)
277-37	Knolls PS Rehab	Planning	-			
277-38	Rogerson Drive Force Main Emergency Repair and Rehabilitation	Design	Sep-17			<b>budget (\$234k vs \$0k):</b> unfunded for FY 2017; new project added due to asset failure and ongoing failure risk (emergency repair and urgent rehab project)
278-46	Comprehensive Coatings Program	Construction	Jun-17			<b>budget (\$451k vs \$300k):</b> additional identified critical needs
278-51	WWTP Gravity Belt Thickener Replacement	Planning	-			
278-52	WWTP Digesters #1 & #2 Rehabilitation	Construction	Jan-17			<b>budget (\$884k vs \$400k):</b> some FY 2016 scope was instead completed in FY 2017; site conditions required additional measures
278-54	WWTP IPS Rehabilitation	Design	-			
278-57	WWTP Stormwater Pump Station Electrical Rehab	Complete	Jun-16			<b>budget (\$77k vs \$50k):</b> some FY 2016 scope was completed in FY 2017
278-58	WWTP Non Potable Water Pump Replacements	Planning	Jun-17			
278-59	WWTP and WW PS LED Lighting Upgrades	Complete	Jun-16			<b>budget (\$23k vs \$0k):</b> unfunded for FY 2017 (completion expected in FY 2016 - administrative closeout delay)
278-61	WWTP Pavement Improvements	Construction	Jun-17			<b>budget (\$8k vs \$0k):</b> unfunded for FY 2017 (completion expected in FY 2016)
278-62	WWTP Administration Building Renovations	Complete	Jun-16			<b>budget (\$30k vs \$0k):</b> unfunded for FY 2017 (completion expected in FY 2016 - administrative closeout delay)
278-66	WWTP Piping Heat Tracing and Insulation	Planning	Feb-17			<b>budget (\$35k vs \$0k):</b> unfunded for FY 2017; new project added with urgency due to failure risk
278-68	Building Envelope Rehabilitation	Planning	-			
278-71	WWTP Main Potable Water Line – Backflow Prevention	Design	Dec-16			<b>schedule (3 month delay):</b> delays during initiation and planning
278-72	WWTP Secondary Clarifier Rehab	Planning	Jun-17			
278-73	WWTP SCADA System Upgrade	Construction	Sep-17			
278-74	WWTP Critical Spare Pumps	Design	Jun-17			
280-06	Administration Building HVAC System Upgrade	Design	Mar-18			

**NOTES:**

1. CIP Project numbers are hyperlinked to description in CIP book where available.
2. Final completion dates typically established following completion of planning phase.
3. Schedule stoplights are red where project is delayed by more than 2 months to scheduled final completion.
4. Budget stoplights are red where projected FY 2017 expenditures are more than 5% above FY 2017 budget.

## OWASA Board of Directors – 12 Month Board Meeting Schedule (January 20, 2017)

Month	Board Meetings		Committee & Other Meetings
	Work Session	Business Meeting	
January 2017	FY 18 Budget Calendar and Assumptions (C) Employee Health and Dental Insurance Update (C) Discuss Employee Benefit Data from Benchmark Organizations Discussion of Board Officers Nomination/ Election Process ED Compensation ED Key Focus Area Performance Document <i>1/12/2017</i>	Scope and Schedule to Evaluate Other Rate Considerations Friends of Bolin Creek Presentation Annual Lakes Recreation Report (regular agenda) (C) Q2 Financial Report (C) CIP Semiannual Report (C) <i>1/26/2017</i>	<i>Chapel Hill OWASA Board Members meet with TOCH OWASA Committee (1-26-2017)</i>
February 2017	<b><i>Discuss AMI Manual Read Option Overview of Land Management</i></b> Discuss draft Diversity and Inclusion Plan Discussion of Board Officers Nomination/ Election Process Award the Gravity Sewer Rehabilitation Contract CS - General Counsel Interim Review (C) <i>2/9/2017</i>	<b><i>Approve AMI Manual Read Option (if needed)</i></b> CY 16 Biosolids Report OWASA turns 40 CS - General Counsel Interim Review (C) <i>2/23/2017</i>	<i>OWASA's Annual Update to the Orange County Board of County Commissioners (2-21-2017)</i>
March 2017	<b><i>Discuss LRWSP – Demands &amp; Yield Discuss Draft Energy Management Plan</i></b> FY 18 Draft Budget & Rates (C) Set date for Public Hearings – FY 18 Budget & Rates (C) Award the Rogerson Drive Force Main Rehabilitation Contract CS – ED Interim Review (C) <i>3/9/2017</i>	<b><i>Approve Energy Management Plan</i></b> FY 18 Draft Budget & Rates (C) CS – ED Interim Review (C) <i>3/23/2017</i>	
April 2017	<b><i>Review AMI System Procurement Contract</i></b> FY 18 Draft Budget, Rates and Reserves (C) Authorize staff to publish proposed rates (C) Appointment of the Nominating Committee (C) Employee Health and Dental Insurance Update Award the Rogerson Drive Pump Station Rehabilitation Contract Award the Eastowne, Eubanks and Meadowmont 1 Pump Station Improvements Contract <i>4/13/2017</i>	<b><i>Approve AMI System Procurement Contract</i></b> (Tentative) Discuss Options to Advance Employee Pay Based on Performance Q3 Financial Report (C) Appoint Audit Firm (C) <i>4/27/2017</i>	<i>40<sup>th</sup> Anniversary Open House at the Cane Creek Reservoir (tentative for 4-8-2017)</i>  <i>40<sup>th</sup> Anniversary Open House at Jones Ferry Road Facilities (tentative for 4-22-2017)</i>
May 2017	Discuss Employee Health and Dental Insurance Renewal (C) Discuss Employee Merit Pay for FY 18 (C) Award the Brandywine Drive Water Main Replacement Contract <i>5/11/2017</i>	Public Hearings – FY 18 Budget and Rates (C) Approve Employee Health and Dental Insurance Renewal (if needed) (C) Award the Water Treatment Plant Filter Media and Backwash Improvements Contract <i>5/25/2017</i>	
June 2017	Approve FY 17 Budget and Rates (C) Approve Employee Merit/Cost of Labor Pay Increases for FY 17 (C) Award the Hillsborough Street Water Main Replacement Contract Discuss KPI Trends Election of Officers (C) <i>6/8/2017</i>	TBD <i>6/22/2017</i>	
July 2017	TBD <i>7/13/2017</i>	TBD <i>7/27/2017</i>	
August 2017	Award the Dobbins Drive Water and Sewer Main Replacement Contract	Preliminary 12 Month Financial Report (C) CIP Semiannual Report (C)	



## OWASA Board of Directors – 12 Month Board Meeting Schedule (January 20, 2017)

	Award the Administration Building HVAC Replacement Contract CS – General Counsel Review 8/10/2017	EEO/Affirmative Action Report CS – General Counsel Review 8/24/2017	( ) ( )
September 2017	CS – ED Review 9/14/2017	Annual Report and Financial Audit Approve General Counsel Engagement CS – ED Review 9/28/2016	( ) ( ) ( )
October 2017	Discussion of impact on MFMM rate change CS – ED Review 10/12/2017	Q1 Financial Report Strategic Trends Report CS – ED Review Update on impact of new MFMM rate change 10/26/2017	( ) ( ) ( ) ( )
November 2017	TBD 11/9/2017	<i>Holiday - no meeting</i>	
December 2017	Discuss KPI Trends 12/14/2017	<i>Holiday - no meeting</i>	

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 (e.g., continuing our comprehensive asset management work).

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 (January 20, 2017)

Abbreviations Used in Draft Schedule:

- ☺ 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

- 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

### Current and Pending Key Projects and Stages

Project	Strategic Initiative	Project Lead	Jan-17	Feb-17	Mar-17	Apr-17	May-17	Jun-16	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
AMI	6	Taylor		Manual Read		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												

<b>Stages</b>	<b>Committee Discussion</b>	<b>Feasibility Study</b>	<b>Board Review</b>	<b>Community Engagement</b>	<b>Action</b>	<b>Procurement</b>	<b>Implementation</b>
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Orange Water and Sewer Authority  
 Work Session of the Board of Directors  
 January 12, 2017

The Board of Directors of the Orange Water and Sewer Authority (OWASA) held a work session on Thursday, January 12, 2017 at 6:00 P.M. in OWASA's Community Room in the Administration Building, 400 Jones Ferry Road, Carrboro.

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

OWASA staff present: Ed Kerwin; Mary Darr; Greg Feller; Stephanie Glasgow; Andrea Orbich; Ruth Rouse; Todd Taylor; Stephen Winters; and Robert Epting, Esq., Epting and Hackney.

Others present: Julie McClintock, President, Friends of Bolin Creek; Margaret Holton, Water, Sewer and Reclaimed Water Coordinator, University of North Carolina at Chapel Hill; and Ellen Tucker, Hill Chesson & Woody.

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

\* \* \* \* \*

#### Motions

1. Robert Morgan made a motion to approve the Minutes of the December 8, 2016 Work Session of the Board of Directors; second by Ruchir Vora and unanimously approved.
2. Robert Morgan made a motion to approve the Minutes of the December 8, 2016 Closed Session of the Board of Directors; second by Ruchir Vora and unanimously approved.
3. Ruchir Vora made a motion that the Board receive a presentation from Friends of Bolin Creek on the January 26, 2017 meeting; second by Jeff Danner and the motion passed with a vote of six to three with Yinka Ayankoya, Terri Buckner and Heather Payne opposed.
4. Robert Morgan made a motion to increase the Executive Director's base pay by 3% effective October 31, 2016; second by Heather Payne and the motion passed with a vote of five to four with Yinka Ayankoya, Terri Buckner, Barbara Foushee and Ruchir Vora opposed.

#### Announcements

John Young said that 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; none were disclosed.

Mr. Young said that without objection, he would like to allow Julie McClintock, President of the Friends of Bolin Creek, to provide information on her request following the consent agenda instead of waiting until agenda item 10; there was no objection.

Ruchir Vora said he would have to leave the meeting at 7:30 P.M., and he did so.

Dave Moreau said he and Ruth Rouse have been invited to participate in the North Carolina Division of Water Resources' Falls and Jordan Rulemaking Stakeholder Group that will provide input to the Environmental Management Commission (EMC) regarding nutrient management strategies for the two reservoirs. He said he will also attend meetings of the advisory group for the University's Collaboratory, which will develop recommendations regarding Jordan Lake water quality.

Ruth Rouse said she attended the EMC's Water Allocation Committee meeting earlier this week and that recommendations regarding Jordan Lake water supply allocations which were to be acted upon in January by EMC have been postponed. Committee members were hopeful that the item would be acted on at the March meetings of their Committee and the EMC.

Ed Kerwin reminded the Board to provide comments on OWASA's draft annual report to local governments by Friday, January 13, 2017.

Item One: Quarterly Report on Attendance at Board and Committee Meetings

The Board accepted the quarterly report on attendance at Board and Committee meetings as an information item.

Item Two: Minutes

Robert Morgan made a motion to approve the Minutes of the December 8, 2016 Work Session of the Board of Directors; second by Ruchir Vora and unanimously approved. Please see Motion No. 1 above.

Item Three: Minutes

Robert Morgan made a motion to approve the Minutes of the December 8, 2016 Closed Session of the Board of Directors; second by Ruchir Vora and unanimously approved. Please see Motion No. 2 above.

Item Four: Approval of Key Focus Areas for OWASA's Executive Director

The Board approved the Key Focus Areas for OWASA's Executive Director.

Item Ten: Review Board Work Schedule (Ms. Julie McClintock's Petition)

The Board agreed to discuss this item sooner so that Ms. McClintock, President of the Friends of Bolin Creek, could provide information on her request.

Ms. McClintock, President of Friends of Bolin Creek, petitioned the Board to allow time on the Board's January 26, 2017, agenda to make a presentation regarding environmental

considerations in planning to replace a sewer along Bolin Creek west of Estes Drive Extension in Chapel Hill.

After discussion, Ruchir Vora made a motion that the Board receive a presentation from Friends of Bolin Creek at the January 26, 2017 meeting; second by Jeff Danner and the motion passed with a vote of six to three with Yinka Ayankoya, Terri Buckner and Heather Payne opposed. Please see Motion No. 3 above.

Item Five: Update on Employee Health and Dental Insurance for Next Fiscal Year

The Board received and discussed a timeline, utilization data and other information related to renewing employee health and dental insurance effective in July 2017. OWASA has engaged a consultant (Hill Chesson & Woody) who will review the insurance cost proposal to be submitted later this year by Blue Cross and Blue Shield of North Carolina.

Item Six: Fiscal Year 2018 Budget Calendar and Assumptions

The Board reviewed the proposed calendar and assumptions and discussed the process for developing OWASA's Fiscal Year 2018 budget and rates.

Item Nine: Compensation for The Executive Director

The Board agreed to discuss this agenda item sooner so that the full Board was in attendance.

Robert Morgan made a motion to increase the Executive Director's base pay by 3% effective October 31, 2016; second by Heather Payne. Terri Buckner stated that she intended to vote against the Motion because she favored across the board lump sum pay increases over percentage-of-pay increases. The motion passed with a vote of five to four with Yinka Ayankoya, Terri Buckner, Barbara Foushee and Ruchir Vora opposed. Please See Motion No. 4 above.

Item Seven: Discuss Employee Benefit Data from Benchmark Organizations

The Board received and discussed staff's research on employee benefits offered by 10 North Carolina cities, towns and counties and water/sewer utilities and agreed to focus on health insurance and pay range progression for employees in the near term.

(Ruchir Vora was excused from the meeting.)

Item Eight: Discussion of Board Officer Nomination and Election Process

Barbara Foushee presented three proposed changes in how board officers (Chair, Vice Chair and Secretary) are nominated and elected. After discussion, the Board agreed that Ms. Foushee will revise the proposals based on the Board's discussion, and that her suggestions will be discussed again at a future meeting.

Item Ten: Review Board Work Schedule

In addition to scheduling the Friends of Bolin Creek presentation on January 26, 2017, the Board agreed to schedule a discussion of Board nomination/election items on February 9, 2017, and reschedule the 2016 Biosolids Management report from February 9<sup>th</sup> to the February 23, 2017 meeting.

Item Eleven: Executive Director's Summary of The Key Staff Action Items from this Work Session

Mr. Kerwin noted that staff will contact Orange County to schedule the presentation of OWASA's annual report to the Board of County Commissioners. Staff will also schedule the next meeting of the Town Council's OWASA Committee and the Chapel Hill appointees to the OWASA Board.

The meeting was adjourned at 8:05 P.M.

Respectfully submitted by:

Andrea Orbich  
Executive Assistant/Clerk to the Board

DRAFT

**AGENDA ITEM**

- **Friends of Bolin Creek Presentation**

**PURPOSE**

- To provide information on environmental considerations in planning the future replacement of a sewer along Bolin Creek between Estes Drive extension and Homestead Road.

**ACTION NEEDED**

- No action need, information item.

January 26, 2017

## Friends of Bolin Creek presentation for OWASA Board of Directors January 26, 2017

Note to OWASA Board:

The purpose of our presentation is to make the Board aware of the treasured nature of Bolin Forest which is visited each week by hundreds of community members and why the planned sewer replacement line could require special approaches to minimize damage.

Our short three-part presentation will contain maps and pictures.

- Introduction to the Bolin Creek forest
- Stream ecology, stormwater, and construction
- Stream buffers: a home for wildlife

I will present the introduction. Michael Paul, stream ecologist, and Mary Sonis, naturalist, will each make a brief presentation.

We will touch on the following:

- Relationship of engineering design choices and water quality
- Tree canopy and wildlife
- Why this particular sewer line project will be particularly challenging because of the current line's proximity to Bolin Creek
- Other options proposed in the consultant's report

Julie McClintock  
For Friends of Bolin Creek

Friends of Bolin Creek [www.bolincreek.org](http://www.bolincreek.org)

Our mission is to advocate for the health of the Bolin Creek Watershed.

*Bolin Creek provides a home for an amazing diversity of creatures, including the rare four toed salamander, both in its waters and in the riparian buffer surrounding it. This stream also feeds into Jordan Lake, which is a water supply for over half a million people. Unfortunately, this wonderful stream is classified as impaired, meaning that it does not pass the standards set by our state for drinkable, fishable waters.*



**AGENDA ITEM**

- **2016 Annual Lakes Recreation Report**

**PURPOSE**

- To provide information about the 2016 lake recreation season including patronage, costs, and revenues.

**BACKGROUND**

- In accord with the Board's direction last year, this report has been included in the regular agenda.
- This report and other agenda information has been distributed by e-mail to more than 80 lake recreation stakeholders.

**ACTION NEEDED**

- Receive and discuss the 2016 Annual Lakes Recreation Report.

January 26, 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:** Kenneth Loflin  
**DATE:** January 10, 2017  
**SUBJECT:** 2016 Lake Recreation Report

### Purpose

To provide information about lake recreation in 2016 including patronage, costs, and revenues.

In accord with the Board's direction, this report is on the regular agenda and public comments are welcome. This report and other agenda information will be distributed by e-mail to more than 80 lake recreation stakeholders.

### Summary

- Overall attendance and revenues increased in 2016 by 5% and 4% respectively.
- As in past years, revenue covered somewhat less than half of costs.
- We recommend continuing the birdwatching program at Cane Creek Reservoir on Wednesday mornings in the off-season.

**Operating Schedule.** During the 2016 lake season (March 26<sup>th</sup> through November 13<sup>th</sup>) University Lake was open Friday, Saturday and Sunday from 6:30 a.m. to 6:00 p.m. Cane Creek Reservoir was open on Friday and Saturday from 6:30 a.m. to 6:00 p.m.

### User Fees

Attachment 1 shows the rates and fees for the 2016 season. Fees have remained unchanged since 2011.



**Cane Creek  
Reservoir**

**Revenue & Attendance**

University Lake generated \$38,450 in total revenue during 2016 (10% increase from the 2015 season). Usage of University Lake during the 2016 season totaled 4,249 visitors (7% increase from the 2015 season).

Average revenue per University Lake visitor in 2016 was \$9.05 (3% increase from the 2015 season). The increases in kayak rentals contribute to the overall increase in revenue this season at University Lake.

In 2016, Cane Creek generated \$30,043 in total revenue (0.6% decrease from the 2015 season).

Cane Creek received 3,268 visitors (0.6% decrease from the 2015 season). Revenue per Cane Creek visitor in 2016 remained the same as 2015 at \$9.19.

A total of \$68,493 was received at the two facilities. (5% more than in 2015 season).



**University Lake**

The table below compares historical daily attendance averages (2004-2015) to the 2016 daily attendance averages for each lake:

**Comparison of Attendance by Day of the Week**

<b>Cane Creek</b>	<b>Friday<sup>1</sup></b>	<b>Saturday</b>
<b>Average 2004-2015</b>	25	63
<b>2016</b>	31	62

<sup>1</sup>Cane Creek closed on Fridays following the 2007 season and reopened in the 2013 season.

<b>University Lake</b>	<b>Friday</b>	<b>Saturday</b>	<b>Sunday</b>
<b>Average 2004-2015</b>	20	50	60
<b>2016</b>	14	47	59

**Kayak Rental**

On April 4, 2014 both lakes began offering kayaks for rent. During the 2015 season revenue from kayak rentals totaled \$7,275. This year, total kayak rental revenue decreased by 10% to \$6,530. University Lake generated the most revenue at \$6,290 while Cane Creek received \$985. Also in 2015, three tandem kayaks were added to the fleet, two were placed at University Lake

and one at Cane Creek. Total revenue from kayak rentals the past three seasons has equaled \$18,060 while the purchase price for our entire fleet was \$7,945.

The table below compares the total revenue from kayak rentals over the past three seasons:

	2014	2015	2016
Cane Creek	\$780	\$985	\$945
University Lake	\$3,475	\$6,290	\$5,585
<b>Total</b>	<b>\$4,255</b>	<b>\$7,275</b>	<b>\$6,530</b>

### **Pier Fishing**

In March of 2014 at Cane Creek, we opened the new fishing pier and it was well received by the patrons. This new pier and the existing one at University Lake are providing an opportunity to patrons that might not otherwise want to or are not able to fish from a boat. We are currently beginning to work again with the North Carolina Wildlife Resources Commission to plan and construct a new and updated fishing pier at University Lake, which will be identical to the one at Cane Creek.



The table below includes pier use information.

	2014	2015	2016
Cane Creek	320	439	491
University Lake	260	244	276

### **Bird watching**

On September 10, 2015, the Board of Directors approved free birdwatching at the Cane Creek Reservoir on Wednesdays between 7:00 and 11:00 AM. During the 2015-16 season (November 11, 2015 to March 23, 2016) the lake received a total of 101 visitors (5 per day average). Since opening on November 16, 2016, a total of 36 visitors have turned out for bird watching, averaging 5 visitors each Wednesday. We recommend continuing this program because the staffing time needed is minimal.

### **Demographics**

As shown in Attachment 3 Exhibit A, the largest segment of visitors at University Lake continues to be Orange County residents (81%), followed by Durham County residents (6%), Chatham Country residents (4%), Alamance County residents (2%), and others (5%).

As shown in Attachment 3 Exhibit B, the largest segment of visitors at Cane Creek Reservoir continues to be Orange County residents (37%), followed by Alamance County residents (15%), Robeson Country residents (11%), Guilford County residents (9%), and others (25%).

### **Expenses versus Revenues**

As shown in Attachment 4 Exhibit B, expenses exceeded revenues by \$73,417 in 2016. Revenues covered about 48% of costs. Labor remains the largest expense in the operation of the lakes. The lakes staff time is allocated to one of five categories: maintenance, recreation activities, security, grounds, and administration. A portion of each of these five categories is considered in the expense of operating the two lakes as public recreation facilities.

Please feel free to contact me with any questions concerning this report or the lake operation.



Kenneth Loflin  
Manager of Water Supply and Treatment

Attachments

## Attachment 1 – Lake Use Fees and Pass Information

### 2015 and 2016 Lake Use Fees

<b>LAKE USE FEES:</b>		<u>2015 Season</u>	<u>2016 Season</u>
Boat Rental Fee	Orange County Resident	\$4.50 <sup>1</sup>	\$4.50 <sup>1</sup>
	Non-county Resident	\$8.00 <sup>1</sup>	\$8.00 <sup>1</sup>
Kayak Rental Fee	Orange County Resident	\$15.00	\$15.00
	Non-county Resident	\$20.00	\$20.00
Private Boat Launch Fee	Orange County Resident	\$3.50	\$3.50
	Non-county Resident	\$7.00	\$7.00
Motor Rental	Orange County Resident	\$15.00	\$15.00
	Non-county Resident	\$22.00	\$22.00
Lake Use Fee	Orange County Resident	\$4.50	\$4.50
	Non-county Resident	\$5.50	\$5.50
	Child (Orange County Resident)	\$2.00	\$2.00
	Senior (OWASA Customer or Orange County Resident)	\$0.00	\$0.00
	Senior or Child (Non-County Resident)	\$2.50	\$2.50

<sup>1</sup> Rental Fee does not include Lake Use Fee

### Season Passes

For the 2016 season, five types of passes were available to Orange County residents. A single boat pass is issued to only one person and includes the boat rental and lake use fee. The group pass is honored for up to four people including the person who is the holder of the pass. The lake use pass is for a single individual and includes the associated lake use fee. The table below shows the fees for the different types of passes.

#### Season Passes

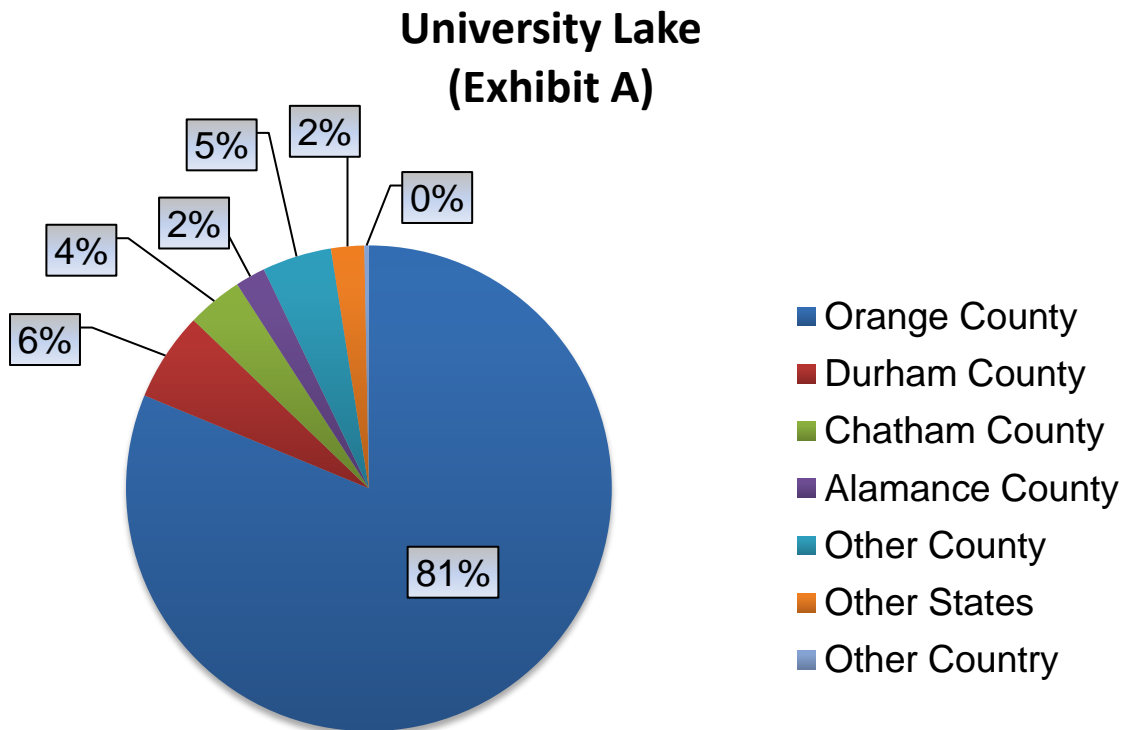
Type of Pass	2016 Cost
Single boat only	\$82.00
Single boat and motor	\$163.00
Group boat only	\$163.00
Group boat and motor	\$245.00
Lake use	\$45.00

## Attachment 2 – Lake Use Fees and Pass Information

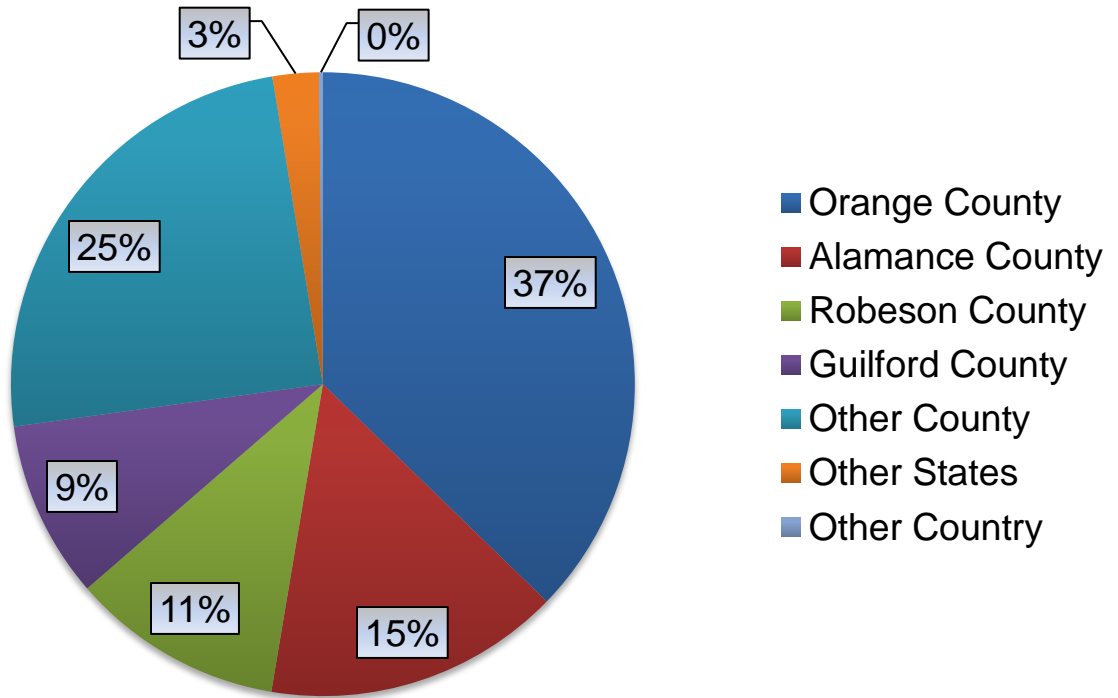
	2012	2013	2014	2015	2016
Single boat only	9	16	10	30	21
Single boat and motor	2	0	1	3	3
Group boat only	2	3	3	3	5
Group boat and motor	2	0	2	1	0
Lake Use	1	0	3	0	1
<b>TOTAL</b>	16	19	19	37	30

Overall a total of 30 passes were sold in 2016. Passes generated \$2,991 in total revenue. The 30 passes sold were used an average of 15 times.

## Attachment 3 – Origin of Visitors 2016



### Cane Creek Reservoir (Exhibit B)





## Attachment 4: Annual Revenues and Expenses from Lakes Operations

### Exhibit A

#### Total Revenues from Lakes Operations

	2008	2009	2010	2011	2012	2013	2014	2015	2016
Boat Rentals <sup>1</sup>	\$ 23,534	\$ 24,885	\$12,712	\$11,952.50	\$12,736	\$15,127	\$14,004	\$12,448	\$12,702
Lake Use & Boat Launch Fees	\$ 15,514	\$ 18,524	\$28,093	\$25,327.50	\$26,276	\$29,650	\$30,544	\$29,957	\$30,935
Electric Motor Rentals	\$ 10,144	\$ 11,029	\$10,431	\$9,180	\$9,444	\$13,475	\$13,290	\$11,760	\$15,335
Lakes Use Passes	\$ 1,760	\$ 1,690	\$1,540	\$2,160	\$1,926	\$1,801	\$2,100	\$3,683	\$2,991
Kayak Rentals <sup>2</sup>	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,255	\$7,275	\$6,530
<b>TOTALS:</b>	<b>\$50,952</b>	<b>\$56,128</b>	<b>\$52,776</b>	<b>\$48,620</b>	<b>\$50,382</b>	<b>\$60,053</b>	<b>\$64,193</b>	<b>\$65,123</b>	<b>\$68,493</b>

NOTES:

<sup>1</sup> Lake Use Fee for individuals renting a boat is included in the Boat Rental revenues for 2008 and 2009.

<sup>2</sup> Kayak rentals began in April of the 2014 recreational season.

**Exhibit B**  
**2016 Lake Operating Expenses**

Description	Expenses		
	Total	Non-Recreational	Recreational
Full Time Employee Salaries	\$177,170	\$90,338	\$86,832
Fringe Benefits	\$56,694	\$28,908	\$27,786
Part Time Employee Salaries	\$22,810	\$9,805	\$13,005
Utilities	\$10,951	\$7,058	\$3,893
Materials and Supplies	\$11,648	\$5,883	\$5,765
Maintenance of Facilities	\$886	\$257	\$629
Annual Amortization of equipment	\$8,000	\$4,000	\$4,000
Miscellaneous Expenses	\$63	\$63	\$0
<b>Totals</b>	<b>\$288,222</b>	<b>\$146,312</b>	<b>\$141,910</b>

**2016 Revenue (from Exhibit A)    \$68,493**

**Deficit (Total Revenue - Total Recreational Expense)    -\$73,417**

**Operating Ratio (Total Recreational Expense/Total Revenue)    2.07**

**AGENDA ITEM**

- **Financial Report for the Six-Month Period Ended December 31, 2016**

**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 \$70,000 or 0.4% over budget.
  - Customer Fees (Service Availability Fees) exceeded budget for the period by approximately \$529,000.
  - Operating Expenses were under budget by about \$185,000.
  - Net Income less Debt Service was 13.7% or roughly \$808,000 over budget.
  - Capital Improvement Program expenditures were under budget for the six month period by approximately \$1.8 million.
  - Capital equipment expenditures were about \$449,000 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 six-month period ended December 31, 2016.

January 26, 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 *EK*  
**FROM:** Stephen Winters, CPA  
**DATE:** January 20, 2017  
**SUBJECT:** Financial Report for the six-month period ended December 31, 2016

### Purpose

The financial report for the six-month period ended December 31, 2016 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 6.25 million gallons per day (MGD), 6.33 was projected. Combined drinking and reclaimed water sales for the period averaged 7.01 MGD versus a projection of 7.15.
- Total Operating Revenue was 0.4% or about \$70,000 over budget.
- Revenue from new system connections was over budget by about \$529,000. We budgeted for system growth to be 160, 5/8" meter equivalents for the year; through December, we had already set 146. Additionally, nine large meters were set for Village Plaza, Chapel Hill Housing, UNC Hospitals, Ram's Plaza, Coldwell Banker Advantage and Hill Hall; revenue from these large meters significantly exceeded the "average per-meter equivalent price" used in developing the FY 2017 budget.
- Total operating expenses for the period were 1.8% or about \$185,000 under budget.
  - The Water Supply and Treatment department was over budget by about \$317,000; the primary reasons for the department exceeding budget during the period include:
    - Chemicals were over budget by about \$180,000. Our raw water has been unusually anoxic (depleted of dissolved oxygen) much of the summer requiring greater use of chemicals to treat the water. Also higher than normal total organic carbon (TOC) has required higher than expected chemical use.

- Maintenance costs were over budget by about \$35,000. Several large, costly projects were completed during the first quarter, including cleaning the solids equalizing basin, upgrading the Administration Building, and improving the supervisory control and data acquisition (SCADA) communication network.
  - General and Administrative were under budget by about \$185,000 due primarily to not incurring Consulting fees when expected.
  - Wastewater Treatment expenses were under budget by about \$160,000 due primarily to lower than projected maintenance costs for the period.
  - Wastewater Collection expenses were under budget by about \$116,000. The variance is made up of a variety of accounts including maintenance costs which were about \$25,000 less than projected for the period.
- Net Income less Debt Service for the period was approximately \$808,000 or 13.7% more than budget.
- Capital equipment expenditures were about \$449,000 over budget for the period. As we reported in the FY 2016 financial report, delivery of two pieces of equipment (a utility truck and a truck for cleaning sewers) that were scheduled to be purchased in FY 2016 was delayed until FY 2017. At some point this fiscal year, we will most likely need to amend the FY 2017 budget to account for these funds being expended in the current budget year instead of FY 2016.
- During the first two quarters of FY 2017, approximately \$3.3 million was invested in over 60 CIP projects, including \$1.8 million spent on four ongoing construction projects: the Rosemary Street Water Main Replacement, Little Creek Sewer Interceptor, Comprehensive Coating Rehabilitation, and the Wastewater Treatment Plant Digester #1 and 2 Rehabilitation projects. While FY 2017 expenditures to date represent 24% of the total FY 2017 CIP budget, the current projections indicate that total FY 2017 spending will reach 82% of FY 2017 budget. This value is roughly unchanged from the projection provided in the first quarter financial report.

The revised projection lags the original baseline projection primarily due to slower than originally projected progress on the Advanced Metering Infrastructure (AMI) and the Administration Building HVAC projects, as well as cost efficiencies expected to be realized on the Sanitary Sewer Rehabilitation, Sanitary Sewer Condition Evaluation, and Bolinwood Drive Interceptor projects.

The revised FY 2017 projection also accounts for the Rogerson Drive Force Main Emergency Repair and Rehabilitation project, a new project added to the CIP as a result of the failure and subsequent inspection and emergency repair of this critical asset in September. Design of the future rehabilitation work is nearly complete, and construction is expected in late spring and summer. Depending on the exact timing of construction, roughly one-quarter to one half of this \$1.1 million project may be complete within FY 2017.

Detailed information on FY 2017 CIP projects will be included in the Semi-annual CIP Status Report provided to the Board in the January 26, 2017 agenda.

### **FY 2017 Forecast**

The following forecast is based on actual financial results through November 30, 2016 plus what we expect to spend for the seven-month period from December 2016 through June 2017.

	<b>FY 2017 Forecast</b>	<b>FY 2017 Budget</b>	<b>Variance</b>	<b>Percent Variance</b>
	(in thousands)			
Operating revenue	\$35,912	\$35,854	\$58	0.2%
Operating expense	(20,908)	(21,008)	100	0.5
Non-operating income	1,678	1,011	667	66.0
Debt service	(6,910)	(6,932)	22	0.3
CIP and capital equipment	(12,818)	(14,875)	(2,057)	(13.8)
Net impact on reserves	(3,046)	(5,950)	2,904	48.8
Beginning reserve balance	27,872	27,872		
Projected ending reserve balance	\$24,826	\$21,922		

We will update the forecast in March to assist in developing the FY 2018 budget.




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Stephen Winters, CPA  
Director of Finance and Customer Service

# **Orange Water and Sewer Authority**

**Financial Report  
For the Six-Month Period Ended  
December 31, 2016**

**Orange Water and Sewer Authority**  
**Statement of Net Position**  
**December 31, 2016**  
(unaudited)

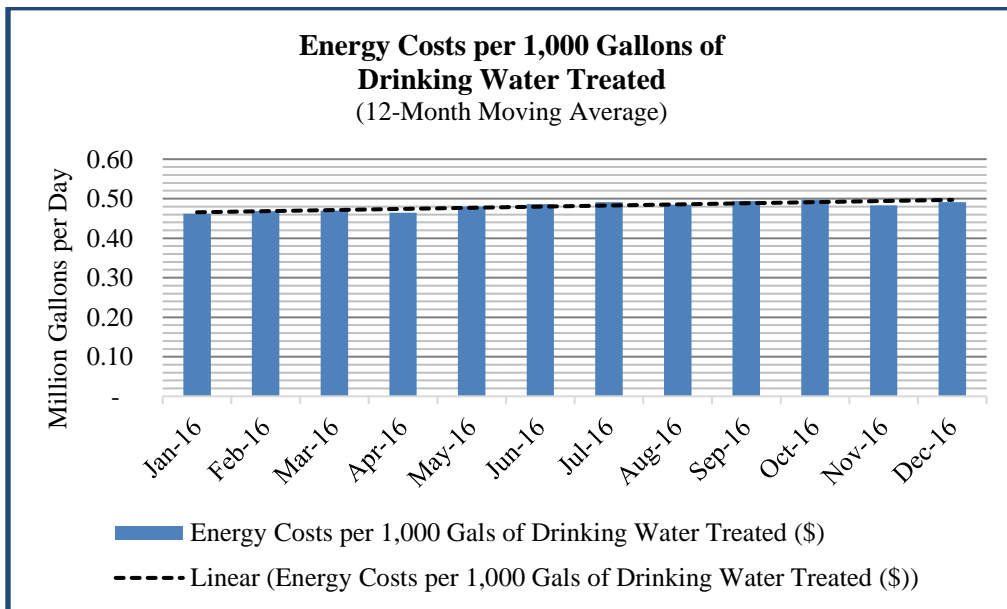
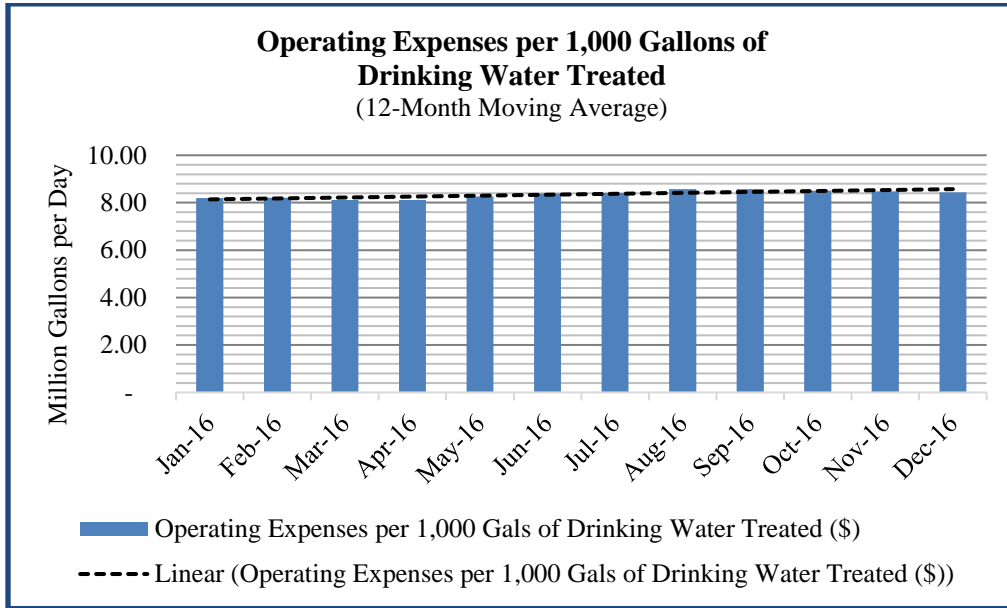
<b>Assets</b>	
Current Assets	
Cash	\$29,676,255
Receivables	4,440,035
Inventory	960,160
Prepaid expenses	186,731
Restricted cash	3,419,730
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Total Current Assets	38,682,911
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Noncurrent Assets	
Capital assets (net of depreciation)	266,230,679
Other noncurrent assets	34,871,559
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Total Noncurrent Assets	301,102,238
	<hr/>
<b>Total Assets</b>	<b>\$339,785,149</b>
	=====
<b>Liabilities and Net Position</b>	
Current Liabilities	
Accounts payable and accrued expenses	\$1,875,663
Unearned income	360,868
Customer deposits	1,332,681
	<hr/>
Total Current Liabilities	3,569,212
	<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	115,047,548
Net position at the beginning of the year	140,328,762
Year-to-date accrual basis net income	5,443,212
	<hr/>
<b>Total Liabilities and Net Position</b>	<b>\$339,785,149</b>
	=====
<b>Net income reconciliation:</b>	
Accrual basis net income	\$5,443,212
Depreciation, other post-employment benefits, and interest expense	4,526,309
	<hr/>
<b>Modified accrual basis net income</b>	<b>\$9,969,521</b>
	=====



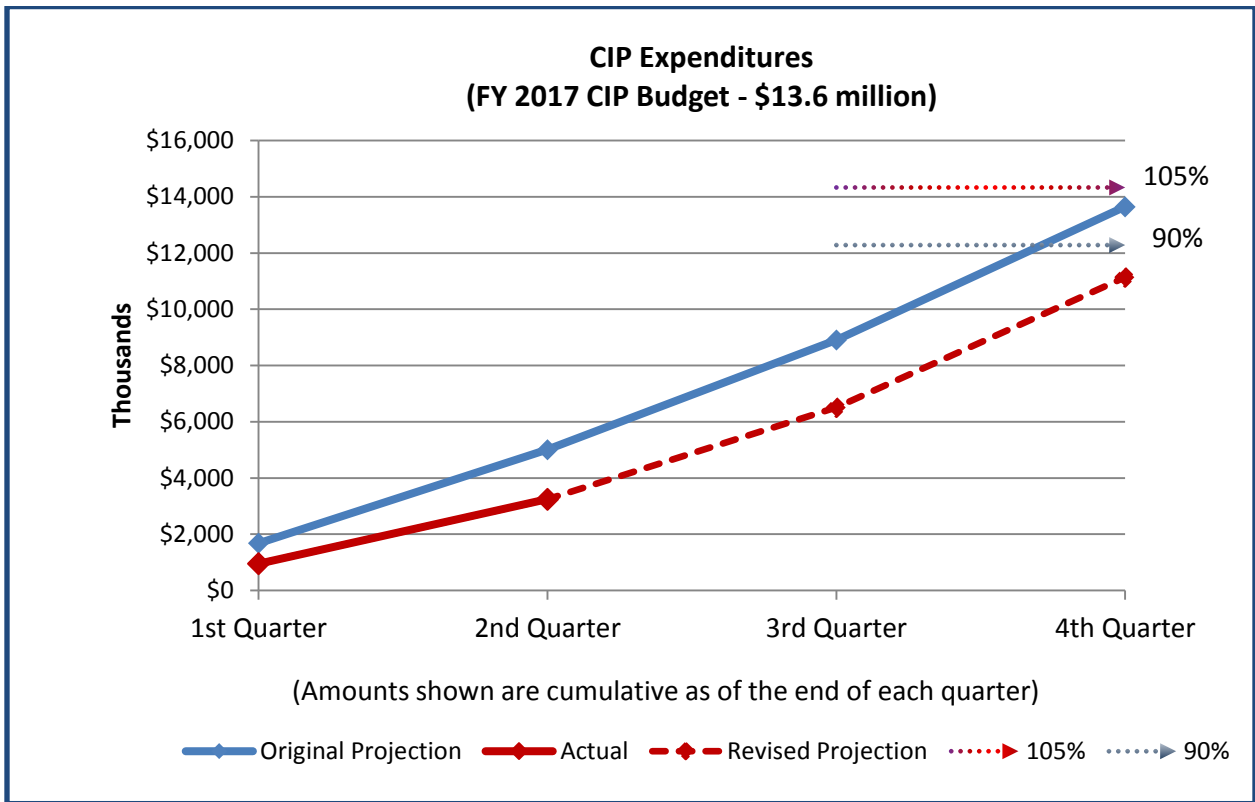
**Orange Water and Sewer Authority**  
**Income Statement**  
**For the Six-Month Period Ended December 31, 2016**  
(unaudited)

	Actual through December 31, 2016	Budget through December 31, 2016	Variance (effect on net change in Fund Balance)	Percent Variance
<b>Operating Revenue:</b>				
Water	\$9,547,674	\$9,732,227	(\$184,553)	(1.9%)
Sewer	8,619,447	8,405,491	213,956	2.5
Reclaimed Water	226,326	232,459	(6,133)	(2.6)
Service Initiation Fees	90,255	79,212	11,043	13.9
Other	506,449	542,323	(35,874)	(6.6)
Refunds and Allowances	(92,243)	(162,882)	70,639	43.4
	<hr/>	<hr/>	<hr/>	<hr/>
<b>Total Operating Revenue</b>	18,897,908	18,828,830	69,078	0.4
	<hr/>	<hr/>	<hr/>	<hr/>
<b>Non-operating Income:</b>				
Customer Fees	1,249,221	719,800	529,421	73.6
Interest	9,811	7,356	2,455	33.4
	<hr/>	<hr/>	<hr/>	<hr/>
<b>Total Non-operating Income</b>	1,259,032	727,156	531,876	73.1
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<b>Total Income</b>	20,156,940	19,555,986	600,954	3.1
	<hr/>	<hr/>	<hr/>	<hr/>
<b>Operating Expense:</b>				
General and Administrative	3,237,185	3,418,368	181,183	5.3
Water Supply and Treatment	2,794,914	2,477,764	(317,150)	(12.8)
Water Distribution	1,420,395	1,465,827	45,432	3.1
Wastewater Treatment	2,263,984	2,423,667	159,683	6.6
Wastewater Collection	470,941	587,200	116,259	19.8
	<hr/>	<hr/>	<hr/>	<hr/>
<b>Total Operating Expense</b>	10,187,419	10,372,826	185,407	1.8
	<hr/>	<hr/>	<hr/>	<hr/>
<b>Net Income (modified accrual)</b>	9,969,521	9,183,160	786,361	8.6
Debt Service	3,280,187	3,302,030	21,842	0.7
	<hr/>	<hr/>	<hr/>	<hr/>
Net Income less Debt Service	6,689,334	5,881,131	808,203	13.7
Less: CIP Expenditures	3,248,000	5,013,000	1,765,000	35.2
Capital Equipment				
Expenditures	851,605	402,752	(448,853)	(111.4)
	<hr/>	<hr/>	<hr/>	<hr/>
<b>Net Change in Fund Balance</b>	\$2,590,129	\$465,379	\$2,124,750	456.6
	<hr/> <hr/>	<hr/> <hr/>	<hr/> <hr/>	<hr/> <hr/>

**Orange Water and Sewer Authority  
Select Financial Data  
For the Six-Month Period Ended December 31, 2016**



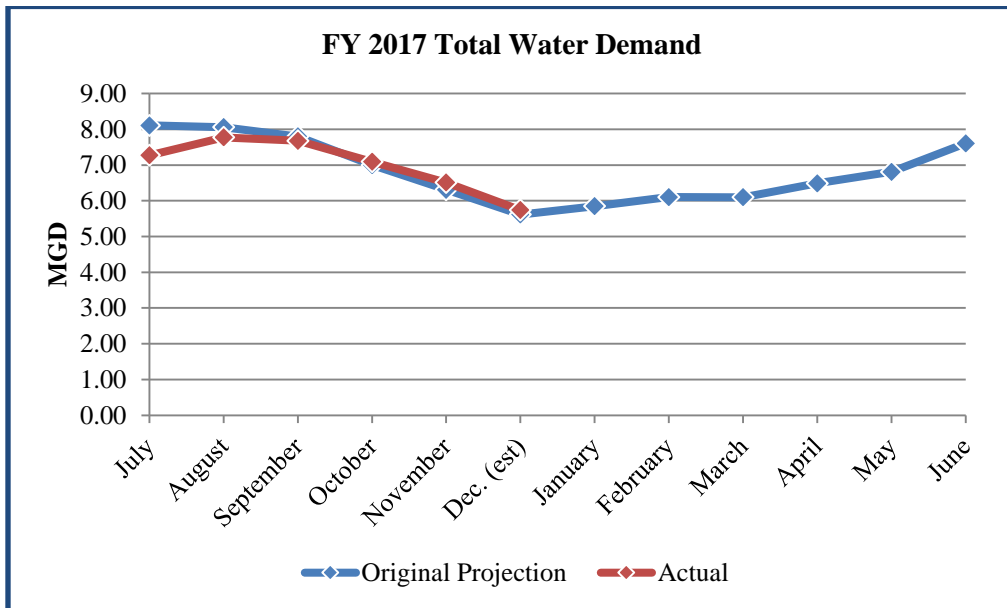
**Orange Water and Sewer Authority  
 Select Financial Data  
 For the Six-Month Period Ended December 31, 2016**



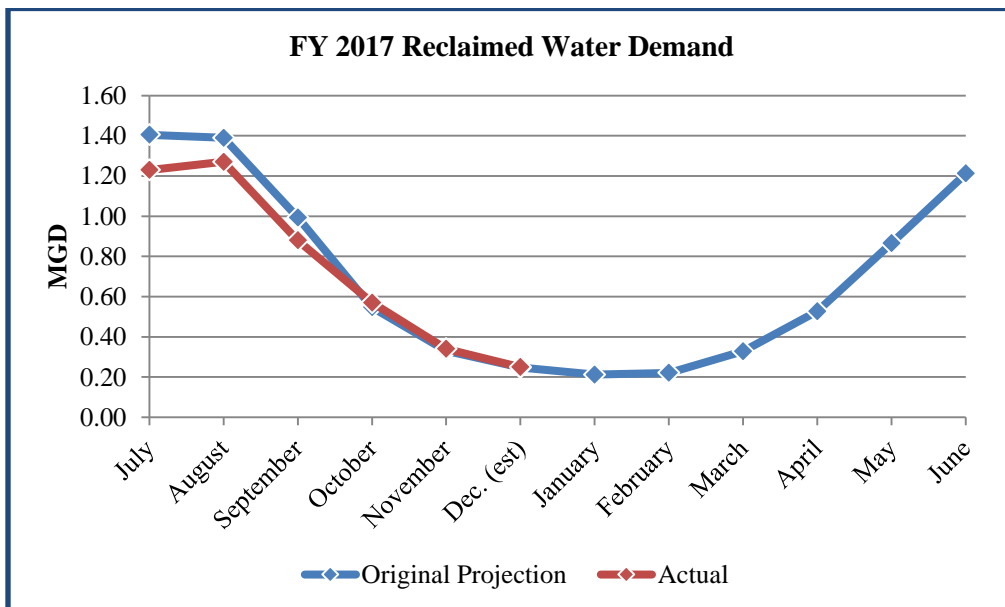
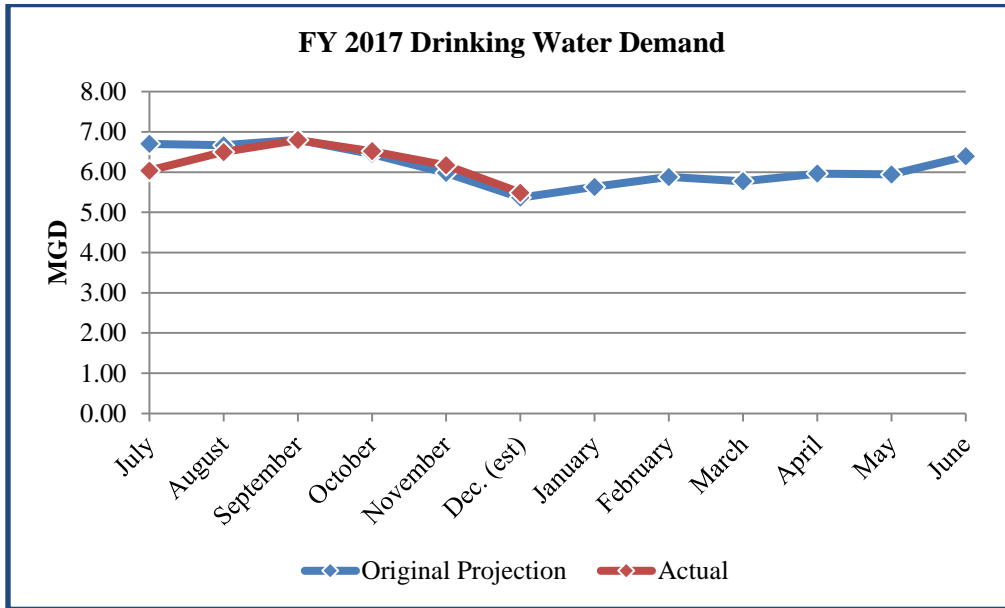
**Orange Water and Sewer Authority  
Select Financial Data  
For the Six-Month Period Ended December 31, 2016**

<b><u>FY 2017 Water Sales Projection (Average Day)</u></b>						
	<b>Original FY 2017 Sales Projections</b>		<b>Actual FY 2017 Water Sales</b>		<b>Revised FY 2017 Sales Projections</b>	
	<b>DW</b>	<b>RCW</b>	<b>DW</b>	<b>RCW</b>	<b>DW</b>	<b>RCW</b>
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	6.52	0.57	6.52	0.57
November	5.98	0.33	6.17	0.34	6.17	0.34
December	5.37	0.25	5.49	0.25	5.37	0.25
January	5.63	0.21			5.63	0.21
February	5.88	0.22			5.88	0.22
March	5.77	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	6.25	0.76	6.08	0.66

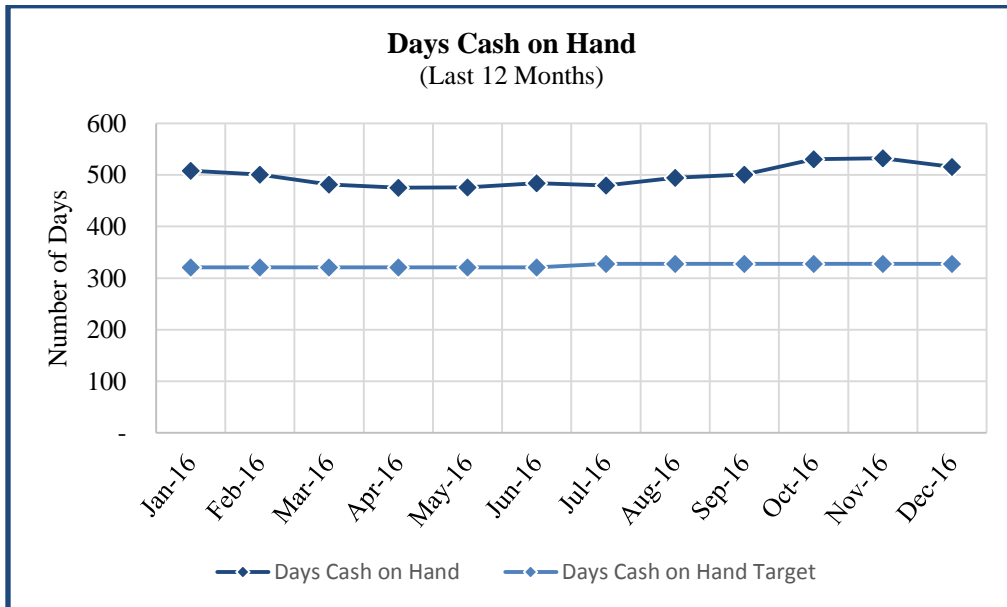
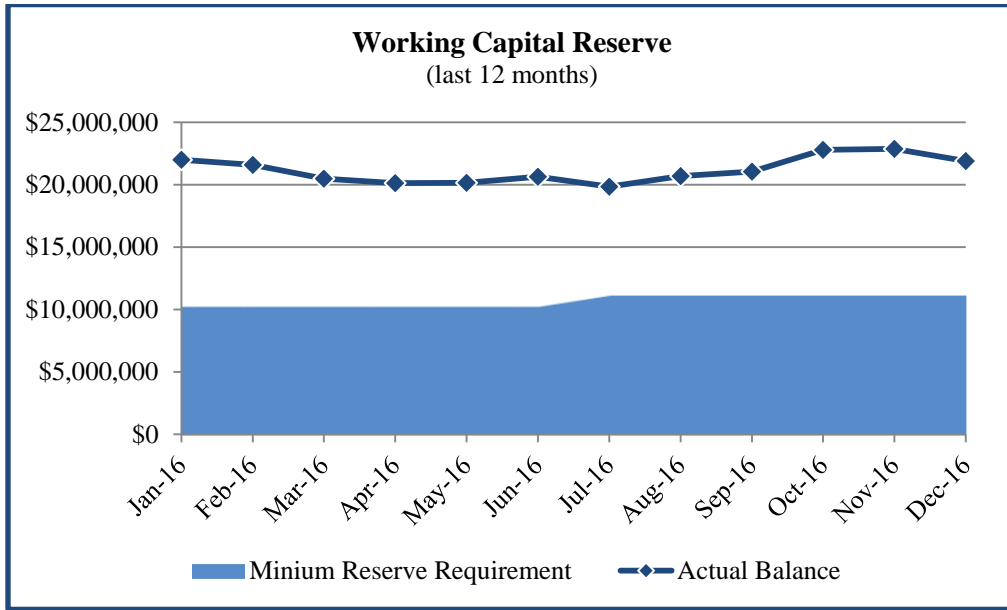
Estimates shown in red



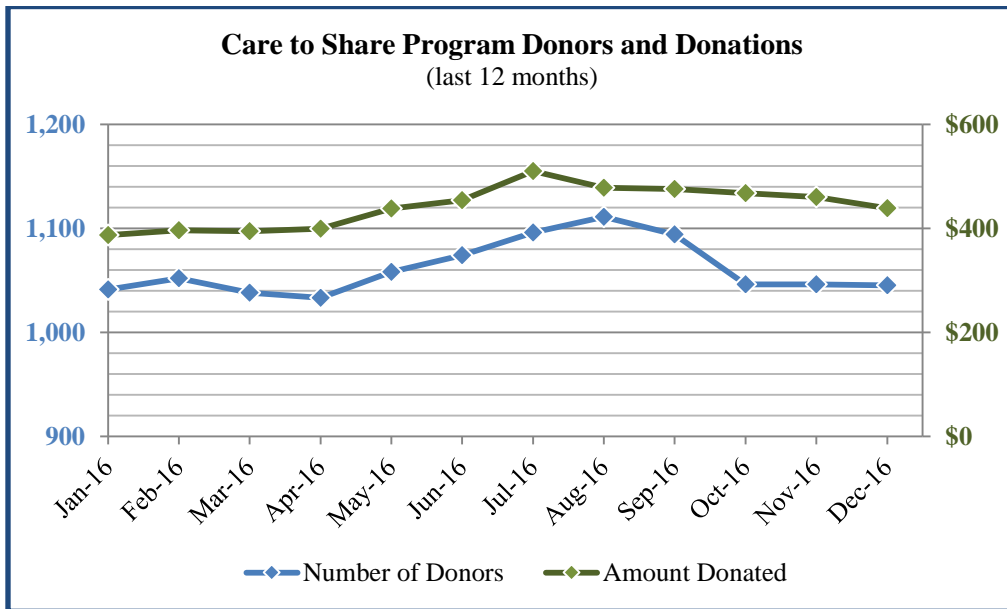
**Orange Water and Sewer Authority  
Select Financial Data  
For the Six-Month Period Ended December 31, 2016**



**Orange Water and Sewer Authority**  
**Select Financial Data**  
**For the Six-Month Period Ended December 31, 2016**



**Orange Water and Sewer Authority  
 Financial Management Policy Report Card  
 For the Six-Month Period Ended December 31, 2016**



**Orange Water and Sewer Authority  
Financial Management Policy Report Card  
For the Six-Month Period Ended December 31, 2016**

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	\$21.9M
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 <sup>1</sup>	Annual Debt Service no more than 35% of Gross Revenue	23%	≤ 35%	19%
Cash Financing of Capital <sup>3</sup>	Annual revenues and reserves provide at least 30% of CIP funding	77%	≥ 30%	54%
Debt Service Coverage Ratio <sup>1</sup>	Annual Net Income not less than two times Annual Debt Service	2.3	2.0	2.2
Service Affordability Ratio <sup>2</sup>	Average annual OWASA bill not more than 1.5% of area median household income	1.42%	1.5%	1.35%

M = million

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

<sup>2</sup> 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.

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



**AGENDA ITEM**

- **Scope and Schedule for Evaluating Future Rate Changes**

**PURPOSE**

- To determine the scope and schedule for evaluating potential future rate structure changes.

**BACKGROUND**

- In the fall of 2015, the Board began a process of reviewing OWASA's water and sewer rate structure that included a cost of service study, an analysis of customer classes, and consideration of how effectively our rate structure meets our rate-setting objectives.
- It was concluded that our current rate structure generally does a good job of balancing rate-making objectives.
- However, to enhance affordability and understandability, the water commodity rate charged to the multi-family master-metered customer class was changed from a seasonal rate to a year-round rate.
- The Board has discussed possible improvements and the following memo provides information for the Board to consider in determining the scope and schedule for restarting discussions about changes to our rate structure for monthly water and sewer charges.

**ACTION NEEDED**

- Provide guidance to staff regarding the scope and schedule for evaluating future rate changes.

January 26, 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 *EKL*  
**FROM:** Stephen Winters, CPA  
**DATE:** January 20, 2017  
**SUBJECT:** Scope and Schedule for Evaluating Future Rate Changes

### Purpose

It is important to periodically evaluate the way we charge customers for water and sewer services to ensure that our rate structure is effectively meeting OWASA's rate-setting objectives. The Board has discussed possible improvements and the purpose of this memo and the Board's discussion on January 26, 2017 is to determine the scope and schedule for evaluating potential future rate structure changes.

### **Background**

In the fall of 2015, the Board began a process of reviewing OWASA's water and sewer rate structure that included a cost of service study, an analysis of customer classes, and consideration of how effectively our rate structure meets our rate-setting objectives. We concluded that our current rate structure generally does a good job of balancing rate-making objectives. A few reasons include:

- Equity of rates across customer classes, cost of service – The cost allocation study showed that our current system continues to meet customer equity objectives and cost of service principles.
- Customer understanding and ease of administration – Except for rates charged to multi-family master-metered (MFMM) accounts, customers seem to understand the way they are billed for services and it is not overly difficult to administer. (The Board approved changing the water commodity rate charged to the MFMM customer class from a seasonal rate to a year-round rate, effective May 1, 2017.)
- Service affordability – Options to address affordability through rate structures are limited. Overall, our current rates meet the affordability measurement goal stipulated in OWASA's Financial Management Policy.
- Conservation promotion – The community is using about the same amount of drinking water it used in 1991 even though the number of customers we serve has increased by over 60%.
- Revenue stability – Annual water sales have been stable over the last several years which has helped us avoid rate increases for five consecutive years.

Some rate modifications may advance one rate-making objective at the sake of another. We strive to balance the weight of each of these rate-setting objectives.

### **Schedule for Evaluating Future Rate Changes**

In determining the timing of when to contemplate and implement potential future rate changes, the following events/projects should be considered:

Timing	Event
May 1, 2017	New year-round rate goes into effect for MFMM customers
Fall 2017	Analysis of impact of new year-round MFMM rate on consumption
March and April 2017	Analysis of service availability fees and propose changes as necessary *
May 2017 through May 2019	Proposed implementation of Advanced Metering Infrastructure (AMI)

\* Service availability fees apply to new system connections. These fees are based on system costs including planned capital improvement projects. Service availability rates should be analyzed periodically and it has been almost ten years since OWASA’s were last modified (other than periodic rate increases). Staff plans to conduct this analysis as part of the budget and related revenue sufficiency evaluation for Fiscal Year (FY) 2018, and we expect a cost of service adjustment will be warranted.

**Rate Structure Changes for Future Consideration**

In considering making changes to our rate structure, the Board will use the following rate-setting objectives as a guide:

- Equity of rates across customers classes, cost of service allocation, and legality
- Customer understandability and ease of administration
- Service affordability
- Conservation promotion
- Revenue stability

While the Board decided against making changes other than the water commodity rate for MFMM accounts, Board members expressed interest in additional alternatives. The following table lists potential rate structure changes the Board has discussed, the corresponding rate-setting objectives, and how the AMI project may impact the potential rate change.

Potential rate change	Applicable rate-setting objectives	AMI Project Impact
1. Changing the basis for calculating the fixed monthly service charge from meter size to: <ul style="list-style-type: none"> <li>a. Dwelling unit for MFMM customers</li> <li>b. Dwelling size for single-family residences</li> <li>c. Business purpose, number/type of water-fixtures, or other characteristic for commercial customers</li> </ul>	Potentially advances: <ul style="list-style-type: none"> <li>• Customer equity and cost of service</li> </ul> Potentially conflicts with: <ul style="list-style-type: none"> <li>• Customer understanding</li> <li>• Ease of administration</li> </ul>	No significant impact

Potential rate change	Applicable rate-setting objectives	AMI Project Impact
<p>2. Billing in increments smaller than 1,000 gallons</p>	<p>Potentially advances:</p> <ul style="list-style-type: none"> <li>• Customer understanding</li> <li>• Conservation</li> <li>• Affordability</li> </ul> <p>Potentially conflicts with:</p> <ul style="list-style-type: none"> <li>• Ease of administration</li> </ul>	<p>With AMI, customers will have more, and more frequent information about their water consumption and will be able to take action regarding water use. Without AMI, smaller billing increments communicated once per month will be much less helpful to customers.</p>
<p>3. Tailored Rate Structure (or budget-based rate structure) (Including water surcharge for MFMM customer)</p>	<p>Potentially advances:</p> <ul style="list-style-type: none"> <li>• Customer understanding</li> <li>• Affordability</li> <li>• Conservation</li> </ul> <p>Potentially conflicts with:</p> <ul style="list-style-type: none"> <li>• Revenue stability</li> </ul>	<p>AMI will provide daily (at least) consumption information which will greatly enhance a customer’s ability to monitor and adjust consumption behavior to achieve their budget goals.</p>
<p>4. Adjusting the proportion of revenue recovered through the fixed monthly service charge vs. the variable commodity rate</p>	<ul style="list-style-type: none"> <li>• Depending on the adjustment, it would either improve conservation and affordability, at the risk of revenue stability or vice versa.</li> </ul>	<p>No significant impact</p>
<p>5. Adjusting the number and/or volume-size of the blocks of the increasing block rate structure applicable for single-family residences</p> <p>6. Applying increasing block rates to more customer classes than single-family residential</p> <p>7. Adjusting the sewer cap from 15,000 gallons per month, which is currently applicable to single-family residences</p>	<p>Depending on the modification, could advance or conflict with:</p> <ul style="list-style-type: none"> <li>• Customer understanding</li> <li>• Affordability</li> <li>• Conservation</li> <li>• Revenue stability</li> </ul>	<ul style="list-style-type: none"> <li>• Some AMI systems can alert customers when their consumption is nearing the “next” rate block</li> <li>• Data provided by AMI could help us better identify appropriate break-points and volumes for block rates.</li> <li>• The data could help us identify consumption with an “irrigation signature” which could assist in identifying an appropriate (perhaps customer-specific) sewer cap.</li> </ul>

An additional consideration is that we have stated that the AMI project will not lead to a need for a rate increase. With any rate structure change, it is likely that some customers' monthly bills will increase while others' will decrease. This could be viewed as a rate increase even if the overall impact on the organization is revenue neutral.

### **Staff Recommendation**

In staff's assessment, our current rate structure is balancing the organization's rate-setting objectives well. AMI promises to enhance our "customer experience" and provide information and functionality that will enhance the design, impact, and benefit of some of the rate structure changes mentioned above. Furthermore, the data collected by AMI could lead to an alternative not listed above. In the absence of deficient rate-setting objective, staff recommends restarting discussions about changes to our rate structure for monthly water and sewer charges when the AMI project nears completion in FY 2019.

As an alternative, some changes could be made prior to implementing AMI. For example, the block rate structure was established in 2007 for single-family individually-metered customers. Since then, consumption patterns for this customer class have changed. We have data that we can analyze to determine and recommend changes to the block rates that might align better with recent consumption patterns. However, we currently bill in increments of 1,000 gallons so consumption data is also in 1,000 gallon increments. As a result, the precision of our analysis as well as our options for making adjustments to the blocks is limited.

### **Action Requested**

Provide guidance to staff regarding the scope and schedule for evaluating future rate changes.



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Stephen Winters, CPA

Director of Finance and Customer Service