



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 25, 2019, 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.
 - B. OWASA Annual Update to the Carrboro Board of Aldermen on Tuesday, May 7, 2019 at 7:00 P.M. at Carrboro Town Hall
2. Announcements by Board Members
 - A. Update on the April 23, 2019 Finance Committee Meeting to Discuss Draft Budgets and Rates for Fiscal Year 2020 (Ray DuBose)
 - B. Update on April 25, 2019 Meeting Between Members of the Orange County Board of Commissioners and Orange County Appointees to the OWASA Board (Ray DuBose/Jody Eimers)
 - C. Chatham-Orange Joint Planning Task Force Meeting on Thursday, May 9, 2019 at 12:00 Noon at the Hyatt Place Hotel (Meeting Room 1) Chapel Hill (John Young)
3. Announcements by Staff
4. Additional Comments, Suggestions, and Information Items by Board Members (Yinka Ayankoya)

Petitions and Requests

1. Public
2. Board
3. Staff

Consent Agenda

Information and Reports

1. 12 Month Board Meeting Schedule (Yinka Ayankoya/Ed Kerwin)

Action

2. Award the Fordham Boulevard Service Road Water Main Replacement Construction Contract (Simon Lobdell)

Regular Agenda

Information and Reports

3. Update on the Rogerson Drive Wastewater Force Main Repair (Todd Taylor/Mary Darr)
4. Demonstration of Agua Vista Web Portal (Mary Tiger/Denise Battle)
5. Update on the Analysis of Taste and Odor Compounds in Drinking Water (Katie Harrold)
6. Financial Report for the Nine-Month Period Ended March 31, 2019 (Stephen Winters)

Discussion and Action

- * 7. Discuss Draft FY 2020 Budget and Rate Adjustment and Authorize Staff to Publish Proposed Budget and Rates Information (Stephen Winters)
8. Update on the Water/Wastewater Public Enterprise Reform Bills (Robert Epting)

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 18, 2019)

Month	Board Meetings		Committee & Other Meetings
	Work Session	Business Meeting	
April 2019	Review Employee Health and Dental Insurance Renewals (C) FY 20 Draft Budget and Rate Adjustment Information (C) LRWSP – Discuss Water Supply and Demand Management Alternatives Forest Management – Draft Community Engagement Plan Award the Manning and Country Club Water Main Replacement Construction Contract Discussion of Election Procedures and Bylaws 4/11/2019	Q3 Financial Report (C) FY 20 Budget and Rates Discussion and Authorize Staff to Publish Proposed Rates Update on Managing Taste and Odor in Drinking Water Demonstration of Agua Vista Web Portal Award the Fordham Boulevard Service Road Water Main Replacement Construction Contract Discuss Water/Wastewater Public Enterprise Reform Bills Update on Rogerson Drive WW Force Main Repair 4/25/2019	<i>OC Appointees to the OWASA Board meet with Members of Orange County BOCC (4/25/2019)</i> <i>Finance Committee meeting to discuss draft budgets and rates for FY 20 (4/23/2019)</i> <i>(If Needed) Finance Committee meeting to continue discussing draft budgets and rates for FY 20 (4/30/2019)</i>
May 2019	Approve Employee Health and Dental Insurance Renewals (C) Discuss Employee Merit Pay for FY 20 (C) FY 19 Operating Budget Amendment (Tentative) Discuss FY 20 Budget and Rates Update on Potential Western Intake Partnership to access Jordan Lake Award the Mason Farm Wastewater Treatment Plant Secondary Clarifier Rehabilitation Construction Contract 5/9/2019	Public Hearings – FY 20 Budget and Rates (C) Approve Employee Health and Dental Insurance Renewals (if needed) 5/23/2019	<i>OWASA's Annual Update to the Carrboro BOA (5/7/2019)</i> <i>Chatham-Orange Joint Planning Task Force Meeting (5/9/2019)</i>
June 2019	Approve FY 20 Budget and Rates, including merit pay decision (C) (Tentative) LRWSP – Final Water Supply and Demand Management Alternatives Award the Dobbins Drive Water and Sewer Replacement Construction Contract (Tentative) Approve Changes to Retiree Health Insurance & 457 Deferred Compensation PFAS Update Election of Officers (C) 6/13/2019	TBD 6/27/2019	<i>(Tentative) Chapel Hill OWASA Board Members meet with TOCH OWASA Committee (TBD)</i>
July 2019	Diversity and Inclusion Update Award Kensington Drive Water Main Replacement Construction Contract (Tentative) Forest Management – Feedback on Community Meeting 7/11/2019	<i>Possible Summer Recess</i> 7/25/2019	<i>(Tentative) OC Appointees to the OWASA Board meet with Members of Orange County BOCC (TBD)</i>
August 2019	<i>Possible Summer Recess</i> 8/8/2019	Preliminary 12 Month Financial Report (C) CIP Semiannual Report (C) (Tentative) Forest Management – discuss draft priority sites CS – Prepare for General Counsel Review (C) 8/22/2019	
September 2019	EEO/Affirmative Action Report & Diversity and Inclusion Update (C) Annual Report on Disposal of Surplus Personal Property (C) AMI Low-Flow Leak Alerts CS – General Counsel Review (C) 9/12/2019	Annual Report and Financial Audit (C) Approve General Counsel Engagement (C) (Tentative) Forest Management – select priority sites CS – Prepare for ED Review (C) 9/26/2019	

OWASA Board of Directors – 12 Month Board Meeting Schedule (April 18, 2019)

Month	Board Meetings		Committee & Other Meetings
	Work Session	Business Meeting	
October 2019	(Tentative) Approve New Banking Services Provider CS – ED Review 10/10/2019	Q1 Financial Report Strategic Trends Report and Strategic Plan Update Water Main Break and WTP/WWTP Reliability and Risk Assessment Action Plans Progress Report 10/24/2019	(Tentative) OC Appointees to the OWASA Board meet with Members of Orange County BOCC (TBD)
November 2019	(Tentative) LRWSP – Draft Evaluation of Water Supply and Demand Management Alternatives (Tentative) Forest Management – draft plans and community engagement for priority sites 11/14/2019	Holiday – no meeting	
December 2019	TBD 12/12/2019	Holiday – no meeting	
January 2020	Appoint Audit Firm Employee Health and Dental Insurance Update for FY 21 Affordability Outreach Program Update (Tentative) LRWSP – Final Evaluation of Water Supply and Demand Management Alternatives 1/9/2020	Annual Lakes Recreation Report CIP Semiannual Report Q2 Financial Report FY 21 Budget Calendar and Assumptions 1/23/2020	
February 2020	CS – Prepare for General Counsel Interim Review 2/13/2020	CS – General Counsel Interim Review 2/27/2020	(Tentative) OC Appointees to the OWASA Board meet with Members of Orange County BOCC (TBD)
March 2020	FY 21 Draft Budget & Rates CS – Prepare for ED Interim Review 3/12/2020	Set date for Public Hearings – FY 21 Budget & Rates Annual Update of the Energy Management Plan FY 21 Draft Budget & Rates and Proposed Staff Rate Adjustment Recommendation CS – ED Interim Review 3/26/2020	

Note: Additional Board Meetings will include matters related to improving reliability and resiliency on OWASA’s services.

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.

OWASA Board of Directors – 12 Month Board Meeting Schedule (April 18, 2019)

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. The NRTS Committee discussed this issue in September 2017 and determined it was lower priority than Forest Management.
- Water Conservation Plan will be prepared concurrent with update of the Long-Range Water Supply Plan.
- Update of Strategic Plan. On November 15, 2018, the Board and staff agreed to defer update of the Strategic Plan to a date to be determined.

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.

Abbreviations Used in Draft Schedule:

(C)	Recurring agenda item (generally these are “required” items)	JLP	Jordan Lake Partnership
AV/AMI	Agua Vista/Advanced Metering Infrastructure	KPI	Key Performance Indicator
BOCC	Board of County Commissioners	LRWSP	Long-Range Water Supply Plan
CBOA	Carrboro Board of Aldermen	MOA	Memorandum of Agreement
CE	Community Engagement	MST	Mountains-to-Sea Trail
CEP	Community Engagement Plan	MFMM	Multi-Family Master Meter
CHTC	Chapel Hill Town Council	NCDOT	North Carolina Department of Transportation
CIP	Capital Improvements Program	NRTS	Natural Resources and Technical Services
COLA	Cost of Labor Adjustment	OC	Orange County
CS	Closed Session of the Board	Q	Quarter
CY	Calendar Year	RFP	Request for Proposals
D&I	Diversity and Inclusion	SRF	State Revolving Fund
ED	Executive Director	SOW	Scope of Work
EEO	Equal Employment Opportunity	TBD	To Be Determined
FY	Fiscal Year	WTP	Water Treatment Plant
HR	Human Resources	WWTP	Wastewater Treatment Plant

Agenda Item

- Award the Fordham Boulevard Service Road Water Main Replacement Construction Contract

Purpose

- To request the Board's approval to award a construction contract for the Fordham Boulevard Service Road Water Main Replacement.

Background

- The Project consists of replacing approximately 2,000 feet of 8-inch water main on Fordham Service Road and under Fordham Boulevard with a combination of 8-inch, 12-inch and 16-inch water main to improve system reliability and interconnection capacity with the City of Durham.
- Plans and specifications for the construction of this project were prepared by Hazen and Sawyer, PC.
- Prospective bidders for the construction contract were screened through a prequalification process. Minority outreach was performed for the prequalification process in accordance with standard practice. Seven bidders were prequalified.
- Bids from three prequalified contractors were received on April 3, 2019. The apparent low bidder was Carolina Civilworks at \$787,811.28. The Engineer's estimate for the project was \$1,113,000.00.
- The Engineer evaluated bids and recommended award of the construction contract to Carolina Civilworks.

Staff Recommendation

- Staff recommends that the Board of Directors adopt the Resolution Awarding the Construction Contract for the Fordham Boulevard Service Road Water Main Replacement Project to Carolina Civilworks in the amount of \$787,811.28.

April 25, 2019



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: Simon Lobdell, P. E.

DATE: April 17, 2019

SUBJECT: **Award the Fordham Boulevard Service Road Water Main Replacement Construction Contract**

Purpose

This memorandum recommends that the OWASA Board award a construction contract to Carolina Civilworks (“Contractor”) for the construction of the Fordham Boulevard Service Road Water Main Replacement Project (“Project”).

Background

The water mains in this Project were identified through the Water Main Replacement Prioritization Model as part of our overall goal to replace or abandon aging water mains to ensure a safe and reliable supply of drinking water for our customers. The line was identified as a high priority for replacement due to its break history, material, and internal pressure. In addition to these condition-based factors, the replacement of the line provides an opportunity to add capacity and redundancy for the backbone infrastructure used to supply water to the core of the distribution system during activation of the Durham interconnection at the I-40 Booster Pump Station. The line will be increased in size to better serve future needs for a strong interconnection with the City of Durham water system.

Replacement of an existing 8-inch waterline under Fordham Boulevard (US 15-501) was added to the project scope to mitigate the risk it presented from a potential failure and improve capacity and redundancy for the system connection to the I-40 Booster Pump Station. The replacement under Fordham Boulevard was designed to prevent any need for future increases in size and will be encased in concrete for protection.

The Project consists of two distinct line segments (Attachment 1):

- Along Fordham Service Road (from the intersection of Old Durham Road to the end of the service road), approximately 2,000 feet of existing 8-inch asbestos cement water main will be replaced by a combination of 8-inch and 12-inch ductile iron water main.

- Underneath Fordham Boulevard, approximately 270 feet of 16-inch ductile iron water main will replace the existing 8-inch ductile iron line currently installed.

Throughout design, OWASA coordinated with the Town of Chapel Hill, UNC, the developer of Wegman’s, and the North Carolina Department of Transportation (NCDOT) to address construction impacts on traffic, safety, and coordination of construction plans. OWASA plans to continue coordination and communication with these stakeholders before construction commences as well as throughout construction as part of the overall Community Engagement Plan for this project. Construction is expected to last approximately 7 months.

Advertising and Bidding

Hazen and Sawyer, PC (“Engineer”) began design in Fiscal Year 2017. However, work was delayed in order to coordinate with the Wegman’s development. Work was completed during Fiscal Year 2019. Prospective bidders were screened through our standard prequalification process, which involved having interested contractors submit a package outlining their qualifications, including past performance on similar projects, credentials of their management team, safety record, etc. Only those firms that clearly demonstrated the capability to adequately perform the work were invited to submit bids.

Construction procurement details are summarized below:

Event	Date	Notes
Solicitation of Contractor Qualifications	March 23, 2018	7 contractors were prequalified to bid
Construction Contract Advertised for Bid	February 14, 2019	4 prequalified contractors attended the mandatory pre-bid meeting
Construction Contract Bid Deadline	April 3, 2019	Three bids received

A copy of the certified bid tabulation is attached with the Engineer’s recommendation for award (Attachment 2), and the results are summarized below:

Carolina Civilworks	\$ 787,811.28
Moffat Pipe, Inc.	\$ 893,550.00
Pipeline Utilities, Inc.	\$ 872,000.00
<i>Engineer’s Final Estimate</i>	<i>\$1,113,000.00</i>

Minority and Women Business Enterprise (MWBE) Participation

OWASA’s Minority Business Participation Outreach Plan and Guidelines include all of the statutory requirements from the State of North Carolina, and specify a 10% goal for

participation by minority businesses. In keeping with standard practice, OWASA staff took several actions to solicit minority participation in this contract, including advertising the Request for Qualifications in the Greater Diversity News, North Carolina Institute of Minority Economic Development, North Carolina Department of Administration Historically Underutilized Businesses, OWASA’s website, and plan rooms. OWASA also requires bidders to complete “good faith” efforts to solicit participation by minority subcontractors. OWASA staff publicly advertised the formal bid as an additional effort to encourage participation by subcontractors, and also directly notified MWBE-certified subcontractors within a 50-mile radius about the upcoming subcontracting opportunity.

The apparent low bidder (Carolina Civilworks) identified MWBE participation for two discrete tasks. The summary of these subcontracts is shown below.

Subcontract	Amount	% of contract value	Minority Designation
State Contracting (Paving)	\$28,320.00	3.6%	Women
Puryear Enterprises (Hauling)	\$51,900.00	6.6%	Women
Total	\$80,220.00	10.2%	

Bid Analysis and Recommendation

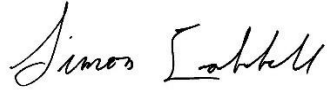
Three bids were received and all were below the Engineer’s estimate. The Engineer’s estimate was likely high because they anticipated a high contractor markup as we have seen in many recent jobs. It is also typical that small jobs receive higher markups but the nature of this project was such that it was attractive to all the bidders. Additionally, by providing a long schedule, the contractors were able to bid aggressively and plan the project into their existing and future workload to provide competitive pricing.

Carolina Civilworks’ ability to complete this project was evaluated thoroughly during the prequalification process, and they demonstrated sufficient qualifications in past project performance, personnel qualifications/experience, reference checks, and all other rated categories. The Contractor completed the Lake Ellen Water Main Replacement Project, the recent repair to the reclaimed water main, and numerous other successful plant and water main replacements for OWASA over the past several years. OWASA staff also determined that the Contractor’s safety performance, relevant project experience, bonding capacity, and other non-rated categories met our requirements.

The Engineer's recommendation that the construction contract for this project be awarded to Carolina Civilworks is attached along with the certified bid tabulation (Attachment 2). OWASA staff concurs with this recommendation and requests the Board’s adoption of the attached resolution (Attachment 3) awarding the construction contract to Carolina Civilworks.

Fordham Boulevard service Road Water Main Replacement Construction Contract
April 17, 2019
Page 4

Please let me know if you have any questions or need additional information. I can be reached at 537-4247 or smlobdell@owasa.org. Thank you.

A handwritten signature in black ink that reads "Simon Lobdell". The signature is written in a cursive style with a horizontal line underneath the name.

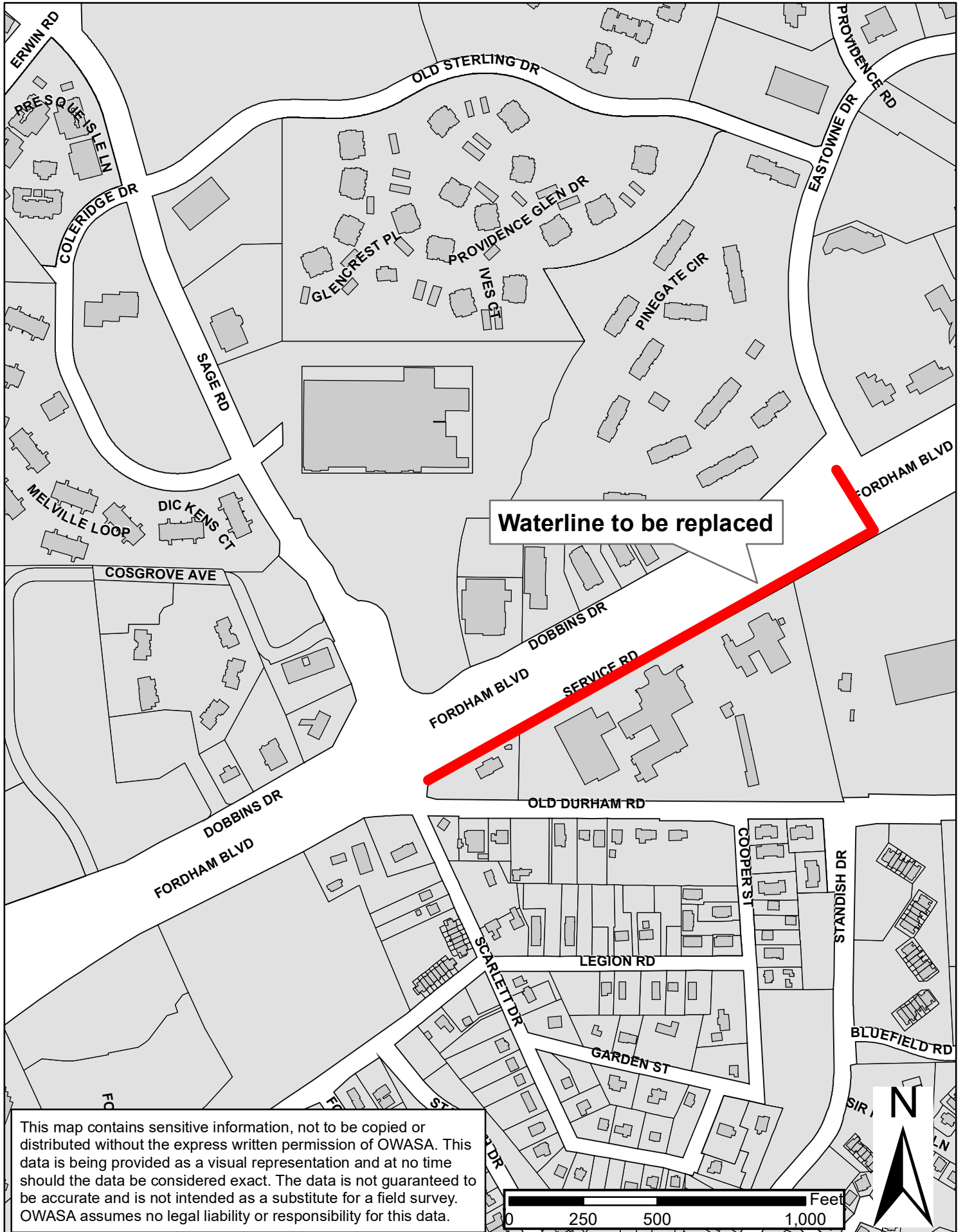
Simon Lobdell P.E.
Utilities Engineer

Attachment 1 - Project Location Map

Attachment 2 - Engineer's Recommendation for Award and Certified Bid Tabulation

Attachment 3 - Resolution

Attachment 1 - Fordham Service Road Site Location Map





Hazen and Sawyer
498 Seventh Avenue, 11th Floor
New York, NY 10018 • 123.345.8765

April 17, 2019

Simon Lobdell, PE
Utilities Engineer
Orange Water and Sewer Authority
400 Jones Ferry Road
Carrboro, NC 27510

**Re: Award Recommendation
Fordham Boulevard Service Road Water Main Replacement Project
Hazen Project No. 32172-006**

Mr. Lobdell,

Please find the enclosed certified bid tabulation for the Fordham Blvd. Service Rd Water Main Replacement Project. All bids received were opened and read aloud on April 3, 2019 at 3:00 PM at the offices of Orange Water and Sewer Authority on Jones Ferry Road. A total of three bids were submitted for the Base Bid and Alternate No. 1. OWASA has determined that only the Base Bid will be awarded for the project. Per the attached certified bid tabulation, Carolina Civilworks, Inc submitted the lowest Base Bid of \$787,811.28.

Hazen and Sawyer has reviewed the bid package submitted by Carolina Civilworks and concluded their submittal was complete, properly executed, and ultimately deemed responsive. Based on these findings, Hazen recommends Carolina Civilworks, Inc be awarded the Base Bid contract for a total contract amount of **\$787,811.28**.

Please give me a call at (919) 833-7152 with any questions or request for additional information about the recommendation or certified bid tabulation for the Fordham Boulevard Service Road Water Main Replacement Project.

Sincerely,

Jason P. Cook, PE, PMP
Senior Associate

Enclosure – Bid Tabulation
cc: File

CERTIFIED BID TABULATION

Fordham Blvd Service Rd Water Main Replacement
Orange Water and Sewer Authority
Carrboro, North Carolina

Item No.	Description	Unit	Estimated Quantity	Carolina Civilworks, Inc.		Pipeline Utilities, Inc.		Moffat Pipe, Inc.	
				Unit Bid Price	Extended Total	Unit Bid Price	Extended Total	Unit Bid Price	Extended Total
BASE BID									
1a	4-inch DI water Main - PC 350 Restrained Joint	LF	40	\$ 66.21	\$ 2,648.40	\$ 198.00	\$ 7,920.00	\$ 400.00	\$ 16,000.00
1b	8-inch DI Water Main - PC 350 Restrained Joint	LF	1440	\$ 73.39	\$ 105,681.60	\$ 95.00	\$ 136,800.00	\$ 100.00	\$ 144,000.00
1c	12-inch DI Water Main - PC 350 Restrained Joint	LF	570	\$ 122.59	\$ 69,876.30	\$ 126.00	\$ 71,820.00	\$ 125.00	\$ 71,250.00
1d	16-inch DI Water Main - PC 350 Restrained Joint	LF	270	\$ 171.02	\$ 46,175.40	\$ 137.00	\$ 36,990.00	\$ 200.00	\$ 54,000.00
2	Ductile Iron Fittings	LBS	6200	\$ 8.94	\$ 55,428.00	\$ 11.00	\$ 68,200.00	\$ 12.50	\$ 77,500.00
3	30-inch Steel Casing Pipe	LF	160	\$ 389.45	\$ 62,312.00	\$ 416.00	\$ 66,560.00	\$ 550.00	\$ 88,000.00
4a	4-inch Gate Valve and Box	EA	3	\$ 1,667.51	\$ 5,002.53	\$ 1,700.00	\$ 5,100.00	\$ 4,000.00	\$ 12,000.00
4b	8-inch Gate Valve and Box	EA	3	\$ 2,529.28	\$ 7,587.84	\$ 2,200.00	\$ 6,600.00	\$ 4,800.00	\$ 14,400.00
4c	12-inch Gate Valve and Box	EA	4	\$ 3,247.43	\$ 12,989.72	\$ 3,100.00	\$ 12,400.00	\$ 6,000.00	\$ 24,000.00
5	16-inch BF Valve and and 6' Dia. Doghouse Manhole	EA	1	\$ 10,930.01	\$ 10,930.01	\$ 30,000.00	\$ 30,000.00	\$ 30,000.00	\$ 30,000.00
6a	Connection to Existing 8-inch Water Main	EA	2	\$ 2,592.44	\$ 5,184.88	\$ 10,000.00	\$ 20,000.00	\$ 2,500.00	\$ 5,000.00
6b	Connection to Existing 16-inch Water Main	EA	1	\$ 2,592.44	\$ 2,592.44	\$ 8,000.00	\$ 8,000.00	\$ 8,500.00	\$ 8,500.00
7	Reconnection of 2" Water Service and Meter	EA	2	\$ 2,161.55	\$ 4,323.10	\$ 6,000.00	\$ 12,000.00	\$ 8,800.00	\$ 17,600.00
8	Fire Hydrant Assemblies	EA	2	\$ 6,901.29	\$ 13,802.58	\$ 7,000.00	\$ 14,000.00	\$ 8,600.00	\$ 17,200.00
9	Temporary Blow-Off Assemblies	EA	2	\$ 3,809.72	\$ 7,619.44	\$ 5,000.00	\$ 10,000.00	\$ 2,800.00	\$ 5,600.00
10a	Abandonment of Existing 8-inch Water Mains	LF	2000	\$ 18.74	\$ 37,480.00	\$ 14.00	\$ 28,000.00	\$ 10.00	\$ 20,000.00
10b	Removal of Existing AC Watermains	LF	30	\$ 76.35	\$ 2,290.50	\$ 100.00	\$ 3,000.00	\$ 60.00	\$ 1,800.00
11a	Mill and Overlay, 1.5" (S9.5B or S9.5C)	SY	1770	\$ 26.78	\$ 47,400.60	\$ 23.00	\$ 40,710.00	\$ 35.00	\$ 61,950.00
11b	Full Depth Asphalt Replacement	SY	400	\$ 217.67	\$ 87,068.00	\$ 200.00	\$ 80,000.00	\$ 165.00	\$ 66,000.00
12	Remove & Replace Curb & Gutter	LF	80	\$ 46.86	\$ 3,748.80	\$ 85.00	\$ 6,800.00	\$ 100.00	\$ 8,000.00
13	Remove & Replace Sidewalk	SY	5	\$ 963.92	\$ 4,819.60	\$ 300.00	\$ 1,500.00	\$ 150.00	\$ 750.00
14	Traffic Control	LS	-	-	\$ 70,286.13	-	\$ 82,000.00	-	\$ 60,000.00
15	Tree Removal and Landscaping Replacement Allowance	-	-	-	\$ 10,000.00	-	\$ 10,000.00	-	\$ 10,000.00
16	Erosion and Sedimentation Control	LS	-	-	\$ 27,685.06	-	\$ 25,000.00	-	\$ 12,000.00
17	Seeding and Surface Restoration	LS	-	-	\$ 6,693.92	-	\$ 10,000.00	-	\$ 11,500.00
18	Offsite Fill Material	CY	100	\$ 101.69	\$ 10,169.00	\$ 90.00	\$ 9,000.00	\$ 60.00	\$ 6,000.00
19	Undercut and Replace with #57 Stone	CY	100	\$ 137.60	\$ 13,760.00	\$ 86.00	\$ 8,600.00	\$ 80.00	\$ 8,000.00
20	Trench Rock Removal by Mechanical Means (min \$115/cy)	CY	100	\$ 295.14	\$ 29,514.00	\$ 300.00	\$ 30,000.00	\$ 115.00	\$ 11,500.00
21	Town of Chapel Hill Street Cut and Traffic Control Inspections Allowance	-	-	-	\$ 5,000.00	-	\$ 5,000.00	-	\$ 5,000.00
22	Mobilization (3%)	LS	-	-	\$ 19,741.43	-	\$ 26,000.00	-	\$ 26,000.00
Total Base Bid Amount					\$ 787,811.28		\$ 872,000.00		\$ 893,550.00
ALTERNATE No. 1									
	Town of Chapel Hill Provisions within 66-inch Culvert	-	-	-	\$ 24,500.00	-	\$ 12,000.00	-	\$ 14,000.00
Total Alternate No. 1 Amount					\$ 812,311.28		\$ 884,000.00		\$ 907,550.00

CERTIFICATION

1. All bid received were opened and read aloud on April 3, 2019 at 3:00 PM at the offices of Orange Water and Sewer Authority on Jones Ferry Road.
2. The bids shown represent the total bid amount provided on the original Bid Forms presented within each Bidder's proposal.


Jason P. Cook, PE, PMP

Senior Associate
Hazen and Sawyer



Resolution Awarding a Construction Contract for the Fordham Boulevard Service Road Water Main Replacement Project

Whereas, there is a need to replace the water main in Fordham Service Road due to its age, break history, pressure, and other risk factors; and

Whereas, plans and specifications for the construction of this project have been prepared by Hazen and Sawyer, PC; and

Whereas, contractor qualifications were published for advertisement on the websites of the North Carolina Institute of Minority Economic Development and the North Carolina Department of Administration, and on OWASA's website on March 23, 2018, and seven contractors were pre-qualified to bid; and

Whereas, on February 14, 2019, the prequalified contractors were formally invited to submit construction bids for the project, and three bids were received on April 3, 2019; and

Whereas, Carolina Civilworks of Raleigh, North Carolina has been determined to be the low responsive, responsible bidder for the project; and

Whereas, on June 14, 2018 the Board of Directors approved a resolution authorizing funds for the Capital Improvements Program, including funds for this project;

Now, Therefore, Be It Resolved:

1. That the Orange Water and Sewer Authority Board of Directors awards the construction contract to Carolina Civilworks, the low responsive, responsible bidder for the Fordham Boulevard Service Road Water Main Replacement Project, in accordance with the approved plans and specifications, in the amount of \$787,811.28, subject to such change orders as may apply.

2. That the Executive Director be, and hereby is, authorized to execute said contract, subject to prior approval of legal counsel, and to approve and execute change orders and such documents as may be required in connection with the construction contract.

Adopted this 25th day of April, 2019.

Yinka Ayankoya, Chair

ATTEST:

Raymond E. DuBose, Secretary

Agenda Item

- Update on the Rogerson Drive Wastewater Force Main Repair

Purpose

- Provide information about OWASA's response to a wastewater pipe break on Rogerson Drive which resulted in wastewater overflow.

Action Needed

- Board questions, comments, and guidance.



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 *EJK*
FROM: Todd Taylor and Mary Darr
DATE: April 18, 2019
SUBJECT: Update on the Rogerson Drive Wastewater Force Main Repair

Purpose

Provide information about OWASA's response to a wastewater pipe break on Rogerson Drive which resulted in wastewater overflow.

Background

The Rogerson Drive Pump Station collects wastewater from a large portion of OWASA's service area, then pumps it through a single pipe (called a force main) to the Mason Farm Wastewater Treatment Plant (WWTP) (Attachment 1). On Friday April 12, 2019, at about 9:00 p.m., during heavy rain and localized flooding, the force main broke on Rogerson Drive near Raleigh Road (Attachment 2). Wastewater overflows at the pipe break and other nearby locations over the next 36 hours totaled an estimated 760,000 gallons. We promptly notified the public, North Carolina Department of Environmental Quality and other stakeholders about the overflows.

The majority of the overflow traveled downhill into a wooded area where there are no residences. As a precaution, we recommended that people and pets avoid surface water in the area near the break. Some of it flowed into a nearby storm drain which empties into a tributary to Morgan Creek, part of the Cape Fear River Basin. Most of the overflow occurred during times of high precipitation, so its impact was diluted. No fish kills have been observed. Surface water samples taken in the area shortly after the overflows had no sign of human waste. The area of the overflow has been flushed with water and neutralized.

Once the high volume of wastewater flow caused by the heavy rain and flooding subsided, the damaged pipe was able to safely transport the typical dry-weather volume of wastewater to the WWTP.

Pipe Repair

We immediately contacted two contractors and decided Moffat Pipe, Inc. (MPI) was well-positioned to respond and authorized them to proceed with emergency measures to restore full capacity to the broken piping. To assess the damage and complete planning for emergency repairs, a temporary above-ground bypass pipe system was installed and placed in service on Tuesday, April 16th at 3:25 a.m. This interim measure greatly reduced the risk for additional overflows.

As of Thursday afternoon, April 18th, the bypass system continued to function properly. Currently, we are still refining the scope and schedule for emergency repair of the failed pipe. At this time, we anticipate the bypass system will remain in place for several weeks.

The pipe that broke was badly corroded by hydrogen sulfide gas which is often present in pipes/tanks which contain untreated wastewater. The pipe was installed in 1994 and was expected to have a much longer service life. This will be further evaluated.

Concurrent with the pipe repair, we are refining our short and longer-term plans for reliable service for this critically important wastewater collection and transmission system. Routine reports will be provided to the Board.

Key Previous, Ongoing and Future System Improvements

The Rogerson Drive pump station and force main is the largest and most critical wastewater pumping system outside of our WWTP. Recognizing the importance of this system, our Capital Improvements Program (CIP) has included sustained investment in the pump station and force main to assess and improve the system's reliability. Recent CIP projects have:

- Added a fourth pump for redundancy and installed connections for an emergency bypass around the pump station in 2004;
- Replaced inoperable valves on the force main in 2008;
- Assessed the condition of the force main at key locations in 2013;
- Rehabilitated a section of the force main between Raleigh Road and the southern end of Hamilton Road in 2018;
- Replaced aging and obsolete electrical equipment and installed grinders to keep debris from damaging the pumps in 2018;
- Evaluated potential redundancy options for the force main in 2018; and
- Contracted for the replacement of the pump station's electrical distribution system and installation of a new odor control system. This work is under construction and scheduled for completion in 2019.

We have funds in the Fiscal Year (FY) 2019 CIP to evaluate routes for a parallel force main that would provide additional system capacity and redundancy for the pipe between Cleland Drive

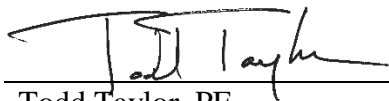
and Prestwick Road and in FY 2021 for a feasibility study for a gravity interconnection near the WWTP.

Communications and Community Response

The residents on Rogerson Drive adjacent to pipe repair work and the temporary bypass pipe have been impacted the most by these events. Rogerson Drive is currently closed to through traffic and construction noise continues. Local residents have access to their homes, but there has been interruption of mail and solid waste services for some. We are working to address these problems. Over the weekend of the break, OWASA crews went door-to-door to speak with Rogerson Drive residents, and we have hand-delivered written notices with the best information we have to share. Regular updates are being posted to owasa.org and OC Alerts were sent daily from Friday, April 12 to Wednesday, April 17 to residents in the nearby area. News stories were published in chapelboro.com and The Daily Tar Heel.

We will continue to keep the community, especially those living near the work, informed about our work to fully restore service to this critically important system.

We will provide an update and presentation at the Board meeting.

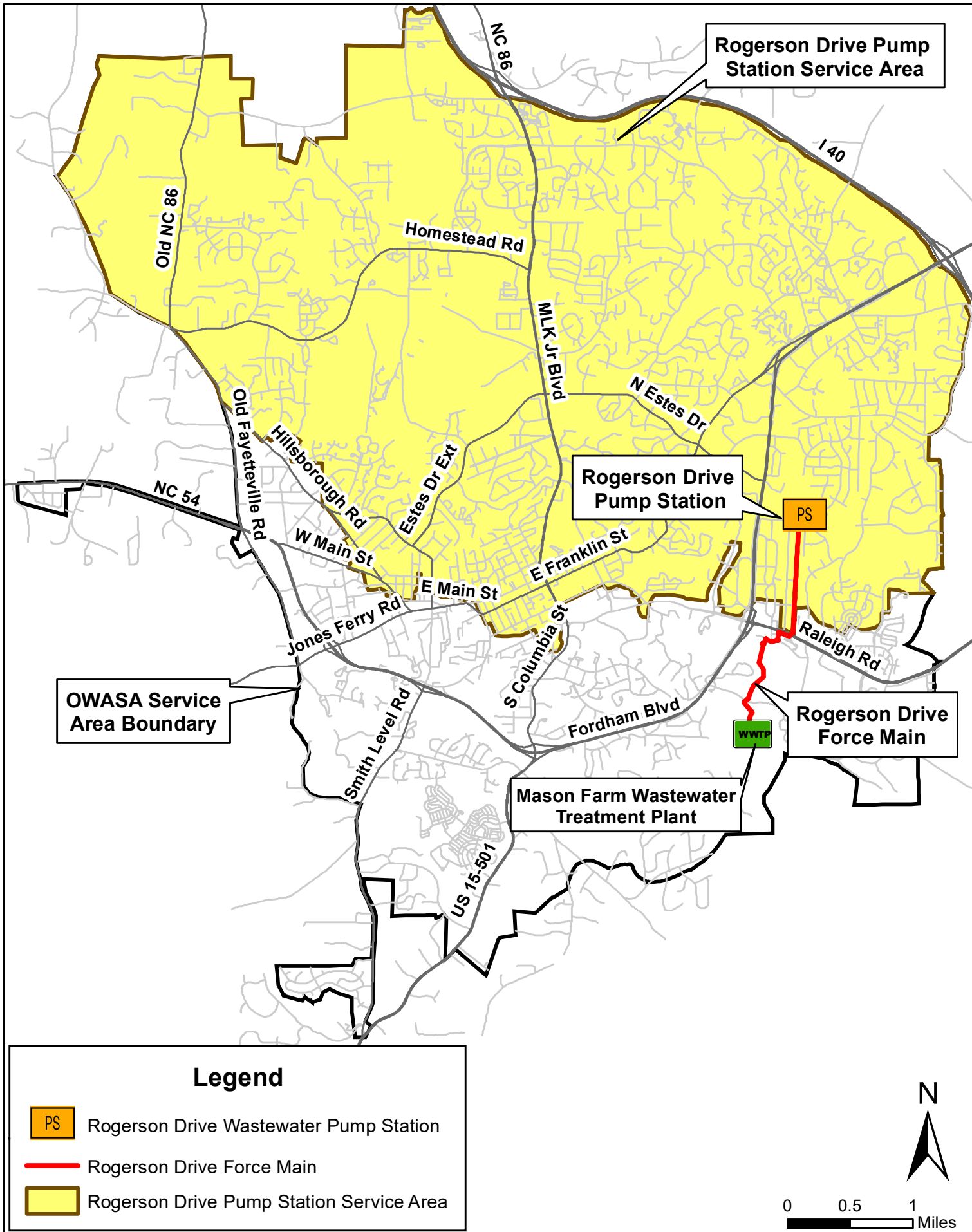


Todd Taylor, PE
General Manager of Operations



Mary Darr, PE
Director of Engineering and Planning

Attachments



Rogerson Drive Pump Station Service Area




Rogerson Drive Pump Station

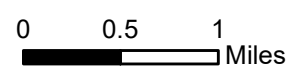
OWASA Service Area Boundary

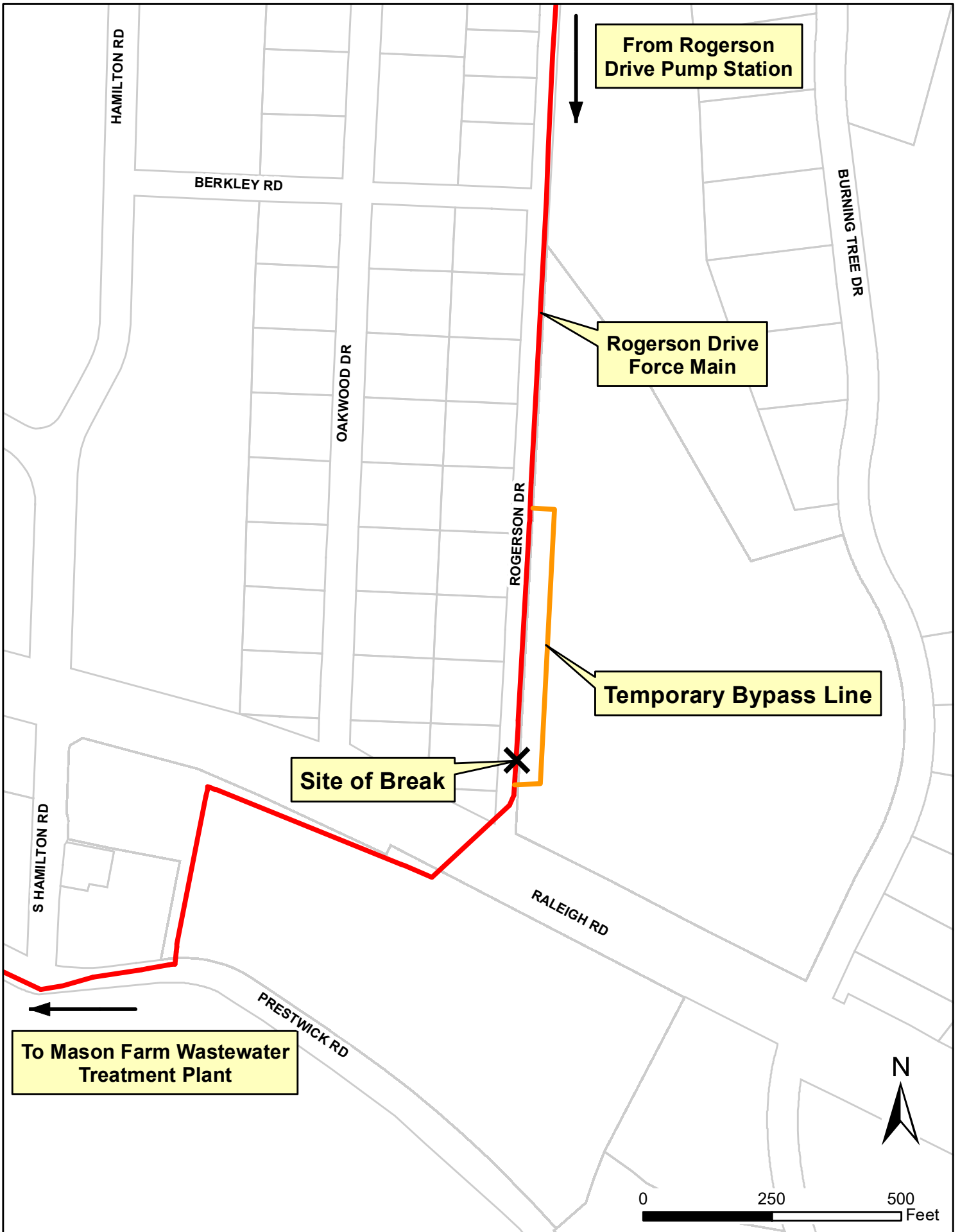
Mason Farm Wastewater Treatment Plant

Rogerson Drive Force Main

Legend

-  PS Rogerson Drive Wastewater Pump Station
-  Rogerson Drive Force Main
-  Rogerson Drive Pump Station Service Area





Agenda Item

- Demonstration of Agua Vista Web Portal

Purpose

- Summarize the launch of OWASA's Agua Vista Web Portal, as a resource for OWASA customers to track hourly water use data and leak alert notifications.

Background

- The Agua Vista Web Portal is a high-impact investment for customer engagement. It raises the level of service that we are providing customers in a dynamic, interactive, personal and actionable way.
- The foundation of the data in Agua Vista is hourly water use information provided by OWASA's Advanced Metering Infrastructure (AMI).
- After an extensive feasibility analysis, the OWASA Board of Directors authorized staff to pursue Advanced Metering Infrastructure in March 2016 in order to increase operational efficiency and customer service.
- With nearly 100% of water meters upgraded with AMI, the Agua Vista Web Portal was launched in March 2019.

Action Needed

- No action is needed; questions and feedback are encouraged.



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 *EJK*
FROM: Mary Tiger and Denise Battle
DATE: April 18, 2019
SUBJECT: Demonstration of Agua Vista Web Portal

Purpose

Summarize the launch of OWASA's Agua Vista Web Portal, as a resource for OWASA customers to track hourly water use data and leak alert notifications.

Background

In late 2017, after undertaking a comprehensive feasibility study and robust proposal solicitation and evaluation process, we began upgrading nearly 22,000 of our water meters with Advanced Metering Infrastructure (AMI). OWASA pursued AMI not just because it would improve the way that we conduct business with our customers, but also because of its potential to improve the way customers conduct business with OWASA.

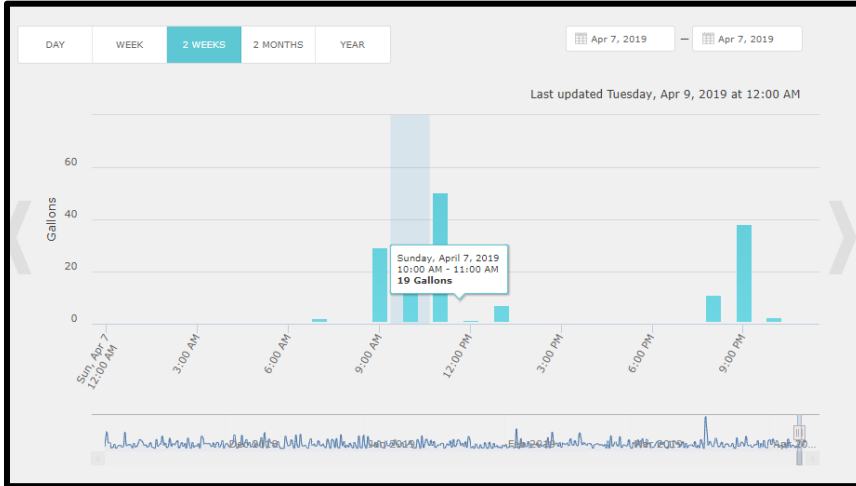
In March 2019, with almost all of OWASA's meter upgraded with AMI, we rolled out an online web portal, branded as Agua Vista, to empower our customers with the hourly water use data provided by the new AMI technology. The Agua Vista Web Portal is a Software as a Service (SaaS) provided by a company called WaterSmart. According to their website, the WaterSmart mission is to change the way the world uses water through a suite of engagement and analytics tools that allow customers to help themselves by accessing detailed information to answer questions and solve common problems. Although a separate company, WaterSmart was brought into the OWASA project by Mueller Systems, our contractor for the entire AMI project.

In large part, the capability of the portal is dictated by WaterSmart. However, with nearly ten years in the business, we have found the capability of their SaaS product to be quite satisfactory.

Portal Capability

From within the Agua Vista Web Portal, OWASA customers that register for the portal can:

1. Track monthly and hourly water use data



2. Establish and update notification information and preferences for leak alerts, bill forecast notifications, and high-water use alerts

The 'Communication Preferences' page allows users to manage their notification settings. It includes sections for 'Daily Use Notifications' and 'Bill Forecast Notifications', each with a checkbox to enable notifications, a description of the notification criteria, and options to select the notification frequency and amount. The 'Daily Use Notifications' section includes a slider for frequency (1X, 3X, 5X) and a note that the user will be notified when usage exceeds 2X times their normal seasonal use. The 'Bill Forecast Notifications' section includes a text input for the amount (set to \$50) and a note that the user will be notified if their use exceeds \$50 more than their normal seasonal bill. Both sections offer options to receive notifications via Email, Text Message, or Voice Message.

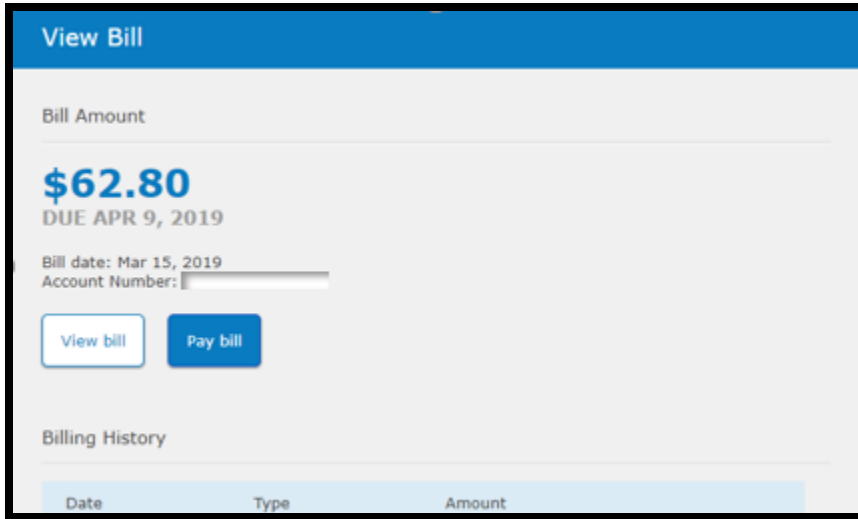
3. View customized water conservation and efficiency recommendations

The screenshot shows a web interface for 'Recommended Actions'. At the top, there are filters: 'Recommended (6)', 'Outdoor (34)', 'Indoor (35)', 'Resources (7)', and 'All (76)'. Below the filters, the title is 'Recommended Actions' with a subtitle 'Selected based on your Household Profile.' and a unit indicator 'Gallons Per Day (GPD)'. The page displays six cards, each with a title, a 'Read more' button, a small image, and a 'Savings up to...' summary. The cards are: 1. 'Tree Watering Advice' (19 GPD, \$117/yr), 2. 'Install Faucet Aerators' (16 GPD, \$84/yr), 3. 'Choose low water-use plants' (15 GPD, \$78/yr), 4. 'Install High-Efficiency Toilets' (14 GPD, \$92/yr), 5. 'Take a 5-Minute Shower' (9 GPD, \$49/yr), and 6. 'Don't Waste Cold Water'.

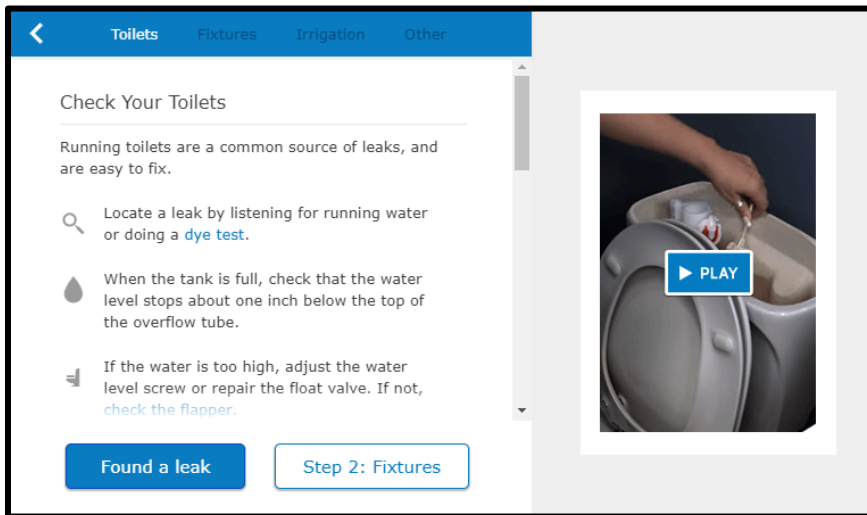
4. Add accounts (for managers of multiple properties) and other users (for family members, tenants, and other water users)

The screenshot shows two sections: 'Additional Accounts' and 'Additional Users'. The 'Additional Accounts' section has a heading, a descriptive paragraph: 'Add additional accounts to your OWASA Customer Portal by entering your properties' account numbers and zip codes.', and a blue button with a plus sign and the text '+ Add account'. The 'Additional Users' section has a heading, a descriptive paragraph: 'Users will be invited to access your OWASA Customer Portal.', and a blue button with a plus sign and the text '+ Add user'.

5. Pay their OWASA Bill. (Invoice Cloud, the online bill payment service previously to the rollout of Agua Vista, has been integrated into Agua Vista as a single sign-on solution.)



Moreover, all OWASA customers are automatically enrolled in Agua Vista leak notifications. If OWASA has an email on-file for a customer, customers are notified via email when their water use suggests a water leak. For those without a viable email, the portal initiates a printed letter to be mailed via post. Leak alerts invite OWASA customers to register for Agua Vista, where they will receive a step-by-step tutorial (complete with video links) on identifying and fixing leaks (see below).



Outreach Efforts To-Date

Since announcing the AMI project and associated meter upgrades, we have been making reference to an online web portal and calling it by the name Agua Vista. In a way, we started marketing the portal in late 2017, even though we did not have a portal technology provider yet identified.

In early 2019, once we had a technology provider identified and prototype developed, we invited a small subset of eager customers to test out the portal. Their feedback helped us to plan for the community-wide roll-out, which began on March 18, 2019 when we began mailing “welcome letters” to all OWASA customers.

In order to pace potential calls into OWASA’s Customer Service, welcome letters were mailed in phases, starting with non-residential customers. We sent welcome emails to those customers for whom we had email and mailed printed letters to the rest. By April 17, 2019, we expect that every OWASA customer should have received a welcome letter.

Leak alerts were activated on April 11, 2019.

Additionally, we have begun a series of community events to promote Agua Vista. On April 4, we brought the OWASA Water Wagon to the UNC Science Expo on the campus of UNC-Chapel Hill and promoted the Agua Vista Web Portal. With a web-enabled iPad, we were able to show OWASA customers their personal portal and register them on-the-spot.

In addition, Agua Vista has been co-promoted with the Mayors #SaveWater Challenge. Throughout the month of April, Chapel Hill and Carrboro are engaged in a friendly competition to collect the most water-saving pledges from the people that live and work in their communities. Agua Vista is being co-promoted as a tool for tracking the impact of the water conservation pledges that community members make.

In the debut interview of OWASA’s Wonderful Water series on WCHL, Mary Tiger participated in an on-air interview with WCHL’s Aaron Keck on April 11. ([Link to radio interview](#))

Of course, our website serves as both the hub of information and the place where customers register for Agua Vista. Currently, the main story and image on the website is promoting Agua Vista. It hosts an informational video and a series of “Frequently asked Questions”.



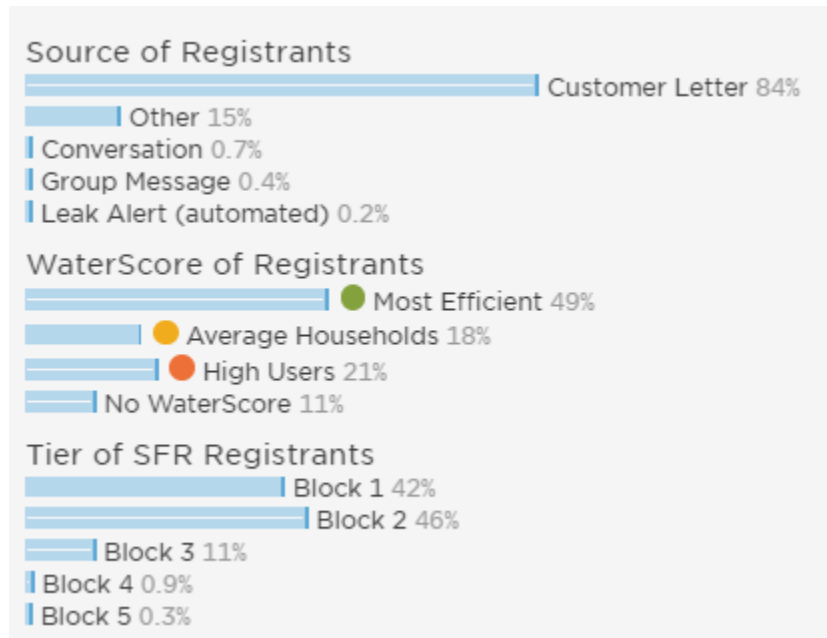
First Impressions

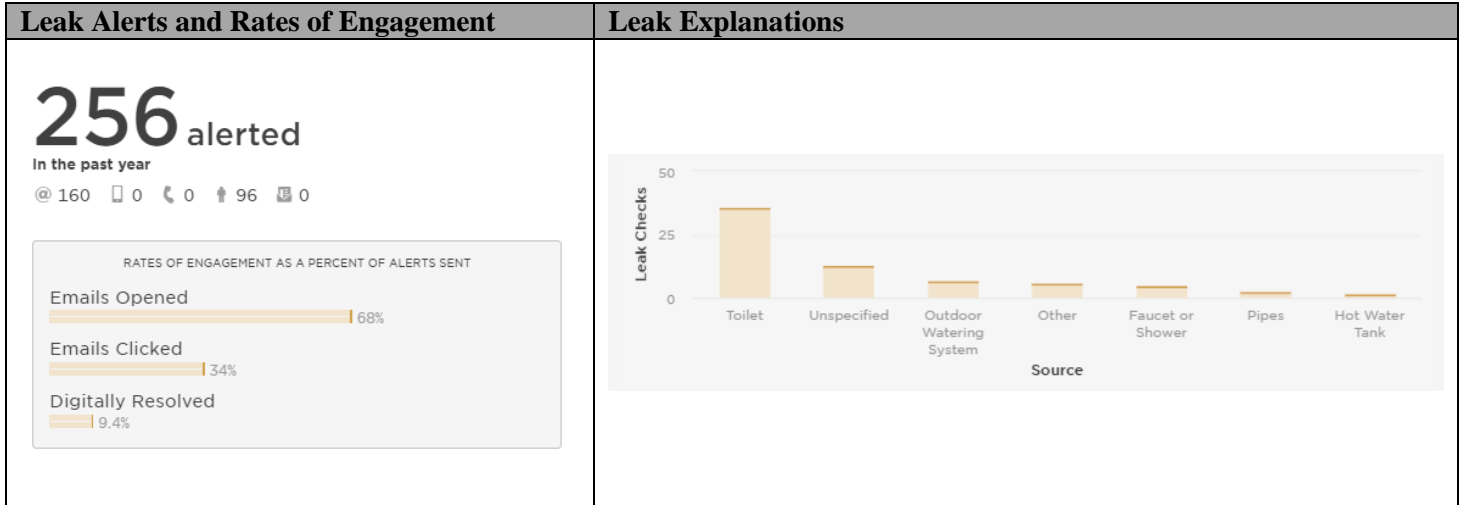
As of the date of this memo, 13.2% of eligible accounts are registered for Agua Vista. We are pleased with these initial results, as many communities that we have spoken with have only 10% of their eligible accounts registered for their online portal.

Below are summary stats excerpted from the utility-side of the Agua Vista Web Portal.

Registration Rate	Registered Accounts
<p>13% of eligible accounts</p> <p>🏠 13% 📱 15% 🏠 76% 🌱 10% 🏠 7.4% 🔥 3.9% ? 0.2%</p>	<p>2,823</p> <p>2,819 in the past 90 days</p>
Number of Visits and Platform	What Visitors Do
<p>5,655 visits</p> <p>in the past 90 days</p> <p>Platform</p> <p>🖥️ Desktop 76%</p> <p>📱 Mobile 24%</p>	<p>Update Profile (SFR Only) 14%</p> <p>View an Action 6.9%</p> <p>Start an Action 0.6%</p> <p>Leave Feedback 1.0%</p>

Breakdown of Registrants (Source, WaterScore, and Rate Block Tier)





Customer Stories

The customer experience with Agua Vista has been largely positive, based on the feedback that we have heard.

One couple who received an Agua Vista alert and used the leak check feature to find and fix a toilet issue the same day contacted us to say:

“Thank you so much for the new alert aqua vista system. Can’t imagine how much water would have been wasted if undetected until we received water bill. We are senior citizens on a fixed income.”

This feedback illustrates how user-friendly Agua Vista is for our customer. In this case the customer saved over \$83.19 in additional cost on their bill if the leak would have continued at the same rate.

Impact on Customer Service

As the customer-facing side of OWASA, the Customer Service group is most impacted by Agua Vista. The more customers that register for Agua Vista, the more positive results we anticipate from its use. With only one month of use, we are seeing

- Lower call volumes
- Increased productivity, in terms of the number of calls that Customer Service can handle
- Enhanced customer education in longer calls

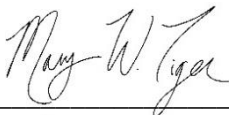
Next Steps

Agua Vista is a high-impact investment for customer engagement. It is dynamic, proactive, interactive, personal, and actionable. It provides us a platform on which to engage with customers at a whole new level. It raises the level of service that we are providing customers, while at the same time increasing operational efficiency for our distribution and customer service team.

Our communication objectives are to demonstrate the value of the portal, encourage portal registration, encourage portal use.

Because of this, it is in our best interest to have as many customers registered for Agua Vista as possible. We are planning to continue to promote Agua Vista indefinitely. In the near future, we are planning the following initiatives:

- **Key Account Integration Discussion:** We will be organizing one-on-one discussions with our larger accounts and groups of other key accounts to make sure that they know how and why to incorporate Agua Vista into their facilities management and sustainability efforts. We are currently planning to organize discussions with:
 - University of North Carolina at Chapel Hill
 - University of North Carolina Healthcare
 - Chapel Hill-Carrboro City Schools
 - Town of Chapel Hill
 - Town of Carrboro
 - Chamber of Commerce
 - Individual apartment property managers (larger complexes)
- **Affordability Outreach:** As part of our Affordability Outreach Program, we will offer presentations of Agua Vista for and with our affordability partners. For example, we have an Agua Vista demonstration organized in the Senior Center computer lab this summer.
- **Promotion at Public Events:** We will continue to promote Agua Vista at public events alongside the Water Wagon. Last year, the Water Wagon “attended” nine public events. For a limited amount of time, we will be distributing water bottles with the OWASA and Agua Vista logos.
- **Elected Official Presentations:** We are reaching out local Town and County Managers to organize a time to present the Agua Vista Web Portal to elected officials and interested members of the public.
- **Vehicle Decals:** OWASA vehicles are out in the community every day. We are in the process of updating all OWASA vehicles with the Agua Vista logo.
- **Leak Alerts:** Leak alerts are one of the most “organic” ways to grow customer registration. Since all customers are enrolled in leak alerts, each leak alerts presents an actionable opportunity to invite a customer to register for the Portal.
- **Everyday Engagement:** Through our customer service and community engagement, we will use every opportunity that we have to promote Agua Vista.



Mary Tiger
Sustainability Manager



Denise Battle
Customer Service Manager

Agenda Item

- Update on the Analysis of Taste and Odor Compounds in Drinking Water

Purpose

- To update the Board and public on the use of our Gas Chromatograph/Mass Spectrometer (GC/MS) for the analysis of taste and odor compounds.

Background

- Taste and odor compounds in drinking water, while not harmful, are unpleasant and noticeable by the general public at very low levels (parts per trillion). Therefore, timely measurements and treatment changes are necessary to minimize the likelihood of drinking water containing elevated levels of taste and odor compounds entering the water distribution system. Previously, OWASA utilized a contract laboratory for analysis of taste and odor compounds and received results 3-4 days after collection.
- The new GC/MS allows us to monitor for taste and odor compounds in-house and have actionable results less than 24 hours after sample collection rather than several days later from a contract laboratory.
- Laboratory staff are analyzing samples several times a week including paired samples to fine-tune the method and ensure accurate results.

Next Steps

- Once fully staffed, increase sampling frequency to daily.
- Further optimize our testing and treatment protocols to reliably and cost effectively provide safe and aesthetically pleasing drinking water.
- Test different treatment options (e.g., different types of powdered activated carbon) for effectiveness at removing taste and odor compounds.

Action Needed

- No action needed, information only.

April 25, 2019

Agenda Item

- Financial Report for the Nine-Month Period Ended March 31, 2019

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 but one financial performance target was met.
 - Operating Revenues for the period were about \$601,000 or 2.2% under budget.
 - System Development Fees were about \$112,000 over budget.
 - Operating Expenses were about \$210,000 or 1.3% under budget.
 - Net Income less Debt Service was about \$491,000 or 7.2% under budget. OWASA is a nonprofit entity. Net Income less Debt Service is used to fund investments in capital improvement projects and reserves.
 - Capital Improvements Program expenditures were approximately \$2.9 million lower than projected for the period.

Action Needed

- Receive and discuss the Financial Report for the nine-month period ended March 31, 2019.



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: April 19, 2019
Subject: Financial Report for the nine-month period ended March 31, 2019

Purpose

The financial report for the nine-month period ended March 31, 2019 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 except for meeting the target balance in the working capital reserve. At the end of the period, the balance was about \$3.1 million less than the target. We have expended funds on Capital Improvements Program (CIP) projects which are being financed with low-interest loans from the state and we have not yet drawn all of the funds available from the loans; we plan to do so before the end of the fiscal year.
- Average drinking water sales for the period was 5.92 million gallons per day (MGD), 6.18 was projected. Combined drinking and reclaimed water sales for the period averaged 6.78 MGD versus a projection of 6.94.
- Total Operating Revenue was 2.2% or about \$601,000 under budget.
- Revenue from new system connections (system development fees) was over budget by about \$112,000. The average revenue-per-meter amount used for budgeting is less than the revenue-per-meter we have received.
- Total Operating Expenses for the period were 1.3% or about \$210,000 under budget.
 - General and Administrative expenses were under budget by about \$441,000. The variance is made-up of a number of relatively small line items. Two of the more significant variances include lower than budgeted personnel costs resulting from position vacancies and not yet incurring budgeted consulting and professional fees.
 - The Water Supply and Treatment department was under budget by about \$199,000. While

chemicals expense was over budget by about \$84,000, maintenance expense was under budget by about \$138,000; wages and professional fees were under budget by almost \$100,000 in total.

- Water Distribution expenses were under budget by about \$69,000 primarily because maintenance costs were less than projected for the period.
 - Wastewater Treatment expenses were over budget by about \$511,000 due primarily to chemicals, maintenance, and supplemental biosolids dewatering expenses.
 - Wastewater Collection expenses were under budget by about \$205,000. Wages were under budget due to position vacancies and maintenance costs were lower than expected.
 - Through March 2019, we incurred about \$192,000 of expenses related to preparing for two hurricane events and dealing with their aftermaths. We are working with the Federal Emergency Management Agency to be reimbursed for some or all of these costs.
- Net Income less Debt Service for the period was approximately 7.2% or \$491,000 less than budget. OWASA is a nonprofit entity. Net Income less Debt Service is used to fund investments in capital improvement projects and reserves.
 - Capital Improvements Program (CIP) Summary

Approximately \$9.2 million was invested in a total of 44 capital projects which were active during the reporting period, including (as of the end of the reporting period): six projects in a planning phase, nine projects in design or bidding, 15 projects in construction, and 14 projects in closeout. Highlights of CIP work during the third quarter include:

- Completion of a water main replacement along Lexington Drive;
- Completion of a water main replacement within Pritchard Avenue and Noble Street;
- Replacement of pumps used for process water at the wastewater treatment plant (WWTP);
- Award of over \$10 million in construction contracts for infrastructure renewal in various areas including pump station improvements and flashboard replacement at University Lake Reservoir, upgrades to solids handling equipment and rehabilitation of the plant headworks at the WWTP, and important distribution system improvements in Manning Drive and Country Club Road;
- Initiation of an important risk evaluation and planning study for the water distribution system;
- Significant progress on the rehabilitation of concrete sedimentation basins at the Jones Ferry Water Treatment Plant (WTP);
- Semiannual discussions with staff at Towns of Chapel Hill and Carrboro to identify items on ongoing and upcoming projects requiring coordination. In particular, discussions with Town of Chapel Hill staff developed a possible approach to collaborate on water main replacement and street resurfacing needs to reduce total costs and community impact; and
- Continued direct outreach to minority subcontractors about upcoming contractor opportunities and participation in a networking event hosted by the State Construction Conference, the Office for Historically Underutilized Businesses.

The CIP expenditures of \$9.2 million are lower than the \$12.1 million planned for this period, and the current projection shows total FY 2019 expenditures of \$14.8 million or 71% of budget. Progress slowed during the third quarter on several major construction projects for factors primarily related to bidding climate and contractor scheduling. The need to re-bid large contracts due to lack of minimum bidders has become a typical occurrence and notably affected the expected start of construction for both the WWTP Solids Facility Improvements and Headworks Rehabilitation project and the Manning Drive and Country Club Road Water Main Replacement project, both of which had previously been expected to complete significant amount of construction before the end of the fiscal year. Additionally, the emergency repair on

the Rogerson Drive Force Main is having an impact on staff workload. But more significantly, it is impacting progress of the Rogerson Drive Pump Station Improvements as well as the schedule for several construction projects being completed by the same contractor. Hiring was completed for one of the two vacant Utilities Engineer positions; however, employment start date will be mid-June. We are continuing with the hiring process for the remaining vacant position.

FY 2019 Forecast

The following forecast is based on actual financial results through February 28, 2019 plus what we expect to spend for the four-month period from March through June 2019.

	FY 2019 Forecast	FY 2019 Budget	Variance Over (Under) Budget	Percent Variance
	(in thousands)			
Operating revenue	\$36,273	\$36,874	(\$601)	(1.6%)
Operating expense	(22,619)	(22,524)	95	0.4
Non-operating income	1,120	1,218	(98)	(8.1)
Net income	14,774	15,568	(794)	(5.1)

Based on this forecast, it appears our net income will be less than budget. As a result, we have scheduled to request a budget amendment at the May 9, 2019 Board Work Session.



 Stephen Winters, CPA
 Director of Finance and Customer Service

Orange Water and Sewer Authority

**Financial Report
For the Nine-Month Period Ended
March 31, 2019**

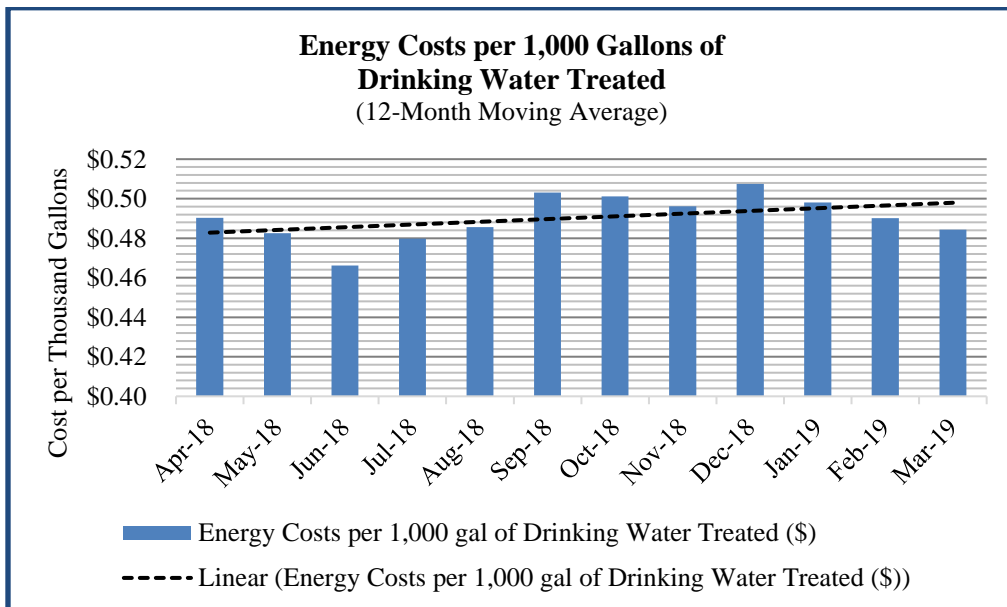
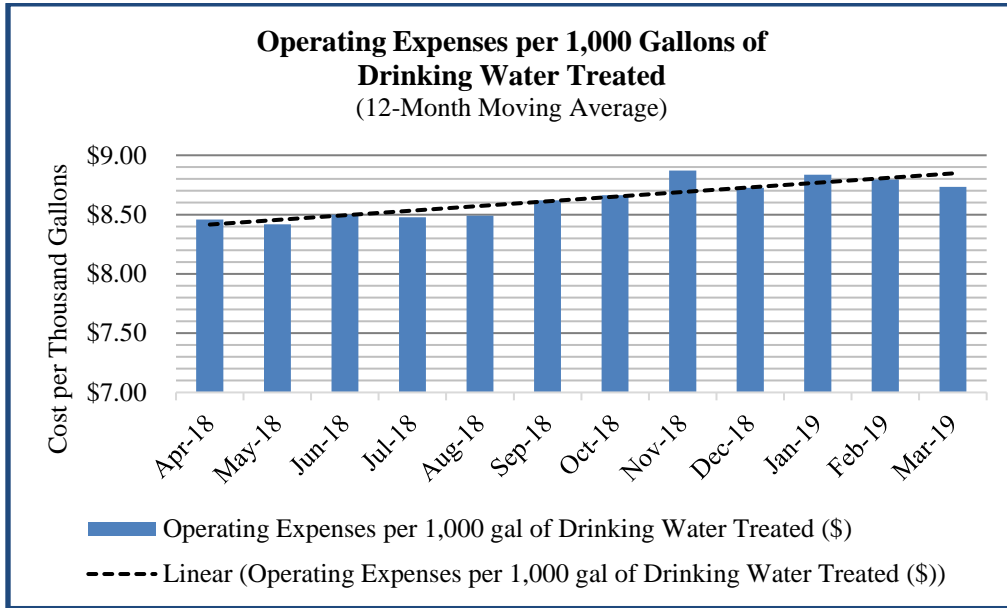
Orange Water and Sewer Authority
Statement of Net Position
March 31, 2019
(unaudited)

Assets	
Current Assets	
Cash	\$15,617,030
Receivables	4,438,323
Inventory	1,619,620
Prepaid expenses	114,105
Restricted cash	4,661,128
	<hr/>
Total Current Assets	26,450,206
	<hr/>
Noncurrent Assets	
Capital assets (net of depreciation)	275,296,654
Other noncurrent assets	46,709,851
	<hr/>
Total Noncurrent Assets	322,006,505
	<hr/>
Total Assets	\$348,456,711
	<hr/> <hr/>
Liabilities and Net Position	
Current Liabilities	
Accounts payable and accrued expenses	\$1,143,935
Unearned income	200,924
Customer deposits	1,161,816
	<hr/>
Total Current Liabilities	2,506,675
	<hr/>
Noncurrent Liabilities	
Bonds payable	59,849,748
Other noncurrent liabilities	13,907,668
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Total Noncurrent Liabilities	73,757,416
	<hr/>
Net Position	
Contributed capital	122,013,459
Net position at the beginning of the year	146,731,581
Year-to-date accrual basis net income	3,447,580
	<hr/>
Total Liabilities and Net Position	\$348,456,711
	<hr/> <hr/>
Net income reconciliation:	
Accrual basis net income	\$3,447,580
Depreciation and interest expense	8,322,774
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Modified accrual basis net income	\$11,770,354
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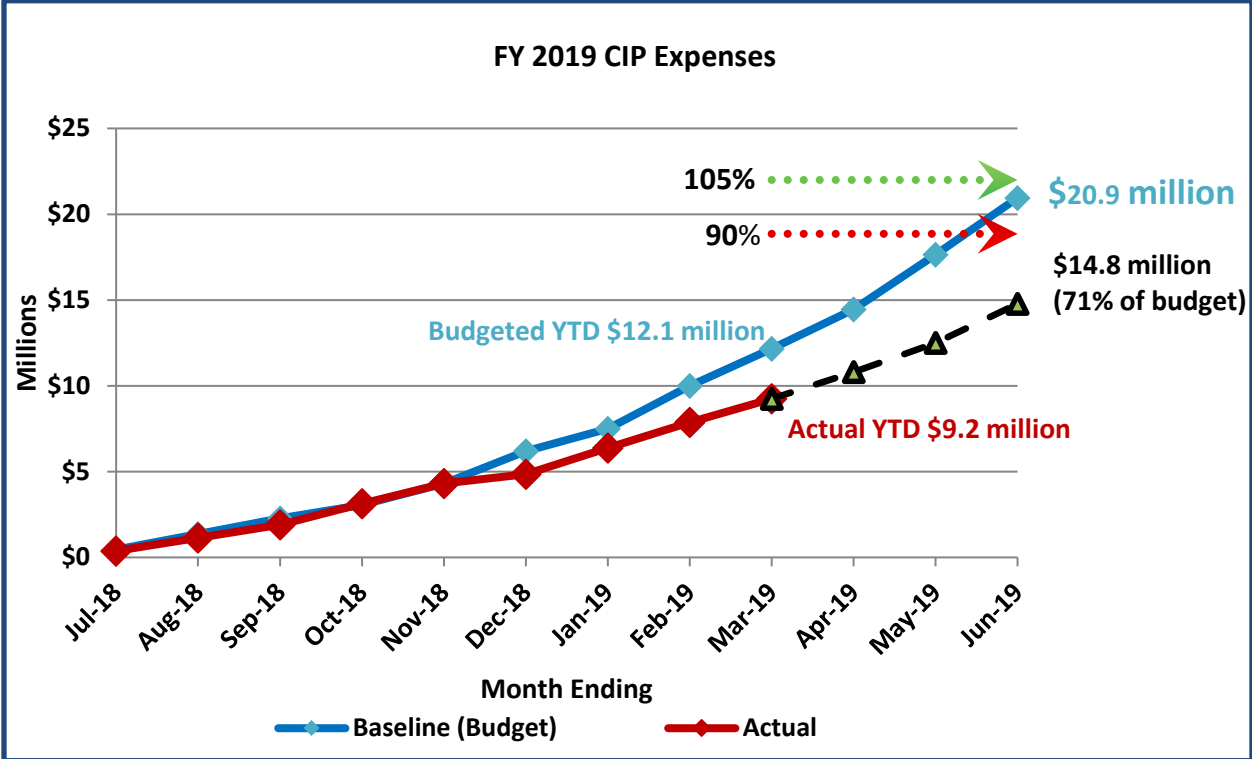
Orange Water and Sewer Authority
Income Statement
For the Nine-Month Period Ended March 31, 2019
(unaudited)

	Actual through March 31, 2019	Budget through March 31, 2019	Variance (effect on net change in Fund Balance)	Percent Variance
Operating Revenue				
Water	\$13,108,719	\$13,631,803	(\$523,084)	(3.8%)
Sewer	12,944,395	12,948,795	(4,400)	(0.0)
Reclaimed Water	330,202	330,771	(569)	(0.2)
Service Initiation Fees	89,805	115,758	(25,953)	(22.4)
Other	678,561	744,167	(65,606)	(8.8)
Refunds and Allowances	(154,076)	(172,503)	18,427	10.7
	<hr/>	<hr/>	<hr/>	<hr/>
Total Operating Revenue	26,997,606	27,598,791	(601,185)	(2.2)
	<hr/>	<hr/>	<hr/>	<hr/>
Non-Operating Income (Expense)				
System Development Fees	1,008,047	895,761	112,286	12.5
Interest	35,962	17,757	18,205	102.5
Loan Fees	(184,627)	0	(184,627)	
	<hr/>	<hr/>	<hr/>	<hr/>
Total Non-Operating Income	859,382	913,518	(54,136)	(5.9)
	<hr/>	<hr/>	<hr/>	<hr/>
Total Income	27,856,988	28,512,309	(655,321)	(2.3)
	<hr/>	<hr/>	<hr/>	<hr/>
Operating Expense				
General and Administrative	5,076,574	5,517,944	441,370	8.0
Water Supply and Treatment	3,585,680	3,784,240	198,560	5.2
Water Distribution	2,396,061	2,465,478	69,417	2.8
Wastewater Treatment	4,117,221	3,605,756	(511,465)	(14.2)
Wastewater Collection	718,916	923,673	204,757	22.2
Hurricane-Related Expenses	192,182	0	(192,182)	
	<hr/>	<hr/>	<hr/>	<hr/>
Total Operating Expense	16,086,634	16,297,091	210,457	1.3
	<hr/>	<hr/>	<hr/>	<hr/>
Net Income (modified accrual)	11,770,354	12,215,218	(444,864)	(3.6)
	<hr/>	<hr/>	<hr/>	<hr/>
Debt Service	5,412,976	5,366,666	(46,310)	(0.9)
	<hr/>	<hr/>	<hr/>	<hr/>
Net Income less Debt Service	6,357,378	6,848,552	(491,174)	(7.2)
	<hr/>	<hr/>	<hr/>	<hr/>
CIP Expenditures	9,244,000	12,154,000	2,910,000	23.9
Capital Equipment Expenditures	594,619	1,001,135	406,516	40.6
	<hr/>	<hr/>	<hr/>	<hr/>
Net Change in Fund Balance	(\$3,481,241)	(\$6,306,583)	\$2,825,341	
	=====	=====	=====	

Orange Water and Sewer Authority
Select Financial Data
For the Nine-Month Period Ended March 31, 2019



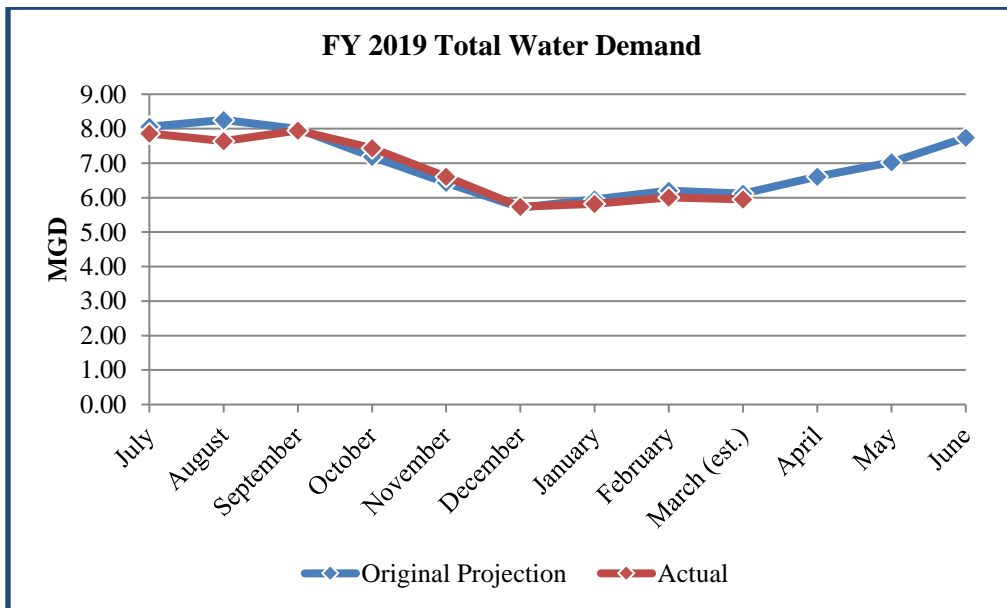
**Orange Water and Sewer Authority
 Select Financial Data
 For the Nine-Month Period Ended March 31, 2019**



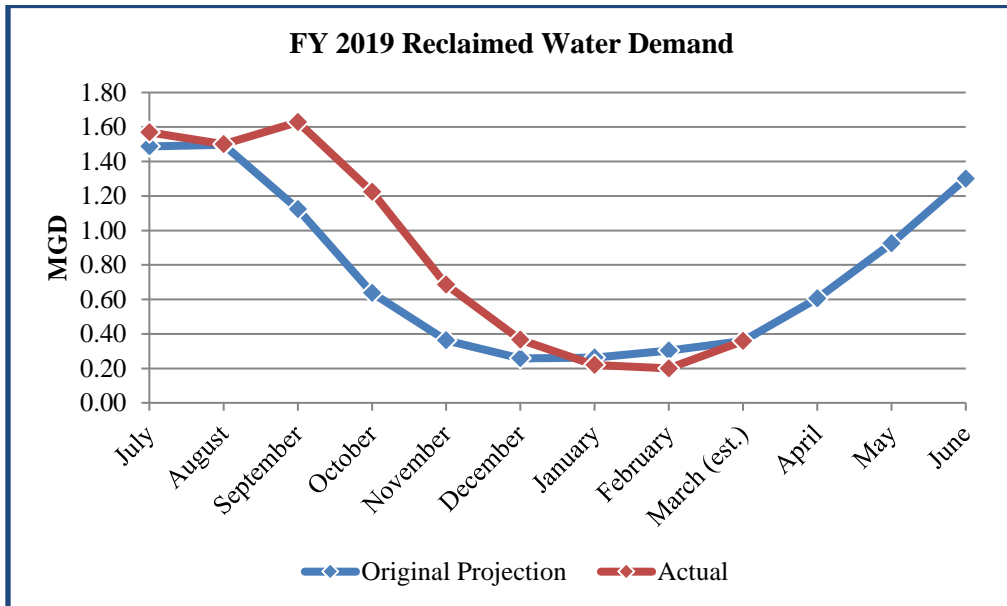
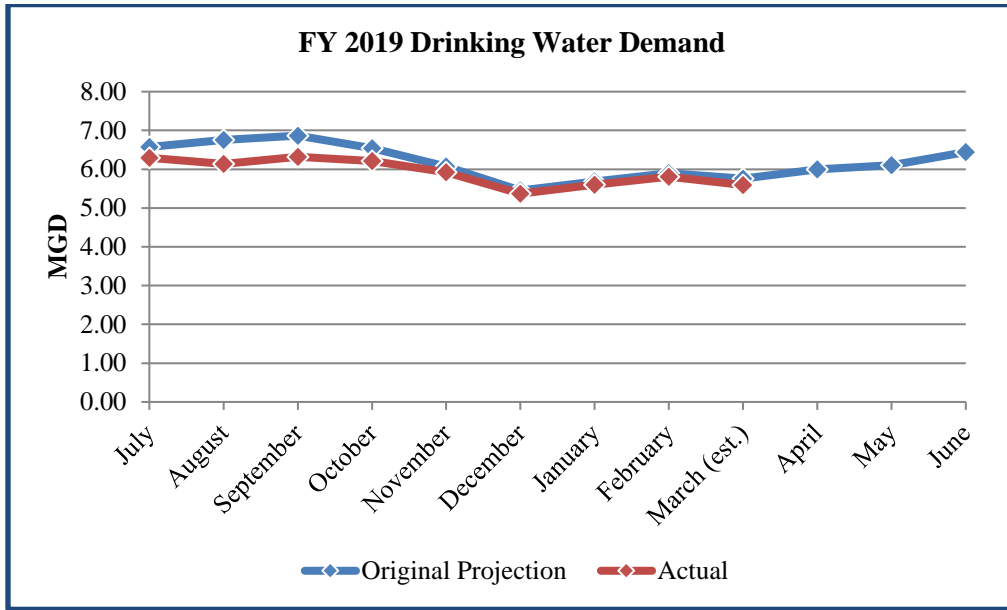
**Orange Water and Sewer Authority
Select Financial Data
For the Nine-Month Period Ended March 31, 2019**

<u>FY 2019 Water Sales Projection (Average Day)</u>						
	Original FY 2019 Sales Projections		Actual FY 2019 Water Sales		Revised FY 2019 Sales Projections	
	DW	RCW	DW	RCW	DW	RCW
July	6.57	1.49	6.29	1.57	6.29	1.57
August	6.76	1.50	6.14	1.50	6.14	1.50
September	6.87	1.12	6.32	1.63	6.32	1.63
October	6.54	0.64	6.21	1.22	6.21	1.22
November	6.07	0.36	5.92	0.68	5.92	0.68
December	5.45	0.26	5.37	0.37	5.37	0.37
January	5.69	0.26	5.60	0.22	5.60	0.22
February	5.90	0.30	5.81	0.20	5.81	0.20
March	5.76	0.36	5.59	0.36	5.76	0.36
April	6.00	0.61			6.00	0.61
May	6.10	0.93			6.10	0.93
June	6.45	1.30			6.45	1.30
Average	6.18	0.76	5.92	0.86	6.00	0.88

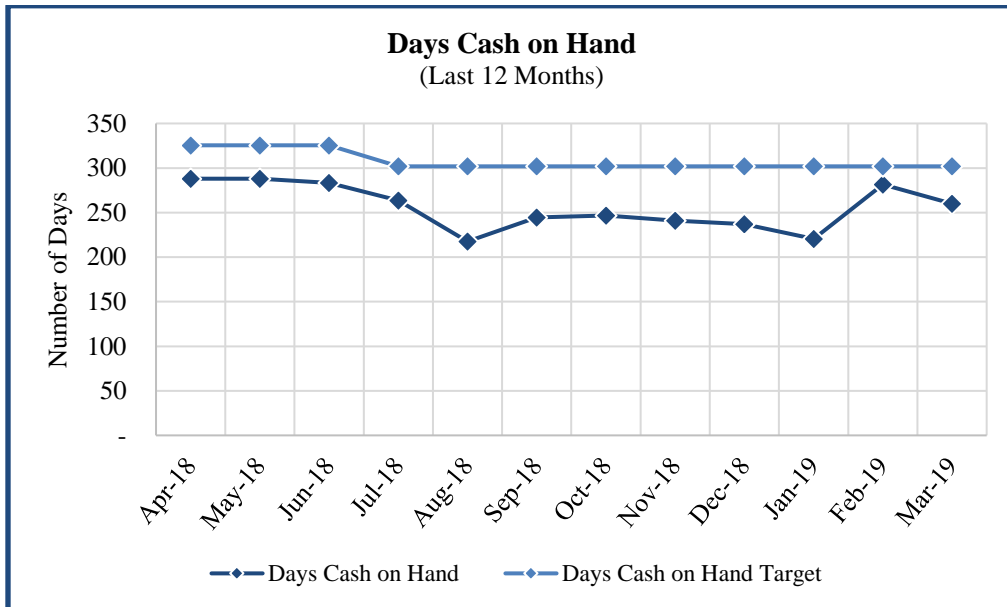
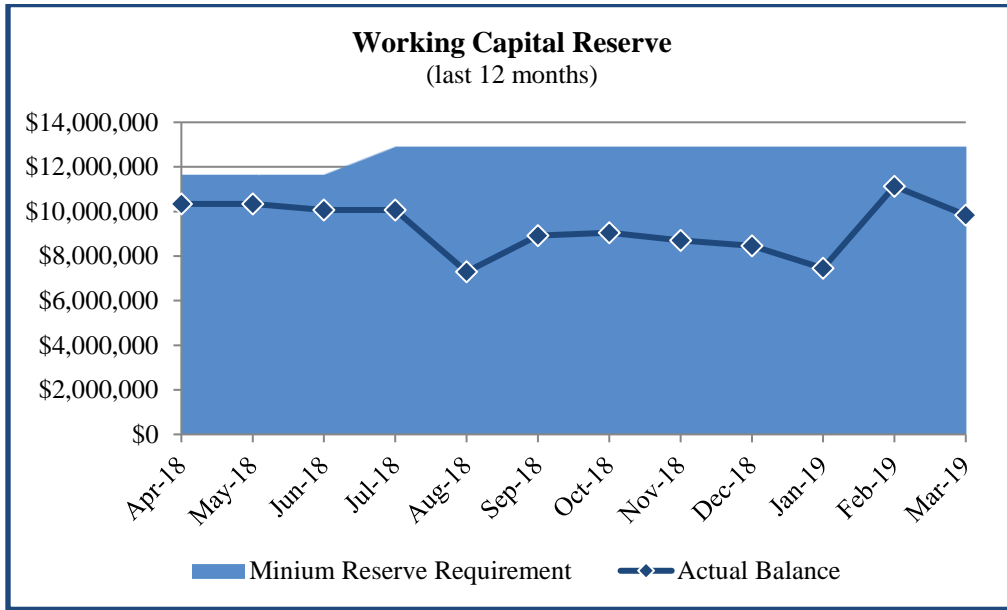
Estimates shown in red



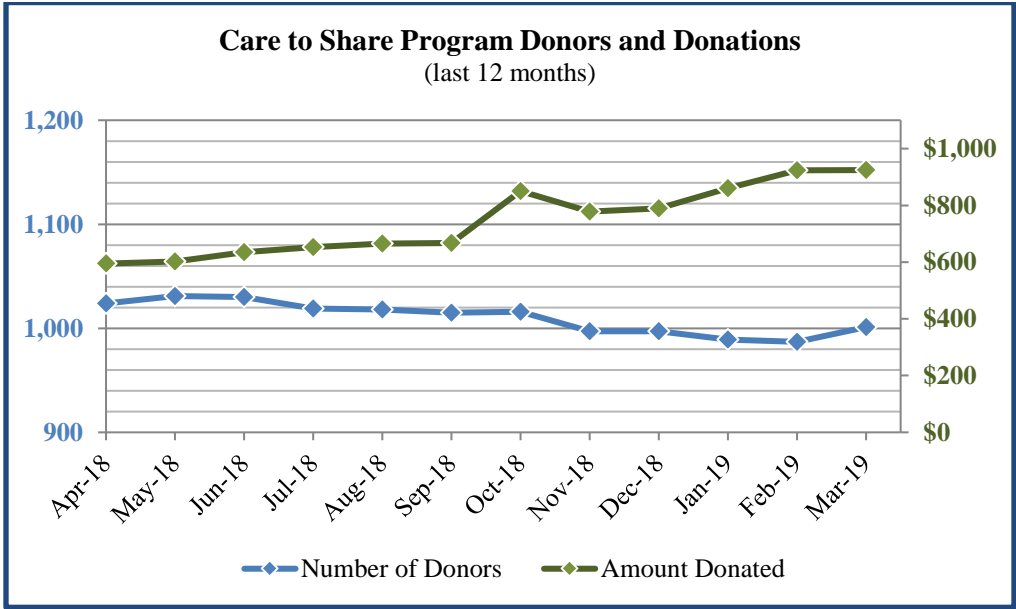
**Orange Water and Sewer Authority
 Select Financial Data
 For the Nine-Month Period Ended March 31, 2019**



**Orange Water and Sewer Authority
 Select Financial Data
 For the Nine-Month Period Ended March 31, 2019**



**Orange Water and Sewer Authority
 Select Financial Data
 For the Nine-Month Period Ended March 31, 2019**



**Orange Water and Sewer Authority
Financial Management Policy Report Card
For the Nine-Month Period Ended March 31, 2019**

Measurement	Objective	FY18 Results	FY19 Goal	YTD FY19 Results
Working Capital Reserves	Greater of four months Operating Expenses or 20% of succeeding three years CIP	\$10.1M	\$12.9M	\$9.8M
Capital Improvements Reserve	2% of Net Capital Assets (Funding \$400,000 per year until reach goal of approximately \$6M)	\$3.6M	\$4.0M	\$4.0M
Rate/Revenue Stabilization Reserve	5% of annual Water and Sewer Revenue	\$1.7M	\$1.8M	\$1.8M
Debt Burden to Asset Value	Total Debt not more than 50% of Total Assets	24%	≤ 50%	22%
Sufficiency of Revenues above Debt Requirements ¹	Annual Debt Service no more than 35% of Gross Revenue	17%	≤ 35%	19%
Cash Financing of Capital ²	Annual revenues and reserves provide at least 30% of CIP funding	49%	≥ 30%	44%
Debt Service Coverage Ratio ¹	Annual Net Income not less than two times Annual Debt Service	2.6	2.0	2.2
Service Affordability Ratio ³	Average annual OWASA bill not more than 1.5% of area median household income	1.35%	1.5%	1.38%

M = million

i

¹ Calculation based on the FY 2019 Annual Budget until full-year results are available.

² Cash Financing of Capital based on 5-Year CIP Budget and potential borrowing during the same period.

³ FY 2019 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.

Agenda Item

- Discuss Draft FY 2020 Budget and Rate Adjustment and Authorize Staff to Publish Proposed Budget and Rates Information

Background

- The Board of Directors reviewed FY 2020 budget and rate adjustment information, including staff's projections of budget and rate adjustments for the next four fiscal years, at its meetings on March 28 and April 11, 2019.
- To provide more time to analyze these options, the Board's Finance Committee will meet on April 23, 2019.
- Based on guidance provided by the Finance Committee, staff anticipates preparing an adjusted schedule of rates, fees and charges for the Board to review on April 25, 2019.
- Staff will request the Board's permission to publish budget and rates information in advance of public hearings scheduled for May 23, 2019.

Action Needed

- To be determined pending results of the April 23, 2019 Finance Committee meeting.



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 19, 2019
SUBJECT: Discuss Draft FY 2020 Budget and Rate Adjustment and Authorize Staff to Publish Proposed Budget and Rates Information

Purpose

The Board of Directors reviewed FY 2020 budget and rate adjustment information at its meetings on March 28 and [April 11, 2019](#). The Board also reviewed staff's projections of budget and rate adjustments for the next four fiscal years. The Board makes budget and rate adjustment decisions annually but projections of future years' financial information is also considered.

At its meeting on April 11th, the Board reviewed three rate adjustment options for FY 2020 which included projections of rate adjustments for FY 2021-2024. To provide more time to analyze these options, the Board's Finance Committee will meet on April 23, 2019.

Public hearings on the FY 2020 budget and rates for services are scheduled for May 23, 2019. In advance of these hearings, staff will publish Board-approved information about the budget as well as a schedule of rates, fees and charges that will reflect any rate increases the Board is considering. Staff typically requests the Board's permission to publish information at the second April Board meeting (April 25, this year). Based on guidance provided by the Finance Committee, staff anticipates preparing an adjusted schedule of rates, fees and charges for the Board to review on April 25, 2019.

Action Requested

To be determined pending results of the April 23, 2019 Finance Committee meeting.

Stephen Winters, CPA
Director of Finance and Customer Service

Attachment – Draft Fiscal Year 2020 Schedule of Rates, Fees and Charges

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

APPLICABLE TO ALL BILLINGS AND SERVICES ON OR AFTER OCTOBER 1, ~~2018~~2019.

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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 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.

All fees go into effect on October 1, ~~2018~~2019.

**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

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	As of Oct. 1, 2018 Monthly Service Charge	Proposed for Oct. 1, 2019
5/8"	\$14.99	\$15.74
3/4" Combination Fire and Domestic Service Meter	\$15.50	\$16.28
1"	\$30.12	\$31.63
1" Combination Fire and Domestic Service Meter	\$30.63	\$32.16
1-1/2"	\$65.14	\$68.39
2"	\$98.31	\$103.22
3"	\$202.18	\$212.29
4"	\$330.05	\$346.55
6"	\$718.75	\$754.69
8"	\$1,022.10	\$1,073.21

Water Irrigation Service Charge

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	As of Oct. 1, 2018 Monthly Service Charge	Proposed for Oct. 1, 2019
5/8"	\$24.01	\$25.21
1"	\$47.99	\$50.39
1-1/2"	\$88.84	\$93.28
2"	\$136.64	\$143.47
3"	\$270.45	\$283.98
4"	\$415.16	\$435.92
6"	\$816.68	\$857.52
8"	\$1,298.77	\$1,363.70

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

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 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

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)	As of Oct. 1, 2018 Commodity Rate per 1,000 Gallons	Proposed for Oct. 1, 2019
Block 1	1,000 to 2,000	\$2.68	\$2.82
Block 2	3,000 to 5,000	\$6.52	\$6.84
Block 3	6,000 to 10,000	\$7.99	\$8.39
Block 4	11,000 to 15,000	\$11.16	\$11.72
Block 5	All use 16,000 and up	\$20.19	\$21.20

Multi-family Master-metered Residential Accounts

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.

As of Oct. 1, 2018 - \$5.78 per thousand gallons
Proposed for Oct. 1, 2019 - **\$6.07**

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

Non-residential Accounts Except Irrigation Accounts

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).

	As of Oct. 1, 2018 Rate	Proposed for Oct. 1, 2019
Off-peak seasonal rate per 1,000 gallons (October through April)	\$4.24	\$4.46
Peak seasonal rate per 1,000 gallons (May through September)	\$8.07	\$8.47

Irrigation-only Accounts

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.

As of Oct. 1, 2018 - \$8.68 per thousand gallons
Proposed for Oct. 1, 2019 - **\$9.11**

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

WATER COMMODITY SURCHARGES APPLICABLE UNDER WATER SHORTAGE
DECLARATION STAGES – No changes proposed for this section

Conservation Water Commodity Charges Under Mandatory Water Use Restrictions

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

INTERLOCAL WATER TRANSFER CHARGES – No changes proposed for this section

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 service charge, payable in advance, shall be collected for setting and removing the meter.

As of Oct. 1, 2018 - Service Charge \$290
Proposed as of Oct. 1, 2019 - **\$320**

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

In addition, a security deposit shall be required.

Temporary Hydrant Meter 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 SYSTEM DEVELOPMENT FEE – No changes proposed for this section

Water system development Fees are calculated to recover a portion of the capital costs of providing water system facility capacity. The system development 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 system development 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	Fee
5/8" Meter or 3/4" Combination Fire and Domestic Service, Single-family Residential:	
<800 square feet	\$620
801-1300 square feet	\$770
1301-1700 square feet	\$864
1701-2400 square feet	\$1,142
2401-3100 square feet	\$1,767
3101-3800 square feet	\$2,442
>3800 square feet	\$4,295
1" Meter, Single-Family Residential (all square footages)	\$7,338
5/8" Meter or 3/4" Combination Fire and Domestic Service Meter, Multi-family Residential	\$830
1" Meter, Multi-Family Residential (all square footages)	\$7,338
5/8" Meter or 3/4" Combination Fire and Domestic Service Meter, Non-residential*	\$2,933
1" Meter, Non-residential*	\$7,338
1-1/2" Meter, Multi-Family Residential and Non-residential*	\$14,666
2" Meter, Multi-Family Residential and Non-residential*	\$23,466
3" Meter, Multi-Family Residential and Non-residential*	\$46,933
4" Meter, Multi-Family Residential and Non-residential*	\$73,332
6" Meter, Multi-Family Residential and Non-residential*	\$146,664
8" Meter, Multi-Family Residential and Non-residential*	\$234,663

* Same fee for Irrigation-Only accounts.

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

A person or party completing a development or re-development project may be eligible to request and receive a credit on the water system development 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 system development 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 system development Fees that would otherwise apply to the development or re-development project. System development 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 system development 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	As of Oct. 1, 2018 Fee	Proposed for Oct. 1, 2019
Complete Water Service Installation, 5/8” meter	\$4,110	\$4,600
Complete Water Service Installation, 3/4” Combination Fire and Domestic Service Meter	\$4,350	\$4,840
Complete Water Service Installation, 1” meter	\$4,280	\$4,850
Meter Only Installation, 5/8” meter	\$260	No change
Meter Only Installation, 3/4” Combination Fire and Domestic Service Meter	\$500	No change
Meter Only Installation, 1” Combination Fire and Domestic Service Meter	\$540	No change
Meter Only Installation, 1” meter	\$340	No change
Meter Only Installation, 1-1/2” meter	\$660	\$650
Meter Only Installation, 1-1/2” Combination Fire and Domestic Service Meter	\$830	No change
Meter Only Installation, 2” meter	\$890	\$1,320
Meter Only Installation, 2” Combination Fire and Domestic Service Meter	\$1,000	No change
Remote Read Box with 5/8” Detector Meter	\$500	No change

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%.

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

Deliver fee for 3-inch and large meters:

As of Oct. 1, 2018 Delivery Fee \$150
Proposed for Oct. 1, 2019 - **\$160**

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 – **No changes proposed for this section**

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, subject to minimum amount.

Minimum Charge \$430

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 reinspection fee 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.

Tap Reinspection Fee - \$150

HYDRAULIC FIRE FLOW TESTING – **No changes proposed for this section**

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.

\$230 per test

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

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

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 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	As of Oct. 1, 2018 Monthly Service Charge	Proposed for Oct. 1, 2019
5/8” or 3/4” Combination Fire and Domestic Service	\$12.24	\$12.85
1”	\$21.02	\$22.07
1-1/2”	\$36.24	\$38.05
2”	\$54.79	\$57.53
3”	\$103.61	\$108.79
4”	\$158.39	\$166.30
6”	\$290.39	\$304.91
8”	\$495.54	\$520.31

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

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 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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As of Oct. 1, 2018 - \$6.61 per thousand gallons
Proposed for Oct. 1, 2019 - **\$6.94**

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 – **No changes proposed for this section**

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 per 1,000 gallons of 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 4,000 gallons per month.

As of Oct. 1, 2018 - \$6.61 per 1,000 gallons
Proposed for Oct. 1, 2019 - **\$6.94** per 1,000 gallons

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 SYSTEM DEVELOPMENT FEE – **No changes proposed for this section**

The purpose of this fee is to recover a portion of the capital costs of providing sewer system facility capacity. The system development fee is applicable to each new connection to a sewer main, regardless of

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who may have paid for the installation of the main to which the connection is to be made. For the purpose of the system development 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 institutional accounts. The use of these categories is justified by distinctive patterns of water and sewer consumption.

Property Description	Fee
5/8" Meter or 3/4" Combination Fire and Domestic Service, Single-family Residential:	
<800 square feet	\$1,632
801-1300 square feet	\$2,207
1301-1700 square feet	\$2,251
1701-2400 square feet	\$2,391
2401-3100 square feet	\$2,652
3101-3800 square feet	\$2,912
>3800 square feet	\$3,466
1" Meter, Single-Family Residential (all square footages)	\$11,329
5/8" Meter or 3/4" Combination Fire and Domestic Service, Multi-family Residential	\$2,196
1" Meter, Multi-Family Residential (all square footages)	\$11,329
5/8" Meter or 3/4" Combination Fire and Domestic Service, Nonresidential	\$5,673
1" Meter, Nonresidential	\$14,192
1-1/2" Meter, Multi-family Residential and Nonresidential	\$28,366
2" Meter, Multi-family Residential and Nonresidential	\$45,386
3" Meter, Multi-family Residential and Nonresidential	\$90,773
4" Meter, Multi-family Residential and Nonresidential	\$141,832
6" Meter, Multi-family Residential and Nonresidential	\$283,664
8" Meter, Multi-family Residential and Nonresidential	\$453,863

In addition to the sewer system development fee, an excess sewer capacity fee of four percent (4%) of the applicable sewer system development 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 system development 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 system development 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 system development fees that would otherwise apply to the development or re-development project. System development fee credits are not transferrable to any other project or property.

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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 system development fees.

SEWER TAP CHARGE – No changes proposed for this section

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, subject to a minimum.

Minimum charge \$520.

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 reinspection fee 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.

Tap Reinspection Fee - \$150

HIGH STRENGTH WASTE SURCHARGE

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:

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As of Oct. 1, 2018	
Carbonaceous Biochemical Oxygen Demand (CBOD)	\$0.44 per pound for all CBOD in excess of 205 mg/l
Suspended Solids (SS)	\$0.53 per pound for all SS in excess of 235 mg/l
Ammonia Nitrogen (NH ₃ -N)	\$3.10 per pound for all NH ₃ -N in excess of 25 mg/l
Phosphorus (P)	\$12.51 per pound for all P excess of 6.5 mg/l

Proposed for Oct. 1, 2019	
Carbonaceous Biochemical Oxygen Demand (CBOD)	\$0.46 per pound for all CBOD in excess of 205 mg/l
Suspended Solids (SS)	\$0.56 per pound for all SS in excess of 235 mg/l
Ammonia Nitrogen (NH ₃ -N)	\$3.26 per pound for all NH ₃ -N in excess of 25 mg/l
Phosphorus (P)	\$13.13 per pound for all P excess of 6.5 mg/l

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SECTION III: RECLAIMED WATER RATES AND CHARGES

No changes proposed for Section III

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

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

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 consumption due

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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 SYSTEM DEVELOPMENT AND CONNECTION FEES

Reclaimed Water System Development Fees

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 system development 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 system development 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 system development 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 system development 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 changes proposed for this section

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 changes proposed for this section

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 changes proposed for this section

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 changes proposed for this section

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.

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

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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

CHARGE FOR MANUALLY READING WATER METERS – new section

To measure and bill for customers' water use, OWASA utilizes meters that record hourly water use readings and transmits them to OWASA's administrative office electronically. The system provides customers with valuable information about their water use: information that can be used to detect and limit the impact (cost and property damage) of leaks in the customer's plumbing system.

At the time the metering system was installed, a few customers objected to the installation of an electronic meter at their locations. In response, OWASA's Board of Directors adopted a policy that allowed then-existing customers the option of continuing to be served by a non-electronic meter. Doing so requires that an OWASA staff member travel to the customer's location once per month to read the meter. For manually read meters, the following conditions apply:

- Customers choosing a manual read option shall not be eligible for leak notifications or emergency water loss adjustments.
- A monthly fee of \$45 will be charged to cover the cost of reading the meter manually.

LATE PAYMENT FEE – No changes proposed for this section

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 changes proposed for this section

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.

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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.

BULK WASTEWATER CHARGES

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:

As of Oct. 1, 2018	
Administrative Charge	\$30 per trip, plus
Volume Charge and High Strength Surcharge	\$142.80 per thousand gallons
Proposed for Oct. 1, 2019	
Administrative Charge	\$30 per trip, plus
Volume Charge and High Strength Surcharge	\$149.94 per 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 per trip, plus Volume and High Strength Surcharge calculated as follows:

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As of Oct. 1, 2018
A + B + C + D + E = Calculated Dollars per Thousand Gallons, where:
A = pounds of NH ₃ -N per thousand gallons in waste x \$3.10 per pound
B = pounds of CBOD per thousand gallons in waste x \$0.44 per pound
C = pounds of TSS per thousand gallons in waste x \$0.53 per pound
D = \$6.61 per 1,000 gallons Sewer Commodity Charge
E = pounds of P per thousand gallons in waste x \$12.51 per pound
Waste concentrations shall be determined by OWASA

Proposed for Oct. 1, 2019
A + B + C + D + E = Calculated Dollars per Thousand Gallons, where:
A = pounds of NH ₃ -N per thousand gallons in waste x \$3.26 per pound
B = pounds of CBOD per thousand gallons in waste x \$0.46 per pound
C = pounds of TSS per thousand gallons in waste x \$0.56 per pound
D = \$6.94 per 1,000 gallons Sewer Commodity Charge
E = pounds of P per thousand gallons in waste x \$13.13 per pound
Waste concentrations shall be determined by OWASA

TANK SALES OR BULK WATER SALES

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.

As of Oct. 1, 2018	
Administrative Charge	\$25 per trip, plus
Commodity Charge	\$6.14 per thousand gallons or portion thereof

Proposed for Oct. 1, 2019	
Administrative Charge	\$25 per trip, plus
Commodity Charge	\$6.45 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 provided. Charges for bulk sales are not subject to seasonal adjustments.

DIRECT SALES OF SUPPLIES – No changes proposed for this section

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 changes proposed for this section

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

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FIELD TEST OF 5/8" METER OR 3/4" COMBINATION FIRE AND DOMESTIC SERVICE METER

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:

As of Oct. 1, 2018 - Meter test \$90
Proposed for Oct. 1, 2019 - Meter test **\$100**

SHOP TESTING OF METER

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:

As of Oct. 1, 2018 - Shop meter test \$200
Proposed for Oct. 1, 2019 - Shop meter test **\$220**

FIELD TEST OF LARGE METERS

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.

As of Oct. 1, 2018 - Minimum charge \$170
Proposed for Oct. 1, 2019 - Minimum charge **\$190**

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REINSPECTION FEE – No changes proposed for this section

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 fee will apply to each reinspection.

Tap Reinspection Fee - \$150

PLAN REVIEW AND CONSTRUCTION OBSERVATION FEES – Propose to include a minimum fee

The purpose of this charge is to recover the operating cost for providing review of construction plans for the extension of water, sewer and non-UNC reclaimed water 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 any project which includes extensions of the public water, sewer or non-UNC reclaimed water systems; new services; backflow prevention; or a grease interceptor (or grease trap), regardless of the party which may be undertaking the improvements. The plan review and construction observation fees are applied separately to water, sewer and non-UNC reclaimed water main extensions with a minimum of \$100 each, as shown in the table below.

Service	Plan Review	Construction Observation
Water	\$3.63/lf, minimum \$100	\$3.69/lf, minimum \$100
Sewer	\$3.63/lf, minimum \$100	\$3.69/lf, minimum \$100
Reclaimed Water	\$3.63/lf, minimum \$100	\$3.69/lf, minimum \$100

Fees for Plan Review are due when the sealed plans are submitted for review. Fees for Construction Observation are collected upon final plan approval. Additional fees for projects which increase in scope (e.g. the number of feet of mains is lengthened after initial fee payment) shall be collected prior to receiving a permission to proceed from OWASA. No refunds will be granted for projects which decrease in scope after fee payment.

CHARGES FOR MISCELLANEOUS SERVICES – No changes proposed for this section

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.

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TRANSFER OF CHARGES – No changes proposed for this section

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

- Update on the Water/Wastewater Public Enterprise Reform Bills

Purpose

- To provide information on [Senate Bill \(SB\) 536](#) and its companion [House Bill \(HB\) 570](#), titled *Water/ Wastewater Public Enterprise Reform*, and seek the Board's support to communicate OWASA's opposition to the funding mechanism in SB 536, to join other local government units in such opposition, and to support the creation of funding sources to assist distressed units of local government in rehabilitating their water and sewer system assets and operations.

Background

- For several years now, State legislative leaders have been concerned that many smaller communities have suffered financial losses, whether from the departure or failure of traditional local industries, or from natural disasters, leaving them unable to adequately fund essential governmental operations, and in particular local public water and wastewater systems.
- In early April, Senate Bill 536 and its companion House Bill 570, titled *Water/ Wastewater Public Enterprise Reform*, were introduced as an outgrowth of a legislative study of publicly-owned water and wastewater utilities. The bill sets up a new grant fund, a "viable utility reserve fund," defines a "distressed unit" as the term would apply to publicly owned water and wastewater systems, and lists specific types of qualifying criteria to be considered in the grant and loan process.
- The idea behind the Legislation is to create a publicly financed fund that could provide financial assistance through grants and loans to "distressed units." "Distressed units" are defined as units "exhibiting signs of failure to identify or address those financial or operating needs necessary to enable the system ... to generate sufficient revenues to adequately fund management and operations, personnel, adequate levels of maintenance, and reinvestment that facilitate the provision of reliable water or wastewater services."
- It is clearly in the interests of the State to promote and fund, and to provide assistance to public water and wastewater systems, to assure their responsible operation. Unfortunately, rather than undertaking to finance the Viable Utility Reserve Fund by way of regular appropriation, or a Statewide bond initiative, to which all citizens would contribute by way of their general taxes, this legislation proposes to finance this Fund by way of a tax of \$1.00 on every water account, and \$1.00 on every sewer account, receiving service from a local governmental unit. Every customer would pay the same amount, whether they are customers served in a modest home, or a large, interstate, even multi-national corporation.
- This surcharge, from which OWASA customers will not benefit, will increase their typical monthly bills by 2.8% (calculated for a typical 4,000 gallon per month bill), and would create

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an appropriation by OWASA customers to the State in the amount of more than \$500,000.00 per year. For the City of Raleigh, this would be equivalent to a 3.5% rate increase for the average City of Raleigh water and sewer customer, and would raise about \$4.2M per year that it could not use to meet its own system needs.

- For these reasons, Managers of the City of Raleigh and other larger municipal systems in the State are joining in active opposition to the funding mechanism of this program, while at the same time praising the goals of the initiative, to undergird failing local water and sewer systems suffering the effects of distressed economies on their fiscal management and operations.
- Staff and General Counsel recommend that the OWASA Board consider formally joining with those efforts, to support the improvements proposed to distressed local water and sewer providers, but to oppose this funding mechanism because it will deprive existing local systems of revenue from their own customers to meet their own needs. Further, this funding mechanism certainly constitutes a new tax, levied only upon citizens who are customers of public systems, for purposes and improvements located far from their local jurisdictions, and should be reconfigured as an expense taken from the general tax revenue of the State, either by direct appropriation or general obligation bond sale.

Staff and Counsel Recommendation

- Authorize OWASA staff and Counsel to communicate OWASA's opposition to the funding mechanism in SB 536, to join other local government units in such opposition, but to support the creation of funding sources to assist distressed units of local government in rehabilitating their water and sewer system assets and operations.

MOTION: Move that the Board authorize staff and Counsel to communicate to our legislative representatives and local governments OWASA's opposition to the funding mechanism originally proposed in SB 536, to join other local government units in such opposition, but its support for creation of funding from general state revenues or bond proceeds to create a fund to assist distressed units of local government in rehabilitating their water and sewer system assets and operations.