Orange Water and Sewer Authority

OWASA is Carrboro-Chapel Hill's not-for-profit public service agency delivering high quality water, wastewater, and reclaimed water services.

Agenda
Meeting of the OWASA Board of Directors
Thursday, January 23, 2020, 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. Update on the January 22, 2020 Orientation for Newly Elected Carrboro Town Council Member Susan Romaine
   - C. January 30, 2020 Special Meeting of the Board of Directors to Discuss the Long-Range Water Supply Plan at 6:00 p.m. in the OWASA Community Room
   - D. February 12, 2020, Board of Directors Diversity and Inclusion Session with VISIONS, Inc., at 5:30 p.m. in the OWASA Boardroom
2. Announcements by Board Members
   - A. OWASA's Annual Update to the Orange County Board of County Commissioners on Tuesday, January 21, 2020 (Jody Eimers)
   - B. February 4, 2020 OWASA Orientation for Chapel Hill Town Council Member Hongbin Gu at 3:30 p.m. in the OWASA Boardroom (Ruchir Vora)
   - C. Update on Executive Search and Assessment Services for OWASA's Next Executive Director (Robert Morgan)
3. Announcements by Staff

Petitions and Requests

1. Public
2. Board
3. Staff

Consent Agenda
Information and Reports
1. 12 Month Board Meeting Schedule (Ray DuBose/Ed Kerwin)

Action
2. Minutes of the January 9, 2020 Meeting of the Board of Directors (Andrea Orbich)

Regular Agenda
Information and Reports
3. 2019 Annual Lakes Recreation Report (Johnny Riley)
4. Capital Improvements Program Semiannual Report (Vishnu Gangadharan)
5. Financial Report for the Six-Month Period Ended December 31, 2019 (Stephen Winters)

Discussion
6. Fiscal Year 2021 Budget Calendar and Assumptions (Stephen Winters)

Summary of Board Meeting Action Items
7. 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 (January 17, 2020)

Month	Board Meetings		Committee & Other Meetings
	Work Session	Business Meeting	
January 2020	Appoint Audit Firm ↻ Employee Health and Dental Insurance Update for FY 21 ↻ Review Comments on Sewer Use Ordinance Update Affordability Outreach Program Update ↻ Diversity and Inclusion Update ↻ 1/9/2020	Annual Lakes Recreation Report ↻ CIP Semiannual Report ↻ Q2 Financial Report ↻ Discuss FY 21 Budget Calendar, Planning Assumptions, and New Budget Format ↻ 1/23/2020	*OWASA's Annual Update to the Orange County BOCC (1/21/2020)* ***Special Meeting on the LRWSP – Draft Evaluation of Water Supply and Demand Management Alternatives* (1/30/2020)**
February 2020	Department Managers FY 21 Budget Presentations Award the Bartram Drive/Galvanized Water Main Replacements Contract Position Reclassification for Biosolids Technician CS – Prepare for GC Interim Review ↻ 2/13/2020	Award the WTP Finished Water Pump Improvements Contract (Tentative) Update on Website Relaunch CS – Personnel Matter with Consultant 2/27/2020	*D&I Session with VISIONS, Inc. (2/12/2020)* *(Tentative) OC Appointees to the OWASA Board meet with Members of Orange County BOCC (TBD)* *Finance Committee meeting – in-depth review of 1st draft operating budget (TBD)*
March 2020	FY 21 Draft Budget & Rates including 1st iteration of new budget format ↻ **Forest Management Program Update** Award the WTP Water Mains Resiliency Contract Award the WTP Chemical Facility Improvements Contract (Tentative) Update on New Water Main Prioritization Model Discuss Deep Dive on Safety KPI CS – GC Interim Review ↻ 3/12/2020	Set date for Public Hearings – FY 21 Budget & Rates ↻ FY 21 Draft Budget & Rates and Proposed Staff Rate Adjustment Recommendation ↻ CS – Prepare for ED Interim Review ↻ 3/26/2020	*Finance Committee meeting(s) to review FY 21 budget and rates, as necessary*
April 2020	Review Employee Health and Dental Insurance Renewals ↻ FY 21 Draft Budget and Rate Adjustment Information ↻ CS – ED Interim Review ↻ 4/9/2020	FY 21 Draft Budget and Rate Adjustment Information n and Authorize Staff to Publish Proposed Rates ↻ Q3 Financial Report ↻ 4/23/2020	*Finance Committee meeting(s) to review FY 21 budget and rates, as necessary* *Interview ED Candidates (TBD)*
May 2020	Approve Employee Health and Dental Insurance Renewals ↻ Discuss Employee Merit Pay for FY 21 ↻ Diversity and Inclusion Update ↻ 5/14/2020	Public Hearings – FY 21 Budget and Rates ↻ Approve Employee Health and Dental Insurance Renewals (if needed) Award the Bolinwood Drive Interceptor Contract 5/28/2020	
June 2020	Approve FY 21 Budget and Rates, including merit pay decision ↻ Election of Officers ↻ 6/11/2020	TBD 6/25/2020	
July 2020	TBD 7/9/2020	TBD 7/23/2020	
August 2020	(Tentative) Discuss Work Plan for New ED (Tentative) Discuss Process to Update the Strategic Plan CS – Prepare for GC Annual Review ↻ 8/13/2020	Preliminary 12 Month Financial Report ↻ CIP Semiannual Report ↻ CS – GC Annual Review ↻ 8/27/2020	

Month	Board Meetings		Committee & Other Meetings
	Work Session	Business Meeting	
September 2020	EEO/Affirmative Action Report & Diversity and Inclusion Update ↻ Annual Report on Disposal of Surplus Personal Property ↻ **Forest Management Update** CS – Prepare for ED Annual Review ↻ 9/10/2020	Annual Report and Financial Audit ↻ **Annual Update of the Energy Management Plan** ↻ Approve General Counsel Engagement ↻ CS – ED Annual Review ↻ 9/24/2020	
October 2020	TBD 10/8/2020	Q1 Financial Report ↻ **Strategic Trends Report** ↻ Reliability and Resiliency Improvements Update 10/22/2020	
November 2020	TBD 11/12/2020	*Holiday – no meeting*	
December 2020	TBD 12/10/2020	*Holiday – no meeting*	

Note: Meetings related to new ED search and selection will be scheduled. Additional Finance Committee meetings will likely be needed related to improving the budgeting process.

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

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

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

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

- Development of a plan and policy framework for OWASA lands is considered a longer-term priority. 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 October 24, 2019, the Board and staff agreed to begin updating the Strategic Plan in FY 2021.

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:

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

Orange Water and Sewer Authority

Meeting of the Board of Directors

January 9, 2020

The Board of Directors of the Orange Water and Sewer Authority (OWASA) met in a work session on Thursday, January 9, 2020, at 6:00 p.m. in OWASA's Community Room, 400 Jones Ferry Road, Carrboro.

Board Members present: Raymond (Ray) DuBose (Chair), Ruchir Vora (Vice Chair), Bruce Boehm (Secretary), Yinka Ayankoya, John Cooley, Jody Eimers, Robert Morgan, John N. Morris and Bruce Runberg.

OWASA staff present: Mary Darr, Robert Epting, Esq. (Epting and Hackney), Robin Jacobs (Epting and Hackney), Ed Kerwin, Andrea Orbich, Todd Taylor, Mary Tiger, Stephen Winters and Richard Wyatt.

Others present: Meg Holton (UNC Water Resources Manager).

Motions

1. BE IT RESOLVED THAT the Board of Directors of the Orange Water and Sewer Authority adopts the Resolution Awarding Audit Contract to Martin Starnes & Associates, CPAs, P.A. and Authorizing Chair of the Board Directors and the Finance Officer to Execute Said Contract. Motion by Yinka Ayankoya, second by Ruchir Vora and unanimously approved.

2. Yinka Ayankoya made a motion to approve the Minutes of the November 14, 2019 Meeting of the Board of Directors; second by Ruchir Vora and unanimously approved.

3. Yinka Ayankoya made a motion to approve the Minutes of the December 11, 2019 Special Meeting of the Board of Directors; second by Ruchir Vora and unanimously approved.

4. Yinka Ayankoya made a motion to approve the Minutes of the December 12, 2019 Meeting of the Board of Directors; second by Ruchir Vora and unanimously approved.

5. BE IT RESOLVED THAT the Board of Directors of the Orange Water and Sewer Authority adopts the Resolution Adopting Amendments to OWASA's Sewer Use Ordinance, including the Board's recommendations that the role of the Administrator be clearly defined, within the OWASA organization; and in addition that Section 5.2(b)(11) be revised to include that "…any change in the manufacturing and/or pretreatment process that affects the user's wastewater discharge, as described in section 6.5". Motion by Robert Morgan, second by Ruchir Vora and unanimously approved.

6. Bruce Boehm made a motion that the Board of Directors approves the proposed Affordability Outreach Program Update and Plan (Year 5), and authorizes staff to proceed to implement the program in accordance with the approach described in the proposed Plan; second by Jody Eimers

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and unanimously approved.

* * * * * * *

Announcements

On behalf of the Board and staff, Ray DuBose expressed deepest sympathies to Bruce Runberg and his family, on the passing of his wife, Cynthia on December 16, 2019. Mr. DuBose said a celebration of life will be held for Cynthia Runberg on Friday, January 10, 2020, at 5:00 p.m. at UNC Botanical Garden in the Reeves Auditorium located at 100 Old Mason Farm Road in Chapel Hill.

Mr. DuBose asked if any Board Member knows of a conflict of interest or potential conflict of interest with respect to any item on the agenda tonight to disclose the same at this time; none were disclosed.

Mr. DuBose said on January 6, 2020, an OWASA Orientation was held for newly elected Chapel Hill Town Council Members Tia Huynh and Amy Ryan. Ruchir Vora, Bruce Boehm, John Morris, Bruce Runberg, Ed Kerwin and he participated. The discussion included an overview of OWASA's governance, operations and key OWASA initiatives.

Mr. DuBose announced an OWASA Orientation for newly elected Carrboro Town Council Member Susan Romaine will be held on Wednesday, January 22, 2020, at 9:00 a.m. in the OWASA Boardroom.

Mr. DuBose announced a Special Meeting of the Board of Directors to discuss the Long-Range Water Supply Plan on Thursday, January 30, 2020 at 6:00 p.m. in the Community Room.

Mr. DuBose announced the Board of Directors will hold a Diversity and Inclusion Session with VISIONS, Inc. on Wednesday, February 12, 2020, at 5:30 p.m. in the OWASA Boardroom.

Mary Tiger said the Orange County Climate Council met on Tuesday, December 17, 2019 and worked on a draft Mission Statement and the formation of four committees.

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

The Board of Directors received this as an information item.

Item Two: Resolution Awarding Audit Contract to Martin Starnes & Associates, CPAs, P.A. and Authorizing Chair of the Board of Directors and the Finance Officer to Execute Said Contract

Yinka Ayankoya made a motion to approve the resolution; second by Ruchir Vora and unanimously approved. Please see Motion 1.

Item Three: Minutes

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Yinka Ayankoya made a motion to approve the Minutes of the November 14, 2019 Meeting of the Board of Directors; second by Ruchir Vora and unanimously approved. Please see Motion 2.

Item Four: Minutes

Yinka Ayankoya made a motion to approve the Minutes of the December 11, 2019 Special Meeting of the Board of Directors; second by Ruchir Vora and unanimously approved. Please see Motion 3.

Item Five: Minutes

Yinka Ayankoya made a motion to approve the Minutes of the December 12, 2019 Meeting of the Board of Directors; second by Ruchir Vora and unanimously approved. Please see Motion 4.

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

The Board received and discussed a timeline, utilization data and other information related to renewing employee health and dental insurance effective July 1, 2020. OWASA has engaged a consultant (Gallagher) who will review the insurance cost proposal to be submitted later this year.

Item Seven: Diversity and Inclusion Program Update (September 2019 – December 2019)

The Board received an update of Diversity and Inclusion Program and expressed continued appreciation to staff on the progress of the program.

Item Eight: Review Comments on the Sewer Use Ordinance Update

The Board received and discussed the comments received on the Sewer Use Ordinance and after discussion approved the proposed revisions.

Robert Morgan made a motion to adopt the Resolution Adopting Amendments to OWASA's Sewer Use Ordinance, including the Board's recommendations that the role of the Administrator be clearly defined, within the OWASA organization; and in addition that Section 5.2(b)(11) be revised to include that "…any change in the manufacturing and/or pretreatment process that affects the user's wastewater discharge, as described in section 6.5"; second by Ruchir Vora and unanimously approved. Please see Motion No. 5.

Staff will reach out to the Towns permitting agencies to seek their cooperation to notify businesses that any new and existing discharges to OWASA's wastewater system must be in compliance with OWASA's Sewer Use Ordinance.

Item Nine: Affordability Outreach Program Update

The Board received and discussed an update on the Affordability Outreach Program.

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Bruce Boehm made a motion that the Board of Directors approves the proposed Affordability Outreach Program Update and Plan (Year 5), and authorizes staff to proceed to implement the program in accordance with the approach described in the proposed Plan; second by Jody Eimers and unanimously approved. Please see motion No. 6.

Item Ten: Review Board Work Schedule

No new Board work schedule items were reported.

Item Eleven: Summary of Work Session Items

Ed Kerwin noted the following items for staff follow-up:

- Staff will reach out to the Towns permitting agencies to seek their cooperation to notify businesses that any new and existing discharges to OWASA's wastewater system must be in compliance with OWASA's Sewer Use Ordinance.

- Implement Year 5 of Affordability Outreach Program considering Board member suggestions.

The meeting was adjourned at 7:08 p.m.

Respectfully submitted by:

Andrea Orbich
Executive Assistant/Clerk to the Board

Attachments

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Agenda Item

- 2019 Annual Lakes Recreation Report

Purpose

- To provide information about the 2019 lake recreation season including patronage, cost, and revenues.

Background

- This report and other agenda information has been distributed by email to more than 100 lake recreation stakeholders.

Action Needed

- Receive and discuss the 2019 Annual Lakes Recreation Report

January 23, 2020

Orange Water and Sewer Authority
OWASA is Carrboro-Chapel Hill's not-for-profit public service agency
delivering high quality water, wastewater, and reclaimed water services.

MEMORANDUM

TO: Board of Directors

THROUGH: Ed Kerwin

FROM: Johnny Riley

DATE: January 17, 2020

SUBJECT: 2019 Lake Recreation Report

Purpose

To provide information about lake recreation in 2019 including patronage, costs, and revenues.

In accordance with the Board's direction, this report is provided in the Board's regular meeting agenda each year and public comments are welcome. This report and other agenda information will also be distributed by e-mail to more than 100 lake recreation stakeholders.

Key Takeaways

- Overall attendance and revenues increased by 8.2% and 9.7% respectively.
- We had a safe year with no incidences.
- Revenues covered about 56% of costs.

Days and Hours of Operation

Consistent with the past 5 years, University Lake was open Friday, Saturday and Sunday from 6:30 a.m. to 6:00 p.m. during the 2019 lake season (March 23rd through November 10th). Cane Creek Reservoir was open on Friday and Saturday from 6:30 a.m. to 6:00 p.m. during the same period.

User Fees

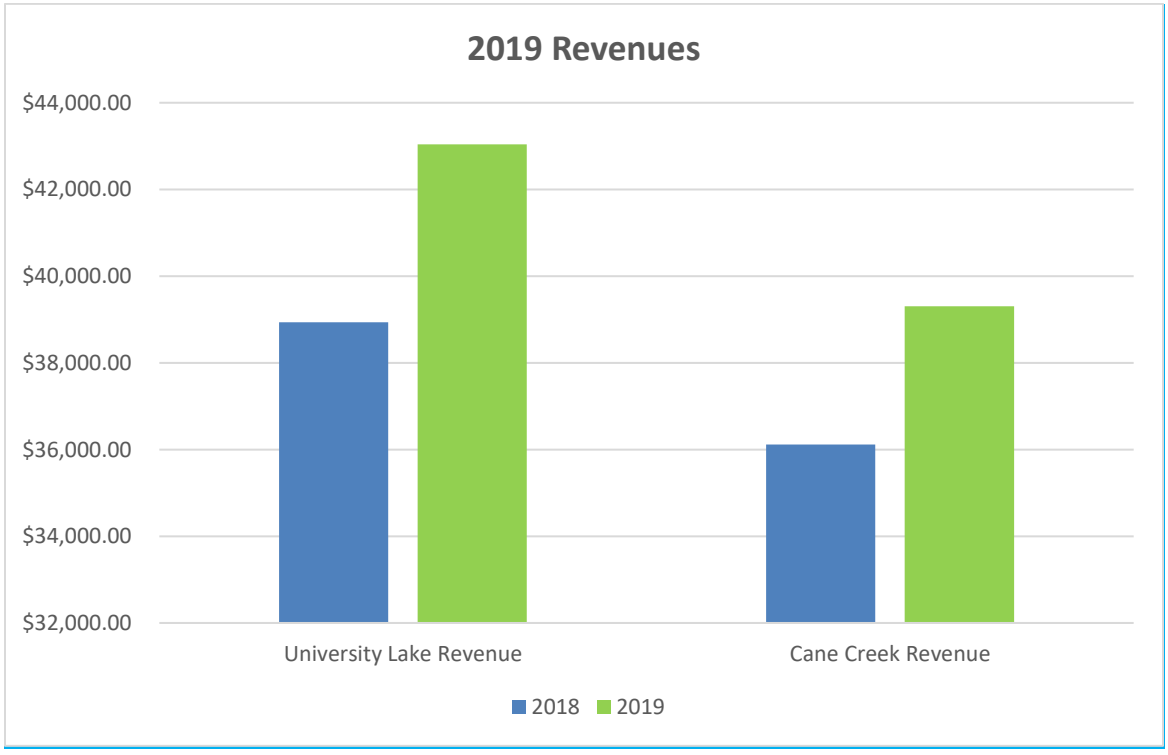
Attachment 1 shows the rates and fees applicable for the 2019 season. Fees have remained unchanged since 2011.

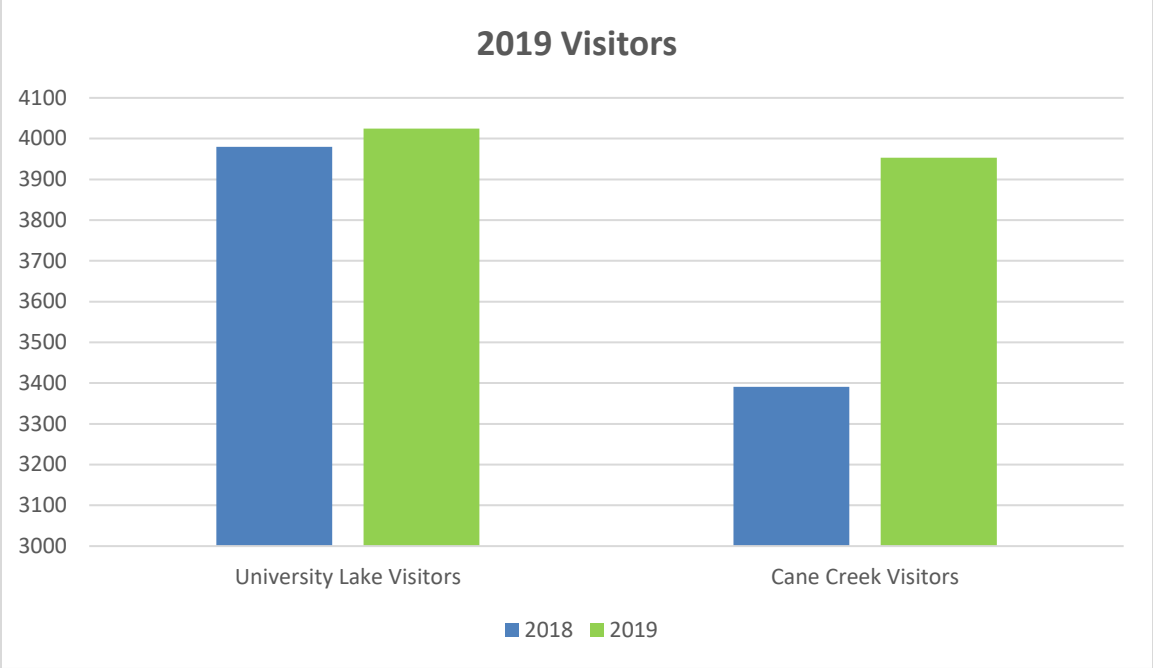
Revenue and Attendance

The following table and graphs show revenue and attendance information for both recreation locations.

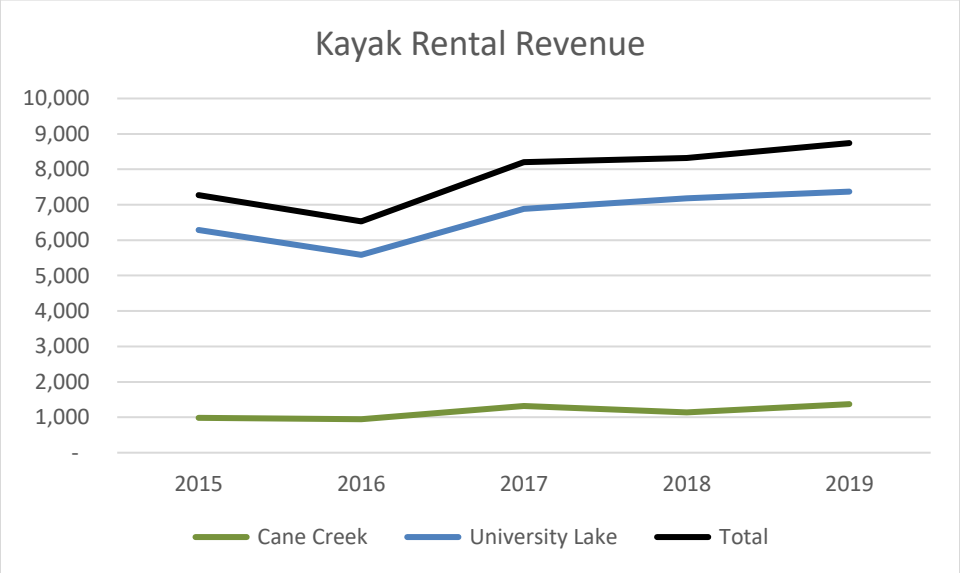
Calendar Year 2019 Revenue and Attendance						
	University Lake		Cane Creek		Combined Total	
	Amount	% Change from 2018	Amount	% Change from 2018	Amount	% Change from 2018
Revenue	$43,041	10.5%	$39,306	8.8%	$82,346	9.7%
Visitors	4,025	1.1%	3,953	16.6%	7,978	8.2%
Avg. Revenue per visitor	$10.69	14.8%	$9.94	(6.7%)	$10.76	1.3%
Daily attendance – Friday	19	18.8%	36	5.9%	65	10.0%
Daily attendance – Saturday	46	4.5%	76	22.6%	122	15.1%
Daily attendance – Sunday	58	0.0%	NA	NA	58	0.0%

Revenue and attendance increased at both University Lake and Cane Creek Reservoir in 2019.

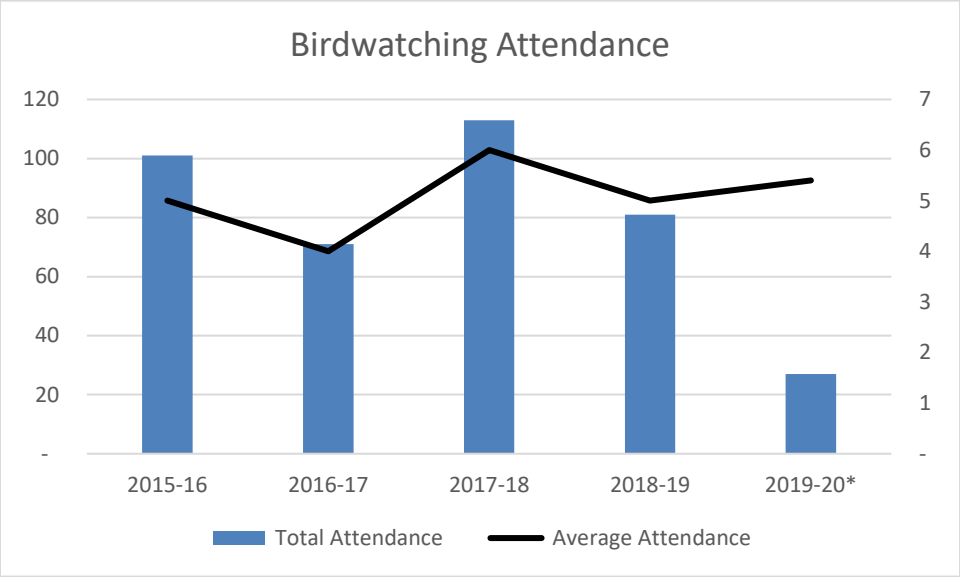




Since we began offering kayaks for rent in 2015, kayak rental revenue has trended up.



In 2015, we began offering birdwatching at Cane Creek Reservoir on Wednesday mornings. Attendance since inception has been fairly steady.

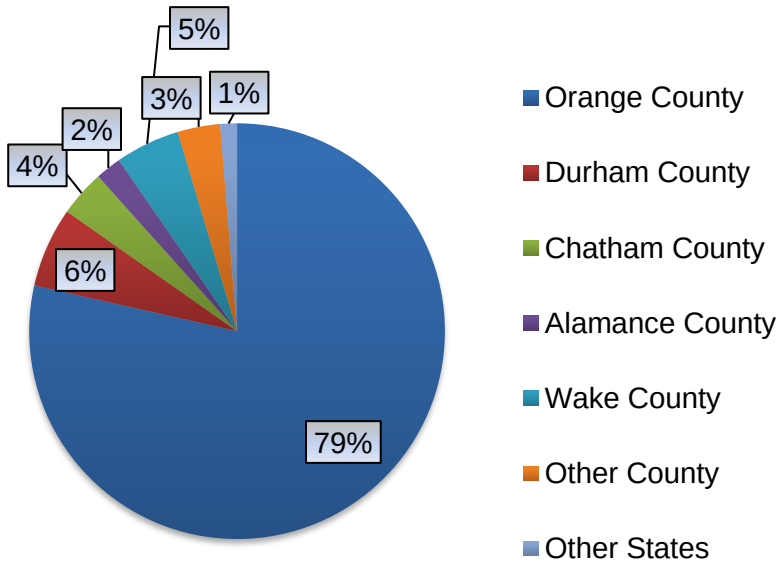


* Birdwatching season runs from November to March. Information for 2019-20 is through December 11, 2019.

Demographics

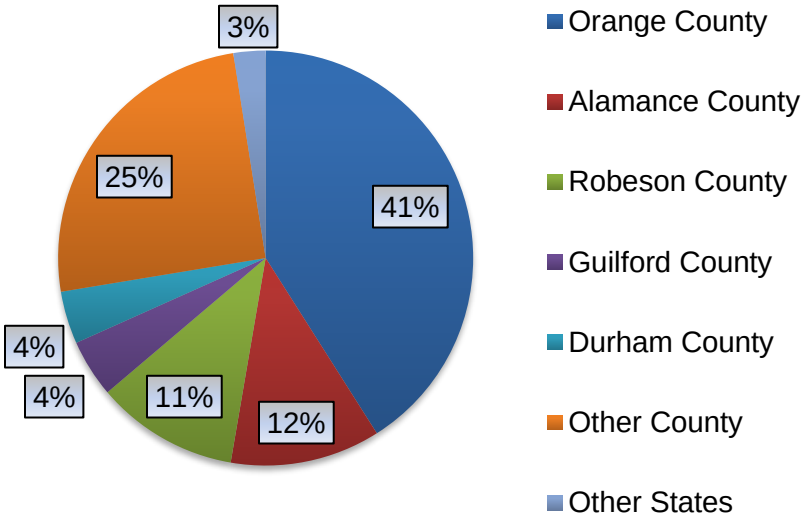
The largest segment of visitors at University Lake continues to be Orange County residents.

University Lake Visitor Demographics



The largest segment of visitors at Cane Creek Reservoir continues to be Orange County residents.

Cane Creek Visitor Demographics



Expenses versus Revenues

As shown in Attachment 4, lake operating expenses exceeded revenues from recreation by $64,973 in 2019 with revenues covering about 56% of the costs. Labor remains the largest expense in the operation of the lakes. The lakes staff time is allocated to recreation oversight activities and normal lake operations.

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

Johnny Riley
Reservoir and Land Resources Supervisor

Attachment 1: Lake Use Fees
Attachment 2: Season Pass Sales
Attachment 3: 5-year Lake Revenues
Attachment 4: 2019 Lake Operating Expenses

Attachment 1 – Lake Use Fees

2018 and 2019 Lake Use Fees

LAKE USE FEES:		**2018 Season**	**2019 Season**
Boat Rental Fee	Orange County Resident	$4.50[1]	$4.50[1]
	Non-county Resident	$8.00[1]	$8.00[1]
Kayak Rental Fee	Orange County Resident	$15.00	$15.00
	Non-county Resident	$20.00	$20.00
Private Boat Launch Fee	Orange County Resident	$3.50	$3.50
	Non-county Resident	$7.00	$7.00
Motor Rental	Orange County Resident	$15.00	$15.00
	Non-county Resident	$22.00	$22.00
Lake Use Fee	Orange County Resident	$4.50	$4.50
	Non-county Resident	$5.50	$5.50
	Child (Orange County Resident)	$2.00	$2.00
	Senior (OWASA Customer or Orange County Resident)	$0.00	$0.00
	Senior or Child (Non-County Resident)	$2.50	$2.50

[1] Rental Fee does not include applicable Lake Use Fees

Season Passes

For the 2019 season, five types of passes were available to Orange County residents. A single boat pass is issued to only one person and includes the boat rental and lake use fee. The group pass is honored for up to four people including the person who is the holder of the pass. The lake use pass is for a single individual and includes the associated lake use fee. The table below shows the fees for the different types of passes.

Season Passes

Type of Pass	**2019 Cost**
Single boat only	$82.00
Single boat and motor	$163.00
Group boat only	$163.00
Group boat and motor	$245.00
Lake use	$46.00

Attachment 2 – Season Pass Sales

Number of Passes Sold by Type

	2015	2016	2017	2018	2019
Single boat only	30	21	26	35	40
Single boat and motor	3	3	9	6	10
Group boat only	3	5	2	3	1
Group boat and motor	1	0	0	0	3
Lake Use	0	1	3	3	3
TOTAL	37	30	40	47	57

Overall a total of 57 passes were sold in 2019. Passes generated $5,946 in total revenue. This is a 33% increase over the previous year. The 57 passes sold were used an average of 13 times.

Attachment 3

5 Year Lake Revenues

YEAR	2015	2016	2017	2018	2019
Boat Rentals[1]	$12,448	$12,702	$14,425	$12,255	$13,101
Lake Use & Boat Launch Fees	29,957	30,935	34,664	30,997	32,914
Electric Motor Rentals	11,760	15,335	19,134	19,005	21,645
Lakes Use Passes	3,683	2,991	4,063	4,475	5,946
Kayak Rentals[2]	7,275	6,530	8,200	8,320	8,740
TOTALS:	***$65,123***	***$68,493***	***$80,486***	***$75,052***	***$82,346***

Attachment 4
2019 Lake Operating Expenses

Description	Expenses				
	Total	Cane Creek		University Lake	
		Non-Recreational	Recreational	Non-Recreational	Recreational
Full Time Employee Salaries	$194,039	$89,858	$54,359	$17,717	$32,105
Payroll Taxes & Employee Benefits	79,556	36,842	22,287	7,264	13,163
Part Time Employee Salaries	8,878	280	6,432	0	2,166
Utilities	8,140	2,977	1,985	1,907	1,271
Materials and Supplies	9,495	3,388	721	661	4,725
Maintenance of Facilities	1,113	366	0	118	629
Annual Amortization of equipment	8,000	2,000	2,000	2,000	2,000
Miscellaneous Expenses	8,811	5,335	3,476	0	0
Totals	**$318,032**	**$141,046**	**$91,260**	**$29,667**	**$56,059**

2019 Recreation Revenue	**$82,346**
Total Recreation Expenses	**(147,319)**
Recreation Deficit	**($64,973)**

Agenda Item

- Capital Improvements Program (CIP) Semiannual Report

Purpose

- To summarize project and program performance for OWASA's Capital Improvements Program (CIP) for the first two quarters of Fiscal Year (FY) 2020 (July 2019 through December 2019).

Background

- The report details overall CIP performance during the reporting period, provides status updates for projects active during the reporting period, and information on Minority and Women Business Enterprise (MWBE).

- Highlights of the report include:

    - Approximately $13.8 million was invested in a total of 68 capital projects active during the reporting period. The six-month total of $13.8 million is roughly half (52%) of the planned FY 2020 CIP budget.

    - Projections for full FY 2020 CIP expenditures total $27.5 million and are about $1.1 million more than (or 104% of) the budgeted funds. This falls within the Board-adopted target of executing between 90 to 105% of the CIP budget.

    - MWBE participation remains unchanged from the averages reported at the December 12, 2019 Board work session and includes 29% MWBE participation on formal and informal contracts, with 54% of the awarded contracts meeting the 10% participation goal.

    - Staff has implemented the MWBE outreach efforts categorized as "Group 1" initiatives in the December 12, 2019 report on MWBE participation. The current memo includes discussion and recommendations for the "Group 2" items from the same report.

Action Needed

- Receive and discuss the report.

January 23, 2020

To: Board of Directors

Through: Ed Kerwin

From: Vishnu Gangadharan, P.E., PMP

Date: January 17, 2020

Subject: **Capital Improvements Program (CIP) Semiannual Report**

Purpose

This semiannual report summarizes project and program performance for OWASA's Capital Improvements Program (CIP) for the first two quarters of Fiscal Year (FY) 2020 (July through December 2019).

Discussion

Program Summary

Approximately $13.8 million was invested in capital projects active during the reporting period. The six-month total of $13.8 million is roughly half (52%) of the planned FY 2020 CIP, and includes 68 projects to rehabilitate, replace or improve various components of OWASA's water and wastewater infrastructure, most notably:

- pumps and electrical equipment at the University Lake Reservoir;
- sedimentation basins at the Water Treatment Plant (WTP);
- a dewatering press at the WTP;
- the plant headworks structure at the Wastewater Treatment Plant (WWTP);
- an intermediate pump station at the WWTP;
- water mains along Manning Drive, Country Club Road, Barclay Road, Fordham Boulevard Service Road;
- electrical, HVAC, and controls at Rogerson Drive Pump Station, our largest wastewater pump station;
- the emergency repair of the Rogerson Drive wastewater force main; and
- pipes and manholes throughout the wastewater collection system.

Much of the construction work listed above involved considerable impacts to operations, requiring careful planning and close coordination between CIP and operations staff.

Two important master planning studies were substantially completed during the reporting period: a capacity study for the wastewater collection system and an update to the water distribution system prioritization model. The Board will receive an informational report on the latter study at the March 12, 2020 work session. Staff is using the results from both of these studies to inform near-term and future needs in the draft CIP budget currently under development. In addition to planning and construction activity, design work was completed for several major construction projects that are scheduled to be bid and awarded in the second half of FY 2020.

Figure 1 shows the actual and projected FY 2020 CIP expenses (in red and dashed black, respectively) against the monthly baseline projection (in blue), as well as the expenditure target of 90% to 105% of budgeted funds.

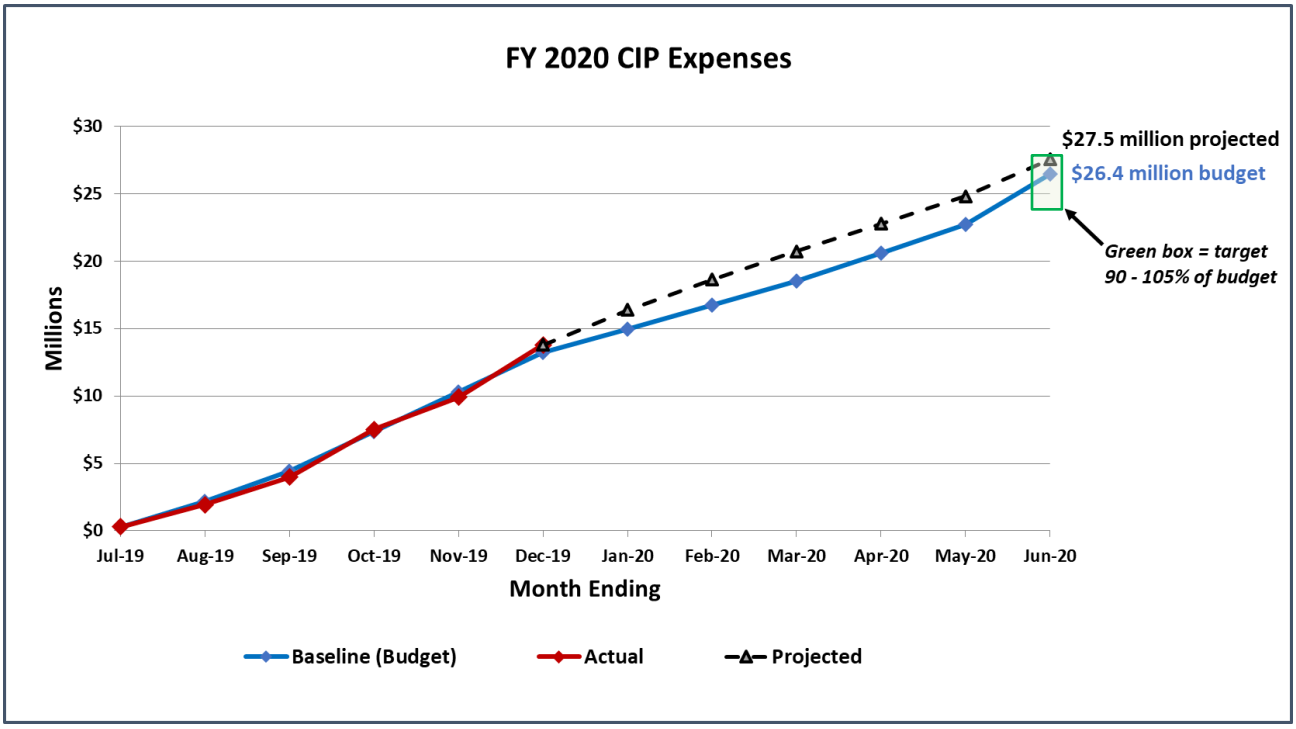


Figure 1 – FY 2020 CIP Expenses

The projected FY 2020 expenditures of $27.5 million are about $1.1 million more than (or 104% of) the budgeted funds. This falls within the Board-adopted target of executing between 90 to 105% of the CIP budget. The reasons behind the $1.1 million variance to budget can be broadly summarized as:

- Projected $2.1 million increase in spending due to cost/pricing changes. This increase is equivalent to the difference in the actual vs. budgeted costs for the emergency repair of the Rogerson Drive force main as reported to the Board at the October 12, 2019 work session.
- Projected $1.2 million decrease in spending due to timing (schedule-based) changes that resulted in planned FY 2020 work being done instead in either FY 2019 or delayed to FY 2021.

- Project scope changes account for an increase of approximately $244,000 in projected spending.

Table 1 (attached) contains summaries of project performance for all active projects during this reporting period. The projects in the table are arranged according to the primary reason for the projected fiscal year cost variance (price, schedule, or scope), or included in a fourth category for projects which have no project FY 2020 cost variance or are in preliminary stages for which baseline budget and schedule have not yet been established.

Minority and Women Business Enterprise (MWBE) Participation

OWASA's goal for minority participation in public building construction projects (vertical buildings & other structures over $300,000) is 10%. Historical averages for the CIP program reported in Table 2 are unchanged from what was reported at the December 12, 2019 Board work session and include 29% MWBE participation on formal and informal contracts, with 54% of the awarded contracts meeting the 10% participation goal.

Table 2
OWASA MWBE Participation Summary, FY 2015 through FY 2020, second quarter

	Black	Hispanic	Asian American	American Indian	Female	Total MWBE
Dollar amounts in MWBE categories	$ 266,899	$ 1,195,680	$ 0	$ 0	$ 12,937,695	$ 14,400,274
% of sum of contract value ($49,888,126)	0.5%	2.4%	0%	0%	25.9%	28.9%**

**overall goal is 10%

Staff continues to further develop MWBE outreach practices as discussed at the December 12, 2019 Board work session, including:

1. implementation of the near term (Group 1) activities noted in that report for the formal contracts since released for bid;
2. assessment of the following "Group 2" items from the report:
   - ***disparity study:*** A disparity study is conducted in order to: 1) consider whether or not there is statistical evidence of disparity between the number of available MWBE's in the relevant marketplace and the historical number firms that have been awarded contracts; 2) establish a legal predicate to create or maintain a program to remedy a disparity, if one exists; such a program must consider both race/gender neutral and race/gender conscious remedies. While these studies are typically relatively expensive to conduct properly ($300,000 or more for recent studies), the scope of evaluation typically includes procurement beyond just construction

procurement (i.e., professional services, goods, and other services). A more limited study would accordingly be less effort to complete. However, OWASA's overall procurement program is considerably smaller in scale than other agencies that have undertaken disparity studies, with construction contracting opportunities occuring in the relatively specialized field of water-wastewater construction. With an average of just over 10 total construction contracting opportunities issued annually over the past five years, it may not be possible to identify historical patterns of any statistical significance. Should the study determine historical patterns of disparity between MWBE availability and utilization, and further find that a narrowly tailored, race-conscious program would be necessary to remedy that disparity, the same analysis would need to be repeated periodically to reestablish the continued validity of those conclusions. Aside from those concerns, staff is already seeking out, evaluating, and implementing techniques and processes to enhance MWBE participation in our construction bids.

- Recommendation: no action

- ***project-specific and/or program goals that distinguish between minority-owned vs women-owned businesses*:** OWASA Counsel confirmed that a well-designed disparity study would need to be conducted, would need to determine historical pattern of disparity between availability and utilization of the particular groups, and would need to find that use of race in goal setting was the necessary remedy. See discussion above.
  - Recommendation: no action

- ***formalized project procurement planning:*** procurement planning steps that may relate to MWBE participation are typically discussed prior to bid events, but not consistently. There is value to formalizing this procedure.
  - Recommendation: by end of January, revise Standard Operating Procedure (SOP) for construction contracting to formalize the procedure and to include review of experience requirements and identification of potential subcontracting opportunities, and post-procurement review. (Outreach and MWBE identification are already part of the SOP.)

- ***Contractor education/training:*** Due to the relatively small pool of contractors consistently participating in OWASA bids, this activity is only likely to prove beneficial once other networking and outreach efforts have developed initial interest in OWASA projects.
  - Recommendation: revisit this practice in six months

- ***Software for vendor management, online bidding, and/or MWBE program related tasks such as certification, MWBE identification and outreach:*** MWBE certification and identification are handled capably through the North Carolina Department of Administration (DoA), and staff maintains a more detailed vendor registry to supplement the DoA information. OWASA's selection process for a new Enterprise Resource Planning (ERP) system will consider vendor management capabilities as part of the selection process. The DoA online portal and numerous software packages allow for online bidding, although the effect of that change on MWBE utilization is not clear.

  - Recommendation: consider vendor management capabilities during ERP selection

- ***monitoring of prime contractor payments to MWBE subcontractors*:** with the low number of subcontractors (and MWBE subcontractors in particular) that participate in OWASA construction contracts, it is not established whether this is a problem. A smaller implentation of this practice may help determine this.
  - Recommendation: during the upcoming six-month period, staff will provisionally implement this practice on a percentage of formal contracts as well as gather feedback from other agencies about its usefulness. Discussion with subcontractors will solicit feedback not only about payment, but other aspects of the outreach and bidding processes as discussed at the December 12, 2019 Board work session.

- ***establishment of penalties and sanctions for non-compliance with required MWBE reporting during construction*:** A review of ongoing and recently completed projects found that in each case reviewed, the required MWBE reporting was consistently provided with each approved payment application. (The contractor's submittal of this report is a condition of payment.)
  - Recommendation: No change. Staff will continue to exercise our contractual right to withold payment for non-compliance with required MWBE reporting.

- ***certification program*:** Due to the growing reliance of agencies on the DoA database, staff determined that an OWASA-run certification program would not provide benefit over current practice.
  - Recommendation: No action

- ***networking with other agencies***: Staff continues to partner with the City of Durham Office of Equity and Inclusion to share information about potential MWBE prime contractors and subcontractors active in the area, as well as to participate in an MWBE contractor/subcontractor networking event planned for this Spring. Staff has obtained membership in the MWBE Coordinators' Network, and will attend upcoming quarterly membership meetings to gain additional feedback on items above and other potential practices to increase MWBE participation.
  - Recommendation: continue networking and parternship efforts, including additional agencies suggested by the Board at the December 12, 2019 work session.

In contrast to the very high levels of construction activity, the first two quarters of FY 2020 saw very little CIP procurement activity. However, a number of formal (greater than $500,000) and informal (between $30,000 and $500,000) construction contracts are planned to be bid in the latter half of the Fiscal Year, providing opportunity to implement and assess new practices. Staff will continue to track information about prime contractors and subcontractors who are bidding OWASA projects and report relevant information about any potential trends in MWBE participation in future CIP Semiannual Reports.

Additional Information

Customers may visit our website (www.owasa.org) for information about our current major CIP projects and our FY 2020 - 2024 CIP book which provides additional information about the CIP. Please feel free to contact me at (919) 537-4248 or vgangadharan@owasa.org if you have any questions regarding the CIP program or projects.

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

Attachment – Table 1 Project Performance Summary Table

Table 1: Project Performance Summary - FY 2020 through second quarter

✅ FY 2020 (or overall project) costs within 5% of FY 2020 (or overall project) budget; completion within 2 months of baselined completion

❌ FY 2020 (or overall project) costs more than 5% above FY 2020 (or overall project) budget; completion more than 2 months beyond baselined completion

All costs listed in $1000's

				Projected FY 2020 Performance			Overall Project Performance						
	CIP No.	Project	Active Phase (at 12/31/19)	FY 2020 Budget	FY 2020 Projected Cost	FY 2020 Cost Status	Baseline Budget	Forecasted Cost	Cost Status	Baseline Completion	Forecasted Completion	Schedule Status	Comments
FY 2020 cost variance due to cost / pricing increases	272-10	Water Facility Asset Rehabilition - Backup Power Study	Study	$ 50	$ 65	❌	$ 50	$ 65	❌	Jun 20	Jun 20	✅	Cost of evaluation to achieve primary study objectives higher than anticipated
	272-51	HVAC Replacement Program	Construction	$ 150	$ 200	❌	$ 150	$ 205	❌	Jun 20	Jun 20	✅	Cost of high efficiency unit and installation for WWTP Switchgear Building exceeded initial estimates
	272-53	Repair/Rehabilitation of WTP Front Entry	Design	$ 35	$ 10	✅	-	-	-	-	-	-	
	275-20	Water Distribution System Rehabilitation	Design	$ 400	$ 304	✅	-	-	-	-	-	-	
	275-21	Bartram Drive Water Main	Design	$ 30	$ 25	✅	$ 198	$ 325	❌	Jun 20	Jun 20	✅	Project was initially planned as an OWASA construction crew project; now expected to be constructed by contractor
	275-88	Kensington Drive Water Main Replacement	Construction	$ 521	$ 800	❌	$ 1,524	$ 1,810	❌	Dec 20	Dec 20	✅	Construction bids higher than estimated
	275-89	Distribution System Prioritization Model	Study	$ 345	$ 320	✅	$ 425	$ 445	✅	Feb 20	Mar 20	✅	
	275-90	Distribution System Sampling Stations	Construction	$ 60	$ 30	✅	$ 125	$ 85	✅	Mar 19	Jun 20	❌	Installation by OWASA crew as workload allows, in order to accommodate higher priorities
	276-45	Bolinwood Interceptor Replacement	Design	$ 100	$ 175	❌	$ 1,130	$ 1,180	✅	Jun 21	Jun 21	✅	Design and permitting costs greater than anticipated
	276-57	Gravity Sewer Hydraulic Model	Study	$ 510	$ 190	✅	$ 677	$ 660	✅	Jun 20	Mar 20	✅	
	276-58	Prince Street Service Replacement	Design	$ 10	$ 30	❌	$ 80	$ 85	❌	Jun 21	Jul 20	✅	Design and permitting costs greater than anticipated
	277-31	Rogerson Drive Pump Station Rehabilitation Phase 2	Construction	$ 894	$ 909	✅	$ 2,169	$ 2,349	❌	Jun 19	Dec 19	❌	Additional scope added for pipe redundancy improvement at pump station. Some construction delay required to accommodate the emergency repair of the Rogerson Drive Force Main
	277-42	Rogerson Drive Force Main 2019 Emergency Repair	Construction	$ 1,200	$ 3,250	❌	$ 3,300	$ 5,780	❌	Dec 19	Dec 19	✅	Level of effort required to complete the work exceeded what was anticipated at time of budget approval
	278-80	WWTP Miscellaneous Rehabilitation	Construction	$ 470	$ 550	❌	$ 575	$ 966	❌	Jun 20	Aug 20	✅	Bids for chemical building rehab exceeded planning estimates. The revised estimates for future contract packages are higher than earlier estimates.
	278-84	WWTP Security Improvements	Study	$ 32	$ 1	✅	$ 100	$ 95	✅	Dec 19	Jun 19	✅	
FY 2020 cost variance due to schedule	270-11	University Lake Pump Station Improvements	Construction	$ 981	$ 1,647	❌	$ 2,105	$ 2,210	✅	Jun 20	May 20	✅	Some work from FY 2019 carried over into FY 2020.
	270-28	University Lake Permanganate Facility	Design	$ 35	$ 88	❌	$ 2,242	$ 2,231	✅	Jun 21	Oct 21	✅	Some work from FY 2019 carried over into FY 2020. SRF loan funding timeline taking longer than expected.
	271-05	Cane Creek Raw Water Transmission Main Study	Study	$ 50	$ -	✅	$ 100	$ 100	✅	Jun 20	Dec 20	✅	Testing of transmission main postponed to accommodate construction work

Table 1: Project Performance Summary - FY 2020 through second quarter

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	CIP No.	Project	Active Phase (at 12/31/19)	FY 2020 Budget	FY 2020 Projected Cost	FY 2020 Cost Status	Baseline Budget	Forecasted Cost	Cost Status	Baseline Completion	Forecasted Completion	Schedule Status	Comments
FY 2020 cost variance due to schedule changes	272-37	WTP Belt Filter Press Replacement	Design	$ 350	$ 545	✗	$ 3,587	$ 3,669	✓	Jun 20	Jul 21	✗	Some work from FY 2019 carried over into FY 2020. Bidding and construction to be postponed to accommodate other higher priority construction projects at WTP
	272-38	WTP Sedimentation Basin Rehabilitation	Construction	$ 1,190	$ 1,040	✓	$ 3,296	$ 2,905	✓	Jun 20	Feb 20	✓	
	272-42	WTP Finished Water Pump Improvements	Bidding	$ 250	$ 175	✓	$ 1,231	$ 1,233	✓	Jun 21	Apr 21	✓	
	272-46	WTP Chemical Facility Improvements	Bidding	$ 555	$ 200	✓	$ 3,550	$ 3,070	✓	Jun 21	Jul 21	✓	
	272-49	WTP and WWTP Supervisory Control and Data Acquisition (SCADA) Master Plan	Study	$ 25	$ -	✓	-	-	-	-	-	-	
	275-15	Reimbursement for Distribution System Improvements	Construction	$ 48	$ -	✓	-	-	-	-	-	-	
	275-20	Fordham Service Road Water Main Replacement	Construction	$ 864	$ 856	✓	$ 955	$ 943	✓	Mar 20	Feb 20	✓	
	275-21	Foxcroft Dr Water Main	Design	$ 115	$ 58	✓	-	-	-	-	-	-	
	275-21	Manning Drive (East) Water Main	Construction	$ 2,678	$ 1,380	✓	$ 2,783	$ 2,783	✓	Mar 20	Nov 19	✓	
	275-21	Oakwood-Rogerson Neighborhood Water Mains	Design	$ 40	$ 273	✗	-	-	-	-	-	-	Scope of work extend to add Cleland Drive water main. Additional subsurface utility investigation necessary for design. Acceleration of some FY 2021 design work.
	275-21	Scarlett-Cooper Neighborhood Water Mains	Design	$ 100	$ 17	✓	-	-	-	-	-	-	Construction deferred to accommodate completion of nearby projects by others.
	275-46	Dobbins Drive Water Main Replacement	Construction	$ 750	$ 1,250	✗	$ 2,275	$ 1,732	✓	Dec 20	Aug 20	✓	Some FY 2021 construction will be completed ahead of schedule in FY 2020
	275-53	Distribution System Hydraulic Model	Pending	$ 150	$ -	✓	-	-	-	-	-	-	Start of multi-year study delayed due to higher priority projects
	275-77	Galvanized Water Main Replacement - Program	Construction	$ 200	$ 432	✗	$ 950	$ 900	✓	Jun 24	Jun 24	✓	Some planned FY 2021 construction will be completed ahead of schedule in FY 2020
	275-93	Bolinwood Bridge Water Main Replacement	Study	$ 50	$ 25	✓	-	-	-			✓	
	276-18	Gravity Sewer Rehabilitation Program	Construction	$ 3,081	$ 2,500	✓	-	-	-	-	-	-	Construction progress slowed to accommodate higher priority projects.
	276-48	Dobbins Drive Interceptor Replacement	Construction	$ 850	$ 1,000	✗	$ 2,415	$ 2,253	✓	Dec 20	Aug 20	✓	Some planned FY 2021 construction will be completed ahead of schedule in FY 2020
	276-52	Rocky Branch Interceptor Replacement	Study	$ -	$ 20	✗	-	-	-	-	-	-	Planning efforts were accelerated to coordinate with timing of overlapping development project.

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	CIP No.	Project	Active Phase (at 12/31/19)	FY 2020 Budget	FY 2020 Projected Cost	FY 2020 Cost Status	Baseline Budget	Forecasted Cost	Cost Status	Baseline Completion	Forecasted Completion	Schedule Status	Comments
FY 2020 cost variance due to schedule changes	277-40	Wastewater Pump Station Operational and Needs Assessments	Study	$ 35	$ 48	✗	$ 50	$ 50	✓	Jun 21	Jun 21	✓	Some planned FY 2019 completed in FY 2020
	278-11	Wastewater Facility Asset Rehabilitation	Construction	$ 360	$ 85	✓	$ 765	$ 765	✓	Jun 21	Jun 21	✓	
	278-46	Comprehensive Coatings Program	Construction	$ 75	$ 250	✗	$ 333	$ 325	✓	Dec 19	Sep 19	✓	Some planned FY 2019 work completed in FY 2020
	278-51	WWTP Solids Thickening Improvements	Construction	$ 3,282	$ 2,400	✓	$ 6,023	$ 6,080	✓	Dec 20	Sep 21	✗	Construction schedule expanded at final design to accommodate sequencing constraints and packaging with Headworks Rehab project
	278-54	WWTP Intermediate Pump Station Rehabilitation	Closeout	$ 113	$ 40	✓	$ 1,004	$ 842	✓			✓	
	278-68	Water and Wastewater Facilities Building Envelope Rehabilitation	Design	$ 50	$ 125	✗	$ 1,224	$ 1,224	✓			✓	Some FY 2021 construction will be completed ahead of schedule in FY 2020
	278-72	WWTP Secondary Clarifier Rehabilitation	Construction	$ 344	$ 400	✗	$ 1,164	$ 1,194	✓			✓	Some FY 2021 construction will be completed ahead of schedule in FY 2020
	278-78	WWTP Fermenter Improvements	Design	$ 112	$ 100	✓	$ 994	$ 756	✓			✓	
	278-82	WWTP Headworks Rehabilitation	Construction	$ 888	$ 1,382	✗	$ 1,466	$ 1,415	✓			✓	Some FY 2021 construction will be completed ahead of schedule in FY 2020
	278-83	WWTP Server Room	Construction	$ 150	$ 290	✗	$ 350	$ 317	✓			✓	Some work from FY 2019 carried over into FY 2020. Overall project is within budget.
	278-85	WWTP Gas Monitoring Systems	Design	$ 90	$ 80	✓	$ 100	$ 100	✓			✓	
	278-88	Offsite Biosolids Storage Improvements	Study	$ 40	$ 3	✓	-	-	-			✓	
	279-13	Reclaimed Water Valve/Coupling Investigation	Study	$ -	$ 25	✗	$ 25	$ 25	-			✓	Investigation into potential component failures was added in late FY 2019 and work continued into FY 2020
	280-13	Administration Building Locker Room Improvements	Complete	$ -	$ 5	✗	$ 5	$ 5	✗			✓	Alternatives analysis planned for FY 2019 was completed in early FY 2020
FY 2020 cost variance due to scope changes	270-16	Cane Creek Pump Station Improvements	Study	$ 10	$ 5	✓	-	-	-			✓	
	272-39	Water and Wastewater Facilities Concrete Condition Assessment	Study	$ 100	$ 75	✓	-	-	-			✓	
	275-20	Woodbridge Lane Water Main Replacement	Design	$ -	$ 25	✗	$ -	$ 25	✗			✓	Water main replacement project added to address water quality issue
	275-21	Barclay Road Water Main	Construction	$ 1,580	$ 1,650	✓	$ 1,690	$ 1,835	✗	Jun 20	Mar 20	✓	Scope added to extend water main replacement into MLK Jr Boulevard

Table 1: Project Performance Summary - FY 2020 through second quarter

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❌ FY 2020 (or overall project) costs more than 5% above FY 2020 (or overall project) budget; completion more than 2 months beyond baselined completion

All costs listed in $1000's

	CIP No.	Project	Active Phase (at 12/31/19)	Projected FY 2020 Performance: FY 2020 Budget	FY 2020 Projected Cost	FY 2020 Cost Status	Overall Project Performance: Baseline Budget	Forecasted Cost	Cost Status	Baseline Completion	Forecasted Completion	Schedule Status	Comments
FY 2020 cost variance due to scope changes	275-21	Country Club Road Water Main	Construction	$ 1,270	$ 1,300	✅	$ 1,350	$ 1,624	❌	Jun 20	Jun 20	✅	Work extended to Raleigh Road in conjunction with planned extents of street resurfacing (by others).
	275-52	West Cameron Avenue Water Main Replacement	Study	$ 150	$ 235	❌	-	-	-	-	-	-	Design and permitting costs greater than anticipated
	275-92	Jones Ferry Rd Water Main Replacements	Design	$ 300	$ 400	❌	$ 3,750	$ 4,450	❌	Jun 20	Jul 21	✅	Detailed construction cost estimates exceeded initial planning estimates.
	275-94	Westwood Neighborhood Water and Sewer Rehabilitation	Study	$ 50	$ 25	✅	-	-	-			✅	
	276-53	Creek Crossing Access Improvements	Study	$ 50	$ 20	✅	$ 914	$ 702	✅	Jun 22	Jun 22	✅	
	280-14	Engineering Office Renovation	Complete	$ -	$ 19	❌	$ -	$ 19	❌			✅	Unplanned renovation of work spaces
Projects with no FY 2020 cost variance	270-04	Jordan Lake Raw Water Supply Allocation	N/A	$ 10	$ 10	✅	$ 10	$ 10	✅	Jun 20	Jun 20	✅	
	270-09	Quarry Reservoir Development	N/A	$ 15	$ 15	✅	$ 15	$ 15	✅	Jun 20	Jun 20	✅	
	272-10	WTP SCADA Server Improvements	Construction	$ 30	$ 30	✅	$ 95	$ 90	✅	Jun 20	Jun 20	✅	
	272-52	WTP Electrical Distribution Improvements	Study	$ 50	$ 50	✅	-	-	-	-	-	-	
	277-43	Rogerson Drive Force Main and Pump Station Program Services	Study	$ 75	$ 75	✅	-	-	-	-	-	-	
	278-50	WWTP Warehouse	Study	$ 25	$ 25	✅	-	-	-	-	-	-	

Total FY 2020 Active Projects	FY 2020 Budget	FY 2020 Cost
	$ 26,423	$ 27,557

Agenda Item

- Financial Report for the Six-Month Period Ended December 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 financial performance targets were met.

    - Operating Revenues for the period were about $486,000 less than budget.

    - System Development Fees were about $96,000 under budget.

    - Operating Expenses were about $1.2 million less than budget.

    - Net Income less Debt Service was about $621,000 over 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 $588,000 more than budgeted.

Action Needed

- Receive and discuss the financial report for the six-month period ended December 31, 2019.

January 23, 2020

Orange Water and Sewer Authority
OWASA is Carrboro-Chapel Hill's not-for-profit public service agency
delivering high quality water, wastewater, and reclaimed water services.

MEMORANDUM

To: Board of Directors

Through: Ed Kerwin

From: Stephen Winters, CPA

Date: January 17, 2020

Subject: Financial Report for the six-month period ended December 31, 2019

Purpose

The financial report for the six-month period ended December 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 report, all financial performance measurement targets were met for the period.
- Cash position increased substantially in December 2019 when the Series 2019 revenue bonds transaction closed.
- Average drinking water sales for the period was 6.14 million gallons per day (MGD), 6.35 was projected. Combined drinking and reclaimed water sales for the period averaged 7.20 MGD versus a projection of 7.30.
- Total operating revenue was about $486,000 less than budget. Water sales has been less than projected for the year.
- Revenue from new system connections (system development fees) was under budget by about $96,000.
- Total operating expenses for the period were 10% or about $1.2 million less than budget.
    - General and administrative expenses were under budget by about $308,000.
        - Consulting costs for assistance in complying with the American Water Infrastructure Act of 2018 (AWIA), work associated with the long-range water supply plan, and support services in human resources were about $200,000 under budget. The AWIA project will span several years. We expect to expend virtually all of the consulting budget by year-end.
        - Position vacancies accounted for about $72,000 of the variance.

  - The Water Supply and Treatment department expenses were under budget by about $588,000. Chemicals expense was under budget by about $378,000 and maintenance expense was under budget by about $131,000:
    - The price of caustic soda has dropped. (Caustic soda is used to adjust pH levels which helps soften water and inhibit corrosion.)
    - So far this year, we have used less sodium permanganate than anticipated. (Sodium permanganate is used to help mitigate taste and odor issues and reduce total organic carbon (TOC) in drinking water.)
    - Maintenance expense was under budget because several projects have not yet happened.
  - Water distribution expenses were over budget by about 1% or $21,000.
  - Wastewater treatment expenses were under budget by about $210,000. Maintenance expense was under budget by about $215,000 because certain planned projects have not yet occurred.
  - Wastewater collection expenses were under budget by about $114,000. Maintenance expense and position vacancies make up most of the variance.

- Net Income less Debt Service for the period was approximately 11% or $621,000 greater 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

  This information is also included in the CIP semiannual report agenda item.

  Approximately $13.8 million was invested in a total of 68 capital projects during the reporting period. The six-month total of $13.8 million equates to roughly half (52%) of the planned FY 2020 CIP budget. This total includes over $11.3 million in ongoing and completed construction work to rehabilitate, replace or improve various components of OWASA's water and wastewater infrastructure, most notably:

  - pumps and electrical equipment at the University Lake Reservoir;
  - sedimentation basins at the Water Treatment Plant (WTP);
  - a dewatering press at the WTP;
  - the plant headworks structure at the Wastewater Treatment Plant (WWTP);
  - an intermediate pump station at the WWTP;
  - water mains along Manning Drive, Country Club Road, Barclay Road, Fordham Boulevard Service Road;
  - electrical, HVAC, and controls at Rogerson Drive Pump Station, our largest wastewater pump station;
  - the emergency repair of the Rogerson Drive wastewater force main; and
  - pipes and manholes throughout the wastewater collection system.

  Much of the construction work listed above involved considerable impacts to operations, requiring careful planning and close coordination between CIP and operations staff.

  Two important master planning studies were substantially completed during the reporting period: a capacity study for the wastewater collection system and an update to the water distribution system prioritization model. The Board will receive an informational report on the latter study at the March 12, 2020 work session. Staff is using the results from these studies to inform near-term and future needs in the draft CIP budget currently under development. In addition to planning and construction activity,

design work was completed for several major construction projects that are scheduled to be bid and awarded in the second half of FY 2020.

The projected FY 2020 expenditures of $27.5 million is about $1.1 million or about 104% of budget. This falls within the Board-adopted target of executing between 90 to 105% of the CIP budget. The reasons for the $1.1. million variance can be broadly summarized as:

- $2.5 million increase in spending due to cost/pricing changes, which primarily consists of the $2.1 million difference in the actual vs. budgeted costs for the emergency repair of the Rogerson Drive force main as reported to the Board at the October 10, 2019 work session.
- $1.4 million decrease in spending due to timing (schedule-based) changes that resulted in planned FY 2020 work being done in either FY 2019 or delayed to FY 2021.
- The net variance due to project scope changes accounted for a relatively minor amount of the cost variance (less than $90,000) in comparison to the two categories above.

Action Requested

Receive and discuss the financial report.



Stephen Winters, CPA
Director of Finance and Customer Service

Orange Water and Sewer Authority

Financial Report
For the Six-Month Period Ended
December 31, 2019

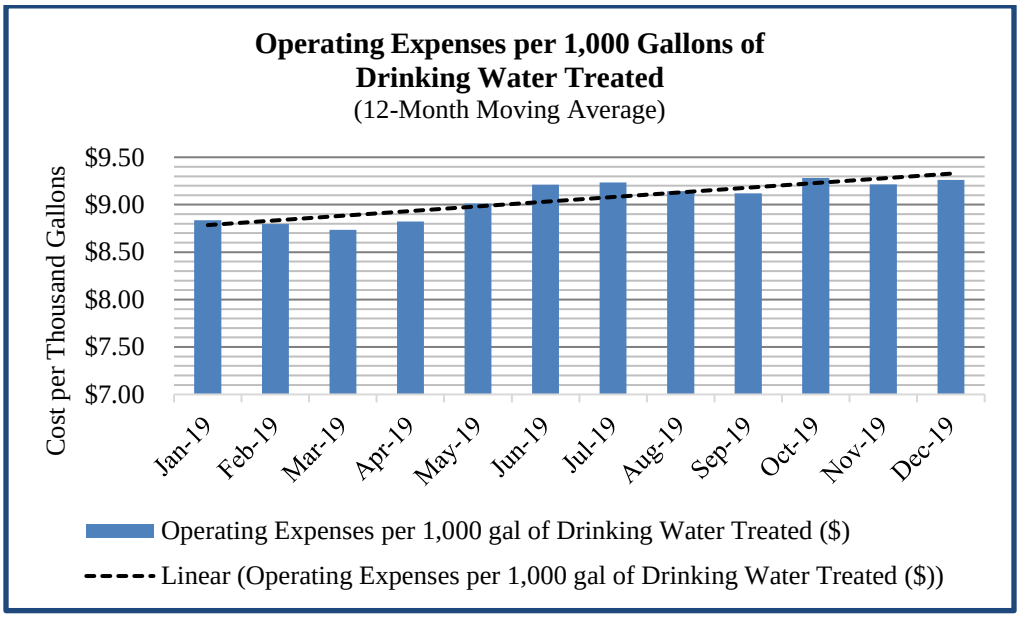
Orange Water and Sewer Authority
Statement of Net Position
December 31, 2019
(unaudited)

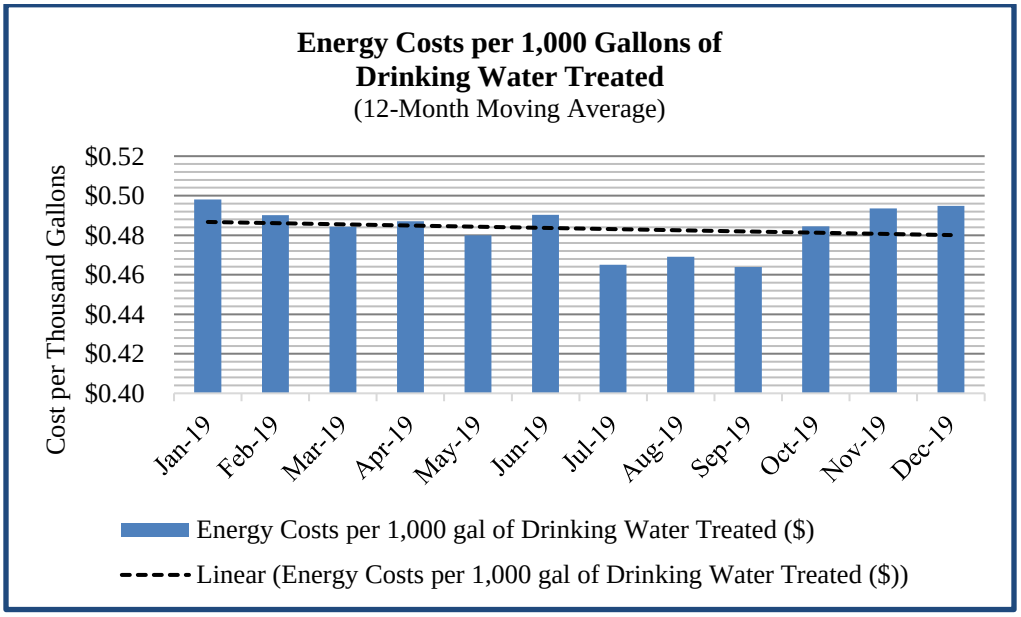
Assets	
Current Assets	
Cash	$25,475,543
Receivables	4,891,986
Inventory	1,416,937
Prepaid expenses	183,635
Restricted cash	2,985,941
Total Current Assets	34,954,042
Noncurrent Assets	
Capital assets (net of depreciation)	278,176,164
Other noncurrent assets	58,642,930
Total Noncurrent Assets	336,819,094
Total Assets	$371,773,136
Liabilities and Net Position	
Current Liabilities	
Accounts payable and accrued expenses	$2,911,196
Unearned income	275,237
Customer deposits	1,220,164
Total Current Liabilities	4,406,597
Noncurrent Liabilities	
Bonds payable	75,595,979
Other noncurrent liabilities	14,302,693
Total Noncurrent Liabilities	89,898,672
Net Position	
Contributed capital	122,985,557
Net position at the beginning of the year	150,227,953
Year-to-date accrual basis net income	4,254,357
Total Liabilities and Net Position	$371,773,136
Net income reconciliation:	
Accrual basis net income	$4,254,357
Depreciation, interest, other post-employment benefits expenses	5,119,037
Modified accrual basis net income	$9,373,394

Orange Water and Sewer Authority
Income Statement
For the Six-Month Period Ended December 31, 2019
(unaudited)

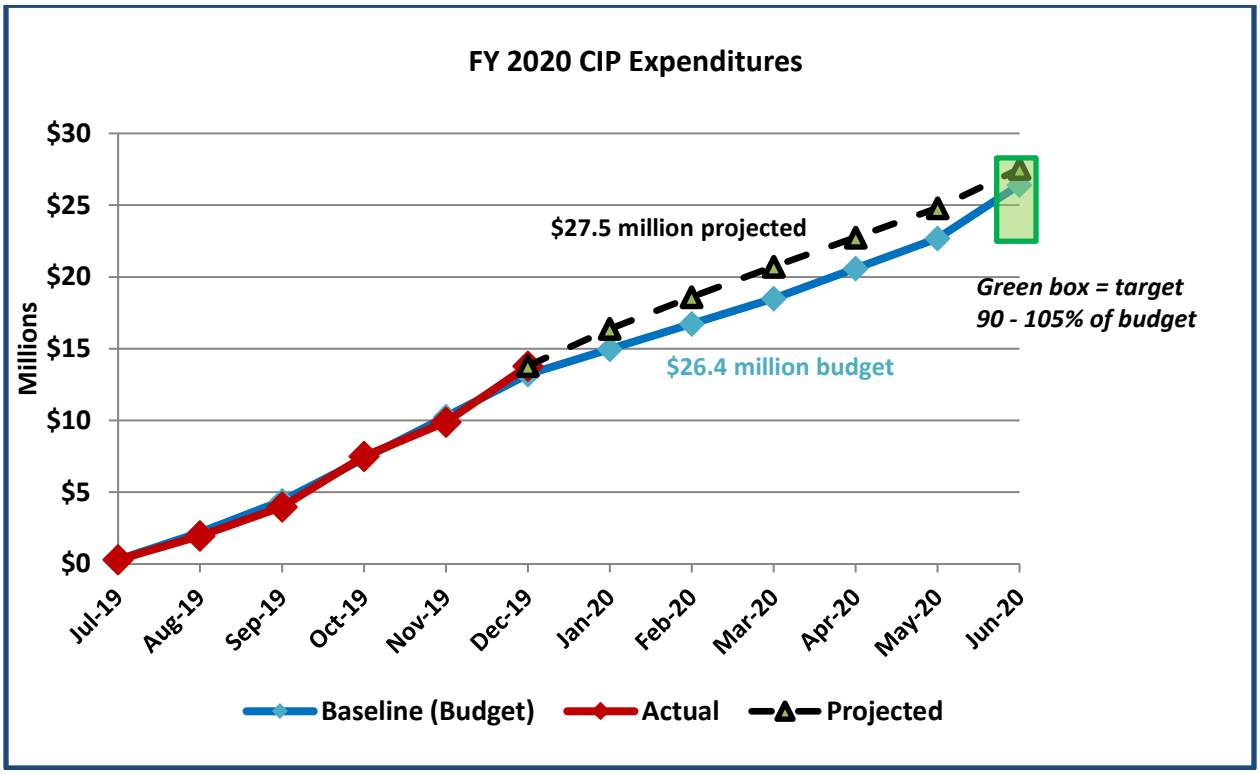
	Actual through December 31, 2019	Budget through December 31, 2019	Variance (effect on net change in Fund Balance)	Percent Variance
Operating Revenue				
Water	$9,763,847	$9,840,232	($76,385)	(0.8%)
Sewer	8,996,616	9,333,012	(336,396)	(3.6)
Reclaimed Water	273,975	278,505	(4,530)	(1.6)
Service Initiation Fees	15,410	76,962	(61,552)	(80.0)
Other	473,818	492,651	(18,833)	(3.8)
Refunds and Allowances	(94,383)	(106,284)	11,901	11.2
Total Operating Revenue	19,429,283	19,915,078	(485,795)	(2.4)
Non-Operating Income (Expense)				
System Development Fees	628,232	724,446	(96,214)	(13.3)
Interest	12,949	23,202	(10,253)	(44.2)
Total Non-Operating Income	641,181	747,648	(106,467)	(14.2)
Total Income	20,070,464	20,662,726	(592,262)	(2.9)
Operating Expense				
General and Administrative	3,701,155	4,009,652	308,497	7.7
Water Supply and Treatment	2,461,540	3,049,629	588,089	19.3
Water Distribution	1,649,207	1,627,808	(21,399)	(1.3)
Wastewater Treatment	2,393,999	2,604,429	210,430	8.1
Wastewater Collection	491,169	605,617	114,448	18.9
Total Operating Expense	10,697,070	11,897,135	1,200,065	10.1
Net Income (modified accrual)	9,373,394	8,765,591	607,803	6.9
Debt Service	2,985,941	2,998,962	13,021	0.4
Net Income less Debt Service	6,387,453	5,766,629	620,824	10.8
CIP Expenditures	13,796,369	13,208,833	(587,536)	(4.4)
Capital Equipment Expenditures	257,444	989,700	732,256	74.0
Net Change in Fund Balance	($7,666,360)	($8,431,904)	$765,544	

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





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

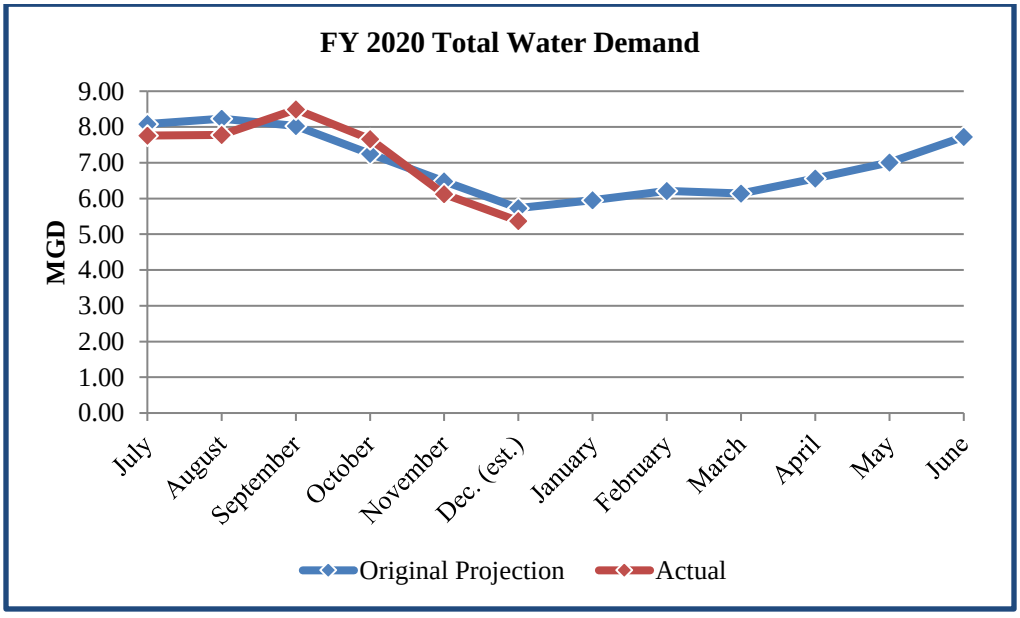


Orange Water and Sewer Authority
Select Financial Data
For the Six-Month Period Ended December 31, 2019

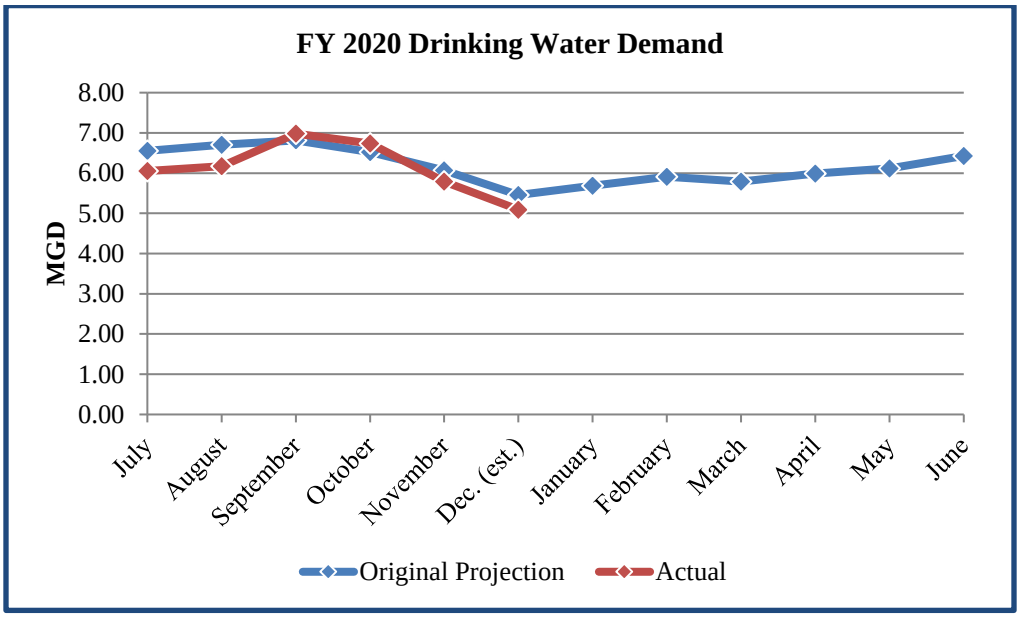
FY 2020 Water Sales Projection (Average Day)

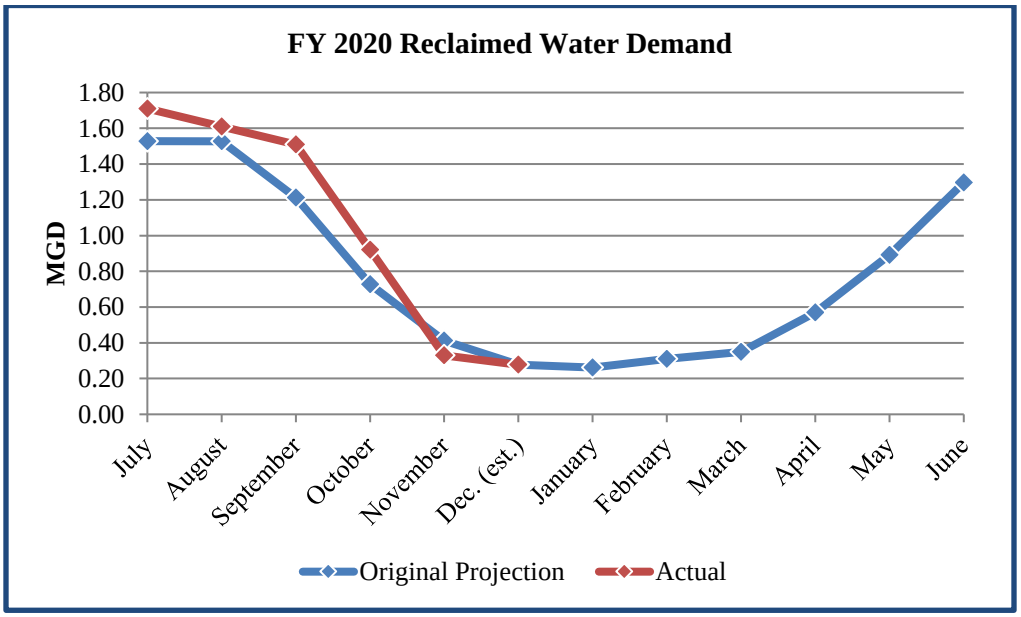
	Original Projections		Actual Water Sales		Revised Projections	
	DW	RCW	DW	RCW	DW	RCW
July	6.55	1.53	6.05	1.71	6.05	1.71
August	6.70	1.53	6.17	1.61	6.17	1.61
September	6.81	1.21	6.98	1.51	6.98	1.51
October	6.52	0.73	6.74	0.92	6.74	0.92
November	6.07	0.41	5.79	0.33	5.79	0.33
December	5.46	0.28	5.09	0.28	5.46	0.28
January	5.69	0.26			5.69	0.26
February	5.91	0.31			5.91	0.31
March	5.79	0.35			5.79	0.35
April	5.99	0.57			5.99	0.57
May	6.11	0.89			6.11	0.89
June	6.43	1.30			6.43	1.30
Average	6.17	0.78	6.14	1.06	6.09	0.84

Estimates shown in red

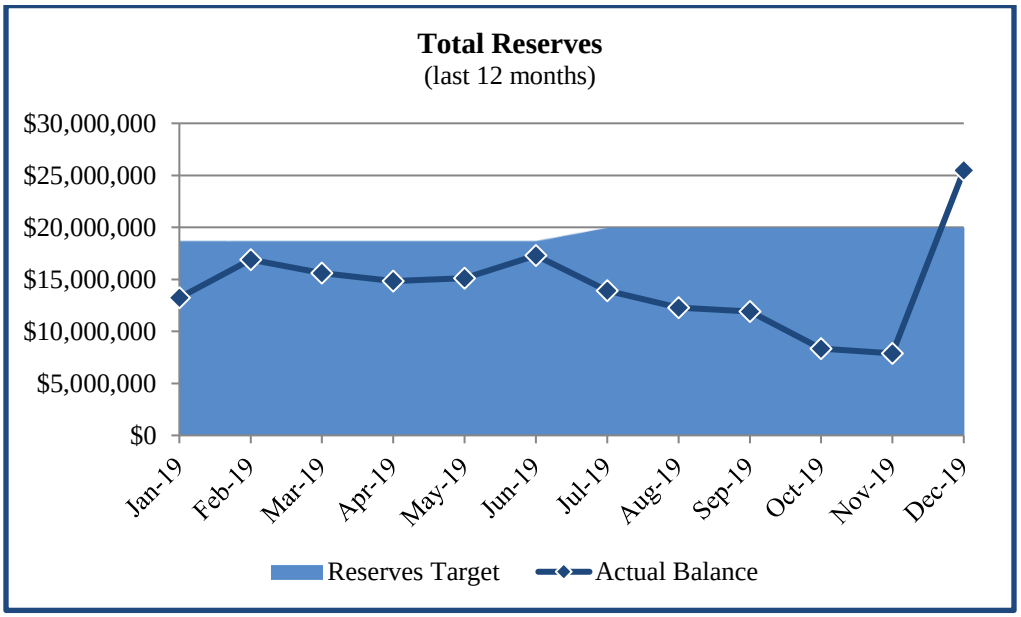


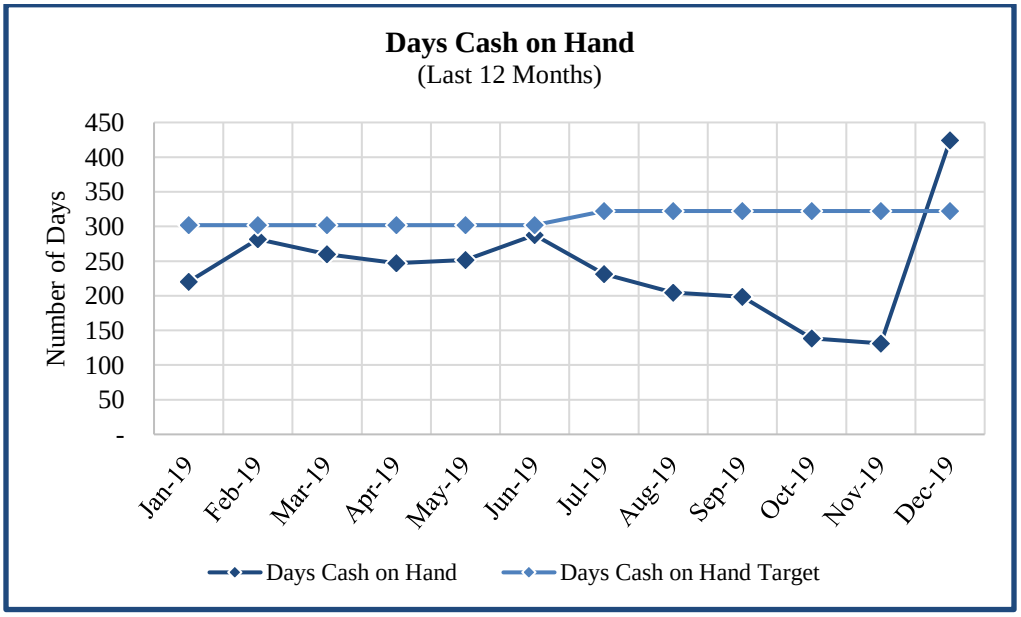
Orange Water and Sewer Authority
Select Financial Data
For the Six-Month Period Ended December 31, 2019



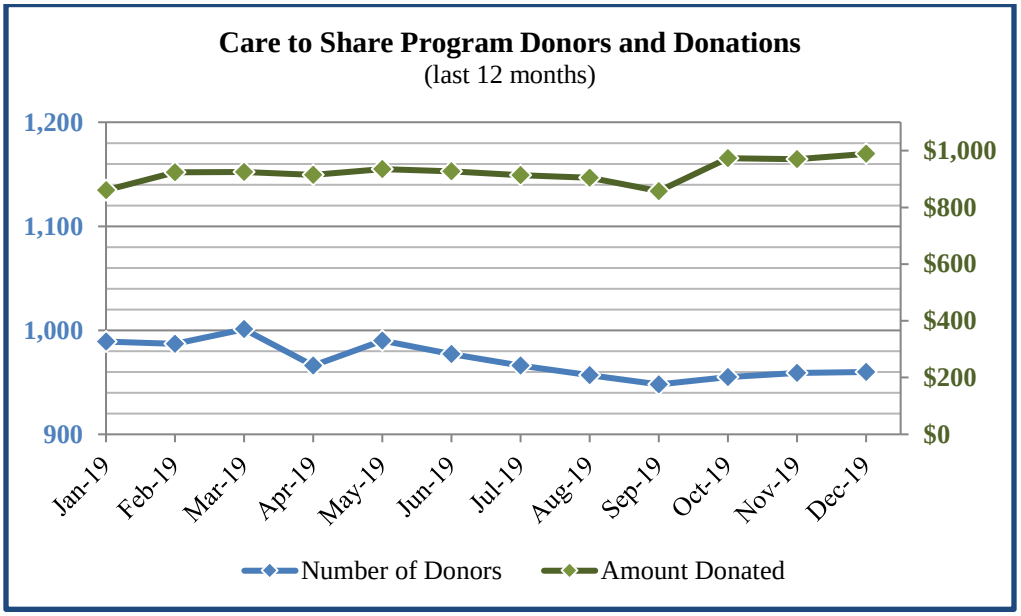


Orange Water and Sewer Authority
Select Financial Data
For the Six-Month Period Ended December 31, 2019





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



Orange Water and Sewer Authority
Financial Management Policy Report Card
For the Six-Month Period Ended December 31, 2019

Measurement	Objective	FY19 Results	FY20 Goal	YTD FY20 Results
Working Capital Reserves	Greater of four months Operating Expenses or 20% of succeeding three years CIP	$11.5M	$13.6M	$19.2M
Capital Improvements Reserve	2% of Net Capital Assets (Funding $400,000 per year until reach goal of approximately $6M)	$4.0M	$4.4M	$4.4M
Rate/Revenue Stabilization Reserve	5% of annual Water and Sewer Revenue	$1.8M	$1.9M	$1.9M
Debt Burden to Asset Value	Total Debt not more than 50% of Total Assets	24%	≤ 50%	25%
Sufficiency of Revenues above Debt Requirements[3]	Annual Debt Service no more than 35% of Gross Revenue	19%	≤ 35%	19%
Cash Financing of Capital[1]	Annual revenues and reserves provide at least 30% of CIP funding	49%	≥ 30%	44%
Debt Service Coverage Ratio[3]	Annual Net Income not less than two times Annual Debt Service	2.1	2.0	2.1
Service Affordability Ratio[2]	Average annual OWASA bill not more than 1.5% of area median household income	1.38%	1.5%	1.35%

M = million

i

[1] Cash Financing of Capital based on 5-Year CIP Budget and potential borrowing during the same period.
[2] FY 2020 Calculation based on median household income of $67,426 (per U.S. Census Bureau's 5-year American Community Survey estimates for 2013 - 2017 MHI (in 2017 dollars) and average monthly household water use of 4,000 gallons.
[3] Calculation based on the FY 2020 Annual Budget until full-year results are available.

Agenda Item

Fiscal Year (FY) 2021 Budget Calendar and Assumptions

Purpose

The following pages include:

- FY 2021 Budget Calendar – the proposed dates of Board meetings and work sessions at which budget matters are expected to be discussed. It also lists the dates by which major budget tasks are to be completed by staff.

- FY 2021 Budget Planning Assumptions – a high-level list of assumptions that are planned to be considered in preparing the budget.

- A draft of a new budget framework intended to improve the budget process and enhance stakeholder understanding.

- Analysis of historical operating expense information.

Action Requested

Review the budget calendar and planning assumptions and provide guidance to staff.

January 23, 2020

Orange Water and Sewer Authority
OWASA is Carrboro-Chapel Hill's not-for-profit public service agency
delivering high quality water, wastewater, and reclaimed water services.

MEMORANDUM

TO: Board of Directors

THROUGH: Ed Kerwin

FROM: Stephen Winters, CPA

DATE: January 17, 2020

SUBJECT: Discussion of Fiscal Year 2021 Budget Calendar, Planning Assumptions, and New Budget Format

Purpose

In advance of developing the budget for Fiscal Year (FY) 2021, staff has drafted a calendar of events and an outline of some of the key planning assumptions that are proposed to be considered. Additionally, an updated framework for a new budget format is included.

Budget Calendar

The following is a schedule of the key dates related to developing the budget for FY 2021.

December 2019	Distribute templates for the preparation of operating expense appropriations, capital equipment requests and departmental budget narratives.
January 23, 2020	**Board of Directors Meeting** – review FY 2021 Budget Calendar, Planning Assumptions, and draft framework of a new budget format. Review the FY 2021 financial report for the six-month period ended December 31, 2019
January 23, 2020	Staff submission of capital equipment requests, budget narratives and departmental operating budget requests to Director of Finance and Customer Service.
February 13, 2020	**Board of Directors Work Session** – managers of the Water Supply and Treatment, Water Distribution and Wastewater Collection, and Wastewater Treatment departments to present information about key drivers, opportunities and challenges of their departments' preliminary budgets.
February/March 2020	**Finance Committee meetings** – as necessary, to conduct more in-depth budget analyses and discussions.
March 12, 2020	**Board of Directors Work Session** – discussion of *Draft Annual Budget* (operating and CIP) and first iteration of new budget format.

March 26, 2020	**Board of Directors Meeting -** discussion of *Draft Annual Budget* and staff recommendation of rate adjustment. Set date for public hearings on budget and rates.
April 9, 2020	**Board of Directors Work Session** – discussion of *Draft Annual Budget* and staff recommendation of rate adjustment.
April 23, 2020	**Board of Directors Meeting** – Discuss FY 2021 budget and rates and authorize staff to publicize draft budget and rate information. Review FY 2020 financial report for the nine-month period ended March 31, 2020.
April/May 2020	**Finance Committee meetings –** as necessary, to conduct more in-depth budget analyses and discussions.
May 28, 2020	**Board of Directors Meeting** – public hearings on the *Draft Annual Budget* and proposed adjustments to rates, fees, and charges.
June 11, 2020	**Board of Directors Work Session** – adopt *FY 2021 Annual Budget* and *Schedule of Rates, Fees and Other Charges*.
July 2020	Distribute *FY 2021 Annual Budget*.

Budget Assumptions

The following are key focus areas of the organization for the near future; the possible operating expense and capital improvements program (CIP) budget impacts are noted.

Key Focus Area	**Budget Impact for FY 2021+**
A. Reliable and resilient services:	
i. Complete consultant's work on new water main prioritization model including risk mitigation and emergency response measures.	Possible additions will be needed to operating expense and CIP budgets, pending review of consultant's findings, staff evaluation, and direction from the Board.
ii. Award contract for comprehensive improvements for water distribution piping at and leaving the Jones Ferry Road Water Treatment Plant.	Ongoing CIP budget expenditures in FY 2021.
iii. American Water Infrastructure Act of 2018 (AWIA)	Ongoing consultant support expected in FY 2021.
iv. Begin process to select a new and comprehensive Computerized Maintenance Management System.	Possible significant operating expense.
v. Reduce risk to water distribution and wastewater collection systems from third party construction activities (primarily ongoing fiber optic cable installations across the service area).	Possible operating expense impacts.

Key Focus Area	Budget Impact for FY 2021+
vi. Continue efforts to assess and improve physical and cyber security	Possible operating expense and CIP budget impacts.
B. Energy Management	The Energy Management Program underway is designed to promptly pursue cost-effective clean energy strategies. In FY 2021, we will incur upfront expenses (as well as, Duke Energy reimbursement of a portion of those expenses) for three to four solar lease installations.
C. Long-Range Water Supply Plan (LRWSP) expected to be completed in FY 2021	Continued consultant assistance will be needed in FY 2021. Future operating expense and CIP budget impacts will depend on future Board decisions guided by findings and recommendations in the LRWSP. The largest potential CIP expenditure anticipated will be whether the Board supports continuing to participate in the Western Intake Partnership for studies in governance, preliminary design, and environmental permitting for potential new intake and water treatment facility on Jordan Lake.
D. Forest Management – funding to implement priority plans and continued maintenance of the Mitigation Tract	Budget impacts to be determined but not expected to be significant.
E. Diversity and Inclusion work continues	Ongoing consultant support expected in FY 2021.
F. Communications and Community Engagement Plan Implemented	Operating expenses associated with updating the website (beyond initial upgrade), creation of branded material, and key partnerships.
G. Transition from our current banking services provider to JP Morgan Chase	Financial services expenses are expected to decrease.
H. Increase maintenance staffing at the WWTP	We will assess the need for additional staffing at the WWTP to address ongoing preventative and corrective maintenance needs.
I. Increase in-house construction activities	We are analyzing the advantages and disadvantages of using in-house crews vs. contractors for certain CIP projects (to replace galvanized water mains, for example). There are potentially opportunities to reduce construction costs, enhance employee skill sets and increase pipe replacement rates. However, there are limitations on the volume and type of work that can be performed in-house and it requires a commitment of additional resources.
J. Renewal and replacement of aging infrastructure	Our asset management program continues to identify and prioritize infrastructure improvements needed to achieve desired customer and environmental service level objectives, minimize critical asset failures and ensure the long-term viability of the water, wastewater and reclaimed water systems. Infrastructure renewal and replacement funding in the CIP budget is expected to increase.

Key Focus Area	Budget Impact for FY 2021+
K. Investigate utility billing and financial software alternatives	Minimal, if any, impact on FY 2021 budget but depending on outcome of analysis, may have significant impact on future budgets.

Additional assumptions

The following will also be considered as we develop the FY 2021 budget.

- The budget will be developed to meet the financial performance objectives stipulated in our Financial Management Policy.
- Current service levels will be maintained.
- Cost of labor adjustments for employees will be based on market analysis.
- Merit pay adjustments, according to the Board's guidance, will be at least 2.9 percentage points greater than the cost of labor adjustment.
- Employee health insurance premiums are expected to decrease.
- Drinking water and reclaimed water sales are not expected to increase or decrease significantly.
- The regulatory environment will remain the same.
- Construction costs in CIP are expected to continue to increase as a result of market conditions.
- We expect to issue revenue bonds to fund CIP projects.
- We have not been notified of unit cost increases for chemicals, but the cost has increased over the last few years.
- We expect energy prices to increase by as much as 5%.

Last year, staff projected that a 5% increase in monthly water and sewer rates would be necessary for the FY 2021 budget year. Based on very preliminary planning, staff expects there to be an increase in operating and CIP expenditure needs as compared to last year's projections.

New Budget Format

Over the past few months, the Board and staff have discussed ways in which the annual budget process can be enhanced. The primary goals of this effort include:

- Organize and present budget information so that it is more easily understood by our customers and other members of the public.
- Enhance the Board of Director's ability to provide direction and make budget decisions.
- Augment staff's budget decision-making process.
- More closely tie spending to measurable inputs (in the form of benchmarks) or outputs (in the form of performance).

The Board's Finance Committee provided guidance at its October 22, 2019 committee meeting and staff has developed a high-level outline of a budget framework (see chart in Appendix A). The Board and staff agree that this will be an iterative process that will likely take several annual budget cycles to refine.

The budget framework in Appendix A is patterned after the 10 attributes of effectively managed utilities published in the report, *Findings and Recommendations for a Water Utility Sector Management Strategy*. This report was developed by a consortium of water and wastewater industry associations and the U.S. Environmental Protection Agency. (For information about the project and report, see Water EUM on the website of the American Water Works Association.)

Our plan for the FY 2021 budget is to focus our efforts on OWASA's three operating divisions: Water Supply and Treatment, Water Distribution and Wastewater Collection, and Wastewater Treatment. Within these operating divisions, we plan to focus on components of some of the higher-cost operating processes, such as:

- High quality drinking water
  - Minimize taste and odor events
  - Standards compliance
- Reliability of drinking water supply
  - Minimize water main breaks
- Reliability of wastewater collection
  - Minimize wastewater spills/overflows
- Wastewater management
  - Standards compliance

As shown in the budget calendar on pages one and two of this memo, the Finance Committee will meet in February to conduct an in-depth review of the first draft of the FY 2021 operating budget. On March 12, 2020, staff is schedule to present FY 2021 operating and CIP budget information to the Board of Directors; this will include the first iteration of the new budget format.

Historical Financial Information

Appendix B contains information highlighting the operating expense categories that make-up most of OWASA's annual operating expenses and identifies the primary drivers that determine the amount of the expenses. This information is included to provide perspective on elements of OWASA's budget.

Action Requested

Review information and provide guidance to staff.

Stephen Winters, CPA
Director of Finance and Customer Service

Enclosures:

Appendix A Budget Framework Chart
Appendix B Financial Analysis

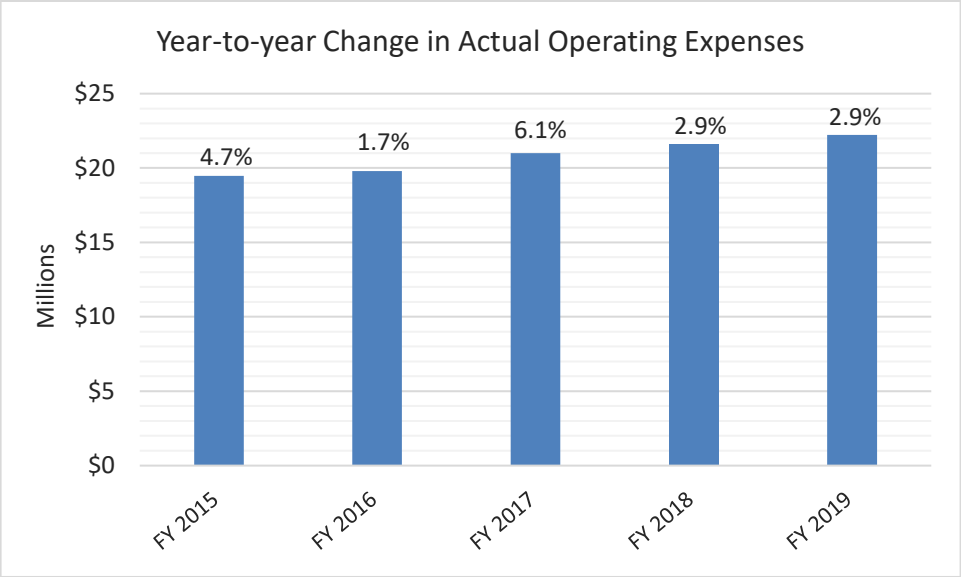
Orange Water and Sewer Authority
Framwork for New Budget Format
January 17, 2020

Appendix A

Goals >>>	High Quality Drinking Water	Reliable Supply of Drinking Water	Reliable Collection, Treatment, and Recycling of Wastewater Resources	High Quality Wastewater Management Services	Resilient, Sustainable and Safe Operations and Services	Customer Satisfaction	Financial Sustainability	Employee and Leadership Development
Outcomes	Full compliance with standards	Sufficient raw water supply	No wastewater spills or overflows	Full compliance for: -treated wastewater -reclaimed water -biosolids recycling	No accidents or injuries	Engage the community to understand customer perceptions and expectations and maintain trust	Funds available to meet operational and capital investment needs	Recruit and retain a diverse, high performing workforce
	Aesthetically pleasing	No service interruptions	No service interruptions	No odor complaints	Meet energy management goals	Bills produced on-time	Sufficient reserves	Foster an inclusive work environment
	Forest management	Sufficient operational capacity (e.g. pumping, treatment, storage, etc.)			Reduce, reuse, recycle resources	Accurate bills	Affordable rates	
					Help customers conserve water	High level of customer satisfaction		
					Disposition of land			
					Affordable services			
					Bill assistance			
Performance Measurements	Compliance with standards	Frequency of mandatory water use restrictions	Sewer spills or overflows	Compliance with standards for: -treated wastewater -reclaimed water -biosolids recycling	Safety incident rate	Stakeholders trust OWASA's decisions	Meet performance measurements in Financial Management Policy	Attrition Rate
	Taste and odor complaints	Water main breaks	Percentage of time (hours) customers have service vs. total hours	Odor complaints	Use of reclaimed water (percentage reclaimed water use compared to total demand)	Positive feedback from customers		Climate surveys
	Forest lands are managed to meet goals provided in the Forest Management Stewardship plan	Percentage of time (hours) customers have service vs. total hours			Recycling of drinking water treatment process solids, biosolids, biogas	Stakeholders have information they need		Average tenure
					Care-to-Share donations	Percentage of bills produced on-time		
					Leaks avoided or mitigated	Percentage of accurate bills		
					Unaccounted for water use	Customer satisfaction		
					Land assets provide the expected value			
					Assets managed effectively			
					Physical and Cyber Security			
					Emergency Response			
					Electricity use			
					Natural gas use			

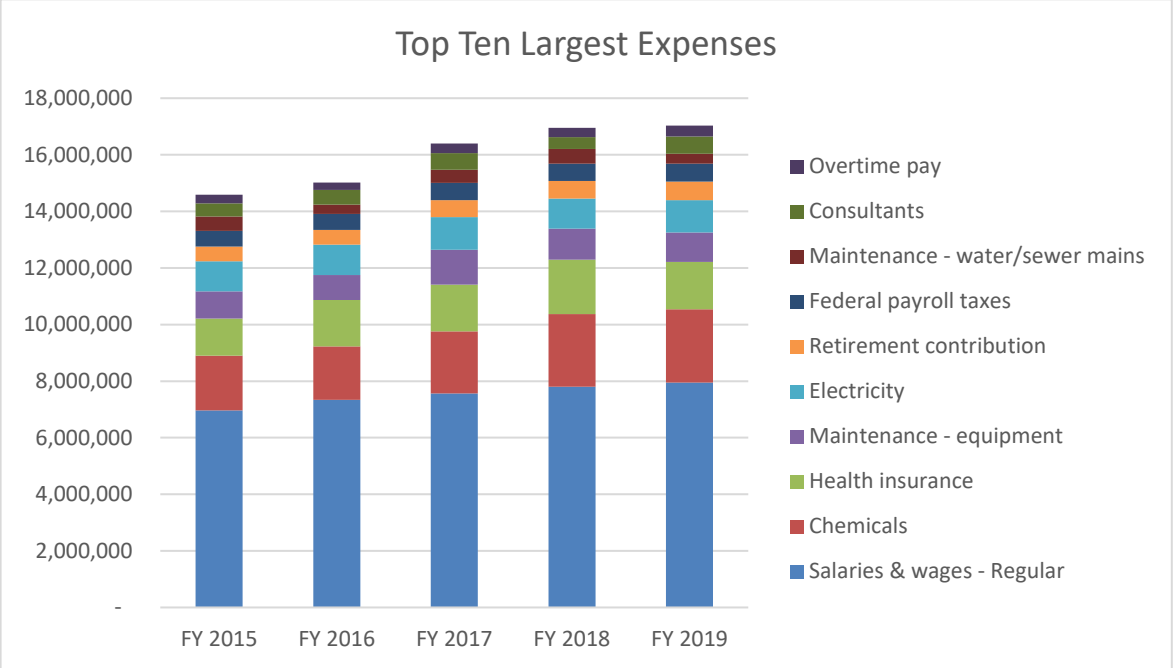
Operating Expense Analysis

On average, OWASA's operating expenses have increased by about 3.6% per year over the last five Fiscal Years (FY).



Each year, ten expense items comprise about three-fourths of total operating expenses.

Operating Expenses	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY19% of Total
Salaries & wages - Regular	6,966,000	7,343,784	7,564,689	7,799,169	7,954,140	35%
Chemicals	1,934,688	1,888,608	2,190,143	2,576,433	2,586,487	11%
Health insurance	1,312,418	1,631,609	1,654,664	1,922,043	1,674,722	7%
Maintenance - equipment	961,766	890,594	1,235,064	1,096,049	1,040,473	5%
Electricity	1,062,455	1,075,155	1,148,288	1,061,802	1,141,713	5%
Retirement contribution	519,888	510,262	598,984	617,219	655,451	3%
Federal payroll taxes	557,019	569,007	619,190	615,629	636,513	3%
Maintenance - water/sewer mains	506,518	331,459	465,747	521,595	348,174	2%
Consultants	467,490	514,344	583,365	418,381	605,202	3%
Overtime pay	300,974	267,682	339,114	329,755	394,171	2%
Top 10 expenses total	14,589,216	15,022,504	16,399,248	16,958,075	17,037,046	75%
Total operating expenses for FY	19,588,099	20,054,246	21,291,854	21,877,244	22,645,287	
Additional information						**Decision-Maker**
Funded positions	130.0	127.5	132.5	134.0	135.0	OWASA Board
Cost of labor adjustment	NA	NA	1.5%	1.0%	1.8%	OWASA Board
Merit adjustment	2.0%	3.0%	1.5%	3.0%	3.1%	OWASA Board
Health insurance adjustment	8.2%	21.4%	15.0%	6.8%	-18.0%	OWASA Board and Insurer
Retirement system contribution	6.67%	7.00%	7.31%	7.50%	9.00%	LGERS Board
Payroll taxes - soc. sec. & medicare	7.65%	7.65%	7.65%	7.65%	7.65%	Fed. Govt.
Drinking water treated (MGs)	2,522	2,441	2,397	2,463	2,432	
Wastewater treated (MGs)	2,954	3,149	3,095	2,843	2,972	
Number of customers	21,239	21,385	21,526	21,585	21,712	
Miles of water and sewer pipe	740	741	743	744	750	



Observations

1. Employee compensation, taxes and benefits account for about 56% of our annual operating expenses.
    a. Regular salaries and wages make up about 35% of annual expenses. Over the last five years, the average annual increase in salaries and wages has been between 2% and 4%. Based on the Board's stated intentions, future merit increases will be at least 2.9%. Cost of labor will be determined based on market data.
    b. Health insurance makes up about 7% of annual expenses. Health insurance rates are a function of benefits offered and claims experience.
    c. Mandatory employer contributions to the Local Government Employees Retirement System are currently 9% of total employee wages. (While not an OWASA expense, employees are required to contribute 6% of wages.) OWASA's contributions average about 3% of total annual expenses.
    d. Employer-paid federal payroll taxes are 7.65% of total wages and also average about 3% of total annual expenses.
2. Chemicals expense averages 10% to 12% of total expenses each year. The unit price of chemicals is somewhat volatile, and the quantity used by our drinking water and wastewater treatment plants is impacted by the volume and condition of the water entering the plants.
3. Total maintenance expenses make up about 13% of annual expenses. We separately track maintenance for different types of assets. Maintenance of equipment (everything other than pumps, reservoirs and tanks, buildings, pipelines, and vehicles) is the largest maintenance line-item and averages about 5% of annual operating expenses.
4. Electricity costs average about 5% of total annual expenses. The Board has set a goal to reduce purchased electricity by 35% by the end of Calendar Year (CY) 2020 compared to the CY 2010 baseline. We are on tract to meet the goal.

Continuous Improvement Initiatives

Over the years, OWASA has continued to evaluate and implement measures to improve the efficiency and effectiveness of our operation and business practices. Some examples include:

- Water treatment optimization through the Partnership for Safe Water (ongoing)
- Wastewater treatment optimization through the Partnership for Clean Water (ongoing); energy efficiency improvements (2014); modified nutrient removal process (2010); and rotary press for biosolids dewatering (2008)
- ADP payroll, time and attendance (2015)
- Comprehensive Asset Management (ongoing)
- Agua Vista/Advanced Metering Infrastructure (2018/2019)

These efficiency/effectiveness measures were initiated and evaluated in a variety of ways. The Partnerships for Safe/Clean Water optimizations were initiated by staff soon after these programs began by the respective professional organizations. Other projects such as the rotary press and energy efficiency improvements were initiated by staff during the annual development of the Capital Improvements Program. The Agua Vista project was initiated by our 2014 Strategic Plan.

Each year during the development and review of our operating expense budget and our Capital Improvements Program (CIP), staff evaluates opportunities for improvement for the Board to consider. Staff believes this process has worked well and plans to continue it.