



ORANGE WATER AND SEWER AUTHORITY
Meeting of the OWASA Board of Directors

Thursday, November 10, 2022, 6:00 p.m.
OWASA Community Room, 400 Jones Ferry Road Carrboro

Pages

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1. Conflict of Interest (Bruce Boehm)	
2. Meeting Updates (Bruce Boehm)	
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B. Petitions and Requests	
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F. Adjournment	

In compliance with the “Americans with Disabilities Act,” interpreter services for non-English speakers and for individuals who are deaf or hard of hearing 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 for 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.

Agenda Item:

Financial Report for the Three-Month Period Ended September 30, 2022

Purpose:

The financial report for the three-month period ended September 30, 2022, 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 but two of our financial performance measurement targets were met for the period. Based on the FY 2023 budget, our debt service coverage ratio for FY 2023 is projected to be 1.7, below the target of 2.0, and our working capital reserve was slightly below our target of \$15.2 million.
- Average drinking water sales for the period was 6.34 million gallons per day (MGD), exactly what was projected. Combined drinking and reclaimed water sales for the period averaged 7.67 MGD versus a projection of 7.86 MGD.
- Combined drinking water and sewer services revenue was about \$363,000 less than budget.
- Total income was under budget by 5.8% or about \$678,000 less than the budget.
- Total operating expenses for the period were 14.7% or about \$945,000 less than the budget.
 - General and administrative expenses were under budget by 7.9% or about \$178,000. The largest variance is in professional services and is due to the timing of projects.
 - Water supply and treatment department expenses were under budget by 26.0% or about \$395,000. Position vacancies, chemicals expense, and maintenance expense made up most of the variance.
 - Water distribution expenses were under budget by 25.5% or about \$226,000. Position vacancies and maintenance expenses made up most of the variance.
 - Wastewater treatment expenses were under budget by 9.3% or about \$136,000. Most of the variance was due to maintenance expenses.
 - Wastewater collection expenses were close to the amount projected at 3.1% or about \$10,000 under budget.

Net Income less Debt Service for the period was approximately \$278,000 greater than budget. OWASA is a nonprofit entity. Net Income less Debt Service is used to fund investments in capital improvement projects and reserves.

November 4, 2022

Capital Improvements Program (CIP) Summary

Throughout the first three months of FY 2023, approximately \$3.6 million (16% of the planned annual CIP budget) was invested in 65 capital projects to rehabilitate, replace, or improve various components of OWASA's water and wastewater infrastructure, most notably:

- Water mains throughout the distribution system
- Pipe and manhole rehabilitation throughout the wastewater collection system
- Rehabilitation and improvements of the Fermenter at the Mason Farm Wastewater Treatment Plant
- Emergency repair of a portion of the Morgan Creek Interceptor
- Distribution system resiliency improvements at the Jones Ferry Road Water Treatment Plant
- Water mains along West Cameron Avenue
- Participation in the Western Intake Partnership Studies

Fiscal Year 2023 CIP spending is expected to be somewhere between 75% and 98% of budget; the current projection is approximately 96%. CIP has expedited projects, where possible, to make up for delays caused by supply chain impacts, material availability and contractor delays. As the fiscal year continues and additional projects get underway or move into new phases, the projection will continue to be refined.

Action Requested:

Receive and review the financial report.

Orange Water and Sewer Authority

**Financial Report
For the Three-Month Period Ended
September 30, 2022**

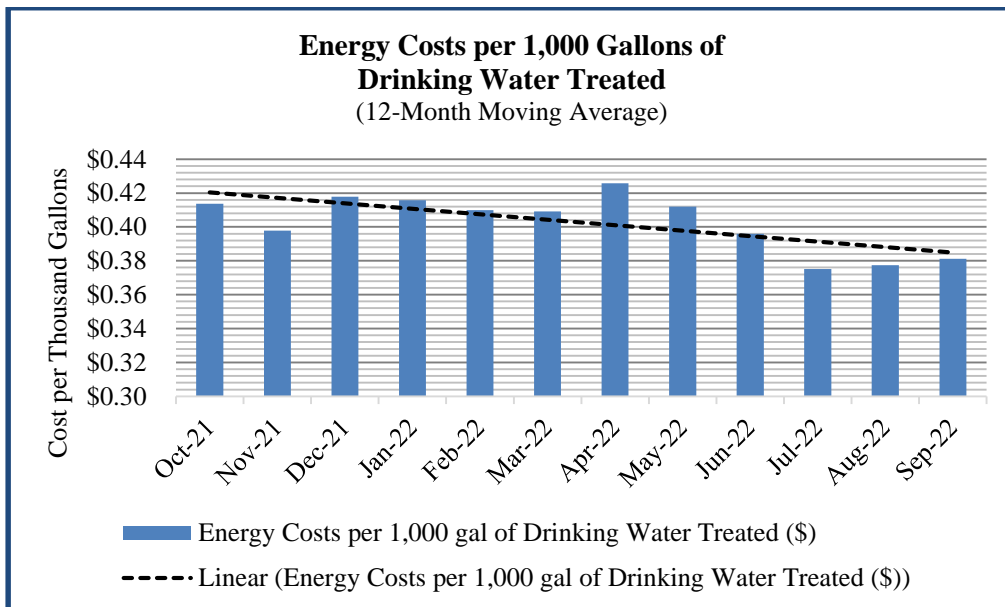
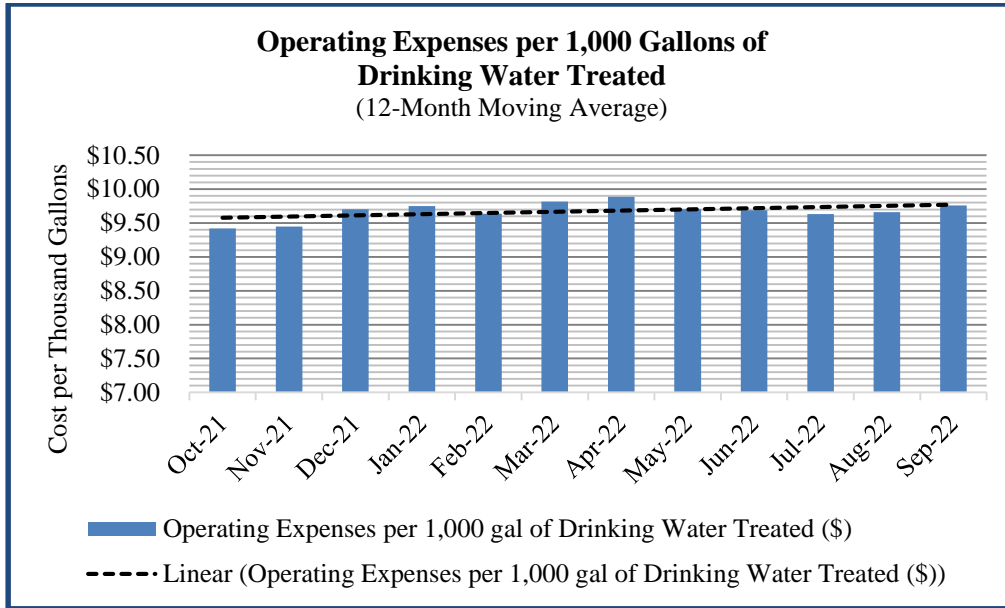
Orange Water and Sewer Authority
Statement of Net Position
September 30, 2022
(unaudited)

Assets	
Current Assets	
Cash	\$22,389,765
Receivables	6,482,223
Inventory	2,151,569
Prepaid expenses	548,797
Restricted cash	4,114,855
	35,687,209
Noncurrent Assets	
Leases receivable	755,581
Capital assets (net of depreciation)	309,959,216
Other noncurrent assets	52,891,768
	363,606,565
Total Assets	\$399,293,774
Liabilities and Net Position	
Current Liabilities	
Accounts payable and deferred outflows	\$3,578,833
Leases payable	616,054
Other current liabilities	1,504,296
	5,699,183
Noncurrent Liabilities	
Bonds payable	67,010,000
State revolving fund loans	14,060,466
Other noncurrent liabilities	23,460,183
	104,530,649
Net Position	
Contributed capital	125,944,627
Net position at the beginning of the year	157,976,428
Year-to-date accrual basis net income	5,142,887
	\$399,293,774
Total Liabilities and Net Position	
	\$399,293,774
Net income reconciliation:	
Accrual basis net income	\$5,142,887
Depreciation, interest, other post-employment benefits expenses	401,283
	\$5,544,170
Modified accrual basis net income	\$5,544,170

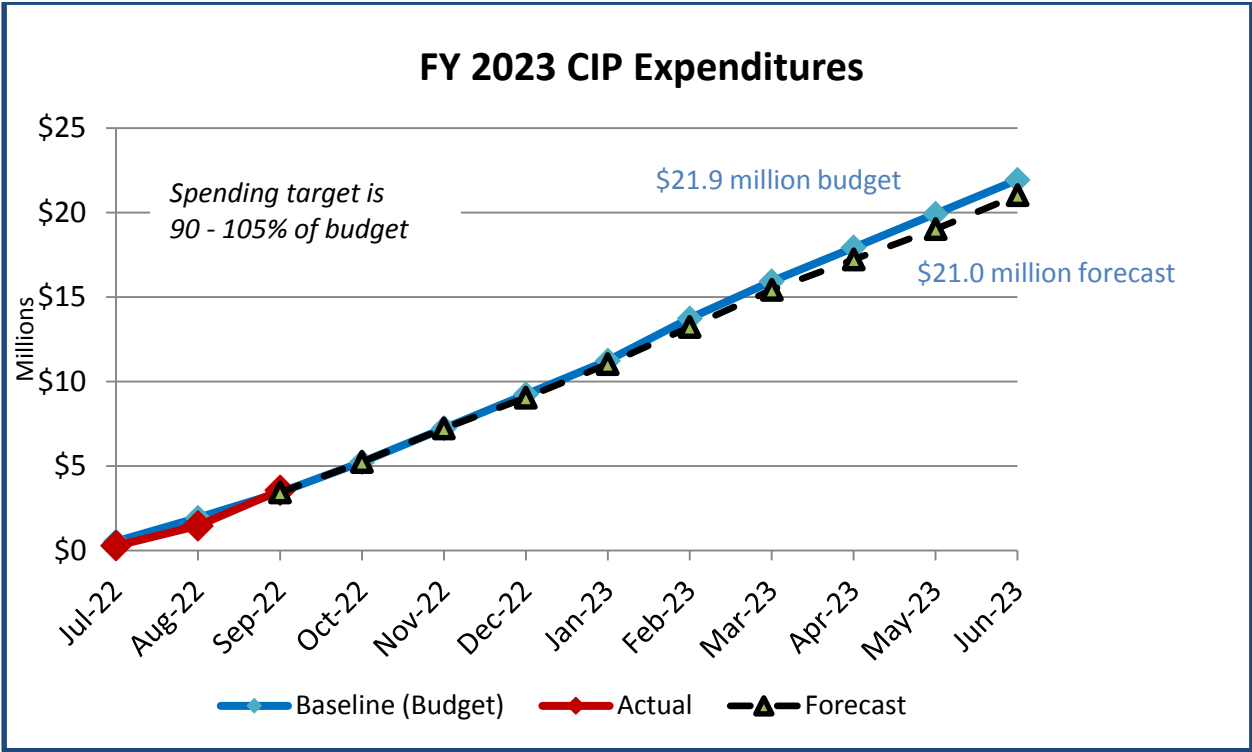
Orange Water and Sewer Authority
Income Statement
For the Three-Month Period Ended September 30, 2022
(unaudited)

	Actual through September 30, 2022	Budget through September 30, 2022	Variance (effect on net change in Fund Balance)	Percent Variance
Operating Revenue				
Water	\$5,768,534	\$5,420,866	\$347,668	6.4%
Sewer	4,863,479	5,573,992	(710,513)	(12.7)
Reclaimed Water	147,595	218,508	(70,913)	(32.5)
Service Initiation Fees	4,900	4,128	772	18.7
Other	43,345	38,706	4,639	12.0
Refunds and Allowances	(44,785)	(26,775)	(18,010)	(67.3)
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Total Operating Revenue	10,783,068	11,229,425	(446,357)	(4.0)
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Non-Operating Income (Expense)				
System Development Fees	347,342	337,920	9,422	2.8
Interest and Other Non-Operating Income	104,475	154,443	(49,968)	(32.4)
Other Non-Operating Expenses	(191,474)		(191,474)	
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Total Non-Operating Income	260,343	492,363	(232,020)	(47.1)
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Total Income	11,043,411	11,721,788	(678,377)	(5.8)
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Operating Expense				
General and Administrative	2,079,918	2,257,571	177,653	7.9
Water Supply and Treatment	1,127,889	1,523,230	395,341	26.0
Water Distribution	660,534	886,847	226,313	25.5
Wastewater Treatment	1,322,067	1,457,977	135,910	9.3
Wastewater Collection	308,833	318,639	9,806	3.1
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Total Operating Expense	5,499,241	6,444,264	945,023	14.7
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Net Income (modified accrual)	5,544,170	5,277,524	266,646	5.1
Debt Service	1,937,307	1,948,222	10,915	0.6
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Net Income less Debt Service	3,606,863	3,329,302	277,561	8.3
CIP Expenditures	3,551,658	3,430,000	(121,658)	(3.5)
Capital Equipment Expenditures	233,938	1,315,374	1,081,436	82.2
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Net Change in Fund Balance	(\$178,733)	(\$1,416,072)	\$1,237,339	
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Orange Water and Sewer Authority
Select Financial Data
For the Three-Month Period Ended September 30, 2022

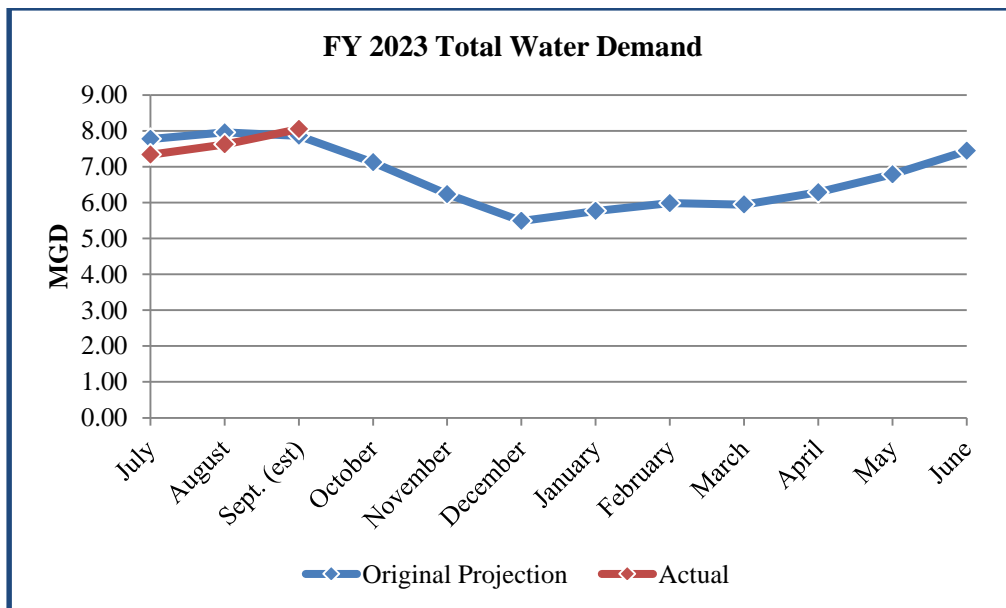


Orange Water and Sewer Authority
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For the Three-Month Period Ended September 30, 2022

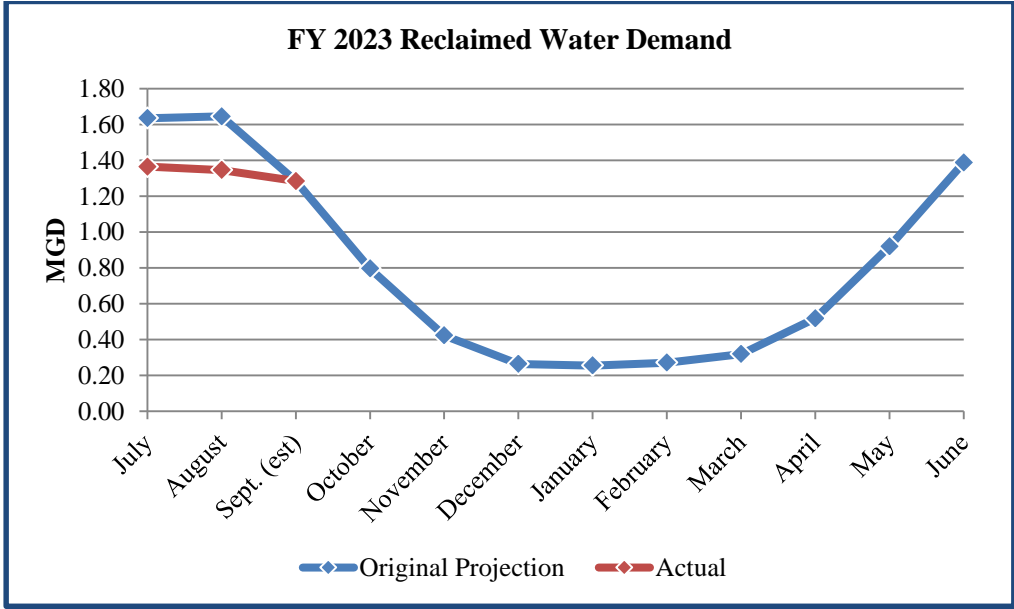
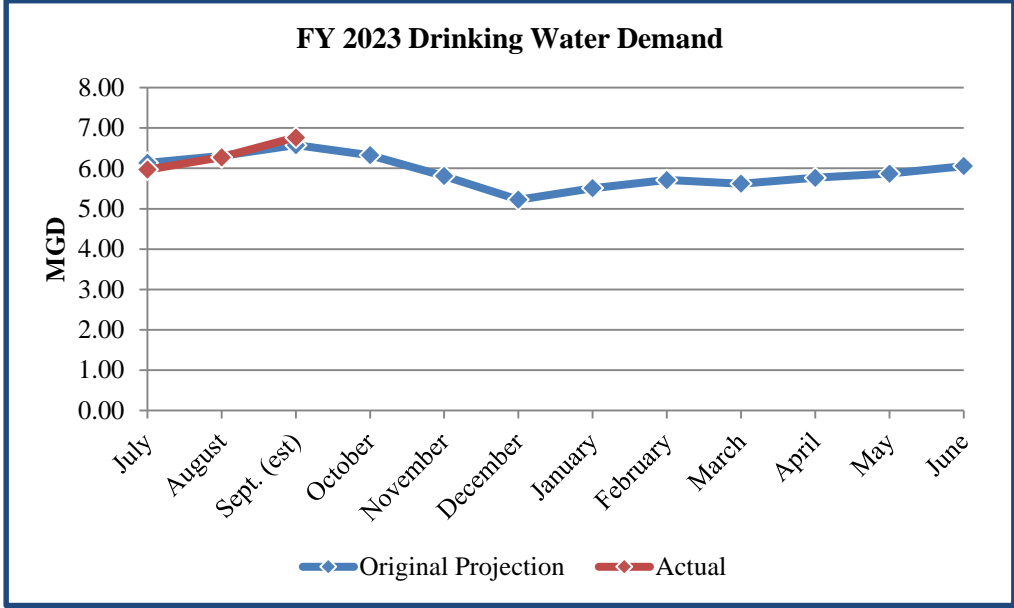


**Orange Water and Sewer Authority
Select Financial Data
For the Three-Month Period Ended September 30, 2022**

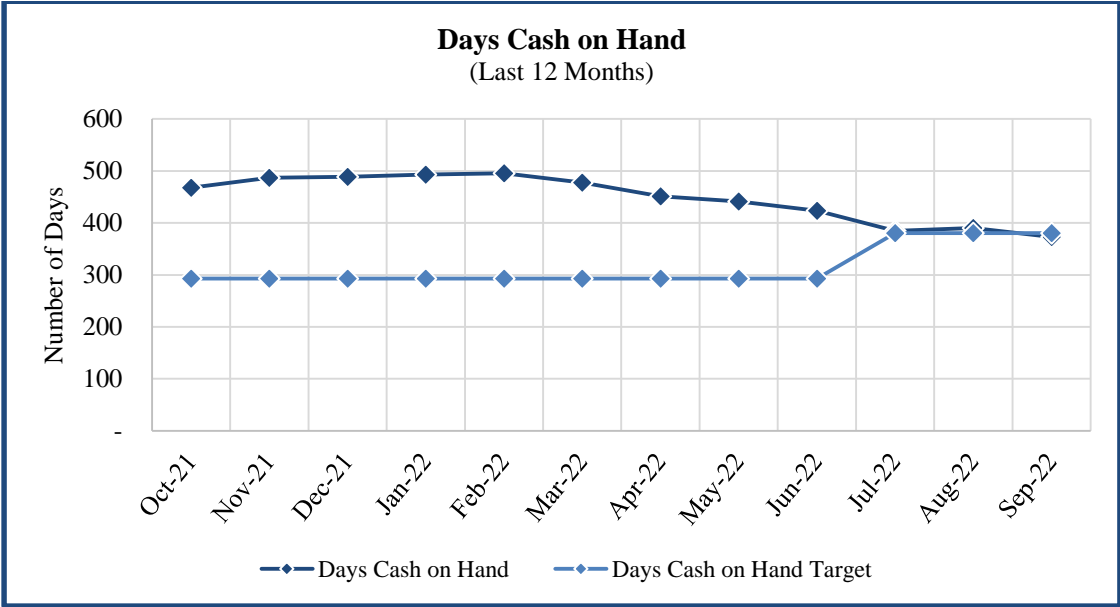
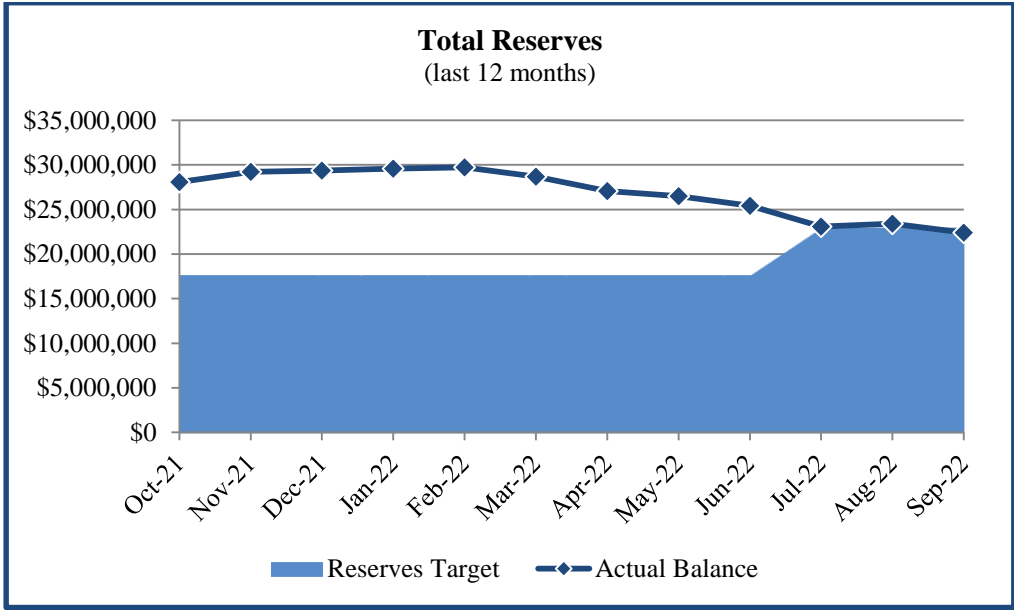
<u>FY 2023 Water Sales Projection (Average Day)</u>						
	Original Projections		Actual Water Sales		Revised Projections	
	DW	RCW	DW	RCW	DW	RCW
July	6.14	1.64	5.97	1.36	5.97	1.36
August	6.31	1.64	6.28	1.35	6.28	1.35
September	6.58	1.28	6.76	1.28	6.58	1.28
October	6.33	0.80			6.33	0.80
November	5.81	0.42			5.81	0.42
December	5.22	0.26			5.22	0.26
January	5.51	0.26			5.51	0.26
February	5.71	0.27			5.71	0.27
March	5.62	0.32			5.62	0.32
April	5.77	0.52			5.77	0.52
May	5.87	0.92			5.87	0.92
June	6.06	1.39			6.06	1.39
Average	5.91	0.81	6.34	1.33	5.89	0.76
DW = Drinking Water						
RCW = Reclaimed Water						
Estimates in red						



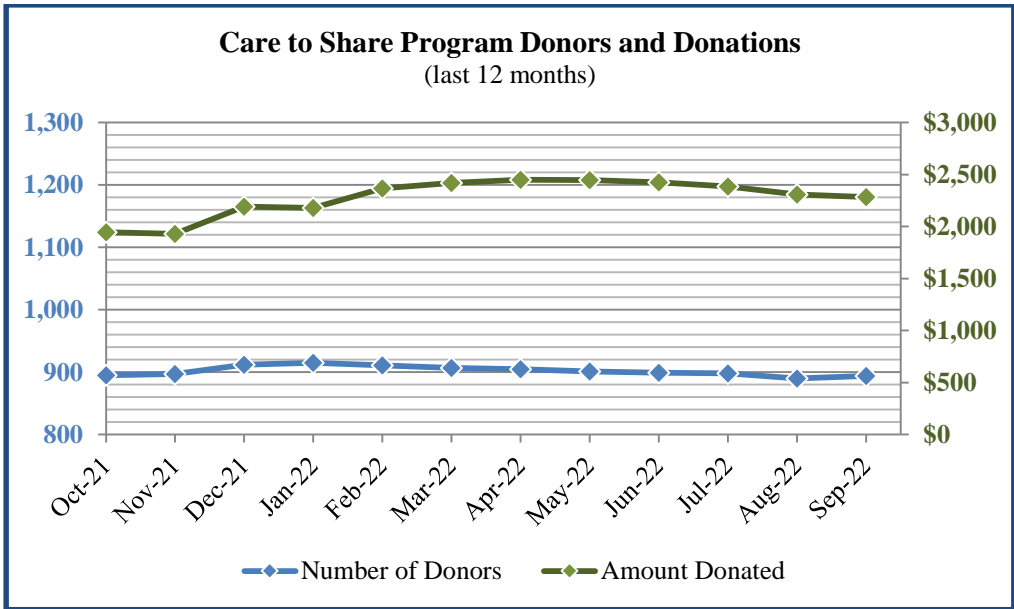
**Orange Water and Sewer Authority
 Select Financial Data
 For the Three-Month Period Ended September 30, 2022**



Orange Water and Sewer Authority
Select Financial Data
For the Three-Month Period Ended September 30, 2022



**Orange Water and Sewer Authority
 Select Financial Data
 For the Three-Month Period Ended September 30, 2022**



**Orange Water and Sewer Authority
Financial Management Policy Report Card
For the Three-Month Period Ended September 30, 2022**

Measurement	Objective	FY22 Results	FY23 Goal	YTD FY23 Results
Working Capital Reserves	Greater of four months Operating Expenses or 20% of succeeding three years CIP	\$18.4M	\$15.2M	\$14.7M
Capital Improvements Reserve	2% of Net Capital Assets (Funding \$400,000 per year until reach goal of approximately \$6M)	\$5.2M	\$5.6M	\$5.6M
Rate/Revenue Stabilization Reserve	5% of annual Water and Sewer Revenue	\$1.9M	\$2.0M	\$2.0M
Debt Burden to Asset Value	Total Debt not more than 50% of Total Assets	28%	≤ 50%	28%
Sufficiency of Revenues above Debt Requirements ³	Annual Debt Service no more than 35% of Gross Revenue	22%	≤ 35%	24%
Cash Financing of Capital ¹	Annual revenues and reserves provide at least 30% of CIP funding	37%	≥ 30%	30%
Debt Service Coverage Ratio ³	Annual Net Income not less than two times Annual Debt Service	2.0	2.0	1.6
Service Affordability Ratio ²	Average annual OWASA bill not more than 1.5% of area median household income	1.38%	1.50%	1.50%

M = million

¹ Cash Financing of Capital based on 5-Year CIP Budget and potential borrowing during the same period.

² FY 2023 calculation based on median household income of \$73,614 (weighted average of 2021 median household income of Carrboro and Chapel Hill) and average monthly household water use of 4,000 gallons.

³ Calculation based on the FY 2023 Annual Budget until full-year results are available.

Agenda Item:

Resolution Authorizing Executive Director to File Applications for Various Permits Related to the Western Intake Partnership Project

Purpose:

To receive approval from the Board of Directors for the Executive Director to file applications on behalf of OWASA as the property owner for various permits required for the Western Intake Partnership Project.

Background:

OWASA's update of its Long-Range Water Supply Plan (LRWSP) was completed in July 2022 following a multi-year, inclusive process to determine how best to meet the community's water supply needs over the next fifty years. OWASA's updated LRWSP recommends that we work with the City of Durham, Town of Pittsboro, and Chatham County to invest in a new intake and transmission facilities on the west side of Jordan Lake in Chatham County, while deferring investment in the water treatment facility (WTF) until a later phase when we may have a more regular need to access our Jordan Lake water supply allocation through the WTF. The Board recognized that this alternative invests in infrastructure that would otherwise be difficult and costly to expand in the future, secures our Jordan Lake allocation, addresses drought vulnerability, and meets our 50-year needs.

Staff has been engaged in WIP pre-planning efforts for several years; with the Board's recent direction staff has participated as an official WIP member in planning and permitting efforts for the ongoing intake and transmission, environmental permitting, and governance projects.

The regional WTF is planned to be sited on a tract of land which was purchased by OWASA in 1989 for the purpose of securing a location for a future water intake and treatment facility. Irrespective of our participation level within the WIP, OWASA's consent as owner of the property is required in order to apply for many of the permits necessary for the project to proceed, including site rezoning, erosion control, stormwater, and more than a dozen other permits.

Discussion:

While the Executive Director is typically the signatory for similar permits which are applied for on our own capital improvement projects that may be sited at our properties, both the magnitude of the WIP project and the fact that the project owners include non-OWASA entities suggests a need to document via Board resolution the Executive Director's authority to sign permits specific to this project; however, there is no statutory requirement to do so.

As noted above, signing of the project permit applications is necessary for the project to proceed with the current site; otherwise, the WIP would need to find an alternative site for the facility and restart preliminary design efforts. The requested permitting is not expected to diminish the value or utility of the site for this or other purposes.

Action Needed:

Approve the attached Resolution Authorizing Executive Director to File Applications for Various Permits Related to the Western Intake Partnership Project.

November 10, 2022

**Resolution Authorizing Executive Director to File Applications for Various Permits
Related to the Western Intake Partnership Project**

Whereas, the City of Durham, Town of Pittsboro, Chatham County, and Orange Water and Sewer Authority (OWASA) are working together to plan, design, construct, and operate a new water supply intake and water treatment and transmission facilities on the west side of Jordan Lake in Chatham County; and

Whereas, the proposed water treatment plant and related facilities are proposed to be sited on land owned by OWASA; and

Whereas, many of the permits necessary to proceed with the planning and design of the project require the approval of the property owner; and

Whereas, in consideration of the magnitude of the project the Board finds it appropriate to specifically authorize to the Executive Director to provide this approval on behalf of OWASA;

Now Therefore Be It Resolved, by the Board of Directors of the Orange Water and Sewer Authority:

1. That Todd Taylor, Executive Director, the Authorized Official, and successors so titled, is hereby authorized to execute permit applications necessary for the Western Intake Partnership Project on behalf of OWASA as owner of the land on which the water treatment facility and related facilities for the Project are proposed to be located. Provided, the Executive Director shall obtain the consent of the Board before executing any permit application obligating OWASA to pay or participate in the payment of further Project costs.

Adopted this the 10th day of November, 2022.

Bruce Boehm, Chair

ATTEST:

Raymond E. DuBose, P.E., Secretary

Orange Water and Sewer Authority
Annual Meeting of the Board of Directors
October 13, 2022

The Board of Directors of the Orange Water and Sewer Authority (OWASA) held its annual meeting on Thursday, October 13, 2022, at 6:00 p.m. in OWASA's Community Room, 400 Jones Ferry Road, Carrboro.

Board Members present: Bruce Boehm (Chair), Todd BenDor (Vice Chair), Raymond (Ray) DuBose (Secretary), Jody Eimers, Pedro Garcia, David Gorelick, Melody Kramer, and Elmira Mangum. Board Member absent: Kevin Leibel

OWASA staff present: Mary Darr, Monica Dodson, Robert Epting, Esq. (Epting and Hackney), Vishnu Gangadharan, Robin Jacobs (Epting and Hackney), Andre Miller, Andrea Orbich, Johnny Riley, Ruth Rouse, Allison Spinelli, Todd Taylor, Mary Tiger, Stephen Winters, and Richard Wyatt.

Public present: Brandi Fesperman (Martin Starnes & Associates).

Motions

1. BE IT RESOLVED THAT the Board of Directors of the Orange Water and Sewer Authority adopts the Resolution Reappointing the Firm of Epting and Hackney as General Counsel to the Orange Water and Sewer Authority. (Motion by Jody Eimers, second by Todd BenDor and the Motion was unanimously approved.)
2. BE IT RESOLVED THAT the Board of Directors of the Orange Water and Sewer Authority adopts the Resolution Awarding a Construction Contract for the Chapel Hill North Pump Station Rehabilitation Project. (Motion by Jody Eimers, second by Todd BenDor and the Motion was unanimously approved.)
3. Jody Eimers made a Motion to approve the Minutes of the September 8, 2022, Board of Directors Meeting; second by Todd BenDor and the Motion was unanimously approved.
4. Jody Eimers made a Motion to approve the Minutes of the September 8, 2022, Closed Session of the Board of Directors for the purpose of discussing a personnel matter; second by Todd BenDor and the Motion was unanimously approved.

* * * * *

Announcements

Chair Boehm asked if any Board Member knew 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.

Chair Boehm announced work is in progress to schedule the next meeting between Chapel Hill Town Council OWASA Committee and the Chapel Hill Appointees to the OWASA Board of Directors within the next few months.

Chair Boehm announced the Carrboro Town Council awarded OWASA \$50,000 of its ARPA funding to cover water bill debt accrued by Carrboro residents during the COVID-19 pandemic.

Jody Eimers said members of the Orange County Board of Commissioners and Orange County Appointees to the OWASA Board met on September 28, 2022 to discuss items of mutual interest.

Allison Spinelli, Engineering Manager - Capital Projects, introduced new Utilities Engineer, Andre Miller.

Petitions and Requests

Chair Boehm said no petitions or requests were received from the public.

Chair Boehm asked for petitions and requests from the Board and staff; none were provided.

Item One: Presentation of Annual Report

Stephen Winters, Director of Finance and Customer Service, provided a presentation of the draft Annual Comprehensive Financial Report for the 12-month period ending June 30, 2022. He stated OWASA is a community owned utility providing water, wastewater and reclaimed water service to the Carrboro and Chapel Hill community. OWASA has the responsibility to effectively manage and maintain all the resources, facilities, and infrastructure that the community depends on for high-quality and reliable service.

Mr. Winters stated that OWASA continues to operate in full compliance with all federal and state standards for treating the community's drinking water and for recycling highly treated wastewater and investing in sustaining infrastructure with a focus on reliability and resiliency. He also noted OWASA continues to operate in accordance with best industry standards and practices and is recognized by the Partnership for Safe Water's Excellence in Water Treatment Award for the Jones Ferry Road Water Treatment Plant and National Association of Clean Water Agencies' Peak Performance Award for the Mason Farm Wastewater Treatment Plant.

Mr. Winters said in Fiscal Year 2022 (FY 2022), OWASA invested \$9.4 million in our infrastructure and about 88% of the FY 2022 capital improvement budget went toward rehabilitation or replacement of existing assets, 10% went toward projects that added substantial enhancements, and 2% toward projects that increased system capacity. Mr. Winters said OWASA met all financial performance measurement targets which include reserve balances, debt ratios, bond ratings, and service affordability.

Mr. Winters noted the independent audit for FY 2022 was performed by Martin, Starnes & Associates. He said OWASA received an unmodified opinion from the auditor and stated that our financial condition is stable and sustainable.

Brandi Fesperman, Audit Manager with Martin, Starnes & Associates, confirmed OWASA's unmodified opinion, that the financial statements fairly present OWASA's financial position and that the firm identified no significant deficiencies in internal controls. She stated further that OWASA's Annual Comprehensive Financial Report can be relied upon by third parties, citizens, underwriters, and bondholders. Ms. Fesperman expressed appreciation to the OWASA team and that it is a positive reflection on the staff for a job well done.

The Board expressed appreciation for a job well done and suggested adding the true interest rate for the bond note disclosures.

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

The Board accepted this as an information item.

Item Three: Operating Trends Report for Fiscal Year 2022

The Board accepted this as an information item.

Item Four: Resolution Reappointing the Firm of Epting and Hackney as General Counsel to the Orange Water and Sewer Authority

Jody Eimers made a Motion to approve the resolution; second by Todd BenDor and the Motion was unanimously approved. Please see Motion 1.

Item Five: Resolution Awarding a Construction Contract for the Chapel Hill North Pump Station Rehabilitation Project

Jody Eimers made a Motion to approve the resolution; second by Todd BenDor and the Motion was unanimously approved. Please see Motion 2.

Item Six: Minutes of the September 8, 2022 OWASA Board of Directors Meeting

Jody Eimers made a Motion to approve the Minutes of the September 8, 2022, Board of Directors Meeting; second by Todd BenDor and the Motion was unanimously approved. Please see Motion 3.

Item Seven: Minutes of the September 8, 2022, Closed Session of the OWASA Board of Directors

Jody Eimers made a Motion to approve the Minutes of the September 8, 2022, Closed Session of the OWASA Board of Directors for the purpose of discussing a personnel matter; second by Todd BenDor and the Motion was unanimously approved. Please see Motion 4.

Item Eight: Frequently Asked Questions About Lake Recreation and Recommendations for the Annual Report

The Board agreed to remove the Annual Lakes Recreation report from the Board Meeting Schedule, staff will add the frequently asked questions to the Board's SharePoint site, stakeholders will be notified regarding the discontinuation of the report, and provide information to the Board by exception via email.

Item Nine: Update on the Development of New Budget Format

After discussion, the Board and staff agreed to include new data analyses in future budget presentations. It is hoped that the additional data will enhance the Board's decision-making process, highlight how budget items connect to the Strategic Plan, and help the public better-understand how budget decisions are made.

Item Ten: Review Board Work Schedule

There were no comments on this item.

Item Eleven: Summary of Board Meeting Action Items

Todd Taylor noted staff will incorporate the Board's feedback into the budget process for Fiscal Year 2023 and the Operating Trends Report as well as post the Lake Recreation FAQs to the Board's SharePoint site.

There being no further business to come before the Board, the Chair adjourned the meeting at 7:30 p.m.

Respectfully submitted by:

Andrea Orbich
Executive Assistant/Clerk to the Board

Attachments

Agenda Item:

Update on Per- and Polyfluoroalkyl Substances (PFAS)

Purpose:

Update the OWASA Board of Directors on PFAS regulations, OWASA's monitoring, communications, and next steps

Background:

Per and Polyfluoroalkyl Substances

Per and polyfluoroalkyl substances (PFAS) are a class of manufactured chemicals. The US Environmental Protection Agency (EPA) reports that scientific studies have shown that exposure to some PFAS in the environment may be linked to harmful health effects in humans and animals. PFAS are used in various products resistant to water, grease, or stains, such as carpets, clothing, fabric for furniture, paper packaging for food, and other materials (e.g., cookware). Thus, they are commonly found in household dust and household discharges to wastewater. They are also used in aqueous firefighting foams (AFFF) used as a fire suppressant at chemical plants, in emergency response, aviation operations, firefighting training facilities, etc.

PFAS can enter lakes, rivers, or groundwater through industrial releases, discharges from wastewater treatment plants, and the use of AFFF. Often, high levels of PFAS in water are localized and associated with a specific facility, such as a river adjacent to a facility where these chemicals are produced or used in the manufacture of other products. However, sources such as fire training facilities, military bases, and domestic airports have also been identified as potential PFAS contributors. Treated effluent from wastewater treatment plants and biosolids land application sites have also been identified as conveyors of PFAS that enter wastewater through various means (e.g., household products).

According to the EPA National Dataset, last updated in August 2021, there are over 12,000 PFAS substances that have been identified.

Within the last few years, there has been a great deal of attention on PFAS regulation at the state and federal level. On October 18, 2021, the EPA announced a [PFAS Strategic Roadmap](#), laying out their approach to addressing PFAS. The roadmap sets timelines by which EPA plans to take specific actions to research, restrict, and remediate PFAS in the environment.

In June of 2022, the North Carolina Department of Environmental Quality (NC DEQ) announced their [Action Strategy for PFAS](#). Their action strategy contains three priorities similar to the EPA's: protecting communities, protecting drinking water and cleaning up existing contamination.

Health Advisory Levels

Health advisories levels (HALs) are established by the EPA when there are no regulatory limits for compounds of emerging concern. Lifetime health advisory levels identify the level at which

adverse health effects are not anticipated to occur from a lifetime of exposure, including a protective factor for the most sensitive populations.

EPA can develop interim or provisional HALs to provide information in response to an urgent or rapidly developing situation. They can be updated or removed as additional information becomes available. HALs are not regulatory limits.

In 2016, the EPA established a lifetime health advisory level of 70 parts per trillion (ppt) for the combined amount of two PFAS compounds in drinking water: perfluorooctanoic acid (PFOA) and perfluorooctane sulfonate (PFOS). PFOA and PFOS are the two PFAS compounds that have been the most extensively produced and studied. It is reported that PFOS and PFOA are no longer manufactured in the United States, although they are still in imported products.

In June of 2022, EPA issued interim updated health advisory levels for PFOA to 0.004 ppt and PFOS to 0.02 ppt. These new HALs are orders of magnitude lower than the previous levels. Current analytical methods do not allow us to measure down to these levels.

At the same time, EPA also issued final health advisories for two other PFAS, GenX of 10 ppt and perfluorobutane sulfonic acid (PFBS) of 2,000 ppt.

OWASA has consistently shown sampling results of treated drinking water below the previously identified health advisory level of 70 ppt for PFOS and PFOA combined. However, OWASA's sampling has shown results exceed the interim updated health advisory levels. OWASA has not detected GenX in our water supply reservoirs or treated drinking water, and levels of PFBS are well-under the announced health advisory level.

Pending PFAS Regulations

Drinking Water Regulations

The Federal law that regulates public drinking water supplies, like OWASA, is called the Safe Drinking Water Act (SDWA). The EPA is responsible for setting health-based regulations under the SDWA, which are then enforced by state agencies, such as the NC Department of Environmental Quality (NC DEQ), in partnership with the EPA. EPA follows a multi-step process to promulgate regulations.

After reviewing the health effect data, the EPA sets a maximum contaminant level goal (MCLG). The MCLG is the maximum level of a contaminant in drinking water at which no known or anticipated adverse effect on the health of persons would occur, allowing an adequate margin of safety. MCLGs are non-enforceable and consider only public health, not limits in analytical detection methods or treatment technology effectiveness. The MCLG is based on the level at which no adverse health effects are expected from consumption and will likely be set near the HAL or possibly at zero.

Once the MCLG is determined, EPA sets an enforceable standard, the maximum contaminant level (MCL). The MCL is the maximum level allowed of a contaminant in water that is delivered to any user of a public water system. When setting MCLs the EPA considers limits on analytical

detection methods and treatment technology effectiveness in addition to health data. Currently, the EPA has set analytical detection levels of 4 ppt for PFOA and PFOS in water.

The EPA is expected to propose MCLs for PFOA and PFOS by the end of 2022, with final regulations going into effect by the end of 2023. Typically, public water utilities have three to five years to comply with newly established regulations. Compliance with a new regulation could be necessary as soon as 2026.

In a separate effort from EPA, NC DEQ is expected to begin work on developing drinking water standards for certain PFAS compounds, including PFOS and PFOA, in the fall/winter of 2022-2023.

Disposal as a Hazardous Substance

On August 26, 2022, EPA issued a proposal to designate PFOA and PFOS as hazardous substances under CERCLA (Comprehensive Environmental Response, Compensation and Liability Act), otherwise known as Superfund. This has the potential to impact the disposal of solids from water and wastewater treatment facilities.

Designating these chemicals as hazardous substances under CERCLA results in a requirement to report any release above a certain threshold, which EPA has tentatively set at 1 pound per day in its proposed rules.

This may not be an issue for most facilities that process drinking water and wastewater. For example, treatment plants with flows near 10 million gallons per day could discharge up to 12,000 ppt of PFOS/PFOA daily and still be under the reportable quantity. However, this regulation could potentially negatively impact utilities with residual PFAS concentrate from treatment technologies, such as granular activated carbon, reverse osmosis, and ion exchange resins. The water and wastewater sector is working to inform legislators about the impact and costs of this designation on water and wastewater utilities across the country and are requesting drinking water and wastewater systems be exempt from CERCLA liability related to PFAS that is properly disposed of after their removal from water supplies.

Wastewater and Biosolids Regulations

By then end of this year, EPA is expected to issue guidance recommending that states require PFAS monitoring in wastewater on National Pollutant Discharge Elimination System (NPDES) permits. These permits address water pollution by regulating point sources that discharge pollutants to waters of the United States.

Additionally, the EPA is planning to complete a risk assessment for PFOA and PFOS in biosolids by winter 2024. This risk assessment will serve as the basis for determining whether regulation of PFOA and PFOS in biosolids is appropriate.

OWASA Monitoring Program

In 2018, OWASA began proactive, quarterly PFAS monitoring our water supply in Cane Creek Reservoir and treated drinking water. Staff worked with the Board of Directors to establish this monitoring program after elevated levels were detected in the Cane Creek Reservoir, but not University Lake. We do not definitely know the source of PFAS in Cane Creek Reservoir. In the past, other utilities have land-applied biosolids in the Cane Creek Reservoir watershed. We have begun monitoring Cane Creek Reservoir feeder creeks to gain more information on potential sources. As previously stated, concentrations of PFOA and PFOS in our treated drinking water have consistently been lower than the prior HALs, but higher than the new HALs.

In 2019, OWASA expanded our quarterly monitoring program to include the influent to and effluent from the Mason Farm Wastewater Treatment Plant.

In response to the new lower interim health advisory levels and EPA Roadmap, OWASA has expanded our monitoring program to include University Lake, the Quarry Reservoir, the tributaries to Cane Creek Reservoir, and wastewater biosolids. This will enable us to determine whether the PFAS levels in University Lake and the Quarry Reservoir have remained low since our initial sampling events and help us identify potential sources in Cane Creek Reservoir watershed. Monitoring biosolids will help us begin to align with expected regulatory monitoring requirements.

Below is a summary of our monitoring results to date:

	University Lake	Quarry Reservoir	Cane Creek Reservoir	Treated Drinking Water
Monitoring date range	Jan 2018 & Aug 2022	Jan 2018	Jan 2018 - present	Jan 2018 - present
Count of PFAS detected out of 45 analyzed	3	2	11	9
PFOS (ppt) (Range)	2.3 - 2.4	2.6	54 - 110	<2.0 - 15
PFOA (ppt) (Range)	<2.0 - 2.4	2.3	34 - 72	<2.0 - 24
Sum of PFOS+PFOA	2.4 - 4.7	4.9	88 - 181	<2.0 - 34
Sum of all PFAS (ppt) (Range)	4.7	4.9	132.4 - 276.6	2.3 - 74.7

Based on the results from our monitoring program, to date, there has not been any significant increase or decrease in PFAS concentrations in Cane Creek Reservoir, and there have been no major fluctuations based on the season. Our use of powder activated carbon (PAC) at the Water Treatment Plant is successful at reducing levels of some PFAS but not all. We have seen variation in our treated drinking water, likely due to source water blending and the amount of

PAC we are using the treat the water. (PAC levels are adjusted to treat for organic compounds and taste and odor compounds in the water.)

	Wastewater Influent	Treated Wastewater Effluent	Land Applied Biosolids
Monitoring date range	May 2019- Aug 2022	May 2019 – Aug 2022	August 2022
Count of PFAS detected out of 25 analyzed	12	12	2
PFOS (ppt) (Range)	<2.0 - 17.0	4.2 - 13.5	24.1
PFOA (ppt) (Range)	5.1 - 28.4	7.3 - 25.4	<2.0
Sum of PFOS+PFOA	7.9 – 49.5	10.8 – 39.0	24.1
Sum of all PFAS (ppt) (Range)	37.0 – 168.1	63.5 – 149.5	35.0

Like many wastewater plants, we do not have any processes in place to reduce PFAS concentration through the treatment process. In fact, results in the wastewater effluent are typically higher than in the wastewater influent. We do not know if these compounds are actually increasing, transforming from one compound into another, concentrating and then being released in the process, or whether there is an internal source. OWASA has no significant industries discharging to our wastewater plant. We accept landfill leachate, which is a potential PFAS contributor, as they are also conveyors of PFAS.

Research Participation

In addition to our PFAS monitoring program, we support local and national monitoring and research on PFAS.

In 2019, OWASA participated in the PFAS Testing Network, which included monitoring of all public water supply sources in NC. Additionally, OWASA participated in research on landfill leachate and impacts to concentrations in our wastewater influent.

OWASA is a founding member of the Triangle Water Supply Partnership where utilities in the Triangle fund the US Geological Survey to monitor our water supply reservoirs. The phase of the program beginning in calendar year 2023 will focus on PFAS. We also help fund continued research through the North Carolina Urban Water Consortium and the Water Research Foundation.

The Safe Drinking Water Act (SDWA) requires that once every five years EPA issue a list of unregulated contaminants to be monitored by public water systems. On December 27, 2021, EPA published the fifth Unregulated Contaminant Monitoring Rule (UCMR5), which will require

OWASA to sample for 29 PFAS in 2025. OWASA also monitored for PFAS in UCMR3 in 2014.

Public Communications

Communicating the PFAS risks to our community while science is playing out in real-time is a challenge. Our strategy is to remain open, honest, and transparent with the community regarding our knowledge and work on PFAS. In 2021, we launched our new [PFAS Monitoring Dashboard](#) on our website, which includes our data for our current PFAS Monitoring Program. Additionally, we have included information on human health and environmental risks, how you can be exposed to PFAS, water testing, and filtration resources. A [separate article](#) was also posted to the OWASA website the week that the updated HALs were announced by the EPA to share an initial assessment with the community

OWASA has included updates on the PFAS Monitoring Program and the newly announced HALs in reports to the local government jurisdictions, to all customers who receive emails from OWASA through an email newsletter, and through OWASA's website and social media channels. As we have additional updates, we will continue providing local government jurisdictions, customers, and stakeholders with updates on this process. We have received about 15 direct inquiries since the announcement of the new HALs; the website article and PFAS monitoring site have received hundreds of hits, particularly following the release of the updated HALs and OWASA's email newsletter.

An email list was also created for anyone who is interested in receiving PFAS-related information from OWASA in the future, including when PFAS is on an agenda for the Board of Directors. Anyone can sign up for that email distribution list [here](#). The link to sign up for that email list has also been placed in the relevant locations on OWASA's website.

Following the November 10, 2022, meeting of the OWASA Board of Directors, OWASA staff members will also appear on the Wonderful Water segment on WCHL to provide the community with an update.

OWASA will continue to track customer inquiries closely and evaluate if community concern warrants additional information and outreach.

Next Steps

As the EPA develops and finalizes regulations, OWASA is in the process of selecting an engineering consultant to evaluate and update our monitoring plan and provide recommendations for the mitigation, treatment, and removal of PFAS in water, wastewater, and biosolids. Our consultant will assist us in identifying potential near term strategies to reduce levels of PFAS in our drinking water, such as source water blending and increasing our use of powered activated carbon. In addition, they will evaluate long term removal methods, such as Granular Activated Carbon (GAC), Ion Exchange (IX), and Reverse Osmosis (RO). Our consultant will include high-level estimated capital and operating costs for their recommendations and assist in investigating funding opportunities.

OWASA will continue supporting and leading our own monitoring of PFAS compounds in our water and working to better understand the established and emerging treatment technologies to remove these compounds. We will track this along with the regulatory changes, so that we are ready to respond.

Higher levels of treatment and potentially alternative disposal strategies will not likely be inexpensive for OWASA's ratepayers. OWASA's Board of Directors voted in December 2021 to join multi-district litigation seeking to recover costs associated with any remediation or treatment changes deemed necessary to address PFAS in drinking water. The costs in this scenario would potentially be covered by those responsible for manufacturing and distributing PFAS compounds. OWASA will continue to follow this litigation's progress and provide updates.

Additionally, it is anticipated that funding from the recently passed Bipartisan Infrastructure Law will include funding to address PFAS in drinking water.

As we learn more from our monitoring program within the context of changing regulations, policies, and funding, OWASA will remain in communication with the Board and our community regarding our next steps.

Action Needed:

This report is for information. No action from the Board of Directors is requested at this time.

Agenda Item:

Goals and Expectations for a Potential Rate Study

Purpose:

The Board has expressed interest in potentially conducting a rate study in Fiscal Year 2024 and we have invited Andrew Burnham to make a presentation to the Board regarding the outcomes that can be expected from a rate study. Mr. Burnham is Vice President, Management & Technology Consulting for Stantec Consulting and has worked with OWASA on rate matters for over 12 years.

Action Requested:

No formal Board action is needed. This is an opportunity for the Board to receive information and ask questions.

Agenda Item:

Review Board Work Schedule

Purpose:

- A. Request(s) by Board Members, General Counsel and Staff
- B. Review draft Board Meeting Agenda for December 8, 2022
- C. Review 12 Month Board Meeting Schedule
- D. Review Pending Key Staff Action Items

Information:

- Draft December 8, 2022 Board Meeting Agenda
- 12 Month Board Meeting Schedule
- Pending Key Staff Action Items from Board Meetings

November 10, 2022



ORANGE WATER AND SEWER AUTHORITY
Meeting of the OWASA Board of Directors

Thursday, December 8, 2022, 6:00 p.m.
OWASA Community Room, 400 Jones Ferry Road Carrboro

Pages

A. Announcements

1. Conflict of Interest
2. Meeting Updates

B. Petitions and Requests

C. Consent

1. (Tentative) Approve Financing Team for Series 2023 Bonds (Stephen Winters)
2. Minutes of the November 10, 2022 Meeting of the Board of Directors (Andrea Orbich)

D. Discussion

1. Review Board Work Schedule (Bruce Boehm/Todd Taylor)

E. Summary of Board Meeting Items

F. Closed Session

G. Adjournment

In compliance with the "Americans with Disabilities Act," interpreter services for non-English speakers and for individual who are deaf or hard of hearing 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.

OWASA Board of Directors – 12 Month Board Meeting Schedule (November 4, 2022)

Meeting Date	Agenda Items	Committee Meetings & Other Board Items
November 10 2022	Authorize ED to Sign WIP Project Permit Applications as Owner of Seaforth Property PFAS Update Goals and Expectations for a Potential Rate Study	New Board Member D&I Training (11-9-2022)
December 8 2022	(Tentative) Approve Financing Team for Series 2023 Bonds CS – Prepare for ED Interim Review	(C) Meeting between the CHTC OWASA Committee & Chapel Hill Appointees to the BOD (TBD)
January 12 2023	Approve Audit Firm Contract Discuss FY 24 Budget Calendar and Assumptions (including Financial Management Policy) CS – ED Interim Performance Review	(C) OWASA Orientation for newly elected officials (TBD) (C) Meeting between the BOCC Members & OC Appointees to the BOD (TBD)
February 9 2023	Department Managers FY 24 Budget Presentation Strategic Plan Update (Tentative) Series 2023 Bond Resolution CS – Prepare for GC Interim Review	(C) Annual Update to BOCC (TBD) (C)
March 9 2023	Set Date for Public Hearings on FY 24 Budget & Rates Award the WWTP Secondary Clarifier No. 4 Project FY24 Draft Budget and Rate Adjustment (Tentative) Draft System Development Fee Study Report (Tentative) Approve Preliminary Resolutions for Series 2023 Bond Issue CS – GC Interim Review	(C) Meeting between the CHTC OWASA Committee & Chapel Hill Appointees to the BOD (TBD) (C) (C)
April 13 2023	Discuss Draft FY24 Budget and Authorize Staff to Publish FY 24 Budget and Rate Information BOD Eligible for Nominations to Election as Board Officers (include Officer descriptions) Planning BOD Self-Assessment (Tentative) Adopt Series Resolutions for Series 2023 Bond Issue CS – Prepare ED Annual Review	(C) (C) (C) (C)
May 11 2023	Public Hearings – FY 24 Budget and Rates Approve Employee Insurance Renewals Discuss Employee Merit Pay for FY 24 CS - ED Annual Review	(C) (C) (C) (C)
June 8 2023	Approve FY 24 Budget and Rates (including Employee Merit Pay decision) Election of Officers ED Compensation	(C) (C) (C)
July 13 2023	Review Proposed ED Work Plan CS – Prepare GC Annual Review	(C) (C)
August 10 2023	CS – GC Annual Review	(C)
September 14 2023	Approve GC Engagement	(C)
October 12 2023	Annual Meeting of the Board – Annual Report and Financial Audit	(C)

Recurring Reports (included as part of monthly Consent Agendas)

- **January** - Employee Health and Dental Insurance Update; D&I Update

OWASA Board of Directors – 12 Month Board Meeting Schedule (November 4, 2022)

- **February** - Reliability and Resiliency Report; Q2 Financial Report; CIP Semiannual Report; Affordability Program Update
- **March** - Energy Management Plan
- **April** - TBD
- **May** - Q3 Financial Report
- **June** - TBD
- **July** - TBD
- **August** - Preliminary 12 Month Financial Report and CIP Semiannual Report
- **September** - Disposal of Surplus Personal Property; EEO/Affirmative Action Report and D&I Update
- **October** - Operating Trends Report
- **November** - Q1 Financial Report
- **December** - TBD

The 12 Month Board Meeting Schedule shows priority efforts the Board and staff plan to consider during the next twelve months. The schedule also shows annual updates to the Board which will be distributed on the consent agenda. This schedule does not show all the items the Board may consider in a meeting. The 12 Month Board Meeting Schedule will be reviewed and updated by the Board each month.

The OWASA Board determines which topics it wants to explore as a full Board 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:

<p>() Recurring agenda item (generally these are “required” items)</p> <p>ARPA American Rescue Plan Act</p> <p>BOCC Orange County Board of County Commissioners</p> <p>BOD Board of Directors</p> <p>CCR Cane Creek Reservoir</p> <p>CE Community Engagement</p> <p>CEP Community Engagement Plan</p> <p>CHTC Chapel Hill Town Council</p> <p>CIP Capital Improvements Program</p> <p>COLA Cost of Labor Adjustment</p> <p>CS Closed Session of the Board</p> <p>CTC Carrboro Town Council</p> <p>CY Calendar Year</p> <p>D&I Diversity and Inclusion</p> <p>ED Executive Director</p> <p>EEO Equal Employment Opportunity</p> <p>EPA Environmental Protection Agency</p> <p>FY Fiscal Year</p> <p>GC General Counsel</p> <p>HR Human Resources</p> <p>JL Jordan Lake</p> <p>KPI Key Performance Indicator</p>	<p>LRWSP Long-Range Water Supply Plan</p> <p>MOA Memorandum of Agreement</p> <p>MWBE Minority/Women-owned Business Enterprises</p> <p>MST Mountains-to-Sea Trail</p> <p>MFMM Multi-Family Master Meter</p> <p>NCDOT North Carolina Department of Transportation</p> <p>NRTS Natural Resources and Technical Services</p> <p>OC Orange County</p> <p>Q Quarter</p> <p>RFP Request for Proposals</p> <p>SRF State Revolving Fund</p> <p>SOW Scope of Work</p> <p>TBD To Be Determined</p> <p>WIP Western Intake Partnership</p> <p>WTP Water Treatment Plant</p> <p>WWTP Wastewater Treatment Plant</p>
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Pending Key Staff Action Items from Board Meetings

No.	Date	Action Item	Person(s) Responsible	Status
1.	10-13-2022	Incorporate Board feedback in Operating Trends Report.	Rouse	FY2023 Report will include Board feedback.
2.	10-13-2022	Incorporate Board feedback in Budget Process for FY 2024.	Winters	FY2024 budget process will include Board feedback.
3.	10-13-2022	Add lake recreational FAQs to the Board's SharePoint site.	Orbich	Added 10-14-2022.