



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.

October 29, 2020

Mayor Pam Hemminger
Town of Chapel Hill
405 Martin Luther King Jr. Blvd
Chapel Hill, NC 27514

Mayor Lydia Lavelle
Town of Carrboro
301 West Main Street
Carrboro, NC 27510

Chair Penny Rich
Orange County Board of
Commissioners
Post Office Box 8181
Hillsborough, NC 27278

Dear Mayor Hemminger, Mayor Lavelle, and Chair Rich:

We are pleased to submit this report on our services, projects, and initiatives since August 2020. This report includes information on the following items:

1. Delay in Resumption of Standard Collection Practices
2. Long-Range Water Supply
3. Partnership for Safe Water Award
4. Wastewater Report Card
5. Agua Vista Web Portal
6. Water Demand During COVID-19
7. Multi-Family Master-Metered Communications
8. Key Infrastructure Investments
9. Board Recruitment Message

Delay in Resumption of Standard Collection Practices:

Orange County extended its local State of Emergency related to the ongoing COVID-19 pandemic through December 31, 2020. Using the local State of Emergency as guidance, OWASA has deferred resuming standard bill collection practices until a to-be-determined date in 2021. OWASA has committed to giving a 30-day notice before resuming standard collection practices.

Under standard collection practices, customers who miss two consecutive payments of their monthly bill risk service disconnection. OWASA will offer payment plans of at least 12 months.

As of October 20, 2020, OWASA has about 847 residential and non-residential customers who are past due on their accounts. The average amount past due is about \$270.98.

OWASA has been tracking and communicating with customers who are past due on their accounts and encouraging them to seek assistance from various resources to pay down any balances, including OWASA's Care to Share bill-assistance program. These various funding resources have also been updated on OWASA's website throughout the pandemic, including the Orange County Housing Helpline and the recently announced NC HOPE program using federal funds distributed through the State of North Carolina to assist with utility payments.



Care to Share Day:

OWASA is preparing for another Care to Share Day campaign in November 2020.

While we have been promoting Care to Share over the years, the pandemic has greatly increased the need in our community. Please be on the lookout for Care to Share messages on social media and help spread the word so that we can help those in our community who will be facing continued difficulties once OWASA eventually resumes standard bill collection practices.

Long-Range Water Supply:

OWASA is committed to supplying reliable and high-quality water to our growing community and economy for years to come. The planning, permitting, and partnerships required in water supply development can take decades to develop and secure. That is why OWASA is planning for the water needs of our community two generations ahead.

In coordination with local planners, OWASA recently updated our 50-year forecast for water demands in the Chapel Hill-Carrboro community, as well as our projected water supply with current resources in a changing climate.

In the long-run, our current water supply is at greatest risk from an extended drought. The watershed that fills the Cane Creek Reservoir is relatively small and slow to refill after a drought. University Lake has a relatively large watershed for its size but offers significantly less water storage than Cane Creek Reservoir due to its shallow depth.

In updating our Long-Range Water Supply Plan, we used our 50-year forecasts to evaluate the need, costs, and benefits of various alternatives to increase the resiliency of our water supply. Based on this evaluation, OWASA determined that Jordan Lake offers the most resilient, cost-effective, and viable opportunity to meet future water demands. From here, further evaluation is needed to identify how best to incorporate water from Jordan Lake into our supply portfolio.

Before we move forward with this evaluation, we will be seeking input from the community. Community engagement efforts will be picking up in October and November 2020. We will also be requesting time at regularly scheduled meetings for the Town of Carrboro, Town of Chapel Hill, and Orange County Board of County Commissioners in January and February 2021.

Partnership for Safe Water Award:

OWASA has been awarded the 15-year Director's Award by the Partnership for Safe Water for OWASA's Jones Ferry Road Water Treatment Plant (WTP).

The Partnership for Safe Water Program is a national program focused on improving the quality of water delivered to customers by optimizing water system operations and improving performance above and beyond regulatory levels. This award highlights OWASA's commitment to providing high-quality drinking water to the Carrboro and Chapel Hill communities.

OWASA's WTP began participating in the Partnership in 2002, and the program furthers OWASA's culture to strive for continuous improvement. OWASA was one of the first WTP plants in North Carolina to achieve Partnership for Safe Water recognition and has been honored by the Partnership multiple times over the years with the Director's Award in 2005, the Excellence in Water Treatment Award in 2011, and now the 15-year Director's Award for maintaining the commitment to improved water quality, among other designations. OWASA is passionate about the Partnership program and the positive impacts it has had on our operational performance, our organization's culture, and providing excellent service to our community. Outside of the work with the Partnership at the WTP, OWASA is also an active participant in Partnership programs focused on the water distribution system and wastewater treatment.

The Partnership for Safe Water is an alliance of six drinking water organizations including the American Water Works Association, the Environmental Protection Agency, the Association of State Drinking Water Administrators, the Association of Metropolitan Water Agencies, the National Association of Water Companies, and the Water Research Foundation.

Wastewater Annual Report:

Orange Water and Sewer Authority treats roughly 7.5 million gallons of the community's wastewater every day; that translates to about 3 billion gallons per year.

OWASA's annual wastewater report card shows that from July 2019 through June 2020, we met or surpassed all State and Federal wastewater regulations.

The community's infrastructure consists of roughly 350 miles of pipes conveying wastewater to the Mason Farm Wastewater Treatment Plant, where OWASA treats the wastewater before it is discharged into Morgan Creek and eventually makes its way to Jordan Lake or is used as reclaimed water, mainly going back to UNC's campus for non-potable reuse.

The treatment process brings biology and technology together to test and monitor what is in the wastewater so that it can be treated before it is discharged.

Operating and maintaining the community's wastewater infrastructure is a priority for OWASA. We invest funding from rates and fees into the system to help ensure its reliability and resiliency, while also improving how efficiently we can operate.

That investment over the last year has included completely rehabilitating our headworks facility, which is where all of the wastewater from across our community enters the Wastewater Treatment Plant. These improvements also focused on reducing the rate at which the concrete in the headworks was degrading so that we can have a longer lifespan for that critical piece of the plant.

We are also making the plant more efficient. Work is underway on a project to upgrade other equipment that will result in using less chemicals, water, and energy to treat the community's wastewater. These efforts have another impact as well, reducing odors surrounding the wastewater treatment plant as part of our commitment to being a good neighbor and eliminating off-site odors.

Agua Vista Web Portal:

OWASA is excited to announce that earlier this month, we passed an exciting milestone on our Agua Vista program. More than 50% of customers are now registered for the Agua Vista web portal. Agua Vista provides OWASA customers with access to near real-time data about water use. This information can help detect water leaks and offers customized conservation tips to protect this critical resource for years to come.

Agua Vista has been used to alert customers to over 10,000 potential water leaks, helping save customers money and conserving our community's water supply.

Advanced Metering Infrastructure (AMI) technology has also allowed OWASA to reduce costs by enabling staff to help customers resolve problems remotely rather than visiting the customer's site. Meter-related dispatches were reduced by over 80% in the first full year of operation. This reduces fuel consumption and operational costs, helping to keep rates affordable for all customers.

During the COVID-19 pandemic, this infrastructure has also helped OWASA staff in maintaining social distance with staff members and the community to help protect public health.

Water Demand During COVID-19:

OWASA is continuing to take proactive measures to ensure we are providing and can continue to provide the community with high-quality and reliable water, wastewater, and reclaimed water services during the COVID-19 pandemic.

Overall, water demand is down 7.2% for the three-month period from July through September 2020 when compared with 2019. Limited activities at UNC – Chapel Hill and the Chapel Hill – Carrboro City School system are major drivers of the decrease in water demand.

While we did take proactive steps in budgeting for decreased water demand for Fiscal Year 2021, we are cautiously waiting to see the level of continued impact the pandemic will have on water demand.

Multi-Family Master-Metered Communications:

Approximately 715 locations served by OWASA are classified as Multi-Family, Master-Metered Customers. This means that at least more than one household is served through a single meter. In fact, we estimate that over 14,000 households are served by these locations. These households do not directly receive a bill from OWASA, and in some cases, may not realize where their water comes from or that their wastewater is cleaned by OWASA.

This year, we have engaged in a purposeful and strategic pilot program to increase communication and engagement with property managers and tenants. Ultimately, our goals are to develop methods to easily communicate with tenants on important topics regarding water quality, boil water advisories, and water conservation.

Through partnership with the UNC Office of Off-Campus Housing, as well as directly working with property managers of a few multi-family buildings, we have promoted OC Alerts (for emergency communication), our annual Water Quality Report Card, and our annual Wastewater Report Card.

Moreover, through our increased focus on overall community engagement through social media, school programming, and our Wonderful Water Program on WCHL, we hope to increase our reach to all customers.

Infrastructure Investments:

Several key resiliency projects are at various stages of completion across the service area.

A water line replacement project in the Barclay Road neighborhood was recently completed. A sewer line replacement project along Dobbins Drive and along the shoulder of Fordham Boulevard is progressing and expected to be complete in November. A water line replacement project is nearing completion in the area of Kensington Drive. Mobilization began in August for a series of projects at the Jones Ferry Road Water Treatment Plant; this work will be more visible along Jones Ferry Road in late 2020 into early 2021.

Typically, we engage outside contractors to replace water lines. However, after a review of our business processes, OWASA recently started replacing water and sewer lines on select projects using OWASA's construction crew rather than outside contractors. This is expected to have cost savings associated with using in-house crews for projects of a smaller scale.

Board Recruitment Message:

OWASA has updated its description of duties to help better communicate expectations with prospective applicants for the Board of Directors seats appointed by Carrboro, Chapel Hill, and Orange County.

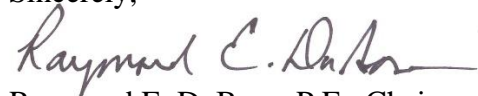
The updated statement provides a better description of duties involved with being a Board member, and it makes clear that technical knowledge is not a requirement to serve on the Board. The message states, "the only true qualification needed is a genuine commitment to serve the community."

Our goal is that this updated description will appeal to a broader applicant pool to ensure a diverse representation of the community serving on the OWASA Board of Directors.

The updated statement has been [placed on the OWASA website](#) and distributed to representatives for each appointing jurisdiction.

We would be happy to provide you more detailed information on the items above or other topics of interest as desired. Please feel free to contact our Executive Director, Todd Taylor (ttaylor@owasa.org or 919-537-4216), or me.

Sincerely,



Raymond E. DuBose, P.E., Chair
OWASA Board of Directors

Attachments

cc: Mr. David Andrews, Carrboro Town Manager
Ms. Bonnie Hammersley, Orange County Manager
Mr. Maurice Jones, Chapel Hill Town Manager
OWASA Board of Directors
Todd Taylor, P.E., OWASA Executive Director

MONTHLY SUMMARY OF CALLS AND E-MAILS TO OWASA
FROM NEIGHBORS REPORTING ODOR
FROM THE MASON FARM WASTEWATER TREATMENT PLANT

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
January	11	3	9	0	8	3	8	1	3	3	4	0	3	0	0	0	0	0	0
February	7	5	2	0	8	0	4	1	0	3	3	0	4	0	0	1	0	0	0
March	9	0	7	1	10	4	1	1	0	2	8	0	0	1	0	0	0	0	0
April	9	2	4	0	9	3	1	1	2	1	1	0	0	0	0	0	0	0	0
May	6	0	2	5	8	3	2	5	4	0	1	3	0	0	0	0	0	0	0
June	4	1	1	1	5	1	8	8	1	2	2	0	0	0	0	0	0	0	1
July	1	0	2	0	0	2	6	3	2	4	0	0	2	0	0	0	0	0	0
August	1	0	4	3	11	2	9	0	1	1	2	0	2	2	0	0	1	0	0
September	2	5	2	2	9	3	1	1	5	1	1	0	3	0	0	0	2	0	0
October	2	6	1	1	8	8	2	0	3	3	2	2	3	0	0	0	0	0	-
November	0	0	1	7	2	6	7	1	1	4	0	1	0	0	0	0	0	0	-
December	3	3	2	5	8	10	2	1	1	6	3	5	0	0	0	1	0	0	-
TOTAL	55	25	37	25	86	45	51	23	23	30	27	11	17	3	0	2	3	0	1

January-2002 to December-2019 History and Present (2020)

An “odor event” is defined as: One or more odor reports received during a 24 hour period from WWTP neighbor(s). Each odor event shall be considered to be “verified” unless OWASA determines conclusively that an alternative source other than the WWTP created the odor.

**LOG OF CALLS AND E-MAILS TO OWASA
FROM NEIGHBORS REPORTING ODOR IN THE MASON FARM
WASTEWATER TREATMENT PLANT (WWTP) AREA**

January 2020 – December 2020

Date call received	Time call received	Location
January 2020	No Reported Odors	N/A
February 2020	No Reported Odors	N/A
March 2020	No Reported Odors	N/A
April 2020	No Reported Odors	N/A
May 2020	No Reported Odors	N/A
June 2020	9:11 AM	1016 Highland Woods Road
July 2020	No Reported Odors	N/A
August 2020	No Reported Odors	N/A
September 2020	No Reported Odors	N/A
October 2020	-	-
November 2020	-	-
December 2020	-	-

DISTRIBUTION OF OWASA E-MAILS ABOUT OFF-SITE ODOR ELIMINATION

Location	Name
Highland Woods	Paul Neebe
	Mary Turner
	Malcolm Forbes
	Natalia Lebedeva
	Gary Richman
	Gail Wood
	Robert and Melissa Porter
	Robin Casey
	Joseph Clancy
	Ann Schwab
	Seth Kingsbury
	Amanda Kingsbury
	Freeman and Angela Kirby
	Reed Johnson
	Kay Johnson
	Rex Bartles
	Lisa Bartles
	Ann Alexander
	Nortin Hadler
	Carol Hadler
	Frank P. Rexford
	Scott Brees
	Kendall Brees
	Rainer Blaesius
	Elisabeth Schweins
	Susannah Shearer
	Fred Hall
	Lawanda Rainey-Hall
	Katie Jamieson
	Richard Harrill
	Angel Smith
	Jordon Sharome
	Cameron Williams
Marian Rice	
Janet McLamb	
Michael Henning	
Benjamin Duan-Porter	
Matthew Mauck	
Finley Forest	Adam Kimplead
	Cindy Underwood
	Dan Puckett
	David J. Polewka
	Kathryn Conard
Laurel Hill	Michael Sharpe
	Julie Maness
	Bob Wendell
	Carol David

Location	Name		
St. Thomas More Church and School Morgan Creek area	Pat Evans Ewan Rodewald and Sharon Hodge Marcella Grendler Kay Goldstein Ann Wilson Louis Fogleman St. Thomas More Church staff		
	Ellen Johnson Betsy Malpass Hanson Malpass Jeannie Cox Laura King Moore Jeanne Langley AW Carr		
	Ronald McDonald House Family House	Marilyn and Don Hartman Robert Huls Shelly Day Greg Kirkpatrick, Executive Director Janice Ross, Operations Manager	
		Matt Hapgood Steve McPhail James F. Howard Steven and Susan Frye Doug Longman Barbara and Edward Paradise Jeanne and David Jarrett Nadine O'Malley Mark Witcher Ralph Abrahams Kathy Abrahams	
	Reserve	William Ware Johnny Randall, NC Botanical Garden Jennifer Peterson, NC Botanical Garden Phil Barner, Energy Services Director Margaret Holton, Water, Sewer & Stormwater Coordinator Mary Beth Koza, Director, Environment, Health and Safety Ross Fowler, Finley Golf Course Michael Wilkinson, golf pro Andrew Sapp, Men's Golf Coach	
		Bayberry Drive area UNC	UNC Tennis Center UNC parking Mike McFarland, University Communications Scott Ragland, News Services Linda Convisor, Director of Local Relations UNC Farm (Faculty Staff Recreation Association) Frank Maynard, Athletics/ Finley Golf Course Robert Costa, Athletics/ Finley Golf Course

Distribution of OWASA E-mails About Off-Site Odor Elimination

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Location	Name
	Mark Steffer, Athletics/ Finley Golf Course
	Jeff McCracken, Public Safety
	Kate Luck
UNC Healthcare	Mel Hurston
	Karen McCall
	Keith Morris
Town of Chapel Hill	Maurice Jones, Town Manager
	Florentine A. Miller, Deputy Town Manager
	Ann Anderson, Town Attorney
	Lance Norris, Public Works Director
	Chris Roberts, Town Engineer
	Richard Terrell, Public Works Operations Superintendent
	Jeanne Brown, Assistant to the Mayor
	Sheila Stains-Ramp, Development Services Planning
	Sabrina Oliver, Town Clerk
	Amy Harvey, Public Affairs and Communications
	Chris Blue, Police Chief
	Bryan Walker, Captain/Police Information
	Josh Mecimore, Police Information Officer
	Allison Weakley
	Kiel Harms
	Ran Northam, Interim Communications Manager
	Ross Tompkins
City Schools	Bill Mullin
	Todd LoFrese, Assistant Superintendent for Support Services
	Jeff Nash, Community Relations
	Crystal Jones
	Chris Liles
	Darlene Ryan
Other Utilities	Indira Everett, Duke Energy
	Brenda Duke, Duke Energy
	Steve Small, Duke Energy
	Billy Miller, PSNC
	Time Warner Cable
Orange County	Orange 911 Center Supervisor on duty
	Connie Pixley, Environmental Health Supervisor
Other	Bill Ferrell, Meadowmont Community Association
	Chamber of Commerce
	Michael Hughes
	Post Office

**SUMMARY OF ON-SITE HYDROGEN SULFIDE (H₂S)
ODOR MONITORING**

Month and year	Headworks Monitor			UNC Monitor			Digester Monitor			Switchgear Monitor		
	Average H ₂ S Reading (ppm)	Minimum H ₂ S Reading (ppm)	Maximum H ₂ S Reading (ppm)	Average H ₂ S Reading (ppm)	Minimum H ₂ S Reading (ppm)	Maximum H ₂ S Reading (ppm)	Average H ₂ S Reading (ppm)	Minimum H ₂ S Reading (ppm)	Maximum H ₂ S Reading (ppm)	Average H ₂ S Reading (ppm)	Minimum H ₂ S Reading (ppm)	Maximum H ₂ S Reading (ppm)
July 2020	0.0005	0.0000	0.0142 ¹	0.0009	0.0000	0.0127 ²	0.0000	0.0000	0.0000 ³	0.0017	0.0000	0.0166 ⁴
August 2020	0.0006	0.0000	0.0317 ⁵	0.0009	0.0005	0.0015 ⁶	0.0000	0.0000	0.0000 ⁷	0.0013	0.0000	0.0156 ⁸
September 2020 ⁹	-	-	-	-	-	-	-	-	-	-	-	-

Monitor Locations:

Headworks Monitor (#1) – Monitor located at Headworks Facility.

Digester Monitor (#2) – Monitor located between Digester #1 and Digester #4.

UNC Monitor (#3) – Monitor located at Primary Sludge PS.

Switchgear Monitor (#4) – Monitor located at Switchgear Building.

¹ Maximum reading occurred on July 9, 2020

² Maximum reading occurred on July 5, 2020

³ Maximum reading zero all of July 2020

⁴ Maximum reading occurred on July 21, 2020

⁵ Maximum reading occurred on August 26, 2020

⁶ Maximum reading occurred throughout August 2020

⁷ Maximum reading zero all of August 2020

⁸ Maximum reading occurred on August 22, 2020

⁹ Communication issues with the odor units due to construction.