



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.

January 16, 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 service, projects, and initiatives since November 2019. This report includes information on the following items:

1. Key System Resiliency Improvements
2. Executive Director Transition Update
3. New Revenue Bonds
4. PFAS Monitoring Update
5. Care to Share Day
6. Youth Water Academy
7. Infrastructure Investments

Key System Resiliency Improvements:

OWASA has completed key portions of several major projects to improve resiliency throughout the community's water and wastewater system. This quarter, significant progress was made on projects at the Jones Ferry Water Treatment Plant (WTP):

Design work has been completed to simplify and increase resiliency of a complex piping network around the WTP. We expect to award a construction contract for the project in March and estimate construction will run from summer 2020 through summer 2021. This project was taken up following the November 2018 water emergency.

The design process has also been completed for a project at the WTP to replace aging bulk chemical storage tanks, a safety containment area, and chemical system feed pumps.

Preliminary work is underway to convert the remainder of the WTP's electrical distribution system to an updated voltage standard and provide automatic transfer capabilities for on-site generators during power outages.

Overall, OWASA has invested nearly \$3 million this quarter in design and construction work improving the water distribution system resiliency.



Executive Director Transition Update:

OWASA's Board of Directors is working with Slavin Management Consultants to recruit OWASA's next Executive Director. That final hiring decision is expected by late April or early May 2020.

New Revenue Bonds:

OWASA issued revenue bonds totaling \$18.6 million. The bond terms include a 2.7% interest rate over 25 years. OWASA continues to be rated highly by all three credit rating agencies: S&P (AAA), Fitch (AA+), and Moody's (Aa1). The governance of our organization, as well as the stability of the community's economy (anchored by UNC) play a large part in our high rating. OWASA has refinanced for better interest rates over the years – resulting in cost savings for customers – but this is the first instance of raising funds through revenue bonds since 2006. Proceeds will be used to fund Capital Improvement Projects.

PFAS Monitoring Update:

OWASA's treated drinking water remains safe and meets all current Federal and State regulations and health advisories and treated wastewater remains safe for the environment. OWASA supports and participates in science-based research to inform these regulations and protect water quality and human health.

In January 2018, OWASA initiated a proactive monitoring program for PFAS – per- and polyfluoroalkyl substances – for our raw reservoir water and treated drinking water; sampling continued on a quarterly basis throughout 2019 of our Cane Creek Reservoir raw water and treated drinking water. PFAS are man-made chemicals used in a variety of everyday products to increase resistance to water, grease, or stains. PFAS are also present in aqueous firefighting foams. There are thousands of PFAS compounds in existence, including GenX.

The EPA established a lifetime Health Advisory Level of 70 parts per trillion (ppt) for the combined amount of two categories of PFAS in drinking water. A ppt is comparable to a grain of sand in an Olympic swimming pool. OWASA's treated drinking water remains well below the health advisory level.

In addition, we have begun to voluntarily test our wastewater for PFAS. As products containing PFAS are washed or degrade, PFAS can enter wastewater systems and travel into lakes and rivers. Wastewater systems are not sources of PFAS but are passive receivers.

The results of OWASA's wastewater testing consistently showed combined concentrations of the two monitored categories of PFAS were also below the 70 ppt threshold.

While PFAS research is emerging and complex, OWASA is committed to sharing available information about PFAS with customers in a manner that is accessible and understandable. OWASA includes PFAS monitoring updates to local stakeholders, documents on our website,

and through communications directly with customers – including the annual Water Quality Report Card and recent educational initiatives at the Chapel Hill Public Library.

Care to Share Day:

OWASA and the Interfaith Council for Social Services celebrated the inaugural Care to Share Day on November 21, 2019. Leading up to the event day, OWASA hosted a series of in-person and social media-focused events. WCHL donated 23 public service announcements; OWASA and IFC staff came together to celebrate and raise funds; there was significant social media activity generating interest and awareness for the program.

The program plays an important role in our community, and we hope this awareness effort leads to an increase in donors to the program.

Thank you to the governing boards for proclaiming Care to Share Day at meetings leading up to the celebration. We value your historic and ongoing partnership and support of Care to Share.

Youth Water Academy:

Another group of water-conscious local teens is ready to take their newly acquired water knowledge to the Chapel Hill-Carrboro community after completing OWASA's Youth Water Academy.

This fall's program culminated in early December for the 18 participants from local high schools after five weeks of learning the ins and outs of the process of bringing high-quality water from the source to taps across the community.

The academy included tours of OWASA's Water and Wastewater Treatment Plants, learning more about water governance in our community, and what it takes from an infrastructure standpoint to keep things flowing smoothly. The students were then able to put that knowledge to work by constructing their own water treatment system during a hands-on build in OWASA's operations center.

The program is open to students in grades 9-12 in Chapel Hill and Carrboro. Keep an eye out for the next round of applications for the next Youth Water Academy in 2020.

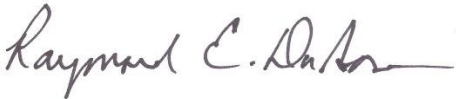
Infrastructure Investments:

OWASA maintains 750 miles of water and wastewater pipes, a water treatment plant, a wastewater treatment plant, pump stations, and other infrastructure. Meeting the community's needs and increasing system resiliency requires ongoing rehabilitation of the water, wastewater, and reclaimed water systems. Capital investments, including debt payments for capital projects, account for about half of our costs. In the last fiscal year, we invested about \$17.3 million to renew, replace and improve infrastructure. Our five-year Capital Improvements Program can be viewed [here](#). Notable infrastructure work in the past quarter included:

1. **Rogerson Drive Pump Station and Force Main:** Large projects were completed to improve electrical, HVAC, and controls at OWASA's largest wastewater pump station near Cleland Drive. A major replacement of a portion of the Rogerson Drive force main at Raleigh Road has also been completed.
2. **Water Main Replacement:** Water line replacement on Manning Drive has been completed. Work is continuing on replacement of water mains at the service road to Fordham Boulevard east of Scarlett Drive and at Dobbins Drive between Erwin Road and East Franklin Street. Projects to replace water mains along Barclay Road, Weiner Street and Country Club Road were also recently started.
3. **Investment in Our Treatment Facilities:** Construction is underway on projects to improve the pumping system at University Lake and rehabilitate concrete at the Water Treatment Plant sedimentation basins.

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 Executive Director Ed Kerwin (ekerwin@owasa.org or 919- 537-4211), or me.

Sincerely,



Raymond DuBose, 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
Ed Kerwin, 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 Events
January	11	3	9	0	8	3	8	1	3	3	4	0	3	0	0	0	0	0
February	7	5	2	0	8	0	4	1	0	3	3	0	4	0	0	1	0	0
March	9	0	7	1	10	4	1	1	0	2	8	0	0	1	0	0	0	0
April	9	2	4	0	9	3	1	1	2	1	1	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
June	4	1	1	1	5	1	8	8	1	2	2	0	0	0	0	0	0	0
July	1	0	2	0	0	2	6	3	2	4	0	0	2	0	0	0	0	0
August	1	0	4	3	11	2	9	0	1	1	2	0	2	2	0	0	1	0
September	2	5	2	2	9	3	1	1	5	1	1	0	3	0	0	0	2	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

January-2002 to December-2018 History and Present (2019)

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 2019 – December 2019

Date call received	Time call received	Location
January 2019	No Reported Odors	N/A
February 2019	No Reported Odors	N/A
March 2019	No Reported Odors	N/A
April 2019	No Reported Odors	N/A
May 2019	No Reported Odors	N/A
June 2019	No Reported Odors	N/A
July 2019	No Reported Odors	N/A
August 2019	No Reported Odors	N/A
September 2019	No Reported Odors	N/A
October 2019	No Reported Odors	N/A
November 2019	No Reported Odors	N/A
December 2019	No Reported Odors	N/A

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

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
	Michael Sharpe
	Julie Maness
Laurel Hill	Bob Wendell
	Carol David
	Pat Evans

	Ewan Rodewald and Sharon Hodge
	Marcella Grendler
	Kay Goldstein
	Ann Wilson
	Louis Fogleman
St. Thomas More Church and School	St. Thomas More Church staff
Morgan Creek area	Ellen Johnson
	Aldersgate United Methodist Church
	Betsy Malpass
	Hanson Malpass
	Jeannie Cox
	Laura King Moore
	Jeanne Langley
	AW Carr
	Marilyn and Don Hartman
	Robert Huls
Ronald McDonald House Family House	Shelly Day
	Greg Kirkpatrick, Executive Director
	Janice Ross, Operations Manager
	Matt Hapgood
Reserve	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
Bayberry Drive area UNC	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
	UNC Tennis Center
	UNC parking
	Mike McFarland, University Communications
	Scott Ragland, News Services
	Linda Convissor, Director of Local Relations
	UNC Farm (Faculty Staff Recreation Association)
	Frank Maynard, Athletics/ Finley Golf Course
	Robert Costa, Athletics/ Finley Golf Course
	Mark Steffer, Athletics/ Finley Golf Course

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

Page 3

	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
	Ralph Karpinos, Town Attorney
	Lance Norris, Public Works Director
	Chris Roberts, Town Engineer
	Richard Terrell, Public Works Operations Superintendent
	Catherine Lazorko, Public Information Officer
	Jeanne Brown, Assistant to the Mayor
	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
	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)
October 2019	0.0131	0.0000	0.0855 ¹	0.0010	0.0005	0.0020 ²	0.0000	0.0000	0.0000 ³	0.0008	0.0000	0.0098 ⁴
November 2019	0.0000	0.0000	0.0000 ⁵	0.0010	0.0005	0.0117 ⁶	0.0000	0.0000	0.0000 ⁷	0.0008	0.0000	0.0107 ⁸
December 2019	0.0000	0.0000	0.0039 ⁹	0.0010	0.0000	0.0107 ¹⁰	0.0000	0.0000	0.0000 ¹¹	0.0010	0.0000	0.0147 ¹²

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 October 8, 2019

² Maximum reading occurred on October 10, 2019

³ Maximum reading zero all of October 2019

⁴ Maximum reading occurred on October 27, 2019

⁵ Maximum reading zero all of November 2019

⁶ Maximum reading occurred on November 31, 2019

⁷ Maximum reading zero all of November 2019

⁸ Maximum reading zero all of November 16, 2019

⁹ Maximum reading occurred on December 1, 2019

¹⁰ Maximum reading occurred on December 19, 2019

¹¹ Maximum reading zero all of December 2019

¹² Maximum reading occurred on December 24, 2019