ORANGE WATER AND SEWER AUTHORITY

A public, non-profit agency providing water, sewer and reclaimed water services to the Carrboro-Chapel Hill community.

January 28, 2015

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

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

Earl McKee, Chair of the Board of Commissioners
County of Orange
PO Box 8181
Hillsborough, NC 27278

Dear Mayor Hemminger, Mayor Lavelle and Chair McKee:

We are pleased to submit this annual report on our services and initiatives.

Sewer system design for the Historic Rogers Road Area

Design and the process of getting construction permits are on schedule for completion in the fall of 2016. Surveying, checking for underground rock and other information gathering in the neighborhood are 95% complete. Design work to establish the basic sewer route was completed in December 2015. The Rogers Eubanks Neighborhood Association (RENA), the Marian Cheek Jackson Center, Orange County, the Towns of Chapel Hill and Carrboro and OWASA met with residents on July 28, 2015 to discuss the design process and on December 8, 2015 to discuss the County's acquisition of easements for the sewer lines.

Once there is a decision to proceed with construction, we estimate it will take about 19 months for bidding, award of the contact and completion of construction. The estimated total cost of design and construction is about $5.7 million, excluding costs for easement acquisition, sewer connection fees, the private sewer connection pipes and related plumbing work.

Affordability outreach program

On October 22, 2015 we approved a plan to implement affordability outreach on a permanent basis in 2016. The program is designed to increase awareness of options to reduce OWASA bills and empower low-income customers and local agencies with information and tools for bill reduction.

The program will draw on experience with our pilot program, which included work with 14 community agencies including Orange County, the Towns of Chapel Hill and Carrboro, and social service and affordable housing agencies; and a water conservation pilot project with six low-income customers. Key upcoming items will include expanding our partnership to involve rental property owners and managers, continuing to work with partners, helping customers in need and proactive water conservation outreach.

Advanced Meter Infrastructure (AMI)

AMI is a meter reading system including fixed antennae for remotely reading water meters with batteries for data transmission. Vehicles would not be necessary for readings, with resulting savings in energy and reduction in greenhouse gas emissions. AMI would enable faster detection of leaks, customers could monitor their daily water use on line and AMI would not require a rate increase. We completed a detailed feasibility study on AMI in January 2016.

On January 21, 2016, we approved a plan for community engagement including receiving citizens' comments in our February 25, March 10 and March 24, 2016 Board meetings. We may make a decision on whether to proceed with AMI at our March 24, 2016 Board meeting. I will send you additional information soon and we invite your questions and feedback.

Financial management/rates

Fiscal Year 2016 is the fourth consecutive year with no increase in monthly water and sewer rates. We continue to meet our financial performance objectives including our bond rating of AA+. We are considering potential changes to our rate structure to help ensure that service affordability, conservation, and equity across customer classes continue to be addressed and that we have the financial capacity to sustain our infrastructure and services. If changes are proposed, there will be a public engagement process.

Water supply/demand

Drinking water sales in calendar year 2015 averaged about 6.17 million gallons per day (MGD), compared to 6.33 for the prior year. Drinking water use continues at levels not seen since the early 1990s due to conservation and the University's use of reclaimed water. Reclaimed water use reached a single-day record of 2.4 million gallons on August 21, 2015.

Energy management

Due to water conservation by our customers and our energy efficiency investments and practices, we have reduced energy use per customer account by about 27% since 2006. Greenhouse gas emissions related to our services and facilities similarly declined. We are developing an Energy Management Plan and have been working with local government and University staff to discuss potential opportunities for collaboration on energy efficiency and renewable energy strategies. We expect to complete the plan by the end of 2016.

Our key draft objectives for developing the plan are:

1. Reduce use of purchased electricity by 35% by the end of Calendar Year 2020 compared to the Calendar Year 2010 baseline.
2. Reduce use of purchased natural gas by 5% by the end of Calendar Year 2020 compared to the Calendar Year 2010 baseline.

3. Beneficially use all wastewater treatment plant biogas by 2022, provided the preferred strategy is projected to have a positive payback within the expected useful life of the required equipment.

Biosolids

On October 8, 2015 we decided to move toward recycling about 75% of our biosolids in "liquid" form on approved farms (when practical), and recycling about 25% in dewatered form at a composting facility in Chatham County. Our past practice was to apply about 50% of our biosolids on farmland and dewater 50% for composting. Our Class A biosolids continue to meet Federal standards for Exceptional Quality.

This approach will continue our partnership with local farmers and maintain flexibility for alternative biosolids management strategies in the future.

Care to Share Customer Assistance Program (formerly Taste of Hope)

About 5% of our customers donate monthly with bill payments. We received about $4,600 in 2015. We also encourage citizens to give directly to the Inter-Faith Council (IFC). In response to an appeal by Executive Director Ed Kerwin to various businesses in July 2015, the IFC received about $1,500 for the Care to Share program. Marketing included information in our newsletter, bills, on the OWASA and IFC websites, and asking new customers to sign up as donors.

Jordan Lake Allocation Request/ Long-Range Water Supply Plan Update

On November 14, 2014 staff submitted OWASA's application to maintain our Jordan Lake water supply allocation of about 5 million gallons per day for use in severe droughts and operational emergencies. The earliest the NC Environmental Management Commission will make a decision is likely July 2016. The decision on our Jordan Lake allocation will be important in how we proceed with the update of our Long-Range Water Supply Plan which is currently underway. Water conservation and the use of reclaimed water will continue to be a foundation for sustaining our local water resources.

Capital projects

Capital investments, including debt payments for capital projects, account for about half of our costs. In the past year, we invested about $6.3 million in projects to renew, replace and improve our infrastructure to maintain the reliability and quality of our services and the structural integrity of facilities.

Current projects

- Purefoy Road water line replacement (east of South Columbia Street)
- Plum Lane water line replacement
- Evergreen/Ridge Lane water line replacement (Gimghoul neighborhood)

- Sewer replacement near Emory and Brigham Drives
- Renovating two of the four biosolids treatment tanks at our Mason Farm Wastewater Treatment Plant

Completed in 2015

- Water line replacements on Ridgecrest Drive, The Glen and Briarbridge Lane
- Sewer renovation in Rangewood and other locations
- Replacing sewer over Morgan Creek near Rhododendron Drive

We would be happy to give you more detail on any of our initiatives or to arrange a tour of our facilities. Please let Ed Kerwin, Executive Director (ekerwin@owasa.org or 919-537-2411) or me know.

Sincerely,

John A. Young, Chair
OWASA Board of Directors

c: Ms. Bonnie Hammersley, Orange County Manager
Mr. Roger L. Stancil, Chapel Hill Town Manager
Mr. David Andrews, Carrboro Town Manager
OWASA Board of Directors
Ed Kerwin, OWASA Executive Director

Attachments

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

January-2002 to December-2015

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

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.

Attachment 2

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

January 2015 – December 2015

Date call received	Time call received	Location
January 2015	No Reported Odors	N/A
February 2015	No Reported Odors	N/A
March 11, 2015	8:16am	1016 Highland Woods Road
April 2015	No Reported Odors	N/A
May 2015	No Reported Odors	N/A
June 2015	No Reported Odors	N/A
July 2015	No Reported Odors	N/A
August 2, 2015	11:30pm	1002 Highland Woods Road
August 4, 2015	10:12pm	1002 Highland Woods Road
September 2015	No Reported Odors	N/A
October 2015	No Reported Odors	N/A
November 2015	No Reported Odors	N/A
December 2015	No Reported Odors	N/A

E-MAIL DISTRIBUTION LIST FOR NOTICES ABOUT ODOR-RELATED ITEMS AT THE MASON FARM WASTEWATER TREATMENT PLANT

January 20, 2015

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
	Frank Phoenix
	Angel Smith
	Jordon Sharome
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
	Anne Fogleman
	Louis Fogleman
St. Thomas More Church and School	St. Thomas More Church staff
	Carlos Lima
Morgan Creek area	Ellen Johnson
	Betsy Malpass
	Hanson Malpass
	Jeannie Cox
	Laura King Moore
	Jeanne Langley
	A.W. 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 & David Jarrett
	Nadine O'Malley
	Mark Witcher
	Ralph Abrahams
	Kathy Abrahams
Bayberry Drive area	William Ware
UNC	Jim Ward, NC Botanical Garden
	Jim Ward--home
	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
	Willie Scroggs, Athletic Department
	Michael Wilkinson, golf pro
	Andrew Sapp, Men's Golf Coach

	Ms. Jan Mann, Women'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
	Jeff McCracken, Public Safety
	Jim Gregory, Media Relations
UNC Healthcare	Mel Hurston
	Karen McCall
Town of Chapel Hill	Roger Stancil, Town Manager
	Florentine A. Miller, Deputy Town Manager
	Bruce Heflin
	Ralph Karpinos, Town Attorney
	Lance Norris, Public Works Director
	Richard Terrell, Public Works Operations Supt.
	Catherine Lazorko, Public Information Officer
	Ran Northam, Public Affairs
	David Bonk, Planner
	Phil Mason, Planner
	Sabrina Oliver, Town Clerk
	Amy Harvey, Public Affairs and Communications
	Larry Tucker, Engineering
	Chris Blue, Police Chief
	Jeff Clark, Patrol Captain
	Bryan Walker, Captain/Police Information
	Josh Mecimore, Police Information Officer
	Dave Milkereit
City Schools	Tom Forcella, Superintendent
	Bill Mullin
	Todd LoFrese, Asst. Supt. for Support Services
	Jeff Nash, Community Relations
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	Michael Hughes
	Bill Ferrell, Meadowmont Community Association

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

Month and year	Headworks Monitor			UNC Monitor			Digester Monitor			Switchgear Monitor		
	Average H2S Reading (ppm)	Minimum H2S Reading (ppm)	Maximum H2S Reading (ppm)	Average H2S Reading (ppm)	Minimum H2S Reading (ppm)	Maximum H2S Reading (ppm)	Average H2S Reading (ppm)	Minimum H2S Reading (ppm)	Maximum H2S Reading (ppm)	Average H2S Reading (ppm)	Minimum H2S Reading (ppm)	Maximum H2S Reading (ppm)
October 2015	0.0000	0.0000	0.0000[1]	0.0000	0.0000	0.0000[2]	0.0000	0.0000	0.0000[3]	0.0000	0.0000	0.0000[4]
November 2015	0.0000	0.0000	0.0000[5]	0.0000	0.0000	0.0000[6]	0.0000	0.0000	0.0000[7]	0.0000	0.0000	0.0000[8]
December 2015	0.0000	0.0000	0.0000[9]	0.0000	0.0000	0.0000[10]	0.0000	0.0000	0.000[11]	0.0000	0.0000	0.0000[12]

Monitor Locations:

Headworks Monitor (#1) – Monitor located between Headworks Facility and Septage Receiving Station on south side of plant property.
Digester Monitor (#2) – Monitor located between Digester #1 and Digester #4 on west side of plant property.
UNC Monitor (#3) – Monitor located between UNC Research Building and Trickling Filter on north side of plant property.
Switchgear Monitor (#4) – Monitor located across from Switchgear building on north side of plant property.

[1] Maximum reading zero all of October
[2] Maximum reading zero all of October
[3] Maximum reading zero all of October
[4] Maximum reading zero all of October
[5] Maximum reading zero all of November
[6] Maximum reading zero all of November
[7] Maximum reading zero all of November
[8] Maximum reading zero all of November
[9] Maximum reading zero all of December
[10] Maximum reading zero all of December
[11] Maximum reading zero all of December
[12] Maximum reading zero all of December