



ORANGE WATER AND SEWER AUTHORITY

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

October 24, 2014

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

Barry Jacobs, Chair of the
Board of Commissioners
County of Orange
PO Box 8181
Hillsborough, NC 27278

Mayor Mark Kleinschmidt
Town of Chapel Hill
405 Martin Luther King Jr.
Boulevard
Chapel Hill, NC 27514

Dear Mayor Lavelle, Chair Jacobs and Mayor Kleinschmidt:

We are pleased to submit this report on our services, projects, initiatives and planning from July through September 2014. Key items are below and additional information is attached.

Affordability outreach

On September 22nd, we held our second meeting with staff of several public and private agencies, including the Towns and County, about how to help lower-income customers reduce their water bills. Work to date has included:

- revising OWASA processes to help customers avoid service disconnection for non-payment while the customer is seeking financial aid,
- giving the agencies water conservation/bill reduction information for their clients, and
- reviewing water use at several affordable housing locations to identify cost-effective opportunities to reduce bills.

Improvements at Mason Farm Wastewater Treatment Plant (WWTP)

Our contractor recently completed this \$10.4 million project to further eliminate off-site odor, reduce energy use and costs and related greenhouse gas emissions, and enhance wastewater treatment. We expect that electricity use at the WWTP will be 20 to 30% less because of this project. On October 15th, Executive Director Ed Kerwin made a presentation about this project to the Chapel Hill Town Council.

Preliminary engineering study for sewer extension in Historic Rogers Road Area

Under an agreement with Orange County, we have begun the preliminary engineering study of extending sewers in the Historic Rogers Road Area. The first phase of the study includes reviewing available information, identifying alternative sewer routes and doing a preliminary cost estimate. This work is to be complete around late November 2014, and our consultant's overall report is to be complete in the spring of 2015. The budget for the study is \$130,000 (funded by Orange County and the Towns).

OWASA staff, our consultant and Jackson Center staff met on September 23rd with several community leaders about the possible corridor for sewer extension. The Jackson Center is also contacting owners to request permission for OWASA and our consultant to go on various properties to get information for the study.

National award for sustainable water utility management

On October 20th, OWASA received a Sustainable Water Utility Management Award from the Association of Metropolitan Water Agencies (AMWA). AMWA recognized the substantial achievement by our customers and OWASA in water conservation (26% reduction in drinking water use from 1999 to 2013 despite a 27% increase in customers).

AMWA also cited our partnership with the University to develop the reclaimed water system, which reduces drinking water demand and uses 40% less energy than drawing water from our lakes, and treating and pumping drinking water.

Care to Share customer assistance program

On August 28th, we changed the name of the Taste of Hope customer assistance program to Care to Share as recommended by an inter-agency work group. The change is part of an initiative to increase donations to the program, which provides financial assistance to customers who are unable to pay a water/sewer bill.

Jordan Lake Partnership/water allocation

Final applications for Jordan Lake allocations are due to the State on November 14th. OWASA will apply to keep its allocation of 5 million gallons per day (for use in extended droughts and operational emergencies).

We continue to work with the Jordan Lake Partnership comprised of 13 local governments. The Partnership recently drafted a plan to meet water needs in the Triangle through 2060. The draft plan is consistent with OWASA's 2010 Long-Range Water Supply Plan. The OWASA Board discussed the draft plan on October 9th and adopted a resolution to support it on October 23rd.

Advanced metering infrastructure (AMI)

We are continuing to discuss AMI and agreed on September 25th that staff will draft a scope of work and related information for hiring a consultant to do a feasibility study as a key step before deciding whether and how to proceed. Community engagement will be an important part of our process.

Financial management

The annual independent audit of OWASA's financial statements was recently completed; we received an unqualified opinion that our statements fairly present our financial position and results from operations. OWASA continues to meet its financial performance objectives. Our

financial position remains strong and sustainable with future rate increases expected to be in line with inflation.

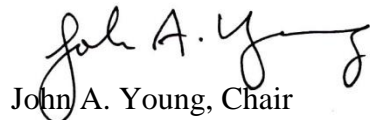
For the fiscal year ending June 30, 2015, we project revenues of about \$36 million, operating expenses of about \$20 million, debt service of about \$8 million and capital improvement expenditures of about \$11 million.

Board of Directors' processes

We recently changed our procedures so that our meetings on second Thursdays are normally work sessions to discuss issues and receive information in depth, and meetings on fourth Thursdays are for taking action and other business matters.

We welcome the opportunity to provide additional information.

Sincerely,



John A. Young, Chair
OWASA Board of Directors

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

Attachments: 1. Supplemental information for OWASA's report for July - September 2014
2. Information regarding off-site odor elimination at the Mason Farm Wastewater Treatment Plant

SUPPLEMENTAL INFORMATION FOR OWASA'S REPORT
JULY - SEPTEMBER 2014

(Please see the cover letter with this report for a summary of key items.)

Water demand and supply

As of October 17, our lakes were about 76% full, or 6% below average for this time of year. Staff estimates that drinking water sales in the first quarter averaged 6.6 million gallons per day (mgd), compared to 6.4 mgd in the first quarter last year.

Drinking water quality

We continue to meet water quality standards under the Federal Safe Drinking Water Act and related State rules.

Water service reliability

The number of water line breaks in the first quarter was 8. The average per 100 miles of water line in the last year was 6.6, well below our objective of no more than 15.

Wastewater and biosolids management

We continue to meet regulatory standards for treating wastewater and biosolids. On October 9th, staff provided an overview of biosolids management. Staff will in November propose a scope for a long-term biosolids management study.

Minimizing wastewater overflows from sanitary sewers

There was one wastewater overflow in the first quarter, and the average per 100 miles of sewer line in the last year was 1.5.

Major capital investments

Type of work	Location	Purpose	Estimated/ actual start	Estimated/ actual completion	Estimated/ actual cost
Water pipe replacement	Estes, Willow and Conner Drives, Chapel Hill	Maintain/improve reliability and quality of service	May 2014	November 2014	\$1,576,000
	Ridge Road, Chapel Hill		October 2013	September 2014	\$1,006,000
	Prince Street, Carrboro		August 2014	October 2014	\$49,500
Sewer renovation	Rangewood and other areas (multi-year project)	Prevent wastewater overflows	November 2013	March 2015	\$1,794,000

Type of work	Location	Purpose	Estimated/ actual start	Estimated/ actual completion	Estimated/ actual cost
Sewer replacement	Tom's and Morgan Creeks		November 2014	April 2015	\$414,000
Resealing joints in dam	Cane Creek Reservoir	Maintain structural integrity	September 2014	October 2014	\$35,000
Improvements at the Mason Farm WWTP	Old Mason Farm Road, Chapel Hill	Increase energy efficiency, further eliminate off-site odor, enhance treatment	September 2011	September 2014	\$10,400,000
Replace disinfectant tanks and pumps at WWTP		Maintain reliable operation.	February 2013	June 2015	\$672,000

Upcoming:

- Replacing sewers in the Emory Drive area
- Renovation of the WWTP's digesters, which treat solids from wastewater and turn them into recyclable biosolids for use on farmland or for composting.

Human resources and safety

On September 25th, the Board authorized merit pay increases of 2% for employees whose performance is rated successful and 3% for employees rated as exceptional. The increases will go into effect in early November.

In the first quarter, the employee turnover rate was 1.4% compared to 3.7% for the first quarter of fiscal year 2014.

There were no recordable injuries to employees in the first quarter. ("Recordable" means reportable under federal safety rules.)

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

January-2002 to September-2014

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014 Reports	2014 Events
January	11	3	9	0	8	3	8	1	3	3	4	0	4	3
February	7	5	2	0	8	0	4	1	0	3	3	0	5	4
March	9	0	7	1	10	4	1	1	0	2	8	0	0	0
April	9	2	4	0	9	3	1	1	2	1	1	0	0	0
May	6	0	2	5	8	3	2	5	4	0	1	3	0	0
June	4	1	1	1	5	1	8	8	1	2	2	0	0	0
July	1	0	2	0	0	2	6	3	2	4	0	0	2	2
August	1	0	4	3	11	2	9	0	1	1	2	0	2	2
September	2	5	2	2	9	3	1	1	5	1	1	0	3	3
October	2	6	1	1	8	8	2	0	3	3	2	2		
November	0	0	1	7	2	6	7	1	1	4	0	1		
December	3	3	2	5	8	10	2	1	1	6	3	5		
TOTALS	55	25	37	25	86	45	51	23	23	30	27	11	16	14

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

July – September 2014

Date call received	Time call received	Location
7/11/14	8:59 pm	1027 Highland Woods
7/17/14	9:05 pm	1027 Highland Woods
8/13/14	10:00 pm	1002 Highland Woods
8/14/14	10:06 pm	1002 Highland Woods
9/5/14	8:06 pm	1008 Highland Woods
9/10/14	7:44 pm	1002 Highland Woods
9/20/14	10:43 pm	1002 Highland Woods

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 2014	0.0016	0.0002	0.0333 ¹	0.0015	0.0006	0.0250 ²	0.0005	0.0000	0.0317 ³	0.0000	0.0000	0.0079 ⁴
August 2014	0.0020	0.0002	0.0153 ⁵	0.0009	0.0002	0.0171 ⁶	0.0002	0.0000	0.0098 ⁷	0.0001	0.0000	0.5619 ⁸
September 2014	0.0013	0.0002	0.6850 ⁹	0.0006	0.0002	0.0161 ¹⁰	0.0003	0.0000	0.0186 ¹¹	0.0001	0.0000	0.2626 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 Tricking 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 occurred on July 18, 2014

² Maximum reading occurred on July 17, 2014

³ Maximum reading occurred on July 27, 2014

⁴ Maximum reading occurred on July 2, 2014

⁵ Maximum reading occurred on August 29, 2014

⁶ Maximum reading occurred on August 8, 2014

⁷ Maximum reading occurred on August 22, 2014

⁸ Maximum reading occurred on August 25, 2014

⁹ Maximum reading occurred on September 8, 2014

¹⁰ Maximum reading occurred on September 6, 2014

¹¹ Maximum reading occurred on September 9, 2014

¹² Maximum reading occurred on September 8, 2014

E-MAILS FROM OWASA TO NEIGHBORS OF THE MASON FARM WASTEWATER
TREATMENT PLANT (WWTP) REGARDING ODOR ELIMINATION MATTERS

August 5 – October 22, 2014

Date	Topic
August 26, 2014	Annual report to the Town of Chapel Hill
October 3, 2014	Completion of project to further eliminate odor, increase energy efficiency, etc.

**DISTRIBUTION LIST FOR OWASA E-MAILS ABOUT WWTP
ODOR-RELATED ITEMS**
(October 15, 2014)

Area	Resident or owner
Highland Woods	Alice W. Neebe
	Paul Neebe
	Mary Turner
	Malcolm Forbes
	Natalia Lebedeva
	Gary Richman, Gail Wood
	Gail Wood
	Robert and Melissa Porter
	Robin Casey
	Joseph Clancy
	Ann Schwab
	Ann Schwab
	Seth Kingsbury
	Amanda Kingsbury
	Freeman and Angela Kirby
	Reed Johnson
	Kay Johnson
	Rex Bartles
	Lisa Bartles
	Barnes Bierck
	Ann Alexander
	Lex Alexander
	Nortin Hadler
	Carol Hadler
	Frank P. Rexford
	Scott Brees
	Kendall Brees
	Ed and Helen Ludwig
	Rainer Blaesius
	Elisabeth Schweins
	Gunilla Luboff
	Fred Hall
	Lawanda Rainey-Hall
Katie Jamieson	
Richard Harrill	
Frank Phoenix	
Richard and Jane Caswell	
Ed Tostanoski	
Angel Smith	
Smiths	

Area	Resident or owner
Finley Forest	Adam Kimplead
	Cindy Underwood
	Dan Puckett
	David J. Polewka
	Kathryn Conard
	Michael Sharpe
	Rima Wehbe
	Julie Maness
Laurel Hill	Mike Ramsey
	Bob Wendell
	Carol David
	Pat Evans
	Ewan Rodewald and Sharon Hodge
	Marcella Grendler
	Dick and Marie Clark
	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
	John Pendergrass
	AW Carr
	Marilyn and Don Hartman
Robert Huls	
Ronald McDonald House	Shelly Day
Family House	Greg Kirkpatrick, Executive Director
	Janice Ross, Operations Manager
Reserve	Matt Hapgood
	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

Area	Resident or owner
	Kathy Abrahams
Bayberry Drive area	William Ware
UNC	Peter White, Director, NC Botanical Garden
	Jim Ward, NC Botanical Garden
	Jim Ward--home
	Johnny Randall, Assistant Director, NC Botanical Garden
	Jennifer Peterson, NC Botanical Garden Communications Coordinator
	Phil Barner, Interim Energy Services Director
	Margaret Holton, Water, Sewer & Stormwater Coord.
	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
	Karen Moon, News Services
	Mike McFarland, Corporate Relations
	Scott Ragland, Local Relations
	Linda Convissor, Corporate Relations
	UNC Farm (Faculty Staff Recreation Association)
	Steve Reznick, UNC Farm Assoc. President
	Frank Maynard, Athletics/ Finley Golf Course
	Robert Costa, Athletics/ Finley Golf Course
	Mark Steffer, Athletics/ Finley Golf Course
	Jeff McCracken, Public Safety
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
	Jay Gibson, Town Engineer
	Richard Terrell, Public Works Operations Supt.
	Dan Jones, Fire Chief
	Catherine Lazorko, Public Information Officer
	Mary Jane Nirdlinger, Director of Policy and Strategic Initiatives
	David Bonk, Planner

Area	Resident or owner
	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
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	Bill Ferrell, Meadowmont Community Association
	Chamber of Commerce