



ORANGE WATER AND SEWER AUTHORITY

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

August 24, 2012

Chair Bernadette Pelissier
Orange County
Post Office Box 8181
Hillsborough, NC 27278

Mayor Mark Chilton
Town of Carrboro
301 West Main Street
Carrboro, NC 27510

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

Dear Chair Pelissier, Mayor Chilton, and Mayor Kleinschmidt:

Enclosed is a summary of OWASA activities and achievements of the past fiscal year that we believe to be of most interest to you and your respective boards. As noted at the top of this brief, our own Board members or staff will be glad to provide additional information or presentations.

Thank you very much.

Best Regards,

Alan Rimer, P.E., Chair
OWASA Board of Directors

Enclosure

c: Mr. Frank Clifton, Orange County Manager (w/encs.)
Mr. David Andrews, Carrboro Town Manager (w/encs.)
Mr. Roger L. Stancil, Chapel Hill Town Manager (w/encs.)
OWASA Board of Directors (w/encs.)
Ed Kerwin, OWASA Executive Director (w/encs.)



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Annual Report to Local Governments August 24, 2012

This report summarizes major OWASA activities and accomplishments from July 2011 through June 2012. We have selected items that we believe are most likely to be of interest to Carrboro, Chapel Hill, and Orange County elected officials. Additional information is available on request, and OWASA Board members or staff will be glad to provide presentations if desired.

Water Supply and Demand – As of August 24, 2012, OWASA’s University Lake/Cane Creek/Quarry Reservoir system was 82 percent full, with 2.9 billion gallons, or nearly 14 months of supply in storage. On this date one year ago, the reservoirs were 74 percent full. The all-time low for August 24 occurred in 2002 when the reservoirs were only 36 percent full. The statistical risk of critical reservoir drawdown during the next 12 months is minimal – based on historical data.

Key Performance Indicators – OWASA prepares a monthly update of key performance indicators and measurements at <http://www.owasa.org/about/FinancialDocuments.aspx> (hardcopy of the July 31, 2012 version is attached). Our drinking water and wastewater treatment plants remained in compliance with all State and Federal regulations and permit requirements during the past year. The low number of water line breaks and sewer overflows – well below utility industry standards – reflects OWASA’s ongoing commitment to infrastructure maintenance, renewal, and replacement.

Financial Performance for Fiscal Year (FY) 2012 and Outlook for FY 2013 – OWASA’s FY 2013 budget includes no increase in monthly water, sewer and reclaimed water rates. Recent year rate increases combined with cost reductions have replenished reserves that became depleted after 2007. Based on current assumptions about future sales and expenditures, we expect rate increases over the next several years to remain at or near the overall rate of inflation.

A study of OWASA’s rate structure is nearly complete. Over the next several months, the Board of Directors will consider modifications to ensure that the rate structure will continue to support our strategic goals of conservation, sustainability, and affordability.

Net Revenue less Debt Service (unaudited) for FY 2012 exceeded OWASA’s adopted budget by about \$1 million, due primarily to higher than expected revenue from new service connections and lower than expected operating expenses. Operating revenues and drinking water demand were both within 1 percent of budget projections. These FY 2012 results remain preliminary.

Customer Satisfaction Survey – OWASA conducted a Customer Satisfaction Survey during the Spring of 2012. Approximately 15 percent of 3,000 randomly selected account holders responded to the 20-question survey, and results were reported to the OWASA Board in July. At their August 23, 2012 meeting, the OWASA Board received and discussed a follow-up report on survey themes and strategies for service and communication improvements. A copy of the survey results and strategies for improvement can be found at <http://www.owasa.org/conservationandeducation/2012-Customer-SatisfactionSurvey.aspx>.

Employee Classification and Compensation Study – OWASA began a Classification and Compensation Study through the Waters Consulting Group in 2011 to identify any improvements that

may be needed to ensure that our employees are properly classified and that their compensation is competitive. Work will be completed and the OWASA Board will consider implementing its recommendations during the coming months.

Jordan Lake Water Supply/Water and Sewer Management, Planning, and Boundary Agreement (WSMPBA) – In December 2010, the OWASA Board adopted a resolution to clarify certain language in the 2001 *Water and Sewer Management, Planning and Boundary Agreement* (WSMPBA) so that the Agreement cannot be interpreted as a constraint on access to OWASA's Jordan Lake water supply storage allocation.

In October 2011 the OWASA Board adopted a policy to “only purchase water from other communities or obtain water from its Jordan Lake storage allocation during periods of increased drought risk after it has declared a Stage 1 Water Supply Shortage per OWASA's State-approved Water Shortage Response Plan and OWASA's Water Conservation Standards.”

In January 2012 OWASA developed a draft *Drought Response Operating Protocol* (DROP) to describe in more detail the procedures and criteria to be used for water supply and demand management decisions during an extended drought, including provisions for public notice of potential Water Supply Shortage declarations, water purchases, and/or the use of OWASA's Jordan Lake water supply storage allocation. The OWASA Board remains convinced that retaining and gaining access to OWASA's Jordan Lake allocation is essential to reliably meeting the needs of current and future customers. OWASA will work with Carrboro and Chapel Hill to develop a mutually agreeable policy before submitting application materials to the NC Division of Water Resources (DWR) Round Four Jordan Lake Water Supply Allocation process. DWR's deadline for submitting draft Round Four applications is February 1, 2013.

Forest Management at the Cane Creek Mitigation Tract - OWASA is continuing to implement forest management plans on its 490-acre Cane Creek Wildlife Mitigation Tract as required by the U.S. Army Corps of Engineers' “404 Permit” issued to construct the Cane Creek Reservoir. (Plans to manage forest land on all other OWASA-owned properties are currently on hold, pending further consideration by the Board of Directors.) The Cane Creek 404 Permit requires OWASA to implement the North Carolina Wildlife Resources Commission's (WRC's) plan for managing forest resources on the 490-acre Mitigation Tract. About 25 acres of pine forest were clear-cut and 25 acres of hardwood were thinned during October and November of 2010 per the WRC plan. In January 2011 the clear-cut area was replanted with loblolly pines. The next phase of the approved management plan will be the installation of a stream crossing and construction of an unimproved access road into the southern portion of the Mitigation Tract to allow active management on the remaining portions of the tract. OWASA will continue to coordinate this work closely with the WRC and the NC Forest Service, and will communicate with neighboring property owners.

Rogers Road Community – During the past year OWASA provided further informational support to Carrboro, Chapel Hill, and Orange County regarding existing and potential water and sewer infrastructure in the Rogers Road vicinity. These efforts have been through the Historic Rogers Road Neighborhood Task Force established by the Orange County Board of Commissioners. It is expected that any additional utility services to this area would be provided in accordance with OWASA's existing policies, procedures, and standards.

Mountains-to-Sea Trail (MST) – The OWASA Board of Directors expressed support to the Orange County Board of Commissioners for the MST in December 2009. This included the potential use of

OWASA-owned land near the Cane Creek Reservoir, provided that any such use would be consistent with OWASA's primary mission of providing safe and reliable drinking water. Since 2009, Orange County staff has had the lead responsibility in working with the Friends of the MST and the North Carolina Division of Parks and Recreation to develop a preferred trail route and to communicate its emerging trail plans with nearby property owners. OWASA continued its support role to the County during the past year and will respond to specific trail proposals for OWASA property as they evolve.

Capital Improvement Projects – OWASA's Capital Improvements Program includes a number of projects that involve local permits and/or affect neighborhoods in Carrboro and Chapel Hill. The most significant of these completed during the past year was the Bolin Creek Sewer Interceptor, which replaced approximately more than a mile of existing sewer main and nearly one-half mile of water line in the Umstead Drive vicinity generally between Martin Luther King, Jr. Boulevard and Estes Drive Extension. OWASA staff, consultant, and contractor worked closely with property owners and Town of Chapel Hill officials to minimize the disruption caused by this project, which was successfully completed more than two months ahead of schedule and under budget.

OWASA also rehabilitated 1.8 additional miles of gravity sewer, replaced another two miles of water main, and rehabilitated the Countryside Pump Station as part of our ongoing sanitary sewer rehabilitation and water main replacement programs.

Design work began in September 2011 on the final phase of OWASA's odor control improvements for the Mason Farm Wastewater Treatment Plant. We expect to award a construction contract this December. The project will be completed by the end of calendar year 2014 per OWASA's commitment to the Town of Chapel Hill and consistent with the goal of no objectionable off-site odors from the wastewater plant. Major improvements are also underway to improve the wastewater plant's aeration and mixing systems, which account for more than half of the plant's electrical energy use. The new system is expected to be about 60 percent more energy efficient than existing equipment.

We are coordinating with the University to replace OWASA water and UNC chilled water mains and to install reclaimed water mains along Cameron Avenue from east of Columbia Street to Merritt Mill Road. Design work near the Columbia Street portion is underway, with construction expected to be complete by July 2013.

Construction will begin on two additional sewer projects during the coming year. One will replace more than two miles of sewer main from the Heritage Hills subdivision and extending north along Smith Level Road. This project is expected to be complete by July 2013. Another project will replace about one mile of gravity sewer line to provide additional capacity to the Friday Center and Meadowmont vicinity. This work will be complete by July 2014.

Awards – OWASA received the *Platinum Award for Utility Excellence* from the Association of Metropolitan Water Agencies (AMWA). The award recognized OWASA's work during the past five years to achieve excellence in water quality, customer service, management processes and related items. Kenneth Loflin, OWASA's Water Supply and Treatment Manager, also received the NC Waterworks Operators Association's (NCWOA) 2011 award as the top drinking water plant manager in North Carolina. OWASA also received, for the twelfth consecutive year, the Government Finance Officers Association's (GFOA) *Distinguished Budget Presentation* and *Certificate of Achievement for Excellence in Financial Reporting* awards.

New Appointees to OWASA Board – Mr. Stephen Dear, Mr. Michael Hughes, P.E., and Ms. Terri Buckner were appointed by the Carrboro Board of Aldermen and Orange County Board of Commissioners to fill positions previously occupied by Mr. William Stott, Mr. Fred Battle, and Ms. Joyce Preslar, respectively. Ms. Amy Witsil was reappointed to the OWASA Board by the Chapel Hill Town Council. Current OWASA officers are Alan Rimer, Chair; John Young, Vice-Chair; and Amy Witsil, Secretary.

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

January-2002 to June 2012

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012 Reports	2012 Events
January	11	3	9	0	8	3	8	1	3	3	7	4
February	7	5	2	0	8	0	4	1	0	3	7	4
March	9	0	7	1	10	4	1	1	0	2	8	8
April	9	2	4	0	9	3	1	1	2	1	1	1
May	6	0	2	5	8	3	2	5	4	0	1	1
June	4	1	1	1	5	1	8	8	1	2	2	2
July	1	0	2	0	0	2	6	3	2	4		
August	1	0	4	3	11	2	9	0	1	1		
September	2	5	2	2	9	3	1	1	5	1		
October	2	6	1	1	8	8	2	0	3	3		
November	0	0	1	7	2	6	7	1	1	4		
December	3	3	2	5	8	10	2	1	1	6		
TOTALS	55	25	37	25	86	45	51	23	23	30	22	16

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

April 2012 – June 2012

Date call received	Time call received	Location
4/25/2012	9:55 PM	Highland Woods Rd.
5/12/2012	11:47 PM	Highland Woods Rd.
6/2/2012	8:20 PM	Highland Woods Rd.
6/19/2012	9:12 PM	Highland Woods Rd.

E-mails from OWASA to neighbors
of the Mason Farm Wastewater Treatment Plant (WWTP)
regarding odor elimination matters

April - June, 2012

Date	Topic
May 3, 2012	John Kiviniemi is the new WWTP Plant Manager
May 4, 2012	Maintenance work that may involve odor release on May 8th
May 9, 2012	Quarterly report to the Town of Chapel Hill including information on the odor control program

DISTRIBUTION LIST FOR OWASA E-MAILS ABOUT WWTP ODOR-RELATED ITEMS
(August 24, 2012)

AREA ORGANIZATION	NAME
Highland Woods	Alice W. Neebe
	Paul Neebe
	Paul Neebe
	Malcolm Forbes
	Natalia Lebedeva
	Gary Richman, Gail Wood
	Gail Wood
	Robert and Melissa Porter
	Jeffrey Tate
	Ann Schwab
	Seth Kingsbury
	Amanda Kingsbury
	Freeman and Angela Kirby
	Reed Johnson
	Reed Johnson
	Kay Johnson
	Rex Bartles
	Lisa Bartles
	Mary Ellen Bierck
	Barnes Bierck
	Ann Alexander
	Lex Alexander
	Lex Alexander
	Nortin Hadler
	Carol 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
	Richard and Jane Caswell
	Ed Tostanoski
	Angel Smith
Finley Forest	Adam Kimplead
	Cindy Underwood

AREA ORGANIZATION	NAME
	Dan Puckett
	Donna Kaye
	John Neal
	David J. Polewka
	Kathryn Conard
	Michael Sharpe
	Rima Wehbe
	Dan Choi
	Julie Maness
Laurel Hill	Mike Ramsey
	Bob Wendell, Pres. Laurel Hill Association
	Carol David
	Pat Evans
	Ewan Rodewald and Sharon Hodge
	Marcella Grendler
	Carolyn Goldfinch
	Carol Hazard and Winston Liao
	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
	Gary Glish
	Marilyn and Don Hartman
	Robert Huls
Ronald McDonald House	Shelly Day
Family House	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

AREA ORGANIZATION	NAME
	Jeanne & David Jarrett
	Nadine O'Malley
	Mark Witcher
	Ralph Abrahams
	Kathy Abrahams
Bayberry Drive area	William Ware
UNC	Jim Ward, Curator, NC Botanical Garden
	Jim Ward--home
	Peter White, Director, NC Botanical Garden
	Johnny Randall, Assistant Director, NC Botanical Garden
	Carolyn Elfland, Assoc. Vice Chancellor
	Ray DuBose, 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
	Mike McFarland, Corporate Relations
	Scott Ragland, Corporate Relations
	Linda Convissor, Corporate Relations
	Married Student Housing Manager
	UNC Farm (Faculty Staff Recreation Association)
	Steve Reznick, UNC Farm Assoc President
	Frank Maynard, Athletics/ Finley Golf Course
	Robert Costa, Athletics/ Finley Golf Course
	Jeremy Whitehurst, Athletics/ Finley Golf Course
	Mark Steffer, Athletics/ Finley Golf Course
	Jeff McCracken, Public Safety
UNC Hospitals	Mel Hurston
	Karen McCall
Town of Chapel Hill	Roger Stancil, Town Manager
	Florentine A. Miller, Deputy Town Manager
	Bruce Heflin, Asst. Town Manager
	Ralph Karpinos, Town Attorney
	Lance Norris, Public Works Director
	Jay Gibson, Town Engineer
	Richard Terrell, Public Works Operations Supt.
	Dan Jones, Fire Chief

AREA ORGANIZATION	NAME
	Caprice Mellon, Deputy Fire Chief
	Robert Bosworth, Deputy Fire Chief
	Catherine Lazorko, Public Information Officer
	Jennie Bob Culpepper, Planning Director
	David Bonk, Planner
	Phil Mason, Planner
	Sabrina Oliver, Town Clerk
	Amy Harvey, Public Affairs and Communications
	Larry Tucker, Engineering
	Bobby Pettiford, Inspections
	Chris Blue, Police Chief
	Jeff Clark, Patrol Captain
	Kevin Gunter, Captain/ Police Information Officer
City Schools	Tom Forcella, Superintendent
	Bill Mullin
	Todd LoFrese, Asst Supt. For Support Services
Other Utilities	Ken Kernodle, Duke Energy
	Steve Small, Duke Energy
	Rob Masterson, BellSouth/ATT
	Billy Miller, PSNC
	Time Warner Cable
Orange County	Orange 911 Center Supervisor on duty
	Frank Montes de Oca, Emergency Services Director
	Tom Konsler, Environmental Health
Other	Meadowmont Apts.
	Bill Ferrell, Meadowmont Community Association

SUMMARY OF ON-SITE HYDROGEN SULFIDE (H₂S)

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)
April 2012	0.0003	0.0000	0.0085 ¹	0.0000	0.0000	0.0027 ²	0.0002	0.0000	0.0435 ³	0.0000	0.0000	0.0130 ⁴
May 2012	0.0011	0.0000	0.0085 ⁵	0.0004	0.0000	0.0096 ⁶	0.0002	0.0000	0.0147 ⁷	0.0000	0.0000	0.0000 ⁸
June 2012	0.0013	0.0000	0.0858 ⁹	0.0008	0.0000	0.0699 ¹⁰	0.0001	0.0000	0.0151 ¹¹	0.0000	0.0000	0.0000 ¹²

ODOR MONITORING

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 occurred on April 28, 2012 at 2:27 AM.

² Maximum reading occurred on April 29, 2012 at 9:33 PM.

³ Maximum reading occurred on April 25, 2012 at 10:45 AM.

⁴ Maximum reading occurred on April 28, 2012 at 2:27 AM.

⁵ Maximum reading occurred on May 4, 2012 at 11:15 AM.

⁶ Maximum reading occurred on May 27, 2012 at 8:37 PM.

⁷ Maximum reading occurred on May 31, 2012 at 7:38 AM.

⁸ Maximum reading occurred on May 1, 2012 at 12:00 AM.

⁹ Maximum reading occurred on June 20, 2012 at 9:36 AM.

¹⁰ Maximum reading occurred on June 28, 2012 at 6:30 AM.

¹¹ Maximum reading occurred on June 9, 2012 at 4:03 PM.

¹² Maximum reading occurred on June 1, 2012 at 12:00 AM.