



ORANGE WATER AND SEWER AUTHORITY

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

January 25, 2013

Mayor Mark Chilton
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

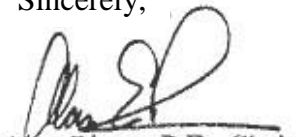
Dear Mayor Chilton, Chair Jacobs and Mayor Kleinschmidt:

We are pleased to submit our quarterly report on OWASA's initiatives and services from October through December, 2012 plus some recent items. The key points in the attached information include:

- On December 13th, we approved a contract for \$10 million of improvements at our Mason Farm Wastewater Treatment Plant to increase its energy efficiency, reduce greenhouse gas emissions and enhance odor control consistent with our goal of eliminating off-site odor from the plant. The odor control improvements will be completed by the end of December, 2014.
- On December 13th, the OWASA Board authorized a request to the NC Environmental Management Commission to convert our Jordan Lake water allocation from Level II (future use) to Level I so that we could use this allocation when and if needed due to a severe drought or operational emergency.
- On January 10, 2013, we adopted our Drought Response Operating Protocol (DROP), which affirms that we may purchase water from other communities or use our Jordan Lake allocation only after OWASA's lakes have fallen to the level that requires declaration of a Level 1 water shortage, or in an operational emergency. The DROP is part of our overall strategy to ensure the high reliability of our drinking water service.

We welcome the opportunity to provide additional information and/or to plan a presentation or discussion on any matter of interest to you.

Sincerely,



Alan Rimer, P.E., Chair

Copies: OWASA Board of Directors
Ed Kerwin
Robert L. Epting, Esq.

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

Quarterly Report to the Carrboro Board of Aldermen, Chapel Hill Town Council and Orange County Board of Commissioners on OWASA initiatives and services

(October through December, 2012 with additional recent items)

Water Supply – Our lakes refilled on January 17, 2013 for the first time since May, 2010. Current supply would last about 20 months assuming current demand and no rainfall. The risk of critical reservoir drawdown based on the last 87 years of streamflow records is minimal, but we recognize that the climate is changing and past experience does not predict the future.

Water Supply Planning: The Cane Creek Reservoir, University Lake and the Quarry Reservoir can meet most expected needs for the next 50 years. The expanded Quarry Reservoir is the most cost-effective option for additional water supply, but it will not be available until around 2035. Jordan Lake access is an “insurance policy” for severe droughts or operational emergencies. Because OWASA has no direct access to Jordan Lake, the only feasible way to use our Jordan Lake allocation is through the Town of Cary and City of Durham water systems. Existing mutual aid agreements allow the exchange of drinking water in short periods but those agreements must be modified, or new ones negotiated, to secure water in an extended drought. OWASA staff is discussing with Durham and Cary staff the need for modified or new water agreements.

On December 13th, the OWASA Board authorized a request to the NC Environmental Management Commission (EMC) to convert our Jordan Lake allocation from Level II (future use) to Level I so that we could use this allocation when and if needed due to a severe drought or operational emergency. The EMC may make a decision on our request this spring. The Cary and Durham staffs have said that during extended droughts, they will transfer water from Jordan Lake to OWASA only if OWASA has a Level I allocation so that water provided to OWASA would not be counted against their Jordan allocations.

On January 10, 2013, the OWASA Board adopted a Drought Response Operating Protocol which affirms that OWASA may purchase water from other communities or use its Jordan Lake allocation only after OWASA’s lakes have fallen to the level that requires declaration of a Level 1 water shortage, or in an operational emergency.

Rate Design Study: We are reviewing of our rates to confirm that they continue to support our goals regarding conservation and affordability, and the legal requirement that rates and fees reflect the cost of services. We will inform the community and local governments about any changes proposed due to the study, and a public hearing would be held before the Board makes any decisions.

Strategic Plan Update: The Board and staff are updating the Strategic Plan with a focus on water quality, efficiency, sustaining our infrastructure and financial health, environmental stewardship and customer service.

Capital Investments

Mason Farm Wastewater Treatment Plant: On December 13, 2012 we approved a contract for \$10 million of improvements at our Mason Farm Wastewater Treatment Plant to:

- increase energy efficiency,
- reduce greenhouse gas emissions,
- improve our wastewater treatment process and
- further control odor in accord with our goal of eliminating objectionable off-site odor from the plant. The odor control improvements will be completed by December 31, 2014 per our previous commitment.

The energy efficiency improvements in our biological treatment process will reduce electricity use by 20% and costs by \$125,000 a year, assuming current electric rates. (Operation of the odor control improvements will offset some of the cost and energy savings.)

Water line replacement: We have completed projects at Tilghman Circle, Boyd Street/East Main Street and Iris Lane. Work is underway at Brookview Drive and Barclay Road. Upcoming projects are scheduled for Buttons Lane, Arboretum Drive, Clark Court and Scarlett Drive. Design is nearly complete for replacing the OWASA water main and (on a reimbursement basis) the University's chilled water lines in parts of East Cameron Avenue, and construction is planned for summer 2013. Additional projects are in design for:

- Henderson Street, East Rosemary Street, and Hillsborough Street in downtown Chapel Hill;
- James Street near West Main Street;
- South Estes Drive and Willow Drive near University Mall; and
- Legion Road near Europa Drive.

Sewer projects: We recently completed renovation of several dozen manholes in Chapel Hill and Carrboro. Early in 2013, we will begin work to replace:

- A pressurized sewer in the Heritage Hills neighborhood and along Smith Level Road to the north.
- The sewer from the Friday Center to the Mason Farm Wastewater Treatment Plant. A larger pipe is needed to prevent overflows.
- Equipment at pump stations on Lancaster Drive and Tinkerbell Road on the east side of Chapel Hill.

Intergovernmental

- *Historic Rogers Road Area:* We continue to provide technical assistance to support the local governments' discussion of extending public sewer service in this area.
- *Mountains-to-Sea Trail (MST):* We continue to follow the County's work to identify an acceptable route for the proposed MST, and remain open to the possibility of that route passing through our property within the Cane Creek Reservoir watershed.
- *Orange County:* We will present an annual report for 2012 to the Orange County Board of Commissioners on February 5th.
- *Chapel Hill and Carrboro Committees:* We continue to meet with Committees of elected officials from the Towns to discuss matters of mutual interest, and we believe these opportunities to share information and perspectives are very important and useful.

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 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	0	0
August	1	0	4	3	11	2	9	0	1	1	2	2
September	2	5	2	2	9	3	1	1	5	1	1	1
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	0
December	3	3	2	5	8	10	2	1	1	6	3	3
TOTALS	55	25	37	25	86	45	51	23	23	30	34	28

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

October 2012 – December 2012

Date call received	Time call received	Location
10/14/2012	8:00 PM	Highland Woods Rd.
10/23/2012	3:45 PM	Highland Woods Rd.
12/4/2012	8:20 AM	Highland Woods Rd.
12/13/2012	7:00 PM	Highland Woods Rd.
12/15/2012	5:14 PM	Highland Woods Rd.

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

October - December, 2012

Date	Topic
Nov. 9, 2012	Quarterly Report with information on odor control program at the Mason Farm Wastewater Treatment Plant

DISTRIBUTION LIST FOR OWASA E-MAILS ABOUT WWTP ODOR-RELATED ITEMS
(January 18, 2013)

AREA	RESIDENT OR OTHER STAKEHOLDER
Highland Woods	Alice W. Neebe
	Paul Neebe
	Malcolm Forbes
	Natalia Lebedeva
	Gary Richman
	Gail Wood
	Robert and Melissa Porter
	Ann Schwab
	Seth Kingsbury
	Amanda Kingsbury
	Freeman and Angela Kirby
	Reed Johnson
	Kay Johnson
	Rex Bartles
	Lisa Bartles
	Mary Ellen Bierck
	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
	Angel Smith
Finley Forest	Adam Kimplead
	Cindy Underwood
	Dan Puckett
	Donna Kaye
	John Neal
	David J. Polewka
	Kathryn Conard
Michael Sharpe	

AREA	RESIDENT OR OTHER STAKEHOLDER
	Rima Wehbe
	Dan Choi
	Julie Maness
Laurel Hill	Mike Ramsey
	Bob Wendell
	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
	A.W. 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
	Jeanne and David Jarrett
	Nadine O'Malley
	Mark Witcher
	Ralph Abrahams
	Kathy Abrahams

AREA	RESIDENT OR OTHER STAKEHOLDER
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
	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
	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
	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
	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

AREA	RESIDENT OR OTHER STAKEHOLDER
	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	Brenda Duke, Duke Energy
	Steve Small, Duke Energy
	Rob Masterson, BellSouth/ATT
	Billy Miller, PSNC
	Time Warner Cable
Orange County	Orange 911 Center Supervisor on duty
	Tom Konsler, Environmental Health
Other	Meadowmont Apts.
	Bill Ferrell, Meadowmont Community Association
	Chamber of Commerce

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 2012	0.0002	0.0000	0.0161 ¹	0.0000	0.0000	0.0000	0.0000	0.0000	0.0049 ²	0.0000	0.0000	0.0000
November 2012	0.0006	0.0000	0.0056 ³	0.0000	0.0000	0.0000	0.0001	0.0000	0.0169 ⁴	0.0000	0.0000	0.0000
December 2012	0.0005	0.0000	0.0069 ⁵	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000 ⁶	0.0000	0.0000	0.0000

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 October 31, 2012 at 10:03 AM.

² Maximum reading occurred on October 29, 2012 at 5:15 AM.

³ Maximum reading occurred on November 30, 2012 at 6:28 AM.

⁴ Maximum reading occurred on November 11, 2012 at 8:32 AM.

⁵ Maximum reading occurred on December 10, 2012 at 8:18 AM.

⁶ Maximum reading occurred on December 1, 2012 at 12:00 AM.