



ORANGE WATER AND SEWER AUTHORITY

Quality Service Since 1977

April 28, 2009

Chair Valerie Foushee
Orange County
Post Office Box 8181
Hillsborough, NC 27278

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

Mayor Kevin Foy
Town of Chapel Hill
405 Martin Luther King Jr. Blvd.
Chapel Hill, NC 27514

Dear Chair Foushee, Mayor Chilton, and Mayor Foy:

Enclosed is an update on OWASA activities for the most recent quarter.

Please feel free to contact me or our staff if you would like an in-person presentation or further details about any of the items in the enclosed report.

Best regards,

Randy Kabrick, Chair
OWASA Board of Directors

Enclosure

- c: Ms. Laura Blackmon, Orange County Manager (w/encs.)
- Mr. Roger L. Stancil, Chapel Hill Town Manager (w/encs.)
- Mr. Steven Stewart, Carrboro Town Manager (w/encs.)
- OWASA Board of Directors (w/encs.)
- Ed Kerwin, OWASA Executive Director (w/encs.)



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Quarterly Report to Local Governments April 28, 2009

OWASA's August 29, 2008 Annual Report to Local Governments summarized major accomplishments and activities for Fiscal Year 2008 (July 2007 – June 2008). Reports of October 31, 2008 and January 28, 2009 updated that information through December, 2008. This current report provides new or revised information for the period of January through March, 2009. Additional materials are available on request. OWASA Board members and staff will be glad to provide presentations if desired.

Reservoirs Are Full and Demands Are Near Normal – OWASA's reservoirs have been full since late December 2008, and customer demands from July 1, 2008 through March 31, 2009 have been close to projections. We do not anticipate drought shortages during the coming months.

Fiscal Year (FY) 2010 Budget and Rate Process – Although OWASA's water demands and overall financial position are close to budgeted projections, water sales are significantly lower than 10 years ago. A continuing trend of lower potable water demand is the primary factor in our FY 2010 budget development and has required additional reductions and deferrals of operating costs and capital investments for both the immediate and long-term future – despite significant rate adjustments. Nearly 15 percent of OWASA's full-time positions are vacant. Excluding the cost of water and wastewater treatment chemicals, the draft FY 2010 budget reflects a reduction of nearly six percent from the current budget. These challenges are expected to persist beyond FY 2010 as we continue to balance costs with the ongoing need for essential services and a more sustainable long-term fiscal position.

Revised Conservation Standards – Proposed changes to OWASA's Water Conservation Standards were discussed at joint meetings with Carrboro, Chapel Hill, and Orange County elected officials in late February and early March. Revised Standards were formally adopted by the OWASA Board on March 26, 2009 and were transmitted to the Towns and County on April 7, 2009 for incorporation into their respective local ordinances.

Long-Range Water Supply Plan Update – We are conducting a thorough review of OWASA's long-term water supply plans for meeting the community's needs through 2060. Our technical consultants have delivered preliminary information about the costs and additional yield of several supplemental water supply options and have estimated how much water OWASA might obtain through our emergency interconnections to avoid critical shortages under different drought and demand conditions. Cost-benefit information is being developed for demand-management options, including the expanded use of reclaimed water and additional conservation initiatives, such as plumbing fixture rebates. OWASA staff is developing new estimates of future water demands under variable scenarios of community/University growth and is consulting with Carrboro, Chapel Hill, and UNC planners for additional input.

Regional Planning for Jordan Lake Water Supply – OWASA recently joined the Jordan Lake Partnership with the Towns of Apex, Cary, Hillsborough, Holly Springs, Morrisville, Pittsboro, the City of Durham, and the Counties of Chatham, Orange, and Wake. The Partnership’s goal is to “collaboratively define Jordan Lake’s role in a long-term sustainable and secure regional water supply for the Research Triangle Region.” Initial efforts will focus on gathering, reviewing, and refining relevant water supply information from Partnership members (e.g., demands, conservation measures, supply sources, future needs, etc.). Depending in large part on the findings of our Water Supply Plan Update described above, OWASA may then participate in a preliminary planning project for a western Jordan Lake water intake.

Reclaimed Water (RCW) System – The RCW pumping, storage, and pipeline facilities are now complete, and OWASA began providing RCW to UNC’s Tomkins Chiller on April 7, 2009. The University will bring additional chilled water plants on line in the coming months and plans to use RCW for other non-potable purposes, such as irrigation and toilet flushing, at selected locations in the near future. Although both the RCW facility and pipeline construction contracts are substantially complete, some final cleanup work still remains. A celebration to mark RCW system completion will be held on Monday, May 11th at 10:00 A.M. at the Gary R. Tomkins Chiller Plant off of Mason Farm Road on the UNC campus. Featured speakers will include Mr. Phillip Baddour, Executive Director of the NC Clean Water Management Trust Fund, and Congressman David Price. UNC Chancellor Holden Thorp will be the emcee.

Forest Stewardship on OWASA-Owned Properties – OWASA is one of the largest landowners (and owners of forested land) in Orange County, but we do not have a comprehensive management program for those properties. As stewards of our community’s water supply, OWASA also has an ongoing responsibility to manage our land and forest resources in a sustainable manner. At our request, representatives of the North Carolina Division of Forest Resources (NCDFR) examined some of our property and recommended that we develop and implement a proactive strategy for ensuring the sustainable management of the forest resources on our 3,000+ acres of land (not all is forested). NCDFR has also recommended specific near-term actions to resolve beetle infestation problems on some of that property.

Accordingly, we recently issued a request for consultant proposals to develop a Forest Stewardship Plan. The selected consulting forester will develop a management plan based on OWASA’s objectives for specifically identified properties. These objectives will focus on water quality and soil protection, wildlife enhancement, natural beauty, and timber production – but only to the extent that timber production will support the other objectives. We expect to select a consulting forester later this spring and to have a draft Forest Stewardship Plan developed later this summer. The request for proposals can be viewed at <http://www.owasa.org/Documents/DocView.aspx?IDX=1042>).

Capital Improvement Projects – Capital projects to improve the reliability of OWASA water and sewer systems are proceeding as described in the August 29, 2008 *Annual Report to Local Governments*. More recent highlights include:

- **Odor Elimination at the Mason Farm Wastewater Treatment Plant** – In accordance with our commitments to the Town of Chapel Hill and local homeowners, two projects are underway for additional improvements to cover and treat the foul air from the plant's three primary settling tanks (Phase 2) and eight of 16 aeration tanks (Phase 3). These projects represent a capital investment of \$4.5 million. Construction of the Phase 2 odor control improvements on the primary tanks began in February. All three tanks are scheduled to be covered, and foul air treatment equipment installed by the end of September 2009. Design of the Phase 3 odor control work at the aeration basins is complete, but Board's Finance Committee has recommended that Phase 3 construction be deferred for one year due to the significant and ongoing budget constraints noted above. If approved by the Board of Directors, Phase 3 construction would begin in FY 2011 with completion in FY 2012.
- **Meeting of the Waters Sewer Improvement** – This project included the installation of approximately one mile of new gravity sewer line between Manning Drive and the Mason Farm Wastewater Treatment Plant, as well as new water lines on Fern Lane and Old Mason Farm Road. The project is now complete except for some additional sewer work along the shoulder of Fordham Boulevard and final cleanup.
- **Cleland Drive Water and Sewer Improvements** – This project includes the replacement of the existing water line and the installation of a new gravity sewer along Cleland Drive to eliminate the need for the existing sewage pump station. The water line is complete, and work on the new sewer will be finished this spring.
- **North Columbia Street Water Line Replacement** – The replacement of portions of deteriorating water lines in north Columbia Street near the Chapel Hill fire station and along North Street began in December 2008 and is now complete. Final paving will be finished by the end of June.

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

January, 2002–April, 2009

	2002	2003	2004	2005	2006	2007 Reports	2007 Events	2008 Reports	2008 Events	2009 Reports	2009 Events
January	11	3	9	0	8	3	3	11	8	1	1
February	7	5	2	0	8	0	0	6	4	1	1
March	9	0	7	1	10	6	4	1	1	1	1
April	9	2	4	0	9	3	3	1	1	1	1
May	6	0	2	5	8	4	3	2	2		
June	4	1	1	1	5	1	1	13	8		
July	1	0	2	0	0	4	2	6	6		
August	1	0	4	3	11	2	2	12	9		
September	2	5	2	2	9	3	3	1	1		
October	2	6	1	1	8	9	8	2	2		
November	0	0	1	7	2	11	6	7	7		
December	3	3	2	5	8	16	10	2	2		
TOTALS	55	25	37	25	86	62	45	64	51	4	4

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**

February 2009 - April 2009

Date call received	Time call received	Location
2/7/2009	8:30 AM	Highland Woods
3/10/2009 ⁽¹⁾	4:30 PM	Woodbine Drive
4/19/2009	7:45 AM	Highland Woods

Notes:

⁽¹⁾ 3/10/2009 Complaint was sent by email

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

February-April 27, 2009

Date	Topic/Comments:
April 13, 2009	Status of Phase 2 odor elimination work on primary settling tanks, consideration of deferring Phase 3 improvements (covering 8 of 16 aeration basins)

**DISTRIBUTION LIST FOR OWASA E-MAILS ABOUT ODOR RELEASES FROM THE
MASON FARM WWTP AND RELATED ITEMS (April 24, 2009)**

Area	Name
Highland Woods	Alice W. Neebe
	Paul Neebe
	Malcolm Forbes
	Gary Richman
	Robert and Melissa Porter
	Peg Parker
	Jeffrey Tate and Anna Schwab
	Seth Kingsbury
	Amanda Kingsbury
	Abraham Nussbaum
	Elin Nussbaum
	Reed Johnson
	Rex Bartles
	Dan Pollitt
	Mary Ellen Bierck
	Barnes Bierck
	Nortin Hadler
	Carol Hadler
	Frank P. Rexford, President, Highland Woods Association
	Christina and Rex Page
	Ed Ludwig
	Joy Javits
	Gunilla Luboff
Fred Hall	
John and Anna K Schwab	
Mary Helen and Donald Hayman	
Finley Forest	Adam Kimplead
	Cindy Underwood
	Dan Puckett
	Donna Kaye
	David J. Polewka
	Kathryn Conard
	Michael Sharpe
	Rima Wehbe
	Dan Choi
	Julie Maness
Laurel Hill	Mike Ramsey
	Phyllis Barrett
	Bob Wendell, Pres. Laurel Hill Association
	Carol David
	Pat Evans

Area	Name
	Ewan Rodewald and Sharon Hodge
	Joe Ferrell
	Marcella Grendler
	Paul 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
Other	Aldersgate Methodist Church c/o Deil Wright
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
Ronald McDonald House	Shelly Day
Family House	Greg Kirkpatrick, Executive Director
	Janice Ross, Operations Manager
	Matt Hapgood
Reserve	Steve McPhail, President, Hunt's Reserve Homeowners
	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, 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.

Area	Name
	Mary Beth Koza, Director, Environment, Health and Safety
	Ross Fowler, Finley Golf Course
	Willie Scroggs, Athletic Department
	Michael Wilkinson, golf pro
	John Inman, Men's Golf Coach
	Sally Austin, Women's Golf Coach
	UNC Tennis Center
	UNC parking
	Mike McFarland, Corporate Relations
	Scott Ragland, Corporate Relations
	Lisa Katz, Corporate Relations
	Linda Convissor, Corporate Relations
	Jon Howes, Corporate Relations
	Married Student Housing Manager
	UNC Farm (Faculty Staff Recreation Association)
	Steve Reznick, UNC Farm Assoc President
	Jim McAdams, Energy Services
	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
	Richard Terrell, Public Works Operations Supt.
	Dan Jones, Fire Chief
	Caprice Mellon, Deputy Fire Chief
	Robert Bosworth, Deputy Fire Chief
	Catherine Lazorko, Public Information Officer
	Jennie Bob Culpepper, Planning Director
	David Bondk, Planner
	Phil Mason, Planner
	Sabrina Oliver, Town Clerk
	Sandy Kline, Deputy Town Clerk
	Larry Tucker, Engineering
	Bobby Pettiford, Inspections
	Brian Curran, Police Chief
	Kevin Gunter, Captain/ Police Information Officer
City Schools	Neil Pedersen, Superintendent
	Bill Mullin
	Todd LoFrese, Asst Supt. For Support Services

Area	Name
Other Utilities	Ken Kernodle, Duke Energy
	Steve Small, Duke Energy
	Rob Masterson, BellSouth/ATT
	Billy Miller, PSNC
	Time Warner Cable
Orange County	Clint Osburn, Emergency Management
	Orange 911 Center Supervisor on duty
	Mike Tapp, Fire Marshall
	Frank Montes de Oca, Emergency Services Director
	Tom Konsler, Environmental Health
Other	Meadowmont Apts.
	Bill Ferrell, Meadowmont Community Association
	Chamber of Commerce

**SUMMARY OF ON-SITE ODOR INSPECTIONS AND NUMBER OF TIMES
ODOR WAS DETECTED AT THE VARIOUS MONITORING SITES**

Month and year	Total Inspections	Entrance Gate (1)	Generator Bldg. (2)	Old Outfall (3)	UV Complex (4)	Solids Tanks (5)	Odor Scrubber (6)	Head-works (7)	Digesters (8)	UNC Bldg. (9)
Feb. 2009	38	8	7	0	0	5	12	16	14	7
Mar. 2009	33	12	8	7	1	9	13	19	19	14
Apr. 2009	42	6	6	3	0	4	6	13	16	7
Totals	113	26	21	10	0	18	31	48	49	28
%		11%	9%	4%	0%	8%	13%	21%	21%	13%

Notes:

- 1) All on-site odor events were characterized by the WWTP Operators as “Mild” with odors that would not be expected to create an off-site problem.

**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)
February 2009	OS	OS	OS	0.0006	0.0000	0.2381 ¹	0.0004	0.0000	0.4923 ²	0.0002	0.0000	0.4698 ³
March 2009	OS	OS	OS	0.0002	0.0000	0.4425 ⁴	0.0004	0.0000	0.5578 ⁵	0.0002	0.0000	0.5676 ⁶
April 2009*	OS	OS	OS	0.0001	0.0000	0.0194 ⁷	0.0007	0.0000	0.04503 ⁸	0.0000	0.0000	0.0124 ⁹

Notes:

*April 2009 data through 4/28/09.

OS – Unit Out of Service (OS). Sent to manufacturer for repair and calibration.

¹ Maximum reading occurred on February 26, 2009 at 12:34 PM.

² Maximum reading occurred on February 26, 2009 at 12:25 PM.

³ Maximum reading occurred on February 26, 2009 at 1:30 PM.

⁴ Maximum reading occurred on March 4, 2009 at 9:55 AM.

⁵ Maximum reading occurred on March 11, 2009 at 11:55 AM.

⁶ Maximum reading occurred on March 4, 2009 at 9:25 AM.

⁷ Maximum reading occurred on April 27, 2009 at 9:30 PM.

⁸ Maximum reading occurred on April 7, 2009 at 10:13 AM.

⁹ Maximum reading occurred on April 26, 2009 at 5:45 AM.

Monitor Locations (see attached location map):

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.