



ORANGE WATER AND SEWER AUTHORITY

AGENDA #6

Quality Service Since 1977

April 29, 2008

Barry Jacobs, Chair
Orange County Board of
Commissioners
P.O. Box 8181
Hillsborough, NC 27278

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

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

Dear Chair Jacobs, Mayor Chilton and Mayor Foy:

We are pleased to submit the enclosed report of OWASA activities for the period January 1, 2008 through April 29, 2008.

We are continuing to closely monitor water supply, demand, weather forecasts, as well as the drought's impacts on OWASA's fiscal status. Recent rains have significantly improved our water supply condition, while continued customer conservation has resulted in demands that are still 25 percent below normal for April. The good news is that our overall supply and demand situation looks much better for the coming summer; the bad news is this year's reduced demands, projected reductions for next year, and a 40 percent decline in service availability fee revenues for new water and sewer connections have created an unfortunate combination of fiscal challenges for OWASA. These issues are outlined in the attached report, as well an update of other activities of interest to you and the citizens we all serve.

We welcome the opportunity to respond to any questions you may have, and we invite your feedback on our plans and services to the community.

Best regards,

Randy Kabrick, P.E.
Chair of the OWASA Board

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 29, 2008

OWASA's September 4, 2007 Annual Report to Local Governments summarized major accomplishments and activities for Fiscal Year 2007 (July 2006 – June 2007). Quarterly reports of October 30, 2007 and February 8, 2008 provided updates through December. This current report provides information for the period January – April, 2008. Additional materials are available on request. OWASA Board members and staff will be glad to provide presentations if desired.

Water Supply – Stage One water use restrictions and surcharges went into effect earlier this month. Our reservoirs had risen from 40 percent full in late February to 70 percent full in early April. Despite the easing of restrictions, and as generally expected, customer demands have remained 25 percent below normal since Stage One was declared. As of this writing (April 29, 2008), OWASA's Cane Creek, University Lake, and Stone Quarry reservoirs contain 2.83 billion gallons of water, or 79 percent of capacity. Under worst case conditions of no further rainfall and streamflow, and assuming customer demands in the range of 7 to 9 million gallons per day, this represents between 10 and 12 months of water remaining in storage. OWASA staff and Board will monitor supply and demand conditions closely during the coming months and continue providing the Towns and County with frequent updates.

Financial Effects of the Drought and Economic Slowdown – We estimate that reduced customer consumption will result in \$1.2 million to \$1.8 million less water and sewer revenue than anticipated in OWASA's current budget. Service availability fee revenues for new connections are approximately \$1.5 million below budget for the current year due to reduced construction activity. Although we remain on track to offset \$1.3 million of the projected deficit through reduced spending measures already in place, we expect to end the current fiscal year with an overall net revenue deficit and a marginal debt service coverage ratio.

Recommended Rate Increases for FY 2009 – OWASA's Budget and Financial Planning Committee has recommended an overall water and sewer rate increase of 12 percent, effective October 1, 2008. A similar 12 percent increase is projected to be needed the following year. The preliminary budget assumes that FY 2009 water demands will be 13 percent less and service availability revenues for new connections will be 40 percent less than previously projected. Energy and chemical costs for water and wastewater treatment will increase substantially, and employee health insurance benefits are expected to rise between 30 and 40 percent. Limiting the overall rate increase to 12 percent will require OWASA to keep at least 7 existing vacant positions unfilled during FY 2009 and that reserve funds be reduced from four months to three months of operating expenses. The Board of Directors will consider these recommendations and comments from the general public before adopting a final budget and rates in June.

OWASA's draft Capital Improvements Plan (CIP) for the next 5 years has been reduced to one-third of the amount of the previous 5 years. Virtually all remaining projects are non-discretionary and represent activities already under contract. The only significant opportunity for reducing near-term capital expenditures appears to be through deferral of the remaining \$3.1 million of Mason Farm Wastewater Treatment Plant odor elimination projects previously programmed for Fiscal Years 2009 through 2011.

The Budget and Financial Planning Committee has recommended that the planned odor work be deferred for three years. To fund the odor improvements as currently scheduled would require rate increases of 17 percent, rather than 12 percent, in each of the next two years. We have invited neighbors of the wastewater plant to address the Board of Directors at their May 8, 2008 meeting. The Board will also consider comments from Chapel Hill Town Council members.

Jordan Lake Water Supply – As described at the March 31, 2008 Orange County Assembly of Governments meeting, OWASA will participate in staff discussions with Durham (City) and Chatham County representatives about opportunities for the joint development of additional water supply facilities at Jordan Lake. OWASA has a Jordan Lake water storage allocation of about 5 million gallons per day. Durham will be the lead agency for investigating the feasibility of several options, which have not yet been defined.

Jordan Lake represents a possible water supply supplement for OWASA if the current plans for additional conservation and reclaimed water fall short of our goal of reducing future demands before the expanded Stone Quarry Reservoir is in service by the mid-2030s. Jordan Lake could also provide a critically important back-up supply during droughts or other water supply emergencies. Two severe droughts in the past six years have further increased our awareness of the need for greater flexibility and additional water supply options.

We will evaluate the estimated costs, benefits, and other considerations of a potential joint Jordan Lake effort as part of an overall update of our long-term water supply plan. Other water supply options to be evaluated will include expanding the reclaimed water system and/or achieving greater demand reduction through additional conservation. The OWASA Board welcomes additional comments from the elected Boards of Carrboro, Chapel Hill, and Orange County.

Additional Conservation and Demand Management Activities – A work group of OWASA, Carrboro, Chapel Hill, and Orange County staff prepared a comprehensive report entitled *Collaborative Water Conservation Strategies for Joint Consideration by Carrboro, Chapel Hill and Orange County* and also developed short- and longer-term (draft) recommendations. These documents were endorsed by the OWASA Board on February 14, 2008 and forwarded to the Carrboro, Chapel Hill, and Orange County governing boards for consideration. The Carrboro Board of Aldermen and the Orange County Commissioners endorsed the recommendations and have directed their staffs to

continue working together with OWASA staff to further evaluate the strategies and to develop potential implementation plans. The Chapel Hill Town Council will consider endorsing this effort at its May 19th meeting.

OWASA staff has been working with another inter-local staff group to coordinate and strengthen our collective drought response efforts.

As discussed below, construction of the new reclaimed water (RCW) system is now underway and expected to be complete in the Spring of 2009. When placed into service, the RCW system will reduce drinking water demands by about 0.675 million gallons per day, or about 7 percent of current demand. The University has announced plans to expand the use of reclaimed water at a faster pace than previously planned.

Mason Farm Wastewater Treatment Plant – Work on three additional odor elimination improvements was completed in December 2007. Recent data on odor incidents, customer notification, etc. are attached to this Quarterly Report. While investigating an increase in odor events this past winter, we determined that the new covered head works (where wastewater enters the plant) was not properly containing odors. After making improvements to correct this matter, odor events declined to one each during March and April, compared to 10, 8, and 4 from December through February.

Capital Improvement Projects – Highlights of ongoing or recently completed projects are described below.

Construction is complete at a new treated water pump station near **Interstate 40**. Along with the new 16-inch water line on **Old Durham Road**, the pump station increases OWASA's ability to send or receive treated drinking water from Durham during emergencies or during system maintenance. Older pump stations on **Ephesus Church Road** and on **Old Durham Road** were decommissioned as part of the same project.

We continue to replace aging water mains in order to maintain water service reliability. Replacement projects have been completed in the **Colony Woods** neighborhood, and additional water line replacement projects are underway at **Pearl Lane** near Barbee Chapel Road and at **Brookside Condominiums** near Hillsborough Street. Others are now being designed for Lexington Road in the **Heritage Hills** neighborhood, the intersection of **N. Columbia Street** and **North Street**, and at three UNC campus locations near **Cameron Avenue**.

The project to remove the **Cleland Drive** pump station and replace a major portion of the Cleland Drive water line is underway and is expected to be complete next winter (2008).

A project to increase the capacity of the Morgan Creek sewer in the Town of Chapel Hill's **Morgan Creek Preserve** property began in February 2008 and will be completed this summer. Design for this was closely coordinated with Chapel Hill's greenway plans.

Construction of the **Meeting of the Waters** Interceptor Sewer and the Reclaimed Water Pipeline projects, as well as the Reclaimed Water Pumping and Storage Facilities project, began in January 2008. Bores under **Manning Drive** and **15-501** were completed on schedule in April 2008. Construction is expected to be substantially complete on both of these projects next spring (2009).

Sewer system rehabilitation projects currently under design include manhole work at **Finley Golf Course Road** and on sewer mains near a creek between **Sandy Creek Trail** and **Hillcrest Circle** in Chapel Hill.

Carolina North – OWASA staff continue to work with UNC staff and the University's utility consultants about potential water conservation, reclaimed water applications, and other utility issues for Carolina North.

Greene Tract and Rogers Road Area – OWASA staff have continued to provide water and sewer information and to attend meetings in support of various Carrboro, Chapel Hill, and Orange County activities in the **Rogers Road/Greene Tract** vicinity.

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

January, 2002–April, 2008

	2002	2003	2004	2005	2006	2007 Reports	2007 Events	2008 Reports	2008 Events
January	11	3	9	0	8	3	3	11	8
February	7	5	2	0	8	0	0	6	4
March	9	0	7	1	10	6	4	1	1
April	9	2	4	0	9	3	3	1*	1*
May	6	0	2	5	8	4	3		
June	4	1	1	1	5	1	1		
July	1	0	2	0	0	4	2		
August	1	0	4	3	11	2	2		
September	2	5	2	2	9	3	3		
October	2	6	1	1	8	9	8		
November	0	0	1	7	2	11	6		
December	3	3	2	5	8	16	10		
TOTALS	55	25	37	25	86	62	45	19	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.

*Information shown for April 2008 is through April 29, 2008.

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

February 2008-April 2008

date	time	location
February 2, 2008	6:10 PM	Highland Woods Road
February 5, 2008	6.44 PM	Highland Woods Road
February 11, 2008	6:53 PM	Highland Woods Road
February 11, 2008	6:39 PM	Highland Woods Road
February 11, 2008	6:48 PM	Highland Woods Road
February 15, 2008	7:38 PM	Highland Woods Road
March 2, 2008	8:12 PM	Highland Woods Road
April 18, 2008	8:35 AM	Highland Woods Road

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

February 1-April 29, 2008

Date	Topic/Comments:
February 4, 2008	Investigation and actions to address recent increase in odor.
February 8, 2008	Notice of possible odor release during maintenance work on odor scrubber.
February 12, 2008	Notice of possible odor release during rescheduled maintenance of odor scrubber.
March 4, 2008	Potential release of odor during maintenance work at two solids digesters on March 5 th .
March 13, 2008	News release regarding overflow of partially treated wastewater within the Mason Farm WWTP site; wastewater recaptured, Morgan Creek not affected.
April 25, 2008	Information regarding staff and Finance Committee recommendation to defer additional odor elimination improvements, invitation to citizens to comment at the May 8 th OWASA Board meeting.
April 28, 2008	Notice about increased truck traffic on Old Mason Farm Road on Thursday, May 1 st , due to reclaimed water project.

**DISTRIBUTION LIST FOR OWASA E-MAILS ABOUT ODOR RELEASES FROM
THE MASON FARM WWTP AND RELATED ITEMS (April 25, 2008)**

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
	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
	Kathryn Conard
	Dan Choi
	Julie Maness
	Maria Fernandez
Laurel Hill Road area	Phyllis Barrett
	Bob Wendell, Pres. Laurel Hill Association
	Carol David
	Pat Evans
	Ewan Rodewald and Sharon Hodge
	David Batty

	Joe Ferrell
	Dr. Sian Kwa
	Marcella and Paul Grendler
	Carolyn Goldfinch
	Carol Hazard and Winston Liao
	Dick and Marie Clark
	Kay Goldstein
	Ann Wilson
St. Thomas More Church/School	St. Thomas More staff
	Carlos Lima
Morgan Creek area	Ellen Johnson
	Betsy Malpass
	Hanson Malpass
	Laura King Moore
	Jeanne Langley
	John Pendergrass
	Gary Glish
	Jeannie Cox
Ronald McDonald House	Shelley Day
Family House	Matt Hapgood
Reserve	Steve McPhail, President, Hunt's Reserve Homeowners
	Steven and Susan Frye
	Doug Longman
	Barbara and Edward Paradise
	Jeanne and David Jarrett
	Nadine O'Malley
	Mark Witcher
	Ralph Abrahams
	Kathy Abrahams
	Mike Ramsey
Bayberry Drive area	William Ware
UNC	Jim Ward, NC Botanical Garden
	Jim Ward--home
	Peter White, NC Botanical Garden
	Johnny Randall, 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
	Brent Webber, Environment, Health and Safety
	Ross Fowler
	Willie Scroggs
	Michael Wilkinson, golf pro
	John Inman, Men's Golf Coach
	Sally Austin, Women's Golf Coach
	Jeff McCracken, Public Safety

	Aaron Bednar, Public Safety
	UNC parking
	Mike McFarland, Corporate Relations
	Scott Ragland, Corporate Relations
	Lisa Katz, Corporate Relations
	Linda Convissor, Corporate Relations
	Jon Howes, Corporate Relations
UNC Hospitals	Lynn Wooten, Corporate Relations
	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.
	Greg Ling, Street Supervisor
	Robert Sykes, Public Works
	Dan Jones, Fire Chief
	Caprice Mellon, Deputy Fire Chief
	Robert Bosworth, Fire Department
	Brian Curran, Police Chief
	Bob Overton, Police Captain
	George Small, Town Engineer
	Larry Tucker, Engineering
	Steve Spade, Transportation Director
	Butch Kisiah, Parks and Recreation Director
	Bill Webster, Parks and Recreation
	Ted Hobgood
	Catherine Lazorko, Public Information Officer
	Bobby Pettiford, Inspections
	Jennie Bob Culpepper, Planning Director
	Phil Mason, Planner
	Kumar Neppalli, Traffic Engineer
	Sabrina Oliver, Town Clerk
	Sandy Kline, Deputy Town Clerk
City Schools	Neil Pedersen, Superintendent
	Steve Scroggs
	Bill Mullin
Orange County	Orange 911 Center Supervisor on duty
Other Utilities	Ken Kernodle, Duke Energy
	Steve Small, Duke Energy
	Billy Miller, PSNC
	Time Warner Cable
	Scott Beasley, BellSouth/ATT
	Rob Masterson, BellSouth/ATT

Other	Aldersgate Methodist Church c/o Deil Wright
	Chamber of Commerce

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

ON-SITE:

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. 2008	85	21	19	0	4	9	12	21	31	8
Mar. 2008	77	2	3	1	3	4	13	17	17	7
Apr. 2008 *	34	3	3	0	0	3	3	4	5	2
Totals	196	26	25	1	7	16	28	42	53	17
%	----	12%	12%	0%	3%	7%	13%	20%	25%	8%

OFF-SITE:

Month and year	Total Inspections	Mc Donald House (1)	Highland Woods-A (2)	Highland Woods-B (3)	Athletic Assoc. (4)	Finley GC (5)	Silers Fen Ct. (6)	Morgan Cliff Ct. (7)	Kings Mill Rd. (8)	Laurel Hill Rd. (9)	Botanical Garden (10)
Feb. 2008	3	0	0	1	0	1	0	0	0	0	0
Mar. 2008	1	0	0	0	0	0	0	0	0	0	0
Apr. 2008 *	1	0	0	0	0	0	0	0	0	0	0
Totals	5	0	0	1	0	1	0	0	0	0	0
%	----	0%	0%	50%	0%	50%	0%	0%	0%	0%	0%

Notes:

- 1) All odor events were characterized by the WWTP Operators as “Mild” with odors that would not be expected to create an off-site problem.
- 2) Strong odors were detected on February 11, 2008 in the off-site investigation near Finley Golf Course Road.

* through April 24, 2008