



ORANGE WATER & SEWER AUTHORITY

Quality Service Since 1977

Agenda #6a

April 30, 2007

Chair Moses Carey, Jr.
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 Carey, Mayor Chilton, and Mayor Foy:

Enclosed is an update on OWASA activities for the most recent quarter. We have focused on items likely to be of most interest to you and your colleagues, especially as they may directly affect our community.

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.

Sincerely,

Michael A. (Mac) Clarke, Chair
OWASA Board of Directors

Enclosure

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



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Quality Service Since 1977

Quarterly Report to Local Governments April 30, 2007

OWASA's September 6, 2006 Annual Report to Local Governments summarized major accomplishments and activities for Fiscal Year 2006 (July 2005 – June 2006). Updated quarterly reports dated November 6, 2006 and February 7, 2007 noted additional activities through January 2007. This current update provides new or revised information through the most recent period. Additional materials are available on request. OWASA Board members and staff will be glad to provide presentations if desired.

Water Supply – Both reservoirs are currently full, and streamflows are normal for this time of the year. Rainfall for the past 12 months has been above the 30-year average for our area, and the likelihood of OWASA's water supplies declining to critical levels within the next 18 months is very low. Despite the near-term reliability of our supply, OWASA and local government staff have continued to meet regularly to develop specific recommendations for greater water efficiency in new and existing development to address longer-term water conservation needs. A joint report will be drafted later this year. During March, 101 people attended three Sustainable Landscaping Workshops hosted by OWASA and the **Orange County Cooperative Extension Service**.

OWASA/UNC Water Reclamation Project – Final design and permitting of the Reclaimed Water Pumping and Storage Facilities project and the Reclaimed Water Transmission Main project (including the **Meeting of the Waters Interceptor Sewer Replacement**) will be completed this summer. Construction of the transmission main is expected to begin during the summer, and construction of the pumping and storage facilities is expected to begin during the fall. All Town Council approvals have been obtained for these projects. Administrative approval of compliance with new Special Use Permit stipulations for the pumping and storage facilities is still needed. Additional neighborhood meetings to receive public comment about construction of the reclaimed water transmission line, which will be installed in conjunction with the replacement/upgrade of the Meeting-of-the-Waters sewer main, will be held closer to the start of and periodically during construction. The overall reclaimed water project is expected to be substantially complete in late 2008.

Rate Study and Strategic Financial Planning – OWASA's comprehensive study of water, sewer, and reclaimed water rates and fees is nearly complete. Key findings to date include: higher than normal rate increases will be required to achieve the Board's adopted debt coverage goal and to finance capital improvements over the next several years; major shifts in cost allocations between water and sewer service will result in higher increases in sewer rates and fees (including connection fees) than for water; and an increasing block rate structure for residential customers will provide a stronger

conservation pricing signal. Proposed revisions will ensure that rates recover the full cost of service and that growth pays for growth. In an April 2, 2007 letter to the Mayors of Carrboro and Chapel Hill and to the Chair of the Orange County Board of Commissioners, OWASA Chair Mac Clarke explained the proposed rate changes and increases and requested an opportunity to make presentations to each elected board. These have been scheduled for May 15 (Carrboro Board of Aldermen and Orange County Commissioners) and May 21 (Chapel Hill Town Council). The OWASA Board will receive comments from all interested parties at its May 10 and May 24, 2007 meetings before taking action on proposed revisions to the rates and fees. Changes would become effective on October 1, 2007.

Sustainability Goal and Objectives – The Board of Directors adopted a *Statement of OWASA's Sustainability Goal and Objectives* at its April 26, 2007 meeting. The policy statement sets forth OWASA's sustainability values and approach and describes the overall vision and commitment to integrating these values and practices into our services. The statement addresses the "triple bottom line" of sustainability – environmental stewardship, economic strength, and social integrity – as interdependent components of a comprehensive sustainability ethic and philosophy.

Local Greenhouse Gas Inventory and Action Plan - OWASA staff continues to participate with the interlocal Joint Committee comprised of Carrboro, Chapel Hill, Orange County, and UNC staff. This group provides coordinated technical assistance and planning for the local inventory and planning under the International Council of Local Environmental Initiatives (ICLEI) – Cities for Climate Protection Program. The program consultant will provide a revised draft greenhouse gas emissions inventory and preliminary draft Local Action Plan in June. Public outreach and involvement is anticipated later this summer. Local governing boards may consider the report and the Plan's implications sometime in early winter, 2008.

Rogers Road Area – On March 22, 2007, OWASA staff addressed the Town of Chapel Hill's **Rogers Road Small Area Plan Task Force**. Information included conceptual layouts and preliminary cost estimates for sewer service to the Rogers Road community, OWASA's assessment process, and general information about utility rates and fees.

Mason Farm Wastewater Treatment Plant – The overall Mason Farm construction project is scheduled to be substantially complete by late summer, with final completion in the fall.

In March 2007, we began constructing a new **biosolids dewatering facility**, which will further reduce the amount of liquid in our biosolids. This will increase the operational flexibility, economy, and long-term sustainability of our biosolids program. We expect the new dewatering system to be operating by the fall of 2007.

Elimination of Off-site Odor from the Mason Farm Wastewater Treatment Plant (WWTP)–

The following odor elimination actions are on schedule or completed:

- New headworks facility to be covered by July 31, 2007 (highest odor elimination priority).
- Covering of the following additional facilities will be completed by December 31, 2007: splitter boxes for primary clarifiers, internal pump station wet wells, and influent channel for aeration basins.
- Additional odor modeling was completed in April to evaluate whether further capital improvements, such as covering aeration basins and/or primary clarifiers, are needed to meet the odor elimination goal.

The OWASA Board received customers' comments on April 12th regarding the draft definition of odor elimination as further developed with representatives of Highland Woods and the NC Botanical Garden this spring. Comments from a neighborhood representative indicated that remaining items will be resolved.

At the April 12th Board meeting, OWASA staff proposed including several WWTP odor elimination projects in the 2008-2012 Capital Improvements Program (CIP). These include:

- Complete the design for covering 8 aeration basins and 3 primary clarifiers during Fiscal Year (FY) 2008.
- Complete construction for covering 8 aeration basins in FY 2009 at an estimated cost of \$1.5 million.
- Complete construction for covering 3 primary clarifiers in FY 2010 and FY 2011 at an estimated cost of \$1.5 million.

Biosolids Management – OWASA's practice of applying liquid biosolids (highly treated wastewater sludge) to agricultural land is limited by increasing biosolids volume, weather conditions, crop planting and harvest schedules, availability of land, transportation costs, and other factors. Several emerging issues and trends could affect the future viability and capability of our present approach and suggest the need for a more diversified program. A draft Biosolids Master Plan, scheduled for completion this spring, will form the basis of a more comprehensive long-term strategy. The report will discuss technical options, regulatory issues, markets for beneficial reuse, and the technical/economic feasibility of different approaches. The draft will include a short list of promising options, but OWASA will not select a single preferred strategy before receiving comments from community stakeholders.

Capital Improvement Projects – OWASA's capital improvements program includes a number of projects that will involve local permits and/or affect local neighborhoods.

Construction of a new pump station on **Old Durham Road west of Interstate-40** began during the past year. The Notice to Proceed was issued in October 2006. This facility will increase our ability to transfer treated drinking water from the Durham system if necessary. We have evaluated several properties near **Barbee Chapel Road and NC 54** for their suitability as sites for a future booster pump that would increase OWASA's water transfer capacity with Durham. We hope to acquire an easement from the developers of the **Woodmont** project, although actual pump station construction is not planned until 2015-2016.

OWASA continues to replace aging water mains to maintain and enhance water service reliability. Two of four phases of work have been completed in Chapel Hill's **Colony Woods neighborhood**. Work will continue during the next year. A water line replacement project was designed and completed on **Watters Road in Carrboro**, and construction has begun for a water main replacement along **NC Highway 54 between Hatch Road and Brookfield Drive**.

A sewer project in **Carrboro** will allow the **Lloyd Street and Starlite Drive pump stations** to be eliminated and will provide sewer service to several unserved properties in the neighborhood. Construction began in March 2007 and will be complete by the end of September. The project will include some work in **Carrboro's Baldwin Park**.

More than a mile of aging sewer lines need to be replaced in a major project on portions of OWASA's large interceptor sewer along **Bolin Creek between Estes Drive Extension and Martin Luther King, Jr. Boulevard**. Engineering design began last spring (2006), and the final design will be complete this May. Federal, State, and local permits will be requested, but construction has been postponed due to budget constraints.

The **Bolin Creek Basin Sewer Rehabilitation** project that began in March 2006 encompasses a larger portion of OWASA's service area than the interceptor project described above. Improvements are being made to sections of sewer mains with previously identified problems. The project includes video inspections, pipeline cleaning, and the addition of liners to seal the inside of selected sewers. Some sections of sewer lines will be entirely replaced, and leaking/defective manholes will be repaired as needed. The project is scheduled for completion this spring.

A water and sewer main replacement project was completed at **Fetzer Lane at 206 West Cameron Avenue in Chapel Hill**.

The closing of OWASA's **Clayton Road sewer pump station** was originally scheduled to begin later this year, but budget constraints have required postponing the project until FY 2012-2013.

Two new pumps are being installed at OWASA's **Stone Quarry Reservoir** to increase our water pumping capacity from 1 to 6 million gallons per day. Because this project will allow us to pump directly from the Quarry Reservoir to the Jones Ferry Road Water Treatment Plant (rather than from University Lake via Phil's Creek), it will increase our flexibility and reliability during droughts and system maintenance. The project will be completed this spring.

Carolina North – OWASA was represented on the University's **Carolina North Leadership Advisory Council (LAC)** by Vice Chair Randy Kabrick. The LAC completed its final report in January. OWASA staff participated in a series of **Carolina North Infrastructure Workshops** during November and December 2006 and is now providing technical information to the University's utility consultant for the project. We expect to provide updated estimates of the expected effects, if any, that Carolina North will have on OWASA's water and sewer system as development plans for Carolina North are presented during the coming months. The University plans to submit more specific development proposals to the Town of Chapel Hill during the fall of 2007.

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

February-April, 2007

	2002	2003	2004	2005	2006	2007
January	11	3	9	0	8	3
February	7	5	2	0	8	0
March	9	0	7	1	10	6
April	9	2	4	0	9	3
May	6	0	2	5	8	
June	4	1	1	1	5	
July	1	0	2	0	0	
August	1	0	4	3	11	
September	2	5	2	2	9	
October	2	6	1	1	8	
November	0	0	1	7	2	
December	3	3	2	5	8	
TOTALS	55	25	37	25	86	12 (year to date)

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

February- April, 2007

date	time	location
3/03/2007	11:20 PM	Highland Woods
3/15/2007	10:24 PM	Highland Woods
03/22/2007	10:14 PM	Highland Woods
03/22/2007	10:40 PM	Highland Woods
03/26/2007	7:53 PM	Highland Woods
03/26/2007	7:51 PM	Highland Woods
04/22/07	9:00 PM	Highland Woods
04/27/2007	Evening	Highland Woods
04/29/2007	12:08 AM	Highland Woods

E-mails from OWASA to neighbors
of the Mason Farm Wastewater Treatment Plant (WWTP)
regarding expected odor releases and related items

February-April, 2007

Date	Topic/Comments:
February 9	Copy of quarterly report from OWASA to the Town of Chapel Hill
April 5	Invitation and notice of OWASA Board meeting on April 12 th with staff report and recommendations re WWTP odor elimination program and definition of odor elimination
April 5	Notice of expected odor releases (retracted same day)
April 11	Notice of possible odor for about one week starting April 19 th

**DISTRIBUTION LIST FOR OWASA E-MAILS ABOUT ODOR RELEASES FROM
THE MASON FARM WWTP AND RELATED ITEMS (April 30, 2007)**

NEIGHBORHOOD/ORGANIZATION	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
	Kay Johnson
	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, President, Highland Woods Association
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
	Dan Choi
	Julie Maness
	Maria Fernandez
	Laurel Hill Road area
Phyllis Barrett	
Bob Wendell, President, Laurel Hill Association	
Carol David	
Pat Evans	
Ewan Rodewald and Sharon Hodge	
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 and School	St. Thomas More staff
	Carlos Lima
Morgan Creek area	Ellen Johnson
	Betsy Malpass
	Hanson Malpass
	Robert Ferrier
	Laura King Moore
	Jeanne Langley
	John Pendergrass
	AW Carr
	Gary Glish
Ronald McDonald House	Shelly Day
Family House	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--office
	Jim Ward--home
	Peter White, Director
	Johnny Randall, Assistant Director
	Carolyn Elfland, Assoc. Vice Chancellor
	Ray DuBose, Energy Services Director
	Margaret Holton, Water, Sewer & Stormwater Coord.
	Raymond Hackney, 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
	Aaron Bednar
	UNC Tennis Center
	UNC parking
	Mike McFarland, Corporate Relations
	Scott Ragland, Corporate Relations

	Lisa Katz, Corporate Relations
	Linda Convissor, Corporate Relations
	Jonathan Howes, Corporate Relations
	Married Student Housing Manager
	UNC Farm (Faculty Staff Recreation Association)
	Steve Reznick, UNC Farm Association President
	Jim McAdams, Energy Services
	Jim Alty, Facility Services
	Cameron Smith, Construction Management
UNC Hospitals	Lynn Wooten, Corporate Relations
	Mel Hurston
	Karen McCall
	M. Patrick Wall, Plant Engineering/Maintenance
Town of Chapel Hill	Roger Stancil, Town Manager
	Florentine A. Miller, Deputy Town Manager
	Bruce Heflin, Asst Town Manager
	Ralph Karpinos, Town Attorney
	Bill Letteri, Public Works Director
	Richard Terrell, Public Works Operations Supt.
	Greg Ling, Street Supervisor
	Robert Sykes, Public Works
	Dan Jones, Fire Chief
	Robert Bosworth, Deputy Fire Chief
	Gregg Jarvies, Police Chief
	Jane Cousins, Police Planner
	Bob Overton, Police Captain
	Brian Curran, Police
	Richard Terrell, PW Operations Supt.
	George Small, Town Engineer
	Larry Tucker, Engineering
	Steve Spade, Transportation Director
	Kurt Neufeng, Transit
	Bill Webster, Interim Parks and Recreation Director
	Ted Hobgood, Manager's Office
	Catherine Lazorko, Town Information Officer
	Lance Norris, Inspections Director
	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	Kent McKenzie, Acting Director
	Orange 911 Center Supervisor on duty
	Mike Tapp, Fire Marshall
	Tom Konsler, Environmental Health
Other Utilities	Davis Montgomery, Duke Energy

	Steve Small, Duke Energy
	Billy Miller, PSNC
	Time Warner Cable
	Troy Ellis, ATT/BellSouth
Other	Aldersgate Methodist Church c/o Deil Wright
	Aurora Restaurant
	Meadowmont Apts.
	Dave Hill, Meadowmont Homeowners
	Contractor (Mike Angelli, Pizzagalli Construction)
	Pat Porter, Oaks Condominiums Owners Assoc.
	Vanessa Blackwood-Spinks, Glen Lennox Apts. Mgr.
	Aaron Nelson, 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. 2007	85	16	13	0	0	15	12	25	19	4
Mar. 2007	96	11	18	1	0	16	6	27	14	5
Apr. 2007	92	18	25	3	4	20	13	32	21	10
Totals	273	45	56	4	4	51	31	84	54	19
%	----	13%	16%	1%	1%	15%	9%	24%	16%	5%

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. 2007	0	-	-	-	-	-	-	-	-	-	-
Mar. 2007	4	1	1	1	1	1	1	1	1	0	0
Apr. 2007	1	0	0	0	0	1	0	0	0	0	0
Totals	6	1	1	1	1	2	1	1	1	0	0
%	----	11%	11%	11%	11%	22%	11%	11%	11%	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 in the March 26, 2007 off-site investigation near Ronald McDonald House and Finley Golf Course Road.