



ORANGE WATER & SEWER AUTHORITY

Quality Service Since 1977

Agenda #5b

September 4, 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 our annual report for 2006-2007. We believe that this summary of recent and upcoming activities reflects OWASA's commitment to a high level of customer service and environmental stewardship, efficient management, affordable rates, and community collaboration to which you and our customers are entitled.

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 (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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Annual Report to Local Governments September 4, 2007

This report summarizes major OWASA accomplishments from July 2006 through June 2007. We have selected items that we believe are most likely to be of interest to the governing boards of Carrboro, Chapel Hill, and Orange County. Additional information is available on request, and OWASA Board members or staff will be glad to provide presentations if desired.

Water Supply Advisory – In response to continuing drought conditions and decreasing reservoir levels, the OWASA Board of Directors declared a Water Supply Advisory on August 23, 2007 alerting our customers that additional water use restrictions may be needed if supply/demand conditions do not improve in the coming months. As of September 1, OWASA's University Lake and Cane Creek Reservoir were 47 percent full, with approximately 2.3 billion gallons, or about seven months of supply remaining. Due to the large storage capacity of our system, there is little risk of running out of water this year, but we could face a more serious shortage next year – when it will be too late to catch up – if rainfall and streamflow are less than normal the coming winter,

OWASA and its customers have achieved significant water savings since the record drought of 2002. Water pumped from our reservoirs from January through August, 2007 has been about 20 percent less than during the same months of 2002. This reduction also reflects "process water" recycling at our Jones Ferry Road Water Treatment Plant, (Water used to clean treatment plant filters is now recycled rather than discarded.) Further demand reductions are expected when the OWASA/UNC reclaimed water system begins operating in 2009.

New Residential Water Rates to Encourage Farther Conservation - With the assistance of a consultant, OWASA completed a detailed study this year of all customer rates and fees. The Board of Directors adopted an increasing block rate structure for individually-metered residential customers while maintaining seasonal water conservation rates for other customers. The Board also instituted a monthly 15,000 gallon sewer billing cap to address the issue of irrigation water that is not returned to the sewer system. The adopted rates represent an overall increase of about 9.5 percent, which will help pay for capital improvements and to strengthen OWASA's overall financial position. The Board also approved higher water and sewer service availability fees (connection/capacity charges) to ensure that new customers and new development pay their fair share of OWASA's capacity to serve that new development.

Mason Farm Wastewater Treatment Plant (WWTP) – Construction began in May 2004 on the \$50+ million upgrade and expansion of OWASA's wastewater plant and was substantially complete as of early August, 2007. The plant's capacity has been increased from 12 million gallons per day (mgd) to 14.5 mgd. The project included the addition of filters to improve treated water quality, a second large generator for back-up electrical power, odor elimination improvements, better solids and nutrients removal, ultraviolet light disinfection, and an improved system for capturing and using methane gas. The WWTP improvements will support the new reclaimed water (RCW) system and, with the associated increases in operating costs, will enable

OWASA to meet the proposed nitrogen and phosphorus removal requirements in the State's Jordan Lake Nutrient Management Strategy until wastewater flows reach the plant's 14.5 mgd capacity.

Our contractor will complete remaining site work and "punch list" correction items within the next two months.

Installation of a new above-ground gas handling system for the biosolids digesters has resolved odor releases due to deficiencies of the previous underground pipe system. We have nearly completed the construction of a new biosolids dewatering facility, which will reduce the amount of liquid in our biosolids, thereby improving the economy and long-term sustainability of our biosolids recycling program.

Odor Elimination at the Mason Farm Wastewater Treatment Plant – In July, 2007 OWASA's contractor completed the new covered headworks, where untreated sewage enters the WWTP. This represents a major milestone in our odor elimination program.

Per discussions with WWTP neighbors about a draft definition of odor elimination, OWASA installed four hydrogen sulfide monitors that continuously measure hydrogen sulfide levels at or near the WWTP property boundary. These devices are solar powered and transmit data to the WWTP's process monitoring system, which notifies the on-duty operator if abnormal readings are detected.

We also purchased and received a portable odor measuring device ("Nasal Ranger"), which staff will evaluate as a possible improvement over the current "sniff test" method. The Nasal Ranger will also be evaluated as a tool for quantifying odor intensity at the WWTP boundary.

Additional odor elimination improvements are on schedule to be completed by December 31, 2007. These will include covering and treating foul air from three locations inside the WWTP site: 1) two open tanks that hold wastewater before it is pumped into the channel leading to the aeration basins; 2) a channel that carries wastewater to aeration tanks for biological treatment; and 3) two structures that carry wastewater to and from the primary settling tanks.

On June 14th, 2007, the OWASA Board of Directors approved a new 15-year Capital Improvements Program that includes the following odor elimination projects: 1) covering 8 of 16 aeration basins in Fiscal Year 2009, and 2) covering 3 primary clarifiers in Fiscal Years 2010 and 2011. We expect to complete the design of these projects by the end of Fiscal Year 2008. (Additional odor report details are being provided to the Chapel Hill Town Council as attachments to this report.)

Biosolids Management – OWASA's practice of applying liquid biosolids (highly treated wastewater sludge) to agricultural land is limited by weather conditions, farmers' planting and harvesting schedules, availability of land, transportation costs, and other factors. It became evident during the past year that several emerging issues and trends could affect the viability and capability of our present approach, suggesting the need for a more diversified program. A **draft Phase I Biosolids Master Plan** was completed this past spring. The plan will form the basis of

a comprehensive long-term biosolids strategy and will discuss technical options, regulatory issues, markets for biosolids recycling, and the overall feasibility of different approaches. The draft plan includes a short list of promising options which will be carefully evaluated. As noted above, the installation of new biosolids dewatering equipment at the WWTP is nearly complete. We have selected McGill Environmental, Inc. to provide composting services for dewatered biosolids and to market the composted material.

Reclaimed Water System – OWASA and the University are developing a reclaimed water (RCW) system to supply highly treated wastewater to certain campus facilities. By reducing the amount of drinking water used for non-potable purposes, the RCW system will provide additional drought protection. Total drinking water demand is expected to decrease by 10 to 15 percent when the system is fully implemented and will also reduce the amount of nutrients and other pollutants released to Morgan Creek.

The RCW project will be financially self-supporting. UNC will fund the capital improvements, and OWASA will recover all operating, maintenance, management, and overhead costs through user rates and fees. Detailed financial responsibilities, including the basis for determining the new rates and fees and other technical matters, are specified in a contract signed by OWASA and UNC in April, 2006. OWASA obtained a \$1.8 million grant from the North Carolina Clean Water Management Trust Fund and, with assistance from Congressman David Price, a \$645,000 grant from the U.S. Environmental Protection Agency.

Construction of RCW pumping, storage and major pipeline facilities will begin after final design and permitting are completed in late 2007 or early 2008. Town of Chapel Hill approval will be needed for some of these facilities. The University has already installed about 7,000 feet of RCW lines on the main campus in conjunction with other ongoing campus construction work.

The major RCW transmission line will be installed along with OWASA's Meeting of the Waters sewer line replacement in the **Old Mason Farm Road-Fordham Boulevard-Coker Pinetum area**. The route of the RCW transmission main and sewer line in the **Pinetum-Fern Lane** area was approved by the OWASA Board in January, 2006 after discussions with nearby neighbors, North Carolina Botanical Garden staff, and other stakeholders during a series of neighborhood and Board meetings. An additional neighborhood meeting to receive public comment on final design took place in November, 2006. The overall outcome of these efforts was presented to the OWASA Board in January, 2007. Design of the RCW pipeline has been completed and construction will begin in conjunction with the RCW treatment, pumping, and storage facilities noted above. The RCW project is expected to be completed in 2009.

Meeting of the Waters Creek Sewer Replacement – The OWASA Board selected the existing sewer line corridor through the **Coker Pinetum** as the preferred route for the Meeting of the Waters sewer replacement and the RCW transmission main projects as indicated above. Design has been completed and construction will begin in conjunction with the RCW pipeline. We will continue to keep neighbors informed and will invite questions, comments, and suggestions during and after these projects. Work is expected to be complete in 2009.

Public Hunting on OWASA Land – In October, 2006 OWASA and the North Carolina Wildlife Resources Commission (WRC) entered into an agreement that allows OWASA to continue its no-hunting policy at the Cane Creek Reservoir, but will allow limited hunting on OWASA’s 500-acre “mitigation land” purchased in 1980 to replace the natural habitat area that was affected by construction of the Cane Creek Reservoir and dam. The agreement with the WRC addresses neighborhood safety concerns neighbors through hunting limits, a 300-foot setback requirement, and patrolling by WRC officials.

Sustainability Goal and Objectives – The OWASA Board adopted a *Statement of OWASA’s Sustainability Goal and Objectives* on April 26, 2007. The policy statement establishes OWASA’s commitment to integrate into our services and facilities – the “triple bottom line” of sustainability – environmental stewardship, economic strength, and social equity.

Water Conservation Strategies for Joint Local Consideration – We have continued meeting with Carrboro, Chapel Hill, and Orange County staff to evaluate alternative conservation strategies that can be pursued in partnership with the Towns and County. A draft report will be presented this fall (2007).

University Lake and Cane Creek Watershed Protection – In September, 2006 OWASA purchased 74 acres of land adjoining University Lake near the intersection of Jones Ferry Road and Old Greensboro Highway to help protect the University Lake water supply. The NC Clean Water Management Trust Fund approved a \$1,189,000 grant to help pay for the \$2.2 million purchase. OWASA remains interested in pursuing opportunities with the Towns and County for low impact recreational use of this property.

Due to budgetary constraints, no further funding for watershed land or easement acquisition has been included in OWASA’s Five-Year Capital Improvements Program.

Local Greenhouse Gas Inventory and Forecast – In April, 2006 the Board of Directors adopted a resolution committing OWASA to participate with Carrboro, Chapel Hill and Orange County in an interlocal initiative to reduce greenhouse gas emissions through the International Council of Local Environmental Initiatives (ICLEI) - Cities for Climate Protection Program. OWASA staff has provided information and technical support for the project as a participant in the Joint Staff Committee. 2005 was selected as the baseline year for the greenhouse gas inventory, with 2030 as the target year for achieving emission reduction objectives. OWASA will consider the findings and recommendations of the proposed Action Plan when it is submitted for consideration by the local governing boards in late spring of 2008.

Proposed Jordan Lake Nutrient Reduction Rules and Strategy – In 2002 OWASA decided to construct new facilities at the Mason Farm Wastewater Treatment Plant that would provide nitrogen and phosphorus removal capability to the current limits of technology. Those improvements were completed for a cost of about \$11 million as part our \$50+ million WWTP upgrade/expansion, and our treatment plant can now remove nitrogen and phosphorus to the State’s proposed regulatory limits – at least until the WWTP reaches its new capacity of 14.5 mgd. Additional energy and chemicals to achieve the proposed nitrogen limit will cost more than \$500,000 per year at our current wastewater flow rates, and well over \$1 million per year in

today's dollars when the plant reaches full capacity in the next 15 to 20 years. Without significant advances in nitrogen removal technology, OWASA may not be able to achieve the proposed limit when average day wastewater flows exceed 14.5 million gallons per day, when we may need to restrict additional connections to the wastewater system. This information, along with additional comments, was provided to the NC Environmental Management Commission in a public hearing on July 12, 2007.

Capital Improvement Projects – OWASA's capital improvements program includes a number of projects that will involve local permits and/or may affect local neighborhoods. Highlights of these and other 2006-2007 projects are described below.

Construction began in the fall of 2006 for a new treated water pump station near **Interstate 40**. Along with the new 16-inch water line on **Old Durham Road**, this will increase OWASA's ability to obtain treated drinking water from the City of Durham during emergencies or for system maintenance purposes. Staff has recommended that a **Special Use Permit** that the **Town of Chapel Hill** may issue for the **Woodmont mixed use project** proposed for the vicinity of **Barbee Chapel Road and NC 54** should include a stipulation that an easement be dedicated to OWASA for a future drinking water pumping station that will further reinforce our interconnection with Durham. Construction of this pump station is not planned until 2016.

We continue to replace aging water mains in order to maintain the high level of water service reliability expected by OWASA customers. Replacement projects were completed during the past year along **Highway 54 at Hatch Road** and in part of the **Colony Woods** neighborhood. Additional water line replacement projects are underway in **Colony Woods** and are being designed for **Sunrise Lane, Laurel Hill Circle, and Pearl Lane**.

A project is underway to remove the **Lloyd Street** and **Starlite Drive** sewage pump stations by installing a new gravity sewer that will also serve additional properties in that downtown neighborhood. This project will include some work in Carrboro's Baldwin Park. Construction is expected to be completed this fall (2007).

Our project to replace portions of the large sewer along **Bolin Creek** between **Estes Drive Extension** and **Martin Luther King, Jr. Boulevard** has been postponed until 2009 due to budgetary constraints.

Approximately **seven miles of sewer mains** and **437 manholes in the Bolin Creek** area of Chapel Hill have been renovated, replaced or repaired in a project completed this past spring (2007).

Design work to increase the capacity of the **Morgan Creek sewer** in the Town of Chapel Hill's Morgan Creek Preserve property began in January, 2007 and is being **coordinated with the Town's greenway plans**. Construction is expected to begin in late winter and be completed late next spring (2008).

A sewer and water main replacement project near **Fetzer Lane** and **206 West Cameron Avenue** in Chapel Hill was completed in February, 2007.

The planned installation of a new gravity sewer line to enable the removal of OWASA's **Clayton Road** sewer pump station near the **Chapel Hill Library** has been postponed until FY 2013 due to budget constraints.

Rogers Road Small Area Planning – OWASA staff provided preliminary layout and estimates of the cost of sewerage for the **Rogers Road** planning area designated by the **Chapel Hill Town Council**. This information was shared with the **Historic Rogers Road Community Task Force** established by the **Orange County Commissioners**.

Two new pumps have increased raw water pumping capacity from 1 mgd to 6 mgd at OWASA's existing **Stone Quarry Reservoir**. This represents a significant improvement in operational flexibility and reliability, especially during droughts or system maintenance, by allowing us to pump directly from the Quarry Reservoir to our Jones Ferry Road Water Treatment Plant, rather than pumping Quarry water via University Lake.

Booth Road/Abbey Road Water Service Area Water Pressure – Since its inception, OWASA provided water service to eight residential properties in the Booth Road/Abbey Road area just **south of Starpoint in Chatham County**. This neighborhood was subject to lower than desired water pressures due to its elevated topography. In February, 2005 the OWASA Board determined that the best option for improving pressure to these properties was to transfer service from OWASA to the **Chatham County water system**. An agreement with Chatham County was signed in February, 2006, and a project to extend a water main from the Chatham County system and to install new private service laterals for these eight residences and one business was completed in January, 2007.

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 to UNC Chancellor James Moeser in January, 2007. OWASA staff participated in a series of **Carolina North Infrastructure Workshops** during November and December, 2006 and is providing technical information to UNC's Carolina North utility consultant. We have worked closely with the design team to ensure that the planned development will be as water-efficient as possible, and that preliminary plans and conceptual layouts for Carolina North do not preclude or constrain future options for reclaimed water. We expect to provide updated estimates of the projected effects of Carolina North on OWASA's water and sewer system as more detailed development plans are submitted to the **Town of Chapel Hill** during the coming months.

Annual Update of OWASA's Comprehensive Water and Sewer Master Plan – OWASA staff updated its *2001 Master Plan* with recent data, strategic trends, and commentary in October 2006. Printed copies and supporting graphics of the full update report are available on request from OWASA, or can be viewed online at:

<http://www.owasa.org/pages/Master%20Plan%20Update%20October%202006.pdf>.

KEY OWASA FACTS
JULY 1, 2006 – JUNE 30, 2007 (FY 07)

<i>Water Supply and Treatment</i>		FY 06	FY 07
Average Daily Raw Water Pumped from Reservoirs (Million Gallons Per Day = MGD)		8.7	8.6
Peak Day Water Pumped from Reservoirs (MGD)		12.8	11.9
Total Rainfall (Inches): <i>Jones Ferry Road Water Treatment Plant</i> 30 Year Average (through Dec 2006) = 48.1 inches		43.8	53.3
Exceedances of Primary Drinking Water Standards		0	0
<i>Wastewater Collection and Treatment</i>		FY 06	FY 07
Average Daily Wastewater Treated (MGD)		7.5	7.8
Reportable Sewer Overflows		2	4
Exceedances of Treated Wastewater Quality Standards		1	0
<i>Financial</i>		FY 06	FY 07
Total Revenues (\$Million):	<i>Budget</i>	\$28.2	\$30.6
	<i>Actual</i>	\$27.0	\$28.9
Operations & Maintenance Expenditures (\$Million):	<i>Budget</i>	\$15.8	\$17.3
	<i>Actual</i>	\$14.9	\$16.5
Capital Improvements Expenditures (\$Million):	<i>Budget</i>	\$31.7	\$27.8
	<i>Actual</i>	\$20.6	\$19.7
Debt Service Coverage Ratio (Minimum of 1.2 required)		1.4	1.5
Water Meter Connections		19,993	20,163
Average combined monthly water and sewer bill for a residential customer using 6,000 gallons per month:		\$59.88	\$63.56

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

May-August, 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	3
June	4	1	1	1	5	1
July	1	0	2	0	0	4
August	1	0	4	3	11	2
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	22 (year to date)

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

May -August, 2007

date	time	location
5/11/2007	7:30 PM	Highland Woods
5/11/2007	9:10 PM	Highland Woods
5/14/2007	7:50 PM	Highland Woods
6/05/2007	8:04 PM	Highland Woods
7/03/07	9:44 PM	Highland Woods
7/03/07	11:05 PM	Highland Woods
7/03/07	11:30 PM	Highland Woods
7/06/2007	7:00 PM	Highland Woods
8/18/2007	7:10 AM	Highland Woods
8/29/2007	10:45 PM	Highland Woods

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

May -August, 2007

Date	Topic/Comments:
May 24	Three additional hydrogen sulfide monitors to be installed and in operation by about June 8th
July 3	Possible odor releases on July 5 th
July 5	Update regarding expected completion of the work on Thursday, July 5th in the evening
July 16	Possible odor release(s) on July 17 due to preventive maintenance on odor scrubber
July 18	Possible odor release(s) July 19-21 due to contractor's work on a digester
July 19	Telephone and e-mail access to WWTP interrupted in the afternoon of July 19th
July 20	Possible odor releases in week of July 23 rd due to work on digesters and odor scrubber
July 27	Continuation of work at the Mason Farm Wastewater Treatment Plant that may involve odor releases early in the week of July 27 th
August 2	Progress report on odor elimination program (new headworks complete, etc.)

**DISTRIBUTION LIST FOR OWASA E-MAILS ABOUT ODOR RELEASES FROM
THE MASON FARM WWTP AND RELATED ITEMS (August 31, 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	Bob Stipe
	Phyllis Barrett
	Bob Wendell, President, Laurel Hill Association
	Carol David
	Pat Evans
	Ewan Rodewald and Sharon Hodge

NEIGHBORHOOD/ORGANIZATION	NAME
	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
	Laura King Moore
	Jeanne Langley
	John Pendergrass
	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

NEIGHBORHOOD/ORGANIZATION	NAME
	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
	Bob Overton, Police
	Brian Curran, Police
	Richard Terrell, PW Operations Supt.
	George Small, Town Engineer
	Larry Tucker, Engineering
	Steve Spade, Transportation Director
	Kurt Neufeng, Transit
	Butch Kisiah, Parks and Recreation Director
	Bill Webster, Parks and Recreation
	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	Tom Konsler, Environmental Health
	Orange 911 Center Supervisor on duty
	Mike Tapp, Fire Marshall
Other Utilities	Davis Montgomery, Duke Energy
	Steve Small, Duke Energy

NEIGHBORHOOD/ORGANIZATION	NAME
	Billy Miller, PSNC
	Time Warner Cable
	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)
May 07	94	23	20	1	0	20	5	32	14	17
June 07	95	21	18	0	0	18	13	31	10	9
July 07	97	23	19	1	0	15	26	28	20	9
Aug 07 ¹	87	15	15	0	0	31	42	39	39	9
Totals	373	82	72	2	0	84	86	130	83	44
%	----	14%	12%	0%	0%	14%	15%	22%	14%	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)
May 07	3	1	1	1	1	2	0	0	0	0	0
June 07	3	0	1	2	1	0	0	0	0	0	0
July 07	3	0	0	0	1	1	0	0	0	0	0
Aug 07 ¹	1	0	0	0	1	0	0	0	0	0	0
Totals	7	1	2	3	4	3	0	0	0	0	0
%	----	8%	15%	23%	31%	23%	0%	0%	0%	0%	0%

Notes:

- 1) Information for the month of August is through August 27, 2007.
- 2) 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.
- 3) All off-site odor events were characterized by the Collections Staff as “Mild” except for May 30, 2007 when the odor was characterized as “Strong” at the Athletic Association (4) and Finley Golf Course (5)