



ORANGE WATER & SEWER AUTHORITY

Quality Service Since 1977

November 1, 2006

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 27516

Chairman Barry Jacobs
Orange County
Post Office Box 8181
Hillsborough, NC 27278

Dear Mayor Chilton, Mayor Foy and Chairman Jacobs;

Enclosed is our quarterly report for July through September, 2006. 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: Mr. Roger L. Stancil, Chapel Hill Town Manager (wlencs.)
Mr. Rod Visser, Interim Orange County Manager (wlencs.)
Mr. Steven Stewart, Carrboro Town Manager (wlencs.)
OWASA Board of Director (wlencs.)
Ed Kerwin, OWASA Executive Director (wlencs.)



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Quarterly Report to Local Governments November 1, 2006

OWASA's September 6, 2006 Annual Report to Local Governments summarized major accomplishments and activities for Fiscal Year 2005 (July 2005 – June 2006). This more abbreviated report provides new or updated information for the most recent (August – September 2006) quarter. Additional materials are available on request. OWASA Board members and staff will be glad to provide presentations if desired.

Water Supply – Reservoir, streamflow, and demand patterns remain good as of the end of October. The likelihood of our supplies declining to critical levels within the next 18 months is very low.

OWASA/UNC Water Reclamation Project – The next community meeting to review the route of the reclaimed water transmission main and **Meeting-of-the-Waters Creek sewer line** in the **Pinetum-Fern Lane** area is scheduled for November 1, 2006. (There is no further news on this project since the September 6, 2006 Annual Report.)

Public Hunting on OWASA Land – On October 26, 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 the mitigation land. OWASA purchased the mitigation land in 1980 to replace the natural habitat area that was affected by construction of the reservoir and dam.

The WRC staff stated in April, 2005 that under the US Army Corps of Engineers' permit for the Cane Creek Reservoir project required that public hunting be allowed at the Cane Creek Reservoir and on the mitigation land. The OWASA Board disagreed, and in July, 2005 asked the Corps to change the permit to resolve this matter, in part because of the significant wildlife habitat benefits provided by the Reservoir, mitigation land, and more than 1,500 acres of land and conservation easements acquired in the Cane Creek watershed.

The Corps advised OWASA and the WRC to hold further discussions to reach a compromise. OWASA is pleased to have resolved this matter in a way that we believe addresses public safety concerns of our neighbors through hunting limitations, a 300-foot setback requirement, patrolling and continued work with the WRC.

Rate Study and Strategic Financial Review – The ongoing study of customer rates and fees remains on schedule for completion this winter.

Mason Farm Wastewater Treatment Plant – The overall construction project remains on schedule for substantial completion by summer 2007.

Elimination of Objectionable Offsite Odors from the Mason Farm Wastewater Treatment Plant (WWTP)- OWASA submitted its annual progress report on meeting the **off-site odor elimination goal** in January 2006 per requirements of the Town's Special Use Permit as amended in 2004. Our staff met with nearby residents on January 31, 2006 to discuss plans for the odor study and on September 27, 2006 to discuss the draft odor study report including information developed to date by our consultants, Black & Veatch. The next step will be discussion at an OWASA Board meeting on November 9, 2006. OWASA staff expects to make recommendations for odor elimination improvements in addition to those already planned.

Land Application of Biosolids – OWASA's practice of applying liquid biosolids (highly treated wastewater sludge) to agricultural land has become limited by weather conditions, cropping schedules, availability of land, increasing biosolids volume, transportation costs, and other operational factors. Several emerging issues and trends could affect the future viability and capability of this management approach and suggest the need for a more diversified program. A draft Biosolids Master Plan is scheduled for completion in 2007. It is unlikely that any further discussion of land applying OWASA biosolids to land within the Cane Creek or University Lake watersheds will occur before the Biosolids Master Plan is completed next year.

Capital Improvement Projects – Capital projects to improve the reliability of OWASA water and sewer lines in Carrboro and Chapel Hill are proceeding as described in the September 6, 2006 Annual Report to Local Governments.

Carolina North – OWASA is represented on the University's Carolina North Leadership Advisory Council (LAC) by Vice Chair Randy Kabrick. Staff will participate in the Carolina North Infrastructure Workshop scheduled for November 6-8.

Annual Update of OWASA's *Comprehensive Water and Sewer Master Plan* – OWASA staff has updated the 2001 *Master Plan* with recent data, strategic trends, and commentary (October 2006). Principal findings include:

- OWASA water sales and reservoir withdrawals for the past five years have remained below the historically high levels observed in 2001. Reduced consumption is likely due to a combination of weather factors and water conservation efforts by customers across all user categories. Reduced reservoir withdrawals also result from the recycling of water treatment plant process water that began in the fall of 2002. Process water was previously released to an intermittent creek. Water withdrawals from University Lake and Cane Creek are 23 percent less in 2006 than were projected in OWASA's 2001 Master Plan.
- Substantial reductions in summer peak demands at the Jones Ferry Road Water Treatment Plant continue to indicate that customers are using less water outdoors (irrigation). We believe this is a response to OWASA's seasonal rate structure and

to year-round standards in the Carrboro, Chapel Hill, and Orange County conservation ordinances.

- A continuing trend of lower peak flows at the Mason Farm Wastewater Treatment Plant during rainy periods suggests that OWASA's long-term program to systematically identify, repair and replace older sewer lines is successfully reducing the unwanted inflow and infiltration of stormwater into the sewer system.
- Lower peak demands at both the water and wastewater treatment plants will delay the need for costly future expansions.
- OWASA's projections of future demand are based on the approved comprehensive plans of Carrboro, Chapel Hill, and Orange County and reflect the most up-to-date information available regarding new development proposed for the University's Central Campus and Carolina North. Local rezoning decisions that are consistent with existing comprehensive plans are not expected to affect OWASA's demand projections. Additional development density can be accommodated within the scope of OWASA's current plans if highly efficient water conservation technologies are implemented in new development projects. We are working with local government staffs to develop collaborative approaches for increasing water use efficiency in our service area.
- The existing reservoir/quarry water supply system and its future expansion can meet the ultimate buildout needs of the Carrboro/Chapel Hill/University community. However, if projected demands are not reduced further and/or additional water supply sources are not developed, the community will become more vulnerable to severe drought conditions beginning around 2020 until the Stone Quarry expansion is available for water storage in the early 2030s. The primary goal of OWASA's long-range conservation program and the reclaimed water system project is to reduce water shortage risks without having to rely on additional water from Jordan Lake.
- Water quality in OWASA's University Lake and Cane Creek Reservoir remains good, but not pristine, as indicated by periodic blooms of blue-green algae, especially in University Lake. Both reservoirs remain sensitive to nitrogen and phosphorus nutrient inputs from their respective watersheds. Bloom conditions appear to be aggravated by prolonged summer periods of high temperature and low streamflow.
- The ongoing \$50 million upgrade and expansion of the Mason Farm Wastewater Treatment Plant will be completed in 2007. New and upgraded treatment units have improved the quality of the water released to Morgan Creek, increased plant reliability, eliminated odor problems, and enabled the reuse of treated effluent to meet certain non-drinking water needs. The new filter complex and ultraviolet light (UV) disinfection systems are in service, but the filters are not yet being operated to remove nitrogen from the wastewater. The expansion to 14.5 million gallons per

day (mgd) will provide additional capacity to serve new development anticipated by Carrboro, Chapel Hill, and the University.

- OWASA's practice of applying liquid biosolids (highly treated wastewater sludge) to agricultural land has become limited by weather conditions, cropping schedules, availability of land, increasing biosolids volume, transportation costs, and other operational factors. Several emerging issues and trends could affect the future viability and capability of this management approach and suggest the need for a more diversified program. A draft Biosolids Master Plan is scheduled for completion in 2007.

Printed copies and supporting graphics of the full update report are available on request from OWASA and will be available on our website at <http://www.owasa.org/pages/MasterPlanRev06.pdf> by mid-November.