



ORANGE WATER AND SEWER AUTHORITY

Quality Service Since 1977

January 31, 2005

Mayor Kevin Foy
Town of Chapel Hill
306 North Columbia Street
Chapel Hill, NC 27516

Chairman Moses Carey
Orange County Board of
Commissioners
Post Office Box 8181
Hillsborough, NC 27278

Mayor Michael Nelson
Town of Carrboro
310 West Main Street
Carrboro, NC 27510

Dear Mayor Foy, Chairman Carey, and Mayor Nelson:

Enclosed is our quarterly report for October through December, 2004. 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,

Mark Marcoplos, Chairman
Board of Directors

Enclosure

c: Mr. W. Calvin Horton, Chapel Hill Town Manager (with Enclosure)
Mr. John Link, Orange County Manager (with Enclosure)
Mr. Steven Stewart, Carrboro Town Manager (with Enclosure)
OWASA Board of Directors (with Enclosure)
Ed Kerwin, Executive Director



Quarterly OWASA Report to Local Governments January 31, 2005

Background

On May 10, 2004 the Chapel Hill Town Council asked OWASA to provide quarterly reports and occasional presentations when desired. The first report submitted to Council in August 2004 summarized OWASA activities for Fiscal Year 2004 (July 2003 – June 2004), followed in November by a quarterly update of activities from July through September 2004. The present report covers the period of October through December 2004 and is also being provided to the Carrboro Board of Aldermen and the Orange County Board of Commissioners.

I. Ongoing Initiatives

Below is a summary of key issues and items of ongoing interest. Some are continuations of previous activities; others are new. All reflect OWASA's commitment to a high level of customer service and environmental stewardship, efficient management, affordable rates, collaboration with Carrboro, Chapel Hill, and Orange County governments, and the involvement of other community organizations. A summary of each item is presented in normal font *with new or updated status shown in italics*.

OWASA/UNC Water Reuse Project – The non-potable reuse project with UNC will be financially self-supporting. Capital funding responsibilities, the basis for reclaimed water rates, and other technical matters will be specified in a detailed contract that is currently being developed between OWASA and the University. OWASA has obtained a \$1.8 million grant from the North Carolina Clean Water Management Trust Fund to pay for engineering and design work for the reuse system, and *was recently notified that an additional \$645,000 of Federal Environmental Protection Agency grant funds will be provided, thanks to the efforts of Congressman David Price.*

Negotiations over specific provisions of the contract between OWASA and UNC are currently underway. Both parties have retained technical and financial consultants to assist in contract development. OWASA has selected the engineering firm of Hazen and Sawyer for final engineering and design work for the reuse project. Town of Chapel Hill approval will be needed for certain reclaimed water pumping, storage, and transmission facilities.

First Annual Sustainability Report – OWASA will issue the first assessment of its sustainability goals and practices. The report will address water and energy conservation, reuse of wastewater biosolids, source water protection, wastewater treatment advancements, and internal OWASA practices regarding vehicle maintenance, office paper, and other recycling opportunities.

A draft report was presented to the OWASA Board on January 27, 2005.

Capital Improvement Projects – OWASA’s capital improvements program includes several projects that require local permits. One such project is a new finished water pumping station and related water main work on Old Durham Road west of Interstate-40, which will significantly increase the capacity to transfer treated drinking water to and from Durham during emergencies or outage conditions. *The water line is currently under construction, and a Special Use Permit application has been submitted to the Town of Chapel Hill for the pump station.*

Another project is the wastewater pump station phase-out and sewer line improvement in the North Forest Hills area, for which OWASA received a Zoning Compliance Permit, *and construction is currently underway.* OWASA remains committed to the timely submission of application materials and to full cooperation with local staff and elected officials as these and other projects move forward.

As similar project will begin in Carrboro within the next several months when the installation of new gravity sewer lines will allow the Lloyd Street and Starlite Drive pump stations to be phased out and will provide sewer service to several unserved properties. The Lloyd Street pump station was originally constructed by the Town of Carrboro before OWASA was created. OWASA staff have been working with Carrboro staff to obtain necessary administrative approvals. Elected official approval will also be needed for easement on separate parcels owned by the Towns of Carrboro, Chapel Hill, and Orange County.

Community Outreach Meeting – OWASA plans to hold a community outreach meeting with interested customers and community organizations to receive feedback about our services and projects and to present some of our key initiatives for the future. This meeting is tentatively scheduled for *March 31, 2005* at Carrboro’s Century Center.

An ad hoc committee of the OWASA Board is developing details for the program.

II. New or Recent Issues

Booth Road/Abbey Road Water Pressure Issues – *Since its inception, OWASA has provided water service to eight residential properties in the Booth Road/Abbey Road vicinity just south of Starpoint in Chatham County. This area is subject to lower than desired water pressures due to its elevated topography. Options for resolving these problems include adding a pump facility at a capital cost over \$200,000 or transferring the service of these eight customers from OWASA to the Northern Chatham County system. OWASA staff has met with the property owners and with Chatham County staff to discuss these options. Recommendations will be made to the OWASA Board after information is received from Chatham County regarding whether a public water main or private water service lines would be extended on Abbey Road if Chatham County were to serve the neighborhood.*

General Operating Conditions – OWASA’s reservoir system has been virtually full since the beginning of September 2004. There appears to be little risk of drought-related reservoir depletion during the next 18 months. *At OWASA’s request, Dr. Larry Band, of UNC’s Department of Geography, has been awarded funding by the Urban Water Consortium of the Water Resources Research Institute to study the characteristics of extreme weather events, such as the drought of 2001-2002, in order to estimate the likely recurrence frequency of similar conditions and the effects on such events of long term changes in climate and land use.*

OWASA customer water demand and operating revenues for *October – December* remained below budgeted projections.

Reimbursement to Developers Who Install Water or Sewer Infrastructure – The Chapel Hill Town Council requested that OWASA consider instituting a policy that would allow parties who install water and sewer lines to recover some of their installation costs from other parties who later make use of those facilities. This question arose during discussion of the Town’s upcoming Operations Center project on Millhouse Road. *The Orange County Board of Commissioners have also asked OWASA to address this issue during a presentation scheduled for February 15, 2005.*

OWASA staff and Town staff discussed this matter and will provide a report during the coming months.

Mason Farm Wastewater Treatment Plant (WWTP) Improvements – Substantial construction progress has occurred at OWASA’s Mason Farm WWTP, where a capacity upgrade and major improvements in odor control, nutrient removal efficiency, and operating reliability are underway. Per the Town of Chapel Hill’s Special Use Permit, *OWASA staff provided an annual report on offsite odor elimination goals to the Chapel Hill Town Manager on January 21, 2005.*

III. Planning Issues with Other Local Governments

Service to Potential Future Chapel Hill Annexation Areas – OWASA staff recently compiled information requested by the Town of Chapel Hill regarding water and/or sewer service available to neighborhoods in designated potential future annexation areas.

Proposed Annexation by Town of Carrboro – The Carrboro Board of Aldermen has adopted a resolution of intent to annex approximately 300 acres north of Homestead Road and west of Rogers Road. The proposed annexation areas would include the Camden, Highlands, Highland Meadows, Highlands North, Fox Meadow, and Meadow Run subdivisions. All except “Area B” (Fox Meadow and Meadow Run subdivisions) are currently served by OWASA water and sewer. Water service is available to Area B, but has not been extended to individual lots. The availability of sewer service to Area B will require the extension of approximately 900 feet of a 16-inch gravity main, which would be provided by the Town of Carrboro. In accordance with existing OWASA policies, the extension of water and/or sewer service to individual lots would remain the

responsibility of the benefiting parties; i.e., property owners and/or developers. The proposed effective date of the annexation is currently set as January 31, 2006.

OWASA staff provided information to Carrboro staff; answered questions at an informational meeting on November 1, 2004 and at a public hearing on November 16, 2004.

Brookfield Drive Sewer Proposal and University Lake Water/Sewer Extension Policies – OWASA, Carrboro, and Orange County staff met recently to discuss options and constraints for providing limited sewer service to portions of the Brookfield neighborhood in the University Lake watershed if it is determined that such service is necessary. Earlier information about the technical and financial options for resolving ongoing problems with septic systems was reviewed. Staff discussed relevant Carrboro, Orange County, Joint Planning Area, and OWASA policies, as well as the “adverse public health” provisions of the *Water and Sewer Management, Planning and Boundary Agreement*, to which Carrboro, Chapel Hill, Orange County, Hillsborough, and OWASA are parties.

The Orange County Health Department has collected field information about current conditions in the vicinity of Brookfield Drive and will report back to local staff.

Orange County Lands Legacy Program – OWASA staff and Orange County staff negotiated the purchase of conservation easements on two properties in the Cane Creek watershed. Orange County is interested in acquiring farmland preservation easements through the County’s *Lands Legacy Program*, and OWASA seeks to ensure the reservoir’s long term water quality by limiting future development and protecting riparian (stream) buffers.

During October the Orange County Board of Commissioners and OWASA Board of Directors adopted an *Agreement Regarding Co-Holding of Conservation Easements*, through which OWASA and the County will share the costs and co-hold the conservation easements on both properties. Total land costs, which are subject to final survey results, will be approximately \$538,000 for the 165 acres of the two tracts. These costs will be shared evenly by Orange County and OWASA, along with ancillary costs, such as surveys and appraisals.

Both transactions are expected to close before the end of *February 2005*. *OWASA has submitted an application to the NC Clean Water Management Trust Fund for reimbursement of costs for the riparian corridor portion of the easements.*

Annual Update of OWASA’s Comprehensive Water and Sewer Master Plan – OWASA staff recently updated its *2001 Master Plan* with recent data, strategic trends, and commentary. Highlights of the update are summarized below. 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/MasterPlanRev04.pdf>.

- The most significant strategic change since the *Master Plan* was completed in 2001 has been the increased importance of water treatment plant process water recycling and the planned wastewater reclamation/reuse project as critical elements of OWASA's long-term water supply plans. (The drinking water treatment plant uses a certain amount of water for washing filters and removing solids from settling basins. This "process water" is no longer discarded, but is returned to the head of the plant. From the wastewater plant, highly treated effluent will be reused for non-potable purposes in the cooling towers at chilled water and steam generation facilities at UNC.)
- For the past three years, water demands from University Lake and Cane Creek Reservoir have been substantially less than projected in the *2001 Master Plan*. This is due to a combination of factors, including the recycling of process water at the Jones Ferry Road Water Treatment Plant; wetter and cooler than normal weather patterns; and changes in customer behavior and conservation practices.
- For the past four years, summertime peak day water demands have been less than projected in the *Master Plan*. Implementation of the OWASA/UNC wastewater reclamation program in 2007 will further reduce these seasonal peaks. If it continues, this trend will allow the deferral of a multi-million dollar water treatment plant expansion by approximately 10 years or more.
- Anticipated demand reductions attributed to process water recycling at the water treatment plant and to 2007 implementation of the non-potable wastewater reuse program are equivalent to approximately 10 years of increased demand; i.e., these reductions will sustain the safe yield of OWASA's University Lake/Cane Creek/Stone Quarry reservoir system for 10 years longer than if those projects were not implemented.
- For the past four years, maximum month flows at OWASA's Mason Farm Wastewater Plant have been less than projected in the *2001 Master Plan*. This may reflect the success of ongoing OWASA projects to reduce the inflow and infiltration of large volumes of stormwater into the sewer system during rainy periods. This trend promises to extend by a number of years the useful life of the wastewater plant expansion currently underway.