



ORANGE WATER AND SEWER AUTHORITY

Quality Service Since 1977

August 30, 2004

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

Chairman Barry Jacobs
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 Jacobs, and Mayor Nelson:

The attached report was prepared in response to a request by the Chapel Hill Town Council, but we are providing it to all three local governments to ensure the timely sharing of information by all parties.

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

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

Report to the Mayor and Town Council of Chapel Hill

August 30, 2004

Background

On May 10, 2004 the Chapel Hill Town Council asked that OWASA provide quarterly reports as well as presentations from time to time when desired. As is our usual practice, this report will be provided to the Carrboro Board of Aldermen and Orange County Commissioners as well as the Chapel Hill Town Council. This first report presents highlights of our services and initiatives from July 1, 2003 through June 30, 2004 and a look forward to the coming year.

Major Accomplishments of the Past Year

Wastewater Reclamation and Reuse – As reported at the April 29, 2004 Assembly of Governments meeting, OWASA and the University signed a letter of intent to jointly develop a wastewater reuse system that will supply nonpotable water to certain UNC facilities by 2007. The reuse system will involve the installation of pumps, storage tanks and piping to carry reclaimed water from the Mason Farm Wastewater Treatment Plant (WWTP) to the University campus. The first phase is expected to cost about \$8 million and will include about three miles of new reclaimed water line.

By reducing the use of drinking water for non-potable purposes, the reuse system will provide a substantial degree of drought protection for the benefit of all customers and will allow planned water system capital improvements to be deferred. The amount of nutrients and other pollutants discharged from the community's wastewater treatment plant to Morgan Creek will also be reduced through the use of reclaimed water. Total water demand is expected to decrease approximately 10 percent during the first phase of the project, and may decrease by more than 15 percent when the reuse system is fully implemented.

Mason Farm Wastewater Treatment Plant – Construction began on a \$50 million upgrade and expansion of the Mason Farm WWTP. Capacity will be increased from its present peak month level of 12 million gallons per day (mgd) to 14.5 mgd. The project will include odor control improvements, solids and nutrients removal, and the installation of an ultraviolet disinfection system. Odor control improvements are expected to resolve longstanding issues with neighbors. The project is being financed primarily through \$41.3 million in revenue bonds sold during the past year. (OWASA maintained its AA+ Bond Rating)

New Operations Center – A new Operations Center was completed and occupied at OWASA's Jones Ferry Road site in Carrboro. The 36,000 square-foot facility provides safe and efficient work and storage space for OWASA's water distribution, wastewater collections, and vehicle maintenance staff and field crews. Vacated areas of the existing administration building are being renovated for engineering, finance, human resources, and other administrative functions. The Operation Center, including its exterior landscaping, was designed with water conservation

and appropriate stormwater management objectives as well as other important “green” features to conserve energy, protect the environment, and to be a good neighbor. The new Operations Center was constructed on the same site where 17 World War II vintage quonset huts were located.

New Conservation Ordinance – In 2003 the Towns and County enacted new water conservation ordinances, including certain year-round requirements, recommended by OWASA after the drought of 2002. Overall average and peak day customer demand decreased during the past year, which was somewhat wetter and cooler than normal. It has not been possible to quantify the actual effects of the year-round conservation measures and seasonal water rates on customer demand patterns. We will review the new ordinance and standards after further experience and may recommend changes and refinements to improve it.

Evaluation of Conservation Management Practices – OWASA completed a desktop evaluation of an array of water conservation management practices, ranging from large-scale reclamation and reuse to toilet replacement, customer information, water audits, and more. Implementation of the most cost-effective options – wastewater reclamation/reuse and process water recycling at the Jones Ferry Road Water Treatment Plant– are underway, and are expected eventually to reduce raw water demand by nearly 25 percent. Additional projects will be considered during the coming year.

Source Water Protection – An important element of OWASA’s long-term strategy to ensure future water quality in the Cane Creek Reservoir was the protection of an additional 1,260 acres of watershed land. To date, two-thirds of this goal has been met through the purchase of land or conservation easements on 829 acres of privately owned property. A recently completed consultant study determined that it is unlikely that a similar program would be needed in University Lake watershed. OWASA will consider alternative approaches for further promoting the use of best management practices for nonpoint source pollution control in both watersheds.

Looking Ahead...

Below is a summary of priority issues and items for the coming year. Some are continuations of previous activities and others are new. All reflect our 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 other community organizations.

Wastewater Reclamation and Reuse – The reuse project described above will be financially self-supporting and will allow for the deferral of certain planned water system capital improvements. Capital funding responsibilities and the cost-of-service basis for reclaimed water rates will be specified in a detailed contract to be developed later this year between OWASA and the University. OWASA recently obtained a \$1.9 million grant from the North Carolina Clean Water Management Trust Fund to pay for engineering and design work for the

reuse system. Federal Environmental Protection Agency grant funds are also being sought with the help of Congressman David Price.

Water Conservation – OWASA will evaluate and promote additional conservation management practices during the coming year. Although some of these will be voluntary – such as water audits in Chapel Hill-Carrboro school facilities – others could have regulatory components depending on decisions by the Towns and County. Examples might include a retrofit-on-resale ordinance requiring the installation of water-saving plumbing fixtures to meet current plumbing standards when older buildings are sold; landscape, vegetation, and irrigation system requirements for new construction, and so forth. The OWASA Board will make recommendations regarding these policy options in the next year or two.

First Annual Sustainability Report – OWASA will issue the first assessment of its sustainability goals and practices. The report will address water conservation, reuse of wastewater biosolids, source water protection, materials recycling, and other OWASA practices and programs.

Capital Improvement Projects – OWASA’s capital improvements program includes several projects that require local permits. One of these is a new booster 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 scheduled maintenance. We have applied for a Special Use Permit from the Town of Chapel Hill for the pump station. OWASA is committed to the timely submission of application materials and full cooperation with local staff and elected officials as this and other projects move forward.

Carolina North – As reported previously, OWASA can meet the projected water and wastewater needs of Carolina North within the present scope of our long-range master water/sewer and capital improvements plans. No milestones or major tasks are anticipated during the coming year, but OWASA staff will continue to assist University staff and consultants as they plan for Carolina North. Such assistance will include information about new “satellite” wastewater treatment technology that promises substantial reclamation/reuse opportunities and potable water demand reductions at Carolina North.

All development at Carolina North will be subject to OWASA’s water and sewer availability fees, which are based on cost-of-service rate-setting principles. This will assure that the University pays its fair share of the costs for water and sewer capacity.

Jordan Lake Nutrient Issues – The NC Department of Environment and Natural Resources (DENR) is formulating plans and regulations for reducing nitrogen (N) and phosphorus (P) inputs to Jordan Lake. It has been estimated that point sources, such as wastewater treatment plants, represent 16 percent of the phosphorus and 32 percent of the nitrogen entering the lake. Nonpoint sources – runoff from urban, suburban, and rural land – represent the rest. OWASA, along with the Towns and County, have participated in DENR’s Jordan Lake stakeholder process, which is attempting to assist the state in developing a nutrient management strategy for

the lake. The NC Environmental Management Commission will hold public hearings on the proposed approach during the spring or summer of 2005. The outcome of this process may affect wastewater and stormwater utilities and future development.

It is notable that the upgrade and expansion of OWASA's Mason Farm WWTP has been designed with stringent N and P removal requirements in mind. New nutrient removal and filtration facilities will enable the plant to meet these anticipated regulatory requirements for protecting downstream water quality in Jordan Lake. The wastewater reclamation/reuse project with the University will also provide OWASA greater flexibility to meet future regulatory limits.

Morgan/Little Creek Local Watershed Project – OWASA staff has participated on the local stakeholder/advisory committee of the Little/Morgan Creek Local Watershed Planning Initiative under the auspices of DENR's Environmental Enhancement Program. The study area includes the University Lake watershed and downstream drainage of Morgan Creek, as well as the entire Booker/Bolin/Little Creek system in Carrboro and Chapel Hill.

An upcoming consultant report will identify portions of the study area that may be most benefited by special projects, such as stream bank restoration, constructed wetlands, and so forth. State funds will be available for certain projects, while others might be supported wholly or in part by other local agencies, such as the Towns, County, the University, and/or OWASA. Significant opportunities for collaboration will become evident during the coming months.

Strategic Financial Review and Rate Study – In order to meet the financial needs of our operating and capital improvement programs, water and sewer rate increases of four to six percent per year are anticipated through the next several budget cycles. OWASA will conduct a comprehensive review of its financial capacity and long-term strategies during the coming year. This will be done in conjunction with a review and modification, if necessary, of all customer rates and fees. The last such rate study was completed in 1997.

Community Outreach Meeting – OWASA plans to hold a community outreach meeting with interested customers and community organizations later this year to receive feedback about our services and projects and to present some of our key initiatives for the future. We will publicize this event after decisions on the date, time, location and program.

KEY OWASA FACTS
JULY 1, 2003 – JUNE 30, 2004 (FY 04)

<i>Water Supply and Treatment</i>		FY 03	FY 04
Average Daily Raw Water Pumped from Reservoirs Million Gallons Per Day (MGD)		8.3	8.6
Peak Day Water Pumped from Reservoirs (MGD)		13.6	13.1
Total Rainfall: <i>Jones Ferry Road Water Treatment Plant</i> 30 Year Average 47.6 inches		61.8	41.5
Exceedance of Primary Drinking Water Standards		0	0
<i>Wastewater Collection and Treatment</i>		FY 03	FY 04
Average Daily Wastewater Treated (MGD)		7.4	7.7
Reportable Sewer Overflows		9	5
Exceedances of Treated Wastewater Quality Standards		8	1
<i>Financial</i>		FY 03	FY 04
Total Revenues (\$Million):	<i>Budget</i>	\$24.5	\$26.1
	<i>Actual</i>	\$21.0	\$24.1
Operations & Maintenance Expenditures (\$Million):	<i>Budget</i>	\$14.9	\$15.7
	<i>Actual</i>	\$13.2	\$13.5
Capital Improvements Expenditures (\$Million):	<i>Budget</i>	\$25.7	\$23.3
	<i>Actual</i>	\$12.4	\$17.1
Debt Service Coverage Ratio (1.2 required)		1.3	1.8
Water Meter Connections		18,844	19,229
Average monthly bill for 6,000 gallon/month residential customer for water and sewer (\$Dollars)		\$50.82	\$53.14

Note: OWASA has established a Performance Measurement Report which currently tracks 172 performance indicators covering all aspects of OWASA's operations and business functions.