



# ORANGE WATER & SEWER AUTHORITY

*Quality Service Since 1977*

June 27, 2003

Chair Margaret Brown  
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

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

Dear Chair Brown, Mayor Nelson, and Mayor Foy:

I am sending this letter to bring you up-to-date on some important and exciting activities that are happening at OWASA. As mentioned before, there are many components to our water conservation and demand program, and I want to review some of those here.

### New Conservation Ordinances

I want to offer our sincere thanks for your recent adoption of the new water conservation ordinances. Carrboro, Chapel Hill, and Orange County adopted essentially identical versions of the conservation standards that the OWASA Board submitted to you several months ago. We believe that the new ordinances are an important part of the sustainability strategy for our community.

### Wastewater Reclamation and Reuse

Wastewater reclamation and reuse has been the focus of a recently completed feasibility study jointly funded by OWASA and the University. Based on our preliminary work, it appears feasible to use substantial amounts of highly treated effluent (reclaimed water) from our Mason Farm Wastewater Plant in the University's cooling towers, Cogeneration Plant boiler, and campus irrigation. As you know, the University represents about 30 percent of OWASA's total water demand – and in the summertime, nearly half of this is for cooling purposes. If implemented, this ambitious program could initially save an average of more than 1.5 million gallons per day of drinking water – and much more during the summertime when our lakes and Treatment Plant are the most challenged. OWASA and the University are currently conducting more detailed piloting work to further refine the expected costs and benefits of such a program. Initial estimates of the capital costs of such a system are about \$13 million, but the long-term savings in both resource value and increased drought protection may be worth even more.

We have been actively participating in the University's Carolina North planning efforts, and have proposed that water reclamation and reuse be fully considered as a long-term strategy for meeting the water and sewer service needs of Carolina North as well as the surrounding designated urban transition areas.

We look forward to providing additional information about these exciting projects, and will likely ask for your help in seeking State or Federal funding for these efforts. We may also request your consideration of potential ordinances that would require or encourage new development to extend and connect to the reclaimed water system, where feasible.

**Demand Management Possibilities**

We are continuing to examine the costs and benefits of a number of demand management (conservation) alternatives that may extend our available water supply and reduce our vulnerability to severe droughts. Some of these measures could be instituted through OWASA, such as a rebate program for replacing older high-consumption toilets with new (and effective) ultra-low flow toilets; or a voluntary water audit program that provides expert technical assistance to high volume water customers who want to reduce their water use. We are also reviewing other demand management measures that might be implemented through the Towns and County, such as water-saving landscape guidelines for new development or time-of-sale ordinances that require the replacement of old plumbing fixtures with new water-saving fixtures whenever an existing property is resold or renovated. We will complete a staff report on the costs, benefits, and implementability of these and other measures within the next few months and we will keep you advised as to how you may be able to support us.

**Revised Water Supply and Demand Projections**

We are currently reviewing and revising the estimated safe yield of our Cane Creek/University Lake/Stone Quarry reservoir system in both its current and future (expanded) configurations. We are applying a more sophisticated analytical method than was used for our *Comprehensive Water and Sewer Master Plan* project several years ago and are also incorporating streamflow from the record-setting drought of 2001-2002.

We are also revising long-term water demand projections to reflect information from the University's 2008 Development Plan, Central Campus Master Plan, and preliminary Carolina North water use estimates – all of which were developed after OWASA's *Master Plan* was completed in 2000. Preliminary indications are that long-term demands will be somewhat higher than the "expected" curve, but less than the "high" growth curve of our *Master Plan*. We will share the revised water supply and demand projections with you once we complete our review later this year.

Thanks again for adopting the new conservation ordinance and for your continuing commitment to and leadership on sustainable water resource management. We look forward to keeping you up-to-date on these important initiatives in the months ahead. Please let Ed Kerwin, Executive Director, or me know if you need additional information or assistance.

Sincerely,



Bernadette Pelissier, Chair  
OWASA Board of Directors

- c: Mr. Michael Brough, Interim Carrboro Town Manager  
Mr. W. Calvin Horton, Chapel Hill Town Manager  
Mr. John Link, Orange County Manager  
Ms. Nancy Sutfenfield, Vice Chancellor for Finance & Administration  
Ms. Carolyn Elfland, Associate Vice Chancellor for Campus Services  
Mr. Ray DuBose, Director, Energy Services Department  
OWASA Board of Directors  
Ed Kerwin, Executive Director