

A RESOLUTION RECEIVING REPORT ON WATER CONSERVATION
Resolution No. 117/2007-08

WHEREAS, an adequate and high quality water supply is fundamental to the well-being and sustainability of our community; and

WHEREAS, the Carrboro Board of Aldermen directed staff to participate in an interlocal workgroup to develop recommendations for water supply demand management and conservation in August 2006; and

WHEREAS, a report from the workgroup and OWASA recommendations have been prepared and presented; and

WHEREAS, water conservation and water use efficiency are cornerstones of our community's water resource demand management strategy, and the Carrboro Board of Aldermen is committed to pursuing water conservation and working collaboratively with local governments and OWASA; and

WHEREAS, on February 14, 2008 the OWASA Board of Directors received and strongly endorsed the workgroups recommendations;

NOW THEREFORE, the Carrboro Board of Alderman does hereby:

1. Receive the report prepared by the workgroup and OWASA recommendations
2. Desires to continue working collaboratively with the Town of Chapel Hill, Orange County and OWASA to ensure the quality and adequacy of our local water resources; and
3. Direct the Town's staff to continue to work with staff from the Town of Chapel Hill, Orange County and OWASA to more fully develop and evaluate potential implementation strategies, a list of proposed water use efficiency standards and conditions of service, appropriate roles and responsibilities, resource needs and timetable for implementation, etc.
4. Request that OWASA provide a report on the proposed approach and implementation plan for the water use efficiency conditions of service strategy before adoption of the strategy.



TOWN OF CARRBORO

NORTH CAROLINA

TRANSMITTAL

PLANNING DEPARTMENT

DELIVERED VIA: ☒ HAND ☐ MAIL ☐ FAX ☐ EMAIL

To: Steve Stewart, Town Manager
Patricia McGuire, Planning Administrator
Roy Williford, Planning Director
Mayor and Board of Aldermen

From: Randy Dodd, Environmental Planner

Date: March 12th, 2008

Subject: Interlocal Workgroup on Water Conservation Report

Background and Summary

Following the receipt of information from OWASA in February 2006 about projected water supply and demand trends and the increasing importance of conservation in meeting long-term water needs, the elected boards of Carrboro, Chapel Hill, and Orange County asked that OWASA staff work with their respective staffs in developing information and recommending specific actions that would enable the Towns, County, and OWASA to promote greater conservation of the community's water resources. A report has been prepared by an interlocal staff work group that was convened by OWASA in August, 2006 to consider potential water conservation strategies.

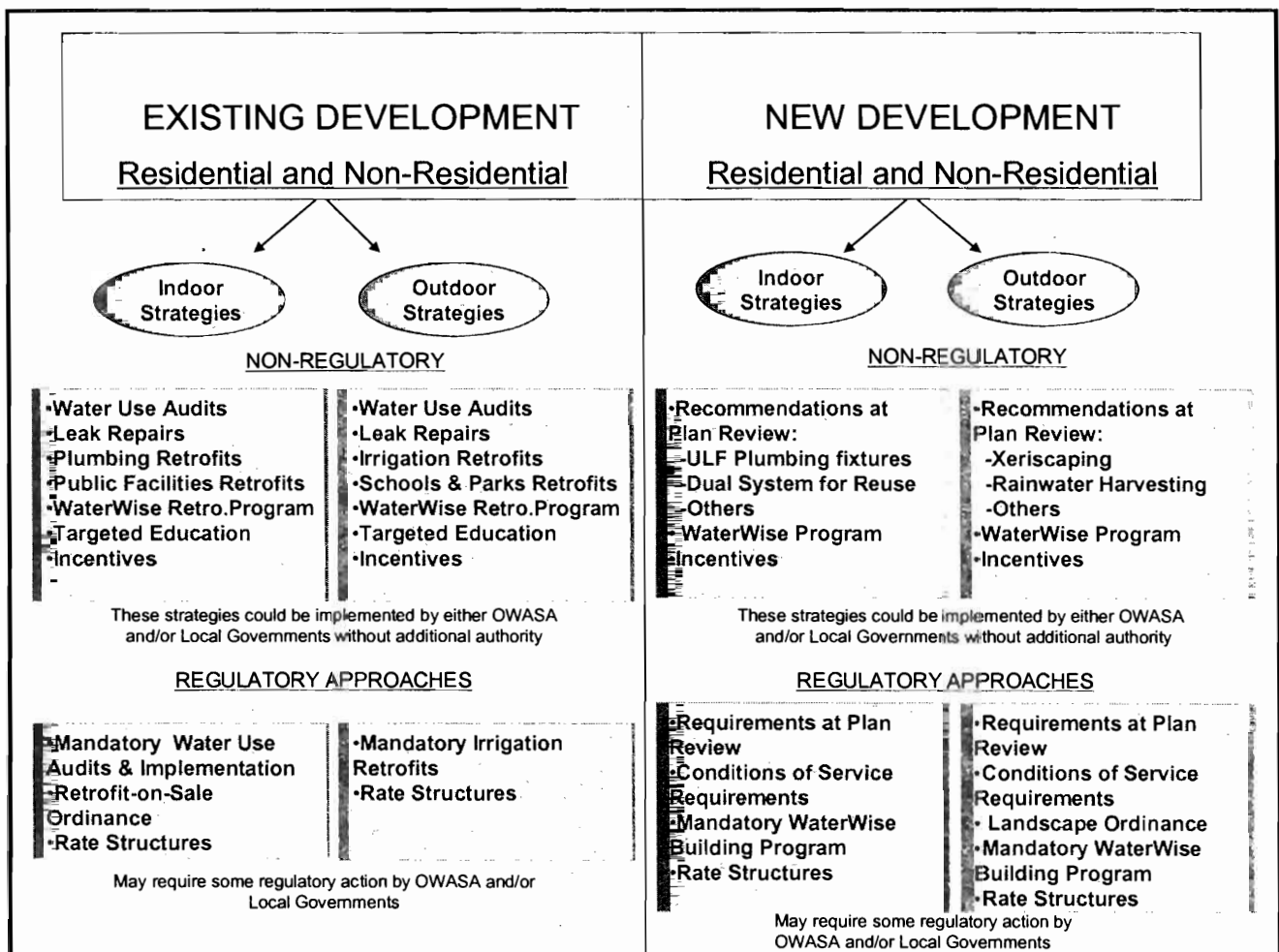
Information

Appended to this memo is a summary of the key workgroup findings and recommendations. This summary is drawn from a more comprehensive document prepared by OWASA staff and reviewed by the joint staff work group (*Collaborative Water Conservation Strategies for Joint Consideration by Carrboro, Chapel Hill, and Orange County – Draft, January 2008*). That report, which is posted at <http://www.townofcarrboro.org/pzi/Env/Water/conservation.htm> provides substantial detail about a range of opportunities in addition to those specifically recommended in this summary report by the joint staff work group.

Staff Recommendation

Staff recommend that the Board of Aldermen adopt a resolution receiving the draft report, and directing staff to continue working with OWASA and local governments, and provide feedback and direction to staff for next steps in pursuing the recommendations provided.

Figure 1: A summary of the various strategies and opportunities for addressing water efficiency in existing and new development identified in the workgroup report.



DRAFT**RECOMMENDATIONS TO THE POLICY BOARDS AND MANAGEMENT OF CARRBORO,
CHAPEL HILL, ORANGE COUNTY, AND OWASA REGARDING WATER CONSERVATION
PRIORITIES AND INITIATIVES**

**Prepared and submitted by the Planning and Resource Management staffs of the Towns of Carrboro
and Chapel Hill, Orange County, and OWASA
January 28, 2008**

Purpose and Background

This summary report represents the consensus of an interlocal staff work group that was convened by OWASA in August, 2006 to consider potential water conservation strategies. Following the receipt of information from OWASA in February 2006 about projected water supply and demand trends and the increasing importance of conservation in meeting long-term water needs, the elected boards of Carrboro, Chapel Hill, and Orange County asked that OWASA staff work with their respective staffs in developing information and recommending specific actions that would enable the Towns, County, and OWASA to promote greater conservation of the community's water resources.

This summary is drawn from a more comprehensive document prepared by OWASA staff and reviewed by the joint staff work group (*Collaborative Water Conservation Strategies for Joint Consideration by Carrboro, Chapel Hill, and Orange County – Draft, January 2008*). That report provides substantial detail about a range of opportunities in addition to those specifically recommended in this summary report by the joint staff work group.

Over-Arching Comments

Water conservation and demand management are critical components of OWASA's long-term strategy for ensuring a sustainable water supply for the citizens and businesses of Carrboro, Chapel Hill, and the UNC community. OWASA has achieved significant progress over the past several years through its seasonal and tiered rates, process water recycling at the water treatment plant, and the reclaimed water partnership with the University. The Towns and County enacted uniform conservation ordinances that are among the most proactive and innovative in North Carolina. UNC has implemented extensive conservation measures throughout all sectors of its Chapel Hill campus and has agreed to pay more than \$10 million for OWASA's reclaimed water system that will initially serve the main campus. The recommendations of the joint staff work group are intended to complement and reinforce the very significant accomplishments already achieved in our community.

The work group strongly supports and encourages OWASA to continue its efforts to promote increased water efficiency through effective public education and targeted technical assistance to customers, aggressive conservation pricing, and utility management practices, such as the use of reclaimed water for non-potable needs. OWASA is encouraged to consider additional measures, including but not limited to financial incentives, such as reductions in water and sewer availability fees for water efficient buildings, rebates, credits, and low-interest loans, to further promote conservation by current and future customers.

The work group also recommends that the OWASA Board of Directors and the elected boards of Carrboro, Chapel Hill, and Orange County consider additional strategies to complement OWASA's ongoing efforts. The Towns, County, and OWASA should adopt new water conservation policies and requirements that are consistent throughout the OWASA service area in order to assure their effective and equitable application among all OWASA customers, businesses, and developers in the community. One key approach endorsed by the staff work group is for OWASA to develop and adopt water use efficiency standards and requirements for new development and redevelopment projects as "conditions of OWASA service." The Towns and County would then reference OWASA's standards and requirements as conditions of their respective development approval processes.

By implementing the more publicly visible strategies recommended in this report, Carrboro, Chapel Hill, Orange County, and OWASA can “lead by example” in promoting the conservation behaviors and actions that we collectively want our residents, businesses and institutions to follow.

The staff work group recommends that OWASA more fully formalize its plans for achieving its *Goal and Objectives for OWASA’s Long-Term Water Conservation and Demand Management Program* adopted in April 2005. The scope and cost of implementing those plans will be determined in part by the Towns’ and County’s decisions about which strategies that they themselves will pursue.

The staff work group recommends a two-phased implementation approach for the following strategies. Upon direction and guidance from the OWASA Board of Directors and the local elected boards, staff will develop a proposed implementation plan, including a timetable, projected funding and staffing requirements, and the proposed roles and responsibilities of each respective entity.

Recommended Near-Term Actions

1. ***OWASA should develop specific standards and enact requirements for all new development and redevelopment to provide water use efficiency plans and to install state-of-the-art water saving fixtures and devices.*** Compliance with these standards would be required as a condition of receiving OWASA water and/or sewer service. Such standards could include requirements for use of “high efficiency” toilets, faucets, showerheads, and other fixtures certified under the US Environmental Protection Agency’s WaterSense program, and water-using appliances, such as clothes washers and dishwashers that meet the US Department of Energy’s Energy Star requirements.
2. ***Conduct water use audits and cost-effective water conservation retrofit projects at local government-owned and managed properties.*** Examples include: (a) collaboration by OWASA and the Chapel Hill Public Housing Authority to install high efficiency toilets in approximately 135 public housing units that currently have older less efficient toilets; and (b) evaluation of existing irrigation systems and operating practices in order to minimize the use of OWASA supplied potable water use on public properties.
3. ***Continue to incorporate and formalize our collective local commitments to state-of-the-art water use efficiency in the design of new public properties and, where practical and cost-effective, in renovated local government properties.*** Examples include Orange County’s “Orange Turning Green” initiative for smart growth and green building design, Carrboro’s Century Center, Chapel Hill’s recently completed Town Operations Center, and OWASA’s Operations Center.
4. ***Develop sustainable landscape guidelines and requirements to ensure that landscape and irrigation system design, installation and maintenance are more water efficient and environmentally friendly than traditional practices.*** Such measures could include limits on the amount of turf that can be established on a given site and/or irrigated with OWASA-supplied potable water, as well as requirements for the placement and design of the irrigation systems. Requirements such as these would be most appropriately addressed through the Towns’ and County’s own development rules and requirements, rather than through new OWASA standards of service. Xeriscaping, the use of harvested rainwater and reclaimed water would be encouraged as alternatives to potable OWASA water.

Recommended Longer-Term Actions

1. ***Enact requirements for new development projects to connect to OWASA’s reclaimed water system when such service is available.*** Requirements could mandate that existing irrigation systems served with OWASA potable water must be connected to the reclaimed water system when and where available.

This could be accomplished similar to the way in which the Towns now require, as a condition of approval, that new development be served by the OWASA water and sewer system. A requirement that

potable water-based irrigation systems be converted to reclaimed water service could be one of OWASA's proposed new conditions of service.

2. *Subject to the determination that sufficient legal authority exists, enact a retrofit-on-sale policy/requirement that property owners retrofit existing buildings with ultra-low flush toilets, low-flow showerheads and faucet aerators, and other water-saving fixtures prior to the sale, transfer of ownership, or change of use of a building.*
3. *Subject to the determination that sufficient legal authority exists, enact a policy/provision that prohibits any restrictions via deed, covenant, Homeowners Association rules, etc., that would limit a property owner's ability to implement sustainable landscaping, rainwater harvesting, or other water conservation practices otherwise permitted by law.*

Implementation of the retrofit-on-sale strategy will likely require special local enabling legislation and is therefore recommended as a longer-term action. The joint staff work group encourages the Towns, County, and OWASA to consider seeking such authority.

The work group looks forward to receiving questions, comments and direction from the OWASA Board of Directors, Carrboro Board of Aldermen, Chapel Hill Town Council, and Orange County Board of Commissioners.




TOWN OF CARRBORO
NORTH CAROLINA
WWW.TOWNOFCARRBORO.ORG

MEMORANDUM

TO: Zoning Division Staff and Town Engineer

CC: Roy Williford, *AICP*, Planning Director
Steve Stewart, Town Manager
Randy Dodd, Environmental Planner
Mayor Mark Chilton and the Board of Aldermen

FROM: Martin Roupe, Development Review Administrator 

DATE: October 23, 2007

SUBJECT: Policy Regarding Installation of Landscaping Features During Drought Conditions

I am writing to remind you of our landscaping policy during drought conditions. Similar to actions undertaken during the 2002 drought, I ask that you immediately begin strongly encouraging the remittance of bonds or letters of credit (per Section 15-60 of the LUO) for any landscaping features required as a part of a development. This policy pertains to the installation of street trees, screening/buffering requirements, and general landscaping when required as a part of the Land Use Permit for commercial and/or multifamily projects.

An additional element of water consumption involves the installation of general landscaping features around single-family houses within residential subdivisions. As you know, the Town's Land Use Ordinance does not require the installation of these features, but the features often are installed subsequent to a home's construction for general beautification of the property. During the remainder of drought conditions, we should encourage landscaping contractors to delay the installation of these general landscaping features until a more appropriate time. If a lawn area is created, it must still be stabilized prior to the issuance of a Certificate of Occupancy; however, seeding is considered optional, and in all cases contractors should be made aware that lawns and other

landscaping features may not be watered, pursuant to current water use restrictions enacted by OWASA.

This policy is to remain in place until OWASA declares that the drought is over. Please see me if you have any questions regarding this policy.



**Town of Carrboro
Public Works Department**

memorandum

To: Steve Stewart, Town Manager

From: George Seiz, Public Works Director

Cc:

Re: Water Conservation Efforts

Date: March 13, 2008

Town staff have been working to conserve water by following Orange Water and Sewer Authority (OWASA) conservation requirements and making others aware of the need to conserve. These efforts include the following:

Operations

- Eliminated the general washing of all vehicles and equipment. The protection of public health, safety, and welfare may, under special circumstances require the use of limited amounts of OWASA drinking water for such purposes as washing out garbage trucks, cleaning up hazardous or other unsanitary materials, etc.
- Encouraged developers to delay the installation of landscape features until a more appropriate time.
- Used and continue to use OWASA reclaimed water in street sweeper for dust suppression.
- Refrained from planting any winter flowers (2007/2008).
- Postponed the planting of summer annuals in 2008.
- Used and continue to use reclaimed water for any PW activities possible while the drought continues.
- Discontinue filling the fountain in front of the Century Center.
- Continue to design spring/summer plantings with drought tolerant plants.
- Maintain adequate mulch levels in plant beds for water retention.
- Weed plant beds more frequently to reduce competition for water.
- Use only dry cut methods for concrete and asphalt repair (not utilizing water during cutting)

Facilities

- Installed 3 rain barrels at Town Hall and 2 rain barrels at the Town commons to help facilitate watering of nearby plant beds. Public Works will be utilizing an existing 800 gallon container to collect rain water at Public Works.
- Installed low flush toilet in women's bathroom on first floor of Town Hall.
- Installed low flow shower heads at Fire Dept, Police Dept. and Public Works.
- Placed **water** displacement bottles and new flappers in conventional toilets at Fire Dept.
- Installed flushless urinal in the Century Center as a pilot program. The 08/09 proposed budget calls for the replacement of the remaining six (6) conventional urinals at the Century Center with flushless type urinals.
- Staff is in the process of investigating the cost and feasibility of installing automatic faucets at Town facilities.

Public Awareness

- Planning staff have been working with Chapel Hill and OWASA staff in an interlocal work group on water conservation to consider and develop water demand management strategies.



Town of Carrboro
Public Works Department

memorandum

- Town staff members from Police, Fire, and the Manager's Office have joined with OWASA and Chapel Hill staff to discuss and implement strategies for disseminating public information about the drought. The bullets below are all results of those meetings.
- Signs have been placed in Town-owned facilities (bathrooms/break areas) to inform employees and public to conserve water.
- Town staff have assisted OWASA in fabrication and placement of water restriction signs placed on public right-of-way and at Town facilities.
- Town staff have placed magnetic signs (provided by OWASA) noting mandatory restrictions on town vehicles.
- The Fire Department has been helping to distribute low flow shower heads and flapper valves provided by OWASA.
- Drought information has been placed on the Town's website and also on the Ch.18 bulletin board.

RECOMMENDATIONS REGARDING WATER CONSERVATION PRIORITIES AND INITIATIVES

Prepared By OWASA Natural Resources and Technical Services Committee for OWASA Board

February 14, 2008

Background

Water conservation and demand management are critical components of OWASA's long-term strategy for ensuring a sustainable water supply for the citizens and businesses of Carrboro, Chapel Hill, and the University community. OWASA has achieved significant progress over the past several years through its seasonal and tiered rates, process water recycling at the water treatment plant, and the reclaimed water partnership with the University. The Towns and County enacted uniform conservation ordinances that are among the most proactive and innovative in North Carolina. The University has implemented extensive conservation measures throughout all sectors of its Chapel Hill campus and has agreed to pay more than \$12 million for OWASA's reclaimed water system that will initially serve the main campus.

In February 2006, OWASA presented information about projected water supply and demand trends and the increasing importance of conservation in meeting long-term water needs to the elected boards of Carrboro, Chapel Hill, and Orange County. The elected Boards asked that OWASA staff work with their respective staffs in developing information and recommending additional specific actions that would enable the Towns, County, and OWASA to achieve greater conservation of the community's water resources. This interlocal staff workgroup prepared a comprehensive consensus report and set of recommendations - *Collaborative Water Conservation Strategies for Joint Consideration by Carrboro, Chapel Hill, and Orange County, Draft, January 2008*. That document provides substantial detail about several potential conservation strategies in addition to those specifically recommended in this NRTS Committee report.

The workgroup recommended that the Towns, County, and OWASA adopt new water conservation policies and requirements that are consistent throughout the OWASA service area in order to assure their effective and equitable application among all OWASA customers, businesses, and developers in the community. One key approach endorsed by the staff work group and recommended by NRTS is that OWASA develop and adopt water use efficiency standards and requirements for new development and redevelopment projects as "conditions of OWASA service". The Towns and County would then reference OWASA's standards and requirements as conditions of their respective development approval processes.

Recommendations

The NRTS Committee recommends two phases of implementation for the following strategies:

Recommended Near-Term Actions

1. ***OWASA should develop specific standards and enact requirements for all new development and redevelopment to provide water use efficiency plans and to install state-of-the-art water saving fixtures and devices.*** Compliance with these standards would be required as a condition of receiving OWASA water and/or sewer service. Such standards could include requirements for use of “high efficiency” toilets, faucets, showerheads, and other fixtures.
2. ***OWASA should require that, as a condition of continuing OWASA water and/or sewer service, an existing service location must be in compliance with OWASA water use efficiency standards and conditions of service upon change of ownership or use.***
3. ***Local governments and OWASA should conduct water use audits and cost-effective water conservation retrofit projects at local government-owned and managed properties, thus “leading by example”.***
4. ***The Towns, County, and OWASA should continue to incorporate and formalize our collective commitments to state-of-the-art water use efficiency in the design of new local government-owned and managed properties and, where practical and cost-effective, in renovated local government-owned and managed properties.***
5. ***The Towns, County, and OWASA should develop sustainable landscape guidelines and requirements to ensure that landscape and irrigation system design, installation, and maintenance are more water-efficient and environmentally-friendly than traditional practices.*** Such measures could include limits on the amount of turf that can be established on a given site and irrigated with OWASA-supplied potable water, as well as requirements for the placement and design of the irrigation systems. The use of harvested rainwater and reclaimed water would be encouraged as alternatives to potable OWASA water.

Recommended Longer-Term Actions

1. ***The Towns and County should enact requirements for new development projects to connect to OWASA’s reclaimed water system when such service is available.*** Requirements could mandate that existing irrigation systems served with OWASA potable water be connected to the reclaimed water system when and where available. A requirement that potable water-based irrigation systems be converted to reclaimed water service could be one of OWASA’s proposed new conditions of service.
2. ***If necessary, the Towns, County, and OWASA should seek enabling authority to enact a policy/provision that prohibits any restrictions via deed, covenant, Homeowners Association rules, etc., that would limit a property owner’s ability to implement sustainable landscaping, rainwater harvesting, or other water conservation practices otherwise permitted by law.***

The staff and NRTS look forward to receiving questions, comments and direction from the OWASA Board of Directors.

Upon direction and guidance from the OWASA Board of Directors, OWASA staff will work with local government staffs to develop proposed water use efficiency conditions of service, and to propose a more detailed implementation plan, including a timetable, projected funding and staffing requirements, and the proposed roles and responsibilities of each respective entity.