ORANGE WATER AND SEWER AUTHORITY

A public, non-profit agency providing water, sewer and reclaimed water services to the Carrboro-Chapel Hill community.

MEMORANDUM

TO: Natural Resources and Technical Systems Committee
Alan Rimer (Chair)
Mac Clarke
Joy Preslar
William Stott
Amy Witsil
Gordon Merklein (*ex officio*)

THROUGH: Ed Kerwin

FROM: Mason Crum

DATE: May 31, 2011

SUBJECT: June 7, 2011 NRTS Committee Meeting

The NRTS Committee will meet Tuesday, June 7, 2011, at 8:00AM in the OWASA Boardroom. Main topics will be:

1. **Orange County's Master Telecommunication Plan Map**: The Orange County Board of County Commissioners (BOCC) recently approved a map that identifies locations for additional cell towers so that county-wide cell phone coverage is improved. Orange County is taking this action to improve both public safety (improved 911 response) and for economic development reasons. One of the many locations they have identified is on OWASA property adjacent to the Cane Creek Reservoir.

Please see Attachment 1.

Committee Action Requested: None at the current time, but we expect to receive a written request from Orange County in the future.

2. **Rogers Road**: The Orange County BOCC recently made significant decisions about the County's role in mitigating the effects of the landfill on the Rogers Road neighborhood. The BOCC's May 17th discussions can be viewed by clicking on item 8.A or going to 1:04 in the video at http://www.co.orange.nc.us/occlerks/granicus.asp. At the NRTS Committee meeting, staff and Counsel will provide a verbal update, discuss OWASA's role, and briefly address staff's opinions regarding the use of a pressure sewer system in this area, as suggested by County Manager Frank Clifton and others during the May 17 meeting.

No written agenda materials are provided, but we believe it will be beneficial for Committee members to view the video discussed above before the June 7th meeting.

Committee Action Requested: None.

3. **Upper Neuse Clean Water Initiative (UNCWI)**: Staff will provide information in advance of a presentation to the full Board (date still to be determined) by partners of the UNCWI.

Please see Attachment 2.

Committee Action Requested: None at this time, but at some point in the future the Committee may wish to consider a recommendation to the full Board regarding OWASA's future involvement, if any, in additional land conversation as proposed by the UNCWI.

4. Other Business

5. Next Meeting?

We look forward to seeing you at 8:00 Tuesday morning.

Mason Crum, P.E.
Director of Engineering and Planning

Attachments
cc: Board of Directors
Bob Epting

Orange County's Master Telecommunication Plan Map
May 31, 2011

Purpose

To provide information to the Committee in anticipation of receiving a request from Orange County that OWASA consider allowing construction of a cell tower on OWASA-owned property adjacent to the Cane Creek Reservoir.

Background

Through this plan the County is taking action to improve county-wide cell phone coverage for both public safety (improved 911 response) and for economic development reasons.

At the County's request, OWASA first expressed interest in being included in their Master Telecommunication Plan back in 2003 (please see first attachment).

In January 2011 Orange County requested that OWASA confirm its interest in participating in the plan. The second attachment is our response confirming our interest in participating, subject to the approval of the OWASA Board.

On May 17th the Orange County Board of County Commissioners (BOCC) approved a map that identifies locations for additional cell towers so that county-wide cell phone coverage is improved. One of the many locations they have identified is on OWASA property adjacent to the Cane Creek Reservoir. The third attachment is Orange County's map showing the potential (preferred) cell tower locations. The fourth attachment is a map that more clearly shows the proposed site on OWASA-owned property

On May 18 Ed Holland contacted County staff to make it clear that any potential OWASA involvement in this program would occur only in response to a written request from the County that OWASA participate in the program. He also informed County staff that any request should be directed to Ed Kerwin and that it should include a clear statement about the public benefits of OWASA's participation.

Detailed information on the County's plan is available in their May 17 agenda item at: http://www.co.orange.nc.us/OCCLERKS/1105177b.pdf.

Committee Action Requested and Next Steps

Staff believes that OWASA's participation in the County's plan should be conditional upon the County's willingness to handle the OWASA-owned site in conjunction with actions taken on their Orange County-owned properties. If a cell tower is eventually installed on OWASA-owned property, then OWASA could reimburse the County for any costs incurred in evaluating and developing the OWASA-owned site (for site surveys, etc.) from the proceeds received from leasing the land to a telecommunications service provider.

Staff is interested in hearing the Committee's views on OWASA's active participation, if any, in the County's plan.

ORANGE PLANNING & INSPECTIONS DEPARTMENT

Craig N. Benedict, AICP, Director

Current Planning
(919) 245-2575
(919) 644-3002 (FAX)
www.co.orange.nc.us

306F Revere Road
P O Box 8181
Hillsborough,
North Carolina, 27278



LETTER OF INTEREST AND INTENT IN PARTICIPATING IN THE ORANGE COUNTY, NC MASTER TELECOMMUNICATIONS PLAN (MTP)

TO: Orange County Board of Commissioners, Planning Board, and Planning & Inspections Department

I (We) Orange Water + Sewer Authority hereby state my (our) interest and intent to participate in the Orange County, NC Master Telecommunications Plan. I (We) further understand that the signing of this statement in no way legally binds me (us) to actually participate or have my (our) property included within the final Master Telecommunications Plan (MTP) should I (We) decide not to participate in the MTP at a future date. **Note: All persons having legal interest must sign and date this statement in order for it to be valid. Additional sheets may be attached if necessary. I acknowledge that a public hearing will be held on this matter on May 27, 2003, at 7:00 P.M. in the F. Gordon Battle Courtroom located at 106 East Margaret Lane in Hillsborough, NC.**

Ed Remin
Property Owner

5/12/03
Date

Property Owner

Date

Property Owner

Date

G:\Current Planning Div\Tking\MTP\MTP Letter of Interest

Received 5-13-03

ORANGE WATER AND SEWER AUTHORITY

A public, non-profit agency providing water, sewer and reclaimed water services to the Carrboro-Chapel Hill community.

February 1, 2011

Mr. Glenn R. Bowles
Orange County Planning & Inspections Department
131 W. Margaret Lane
Hillsborough, NC 27278

SUBJECT: ORANGE COUNTY MASTER TELECOMMUNICATIONS PLAN

Dear Mr. Bowles:

In response to your e-mail of January 25, 2011 and confirming your conversation with John Greene of my staff, I offer the following responses to the questions you asked about OWASA's willingness to participate in the County's Master Telecommunications Plan initiative:

1) **Is OWASA still interested in this process?**

Yes. This affirmative response is provided with the understanding that OWASA is not legally bound to participate and may withdraw from the process at any time. This response is also provided with the understanding that any agreement to allow construction of new cell towers on OWASA-owned land will require the approval of the OWASA Board of Directors.

2) **Does OWASA want to bid out its own site or sites; or, in the alternative, would you elect to become part of the Orange County RFP process?**

At the current time we believe it makes the most sense to participate in the County's Request for Proposal process.

3) **If so, would you want to modify parts of the attached RFP?**

We do not wish to modify the Request for Proposal at this time.

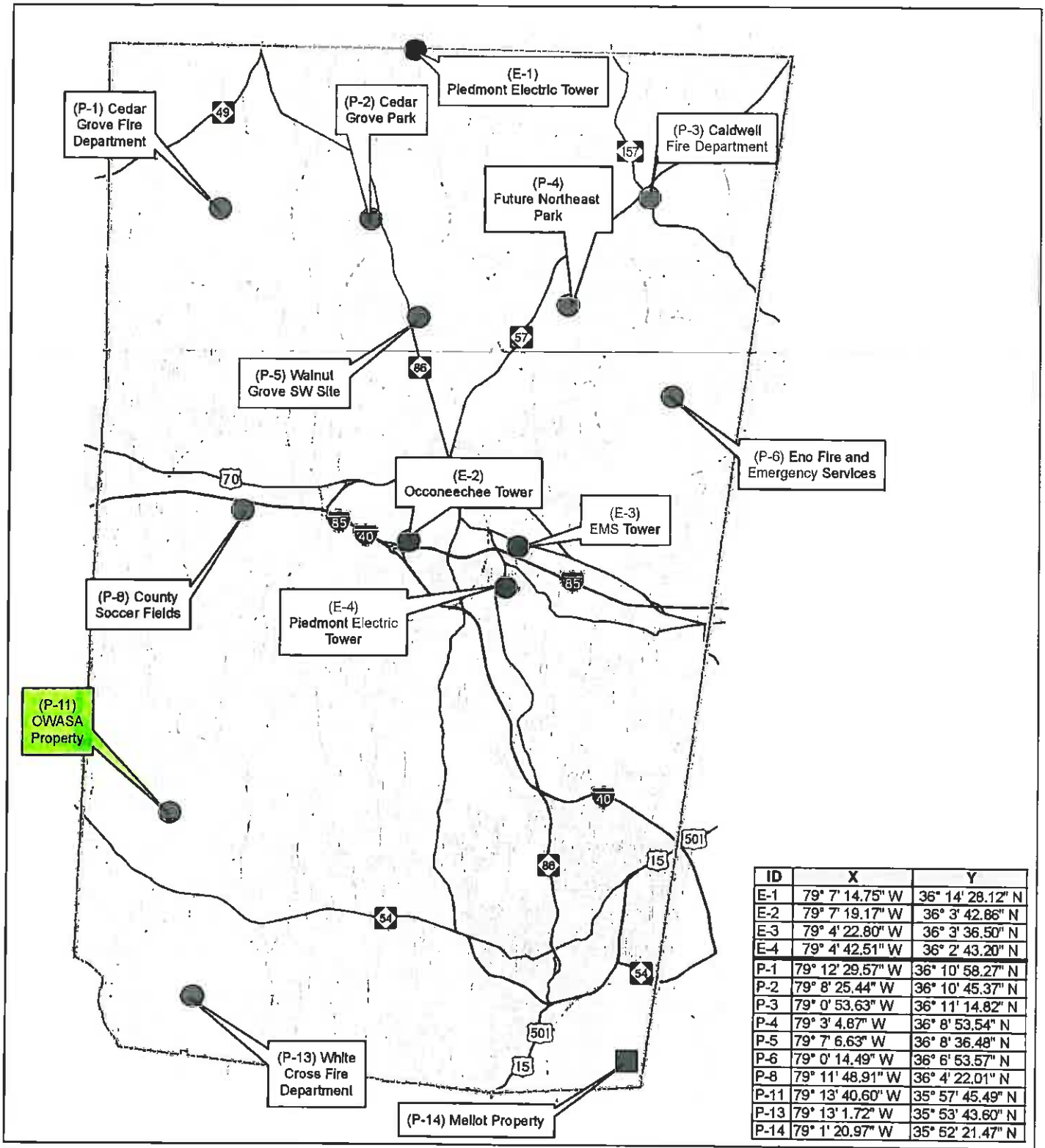
Please contact our Planning Director, Mr. Ed Holland, at 919-537-4215 or eholland@OWASA.org if you have any questions or require additional information.

Sincerely,

Ed Kerwin
Executive Director

c. Robert Epting, General Counsel

Telecommunication Plan Tower Sites



ID	X	Y
E-1	79° 7' 14.75" W	36° 14' 28.12" N
E-2	79° 7' 19.17" W	36° 3' 42.86" N
E-3	79° 4' 22.80" W	36° 3' 36.50" N
E-4	79° 4' 42.51" W	36° 2' 43.20" N
P-1	79° 12' 29.57" W	36° 10' 58.27" N
P-2	79° 8' 25.44" W	36° 10' 45.37" N
P-3	79° 0' 53.63" W	36° 11' 14.82" N
P-4	79° 3' 4.87" W	36° 8' 53.54" N
P-5	79° 7' 6.63" W	36° 8' 36.48" N
P-6	79° 0' 14.49" W	36° 6' 53.57" N
P-8	79° 11' 48.91" W	36° 4' 22.01" N
P-11	79° 13' 40.60" W	35° 57' 45.49" N
P-13	79° 13' 1.72" W	35° 53' 43.60" N
P-14	79° 1' 20.97" W	35° 52' 21.47" N

- Enrolled Private Properties
- Exisitng Tower Locations
- Potential Tower Locations
- 2 mile Buffer

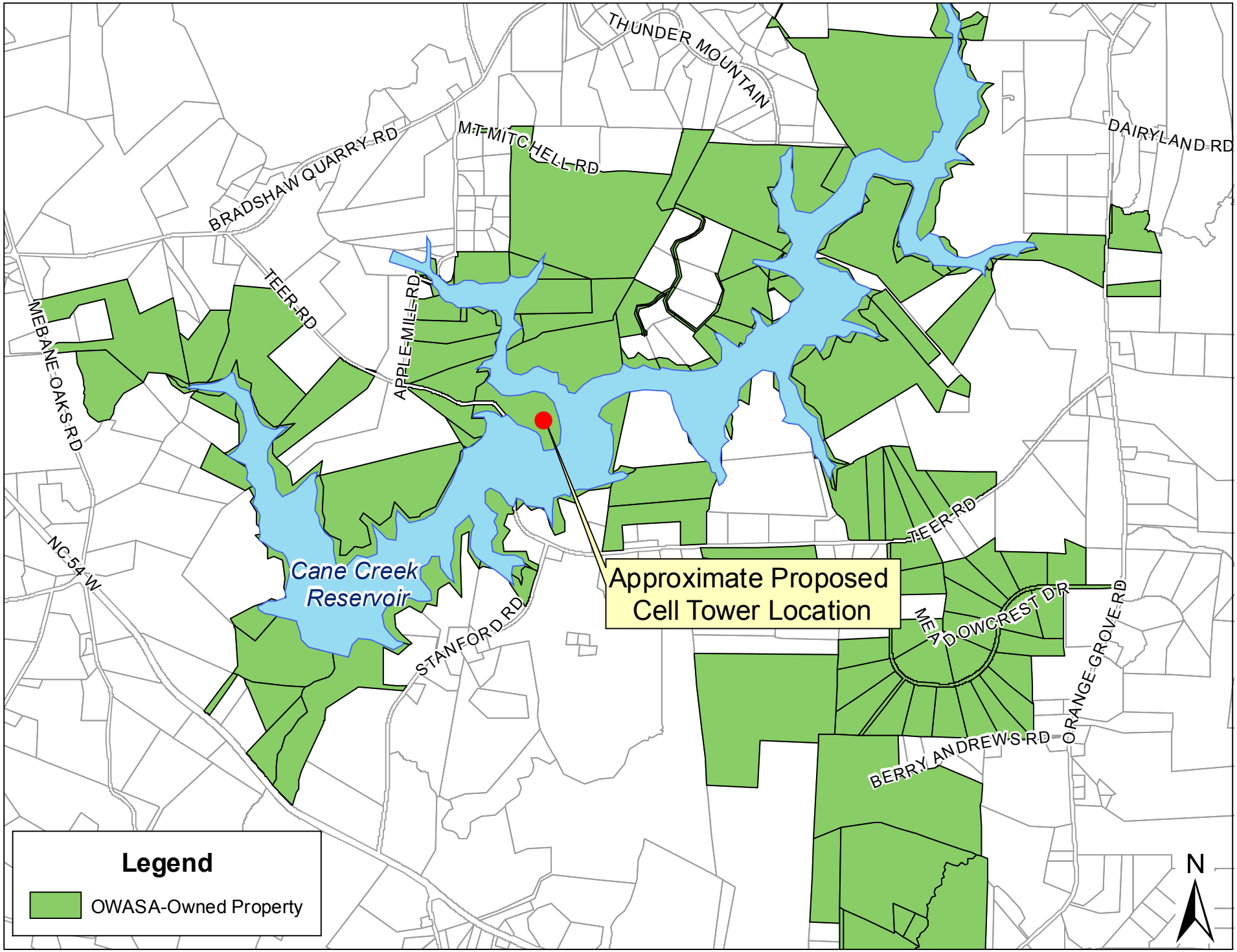
N

1 inch = 3.2 miles

0 1 2 3 Miles

Orange County Planning and Inspections Department
GIS Map Prepared by Brian Carson January 25, 2011

Potential Cell Tower Location on OWASA-Owned Property



Upper Neuse Clean Water Initiative Proposal
May 31, 2011

Purpose

This memo provides information in advance of a presentation to the OWASA Board by Mr. Bill Holman on behalf of the Upper Neuse Clean Water Initiative (UNCWI).

Background

An April 13, 2011 letter from the UNCWI partners (attached) requests that Durham, Cary, Raleigh, and OWASA charge customers an additional $0.01 per 100 gallons of drinking water to generate a reserve fund for acquiring property and/or conservation easements to protect drinking water supply reservoirs. On May 20, 2011 Mr. Holman, who is the Director of State Policy at Duke University's Nicholas Institute for Environmental Policy, contacted Ed Kerwin requesting an opportunity to make a 15-20 minute presentation to the OWASA Board of Directors at an upcoming meeting. A presentation was scheduled for the June 9 meeting as noted in Gordon Merklein's May 23rd letter (also attached), but we recently learned that Mr. Holman will not be available on June 9 and his presentation will be re-scheduled for a later date.

Discussion

The UNCWI effort was established in 2005 in response to technical recommendations that acquiring/protecting additional stream buffers in the Upper Neuse River Basin would help safeguard water quality in Falls of the Neuse Reservoir, which is the City of Raleigh's primary drinking water source. Falls Lake is subject to similar nutrient-related issues as Jordan Lake. Both reservoirs, as well as OWASA's University Lake and Cane Creek Reservoir, are listed as "impaired" due to chlorophyll *a* concentrations that have exceeded water quality standards. (As noted previously, none of the OWASA lakes' intended uses for public water supply or recreation have actually been compromised or impaired. University Lake and Cane Creek Reservoir continue to meet all public health-related water quality standards.)

The City of Raleigh has been an active participant and the primary source of local funding for UNCWI. Recent information from Durham and Cary indicate that both have active land acquisition programs in place at this time. Durham has focused primarily on purchasing property around its Lake Michie water supply, while Cary's focus has been to preserve open ("green") space less associated with water resources. According to our staff level discussions, neither Durham nor Cary have formally determined what level of funding commitment, if any, they will make in response to the UNCWI proposal.

What actions has OWASA already taken?

Since the Cane Creek Reservoir was first filled in 1989, OWASA has invested a significant amount of ratepayers' funds to purchase land and easements for drinking water supply protection. From 1989 through 2006, OWASA paid $7.8 million to protect 1,520 acres of Cane Creek and University Lake watershed land through a combination of direct purchases and conservation easements, specifically to reduce phosphorus loads projected to occur from

future development. During that time we received $2.9 million of NC Clean Water Management Trust Fund grants in reimbursement, representing a net OWASA investment of $4.9 million for land and easements. During that same 17-year period, OWASA sold approximately 47.5 billion gallons of drinking water. In other words, OWASA customers paid an average of $0.103 per thousand gallons of water specifically targeted at watershed land protection from 1989 to 2006. That is slightly more than the one penny per hundred gallons requested in the UNCWI letter.

Orange County, Carrboro, and Chapel Hill have also acquired land – all located within the Jordan Lake watershed – for open space and natural resource protection.

Should OWASA protect more land in its Cane Creek and University Lake watersheds?

Previous OWASA purchases followed the recommendations of technically focused watershed studies conducted to identify specific actions needed to ensure adequate protection of our water supplies.

The Cane Creek watershed recommendations adopted by the OWASA Board of Directors in 1997 included a goal of acquiring ownership or conservation easements on 1,265 acres of additional land. A total of 960 acres of additional Cane Creek watershed land were subsequently protected by OWASA, while Orange County acquired conservation easements on 198 acres in the Cane Creek watershed, for a total of 1,158 acres permanently protected since 1997, thus achieving nearly 90 percent of OWASA's original goal.

A 2003 study of potential water quality benefits of land/easement acquisition in the University Lake watershed determined that a similar program would not benefit University Lake. That study did, however, recommend that OWASA consider the strategic acquisition of critical riparian buffer lands in the University Lake watershed on a case-by-case basis.

Having essentially achieved the land acquisition recommendations of those studies, OWASA's Capital Improvements Program has made no further investments in watershed land for the past several years. University Lake and Cane Creek Reservoir are both impaired due to nutrient-driven chlorophyll *a* concentrations, but we are aware of no technical information suggesting that additional land conservation would improve those conditions.

What about the Upper Cape Fear Watershed?

The Upper Cape Fear River Basin includes the entire 3,200 square mile drainage area of the Haw and Deep River systems. The Jordan Lake watershed represents approximately 1,700 square miles (53 percent) of this, and OWASA's University Lake and Cane Creek watersheds, located within the Jordan watershed, comprise only 62 square miles, or less than 4 percent of the Jordan Lake and less than 2 percent total Upper Cape Fear, respectively.

The April 13, 2011 UNCWI letter recommends that OWASA establish a funding reserve "for land conservation projects to protect water quality and quantity in the Upper Neuse and Upper Cape Fear watersheds." The letter is unclear about the actual area in which such funds would be applied. As noted above, we have no technically-based water quality justification

for spending additional funds on land conservation in our own water supply watersheds, and we are unaware of any studies indicating that such expenditures elsewhere in the Upper Cape Fear Basin would have commensurate water quality benefits in Jordan Lake or other water bodies.

In addition to OWASA's stewardship role with respect to natural resources, we are responsible for the prudent management of the financial resources provided by our customers. We are obligated to ensure that OWASA expenditures produce direct and meaningful benefits.

Potential impacts on customer rates

The UNCWI Partnership's proposal for a one cent per 100 gallon surcharge would generate $237,250 per year at a potable water sales rate of 6.5 mgd, as projected for FY 11. Applying the same surcharge to reclaimed water sales would generate an additional $24,000 for an annual total of $260,000.

A single-family residential customer using 5,000 gallons per month would pay an additional $0.50 per month ($6.00 per year). Based on usage during the past 12 months, additional costs to UNC Chapel Hill would be $63,000 per year, Chapel Hill – Carrboro Schools: $3,400 per year; and the Town of Chapel Hill: $1,350 per year.

It is notable that these costs would be in addition to expenditures that OWASA customers have already made, and will continue to make, for improvements to the Mason Farm Wastewater Treatment Plant that were necessary to comply with the Jordan Lake Nutrient Rules.

Items to consider in evaluating the UNCWI proposal:

1. OWASA's Carrboro-Chapel Hill service area and our University Lake/Cane Creek/Quarry Reservoir watersheds are located wholly within the Cape Fear (rather than Neuse) River Basin. Efforts underway in the Neuse Basin were supported in part by technical analyses indicating locations land protection efforts would be most beneficial to water quality in the Falls of the Neuse Reservoir. We are not aware of any similar studies for the Deep River or Jordan Lake watershed.

2. We have no information to date as why the UNCWI proposal has been made only to Durham, Cary, Raleigh and OWASA. Have other entities been approached?

3. Should the UNCWI proposal be limited to entities that manage point source discharges (e.g., wastewater plants) only, or should it be directed to those responsible for managing nonpoint sources (stormwater) as well?

4. Would this be the best use of ~$250,000 in additional annual OWASA revenues? For example, preliminary return on investment (ROI) calculations from the wastewater biogas reuse study currently underway indicate that it may not be economically prudent to increase the beneficial use of methane gas unless OWASA becomes a collection center

for grease recycling. Would the proposed funds be best used for additional land conservation, biogas reuse, or for some other purpose?

5. If OWASA's goal is high quality drinking water sources, it may be more useful to apply such funds to explore, and possibly implement, *in-lake treatment options* for directly improving raw water quality in Cane Creek and University Lake, rather than additional land conservation.

Committee Action Requested and Next Steps

Staff recommends that no water rate surcharge be implemented as part of OWASA's FY 12 Budget, and that the Board further evaluate the merits of the UNCWI proposal before deciding on OWASA involvement, if any, for FY 13 and later. We encourage the NRTS Committee to discuss these issues and to make a report, including possible recommendations, to the full Board of Directors at its June 9 meeting.

Attachments

RECEIVED

APR 14 2011

April 13, 2011

Mayor Charles Meeker
Office of the Mayor
222 W. Hargett St., Ste. 209
Raleigh, NC 27601

Chairman Gordon Merklein
Orange Water & Sewer Authority
400 Jones Ferry Road
Carrboro, NC 27510

Mayor Bill Bell
Office of the Mayor
101 City Hall Plaza
Durham, NC 27701

Mayor Harold Weinbrecht
Office of the Mayor
Cary Town Hall
316 N. Academy St.
Cary, NC 27513

Dear Mayors Bell, Meeker and Weinbrecht, and Chairman Merklein,

Ensuring safe drinking water is one of the most important services that you provide to protect public health and to sustain the economy of the Research Triangle region. Due to population growth and development, water quality and quantity in Falls Lake, Jordan Lake, and other important reservoirs are threatened. We respectfully urge you to implement a new regional dedicated funding system that will bolster existing efforts to prevent polluted runoff and sediment from contaminating these vulnerable drinking water sources.

The most cost-effective way to ensure clean drinking water is to protect natural buffers along the tributaries that lead to the reservoirs. Over time, this preventive approach costs far less than cleaning up polluted water. At the March 2011 meeting of the Environmental Council of the States, Nancy Stoner, EPA Acting Assistant Administrator for Water, noted that preventing water pollution is 27 times more cost effective than cleaning it up.

We commend all of you for your governments' longstanding efforts to preserve open space and protect water quality and quantity for your constituents. One example is the Upper Neuse Clean Water Initiative, a successful partnership between state and local governments, and non-profit land trusts that has protected over 57 miles of streams in the last five years. The public entities have funded efforts facilitated by the land trusts to work with willing landowners to place conservation easements on, or purchase outright, properties that have been identified as having significant effect on water quality downstream. For every $1 that Raleigh has invested, UNCWI has leveraged $11 in other public and private funds.

One thing has become clear as the partners have implemented this initiative: there is a critical need to increase funding, and to ensure that this funding will be available into the future. One obvious solution is to create a dedicated funding source to protect both watersheds.
We respectfully request that you include in your next budget a one penny per 100 gallon fee on water use. This would produce almost $5 million per year for land conservation projects to protect water quality and quantity in the Upper Neuse and Upper Cape Fear watersheds. Importantly, this fee would increase the average monthly household water bill by only about forty cents.

Some may question a fee increase – albeit a small one – in the middle of tough economic times, but a dedicated funding source for land conservation that protects these reservoirs now will mean less money spent over time for water treatment. Creating local reserves for watershed protection will provide the additional benefit of helping water utilities meet the higher debt coverage ratios recommended by bond rating agencies.

Each local government would control how its money is spent, working in partnership with land trusts to prioritize conservation properties to receive funding. One key benefit to this regional approach is that it would offer all four governments new opportunities to leverage their own resources against other funding sources. We commend the collaboration of the Jordan Lake Partnership and believe that investments in watershed protection would strengthen the Partnership's case that its members are good stewards of the water resources in Jordan Lake.

We would appreciate an opportunity to present this proposal to your councils or board as you develop your budget for fiscal year 2011-2012, and to communicate its benefits more broadly to the general public.

Thank you for your consideration, and please let us know if you have any questions or need more information.

Yours truly,

Upper Neuse Clean Water Initiative Partners:

David Proper
Trust for Public Land

William Flournoy
Triangle Greenways Council

Reid Wilson
Conservation Trust for North Carolina

Derek Halberg
Tar River Land Conservancy

Robin Jacobs
Eno River Association

Diana Tetens
Ellerbe Creek Watershed Assoc.

Kevin Brice
Triangle Land Conservancy

Cc: OWASA Vice Chair Alan Rimer

ORANGE WATER AND SEWER AUTHORITY

A public, non-profit agency providing water, sewer and reclaimed water services to the Carrboro-Chapel Hill community.

May 23, 2011

Mr. Bill Holman
Director of State Policy
Nicholas Institute for Environmental Policy Solutions
Duke University
Box 90335
Durham, NC 27708

Dear Mr. Holman,

This letter is in response to the April 13, 2011 letter I received from the Upper Neuse Clean Water Initiative Partners and your telephone conversation with Ed Kerwin of May 20th.

As you and Ed Kerwin discussed, we are in the final stages of developing our annual budget for Fiscal Year 2012 and are not able to introduce this initiative into our plans for the coming fiscal year. However, we would very much appreciate the opportunity to learn more about the proposal so that our Board and the public we serve can better understand its potential benefits and the degree of involvement, if any, that OWASA might consider. Accordingly, we will add this item to our June 9th agenda for the OWASA Board meeting that will be held in the OWASA Community Room at 400 Jones Ferry Road, Carrboro. The meeting will begin at 7:00 P.M. and we will make this the first item on our regular agenda.

I would appreciate your sharing this response with other members of the partnership you support. Thank you very much.

Sincerely,

Gordon Merklein, Chair
OWASA Board of Directors

c: OWASA Board of Directors
Ed Kerwin, Executive Director
Robert Epting, General Counsel