January 28, 2015

Mayor Pam Hemminger  
Town of Chapel Hill  
405 Martin Luther King Jr. Boulevard  
Chapel Hill, NC 27514

Mayor Lydia Lavelle  
Town of Carrboro  
301 West Main Street  
Carrboro, NC 27510

Earl McKee, Chair of the Board of Commissioners  
County of Orange  
PO Box 8181  
Hillsborough, NC 27278

Dear Mayor Hemminger, Mayor Lavelle and Chair McKee:

We are pleased to submit this annual report on our services and initiatives.

**Sewer system design for the Historic Rogers Road Area**

Design and the process of getting construction permits are on schedule for completion in the fall of 2016. Surveying, checking for underground rock and other information gathering in the neighborhood are 95% complete. Design work to establish the basic sewer route was completed in December 2015. The Rogers Eubanks Neighborhood Association (RENA), the Marian Cheek Jackson Center, Orange County, the Towns of Chapel Hill and Carrboro and OWASA met with residents on July 28, 2015 to discuss the design process and on December 8, 2015 to discuss the County’s acquisition of easements for the sewer lines.

Once there is a decision to proceed with construction, we estimate it will take about 19 months for bidding, award of the contact and completion of construction. The estimated total cost of design and construction is about $5.7 million, excluding costs for easement acquisition, sewer connection fees, the private sewer connection pipes and related plumbing work.

**Affordability outreach program**

On October 22, 2015 we approved a plan to implement affordability outreach on a permanent basis in 2016. The program is designed to increase awareness of options to reduce OWASA bills and empower low-income customers and local agencies with information and tools for bill reduction.

The program will draw on experience with our pilot program, which included work with 14 community agencies including Orange County, the Towns of Chapel Hill and Carrboro, and social service and affordable housing agencies; and a water conservation pilot project with six low-income customers. Key upcoming items will include expanding our partnership to involve rental property owners and managers, continuing to work with partners, helping customers in need and proactive water conservation outreach.
Advanced Meter Infrastructure (AMI)

AMI is a meter reading system including fixed antennae for remotely reading water meters with batteries for data transmission. Vehicles would not be necessary for readings, with resulting savings in energy and reduction in greenhouse gas emissions. AMI would enable faster detection of leaks, customers could monitor their daily water use on line and AMI would not require a rate increase. We completed a detailed feasibility study on AMI in January 2016.

On January 21, 2016, we approved a plan for community engagement including receiving citizens’ comments in our February 25, March 10 and March 24, 2016 Board meetings. We may make a decision on whether to proceed with AMI at our March 24, 2016 Board meeting. I will send you additional information soon and we invite your questions and feedback.

Financial management/rates

Fiscal Year 2016 is the fourth consecutive year with no increase in monthly water and sewer rates. We continue to meet our financial performance objectives including our bond rating of AA+. We are considering potential changes to our rate structure to help ensure that service affordability, conservation, and equity across customer classes continue to be addressed and that we have the financial capacity to sustain our infrastructure and services. If changes are proposed, there will be a public engagement process.

Water supply/demand

Drinking water sales in calendar year 2015 averaged about 6.17 million gallons per day (MGD), compared to 6.33 for the prior year. Drinking water use continues at levels not seen since the early 1990s due to conservation and the University’s use of reclaimed water. Reclaimed water use reached a single-day record of 2.4 million gallons on August 21, 2015.

Energy management

Due to water conservation by our customers and our energy efficiency investments and practices, we have reduced energy use per customer account by about 27% since 2006. Greenhouse gas emissions related to our services and facilities similarly declined. We are developing an Energy Management Plan and have been working with local government and University staff to discuss potential opportunities for collaboration on energy efficiency and renewable energy strategies. We expect to complete the plan by the end of 2016.

Our key draft objectives for developing the plan are:

1. Reduce use of purchased electricity by 35% by the end of Calendar Year 2020 compared to the Calendar Year 2010 baseline.
2. Reduce use of purchased natural gas by 5% by the end of Calendar Year 2020 compared to the Calendar Year 2010 baseline.
3. Beneficially use all wastewater treatment plant biogas by 2022, provided the preferred strategy is projected to have a positive payback within the expected useful life of the required equipment.

Biosolids

On October 8, 2015 we decided to move toward recycling about 75% of our biosolids in “liquid” form on approved farms (when practical), and recycling about 25% in dewatered form at a composting facility in Chatham County. Our past practice was to apply about 50% of our biosolids on farmland and dewater 50% for composting. Our Class A biosolids continue to meet Federal standards for Exceptional Quality.

This approach will continue our partnership with local farmers and maintain flexibility for alternative biosolids management strategies in the future.

Care to Share Customer Assistance Program (formerly Taste of Hope)

About 5% of our customers donate monthly with bill payments. We received about $4,600 in 2015. We also encourage citizens to give directly to the Inter-Faith Council (IFC). In response to an appeal by Executive Director Ed Kerwin to various businesses in July 2015, the IFC received about $1,500 for the Care to Share program. Marketing included information in our newsletter, bills, on the OWASA and IFC websites, and asking new customers to sign up as donors.

Jordan Lake Allocation Request/ Long-Range Water Supply Plan Update

On November 14, 2014 staff submitted OWASA’s application to maintain our Jordan Lake water supply allocation of about 5 million gallons per day for use in severe droughts and operational emergencies. The earliest the NC Environmental Management Commission will make a decision is likely July 2016. The decision on our Jordan Lake allocation will be important in how we proceed with the update of our Long-Range Water Supply Plan which is currently underway. Water conservation and the use of reclaimed water will continue to be a foundation for sustaining our local water resources.

Capital projects

Capital investments, including debt payments for capital projects, account for about half of our costs. In the past year, we invested about $6.3 million in projects to renew, replace and improve our infrastructure to maintain the reliability and quality of our services and the structural integrity of facilities.

Current projects

- Purefoy Road water line replacement (east of South Columbia Street)
- Plum Lane water line replacement
- Evergreen/Ridge Lane water line replacement (Gimghoul neighborhood)
• Sewer replacement near Emory and Brigham Drives
• Renovating two of the four biosolids treatment tanks at our Mason Farm Wastewater Treatment Plant

Completed in 2015

• Water line replacements on Ridgecrest Drive, The Glen and Briarbridge Lane
• Sewer renovation in Rangewood and other locations
• Replacing sewer over Morgan Creek near Rhododendron Drive

We would be happy to give you more detail on any of our initiatives or to arrange a tour of our facilities. Please let Ed Kerwin, Executive Director (ekerwin@owasa.org or 919-537-2411) or me know.

Sincerely,

John A. Young, Chair
OWASA Board of Directors

c: Ms. Bonnie Hammersley, Orange County Manager
Mr. Roger L. Stancil, Chapel Hill Town Manager
Mr. David Andrews, Carrboro Town Manager
OWASA Board of Directors
Ed Kerwin, OWASA Executive Director

Attachments
MONTHLY SUMMARY OF CALLS AND E-MAILS TO OWASA FROM NEIGHBORS REPORTING ODOR IN THE MASON FARM WASTEWATER TREATMENT PLANT AREA

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An “odor event” is defined as: One or more odor reports received during a 24 hour period from WWTP neighbor(s). Each odor event shall be considered to be “verified” unless OWASA determines conclusively that an alternative source other than the WWTP created the odor.
LOG OF CALLS AND E-MAILS TO OWASA FROM NEIGHBORS REPORTING ODOR IN THE MASON FARM WASTEWATER TREATMENT PLANT (WWTP) AREA

January 2015 – December 2015

<table>
<thead>
<tr>
<th>Date call received</th>
<th>Time call received</th>
<th>Location</th>
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<td>January 2015</td>
<td>No Reported Odors</td>
<td>N/A</td>
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<tr>
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<td>No Reported Odors</td>
<td>N/A</td>
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<td>March 11, 2015</td>
<td>8:16am</td>
<td>1016 Highland Woods Road</td>
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<td>April 2015</td>
<td>No Reported Odors</td>
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<tr>
<td>May 2015</td>
<td>No Reported Odors</td>
<td>N/A</td>
</tr>
<tr>
<td>June 2015</td>
<td>No Reported Odors</td>
<td>N/A</td>
</tr>
<tr>
<td>July 2015</td>
<td>No Reported Odors</td>
<td>N/A</td>
</tr>
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<td>August 2, 2015</td>
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<td>1002 Highland Woods Road</td>
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<td>August 4, 2015</td>
<td>10:12pm</td>
<td>1002 Highland Woods Road</td>
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<tr>
<td>September 2015</td>
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<td>N/A</td>
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<td>November 2015</td>
<td>No Reported Odors</td>
<td>N/A</td>
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<tr>
<td>December 2015</td>
<td>No Reported Odors</td>
<td>N/A</td>
</tr>
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E-MAIL DISTRIBUTION LIST FOR NOTICES ABOUT ODOR-RELATED ITEMS AT THE MASON FARM WASTEWATER TREATMENT PLANT

January 20, 2015

Highland Woods
Paul Neebe
Mary Turner
Malcolm Forbes
Natalia Lebedeva
Gary Richman
Gail Wood
Robert and Melissa Porter
Robin Casey
Joseph Clancy
Ann Schwab
Seth Kingsbury
Amanda Kingsbury
Freeman and Angela Kirby
Reed Johnson
Kay Johnson
Rex Bartles
Lisa Bartles
Ann Alexander
Nortin Hadler
Carol Hadler
Frank P. Rexford
Scott Brees
Kendall Brees
Rainer Blaesius
Elisabeth Schweins
Susannah Shearer
Fred Hall
Lawanda Rainey-Hall
Katie Jamieson
Richard Harrill
Frank Phoenix
Angel Smith
Jordon Sharome
Adam Kimplead
Cindy Underwood
Dan Puckett
David J. Polewka
Kathryn Conard
Michael Sharpe
Julie Maness

Finley Forest
Laurel Hill

Bob Wendell
Carol David
Pat Evans
Ewan Rodewald and Sharon Hodge
Marcella Grendler
Kay Goldstein
Ann Wilson
Anne Fogleman
Louis Fogleman

St. Thomas More Church and School

St. Thomas More Church staff
Carlos Lima

Morgan Creek area

Ellen Johnson
Betsy Malpass
Hanson Malpass
Jeannie Cox
Laura King Moore
Jeanne Langley
A.W. Carr
Marilyn and Don Hartman
Robert Huls
Shelly Day

Ronald McDonald House

Greg Kirkpatrick, Executive Director
Janice Ross, Operations Manager
Matt Hapgood

Family House

Steve McPhail
James F. Howard
Steven and Susan Frye
Doug Longman
Barbara and Edward Paradise
Jeanne & David Jarrett
Nadine O'Malley
Mark Witcher
Ralph Abrahams
Kathy Abrahams

Reserve

William Ware

Bayberry Drive area

Jim Ward, NC Botanical Garden
Jim Ward--home
Johnny Randall, NC Botanical Garden
Jennifer Peterson, NC Botanical Garden
Phil Barner, Energy Services Director
Margaret Holton, Water, Sewer & Stormwater Coordinator
Mary Beth Koza, Director, Environment, Health and Safety
Ross Fowler, Finley Golf Course
Willie Scroggs, Athletic Department
Michael Wilkinson, golf pro
Andrew Sapp, Men's Golf Coach

UNC

Page 2
Ms. Jan Mann, Women's Golf Coach
UNC Tennis Center
UNC parking
Mike McFarland, University Communications
Scott Ragland, News Services
Linda Convissor, Director of Local Relations
UNC Farm (Faculty Staff Recreation Association)
Frank Maynard, Athletics/ Finley Golf Course
Robert Costa, Athletics/ Finley Golf Course
Mark Steffer, Athletics/ Finley Golf Course
Jeff McCracken, Public Safety
Jim Gregory, Media Relations

**UNC Healthcare**
Mel Hurston
Karen McCall

**Town of Chapel Hill**
Roger Stancil, Town Manager
Florentine A. Miller, Deputy Town Manager
Bruce Heflin
Ralph Karpinos, Town Attorney
Lance Norris, Public Works Director
Richard Terrell, Public Works Operations Supt.
Catherine Lazorko, Public Information Officer
Ran Northam, Public Affairs
David Bonk, Planner
Phil Mason, Planner
Sabrina Oliver, Town Clerk
Amy Harvey, Public Affairs and Communications
Larry Tucker, Engineering
Chris Blue, Police Chief
Jeff Clark, Patrol Captain
Bryan Walker, Captain/Police Information
Josh Mecimore, Police Information Officer
Dave Milkereit

**City Schools**
Tom Forcella, Superintendent
Bill Mullin
Todd LoFrese, Asst. Supt. for Support Services
Jeff Nash, Community Relations

**Other Utilities**
Indira Everett, Duke Energy
Brenda Duke, Duke Energy
Steve Small, Duke Energy
Billy Miller, PSNC
Time Warner Cable

**Orange County**
Orange 911 Center Supervisor on duty
Connie Pixley, Environmental Health Supervisor

**Other**
Michael Hughes
Bill Ferrell, Meadowmont Community Association
## SUMMARY OF ON-SITE HYDROGEN SULFIDE (H2S) ODOR MONITORING

<table>
<thead>
<tr>
<th>Month and year</th>
<th>Headworks Monitor</th>
<th>UNC Monitor</th>
<th>Digester Monitor</th>
<th>Switchgear Monitor</th>
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<tbody>
<tr>
<td></td>
<td>Average H2S Reading (ppm)</td>
<td>Minimum H2S Reading (ppm)</td>
<td>Maximum H2S Reading (ppm)</td>
<td>Average H2S Reading (ppm)</td>
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**Monitor Locations:**
Headworks Monitor (#1) – Monitor located between Headworks Facility and Septage Receiving Station on south side of plant property.
Digester Monitor (#2) – Monitor located between Digester #1 and Digester #4 on west side of plant property.
UNC Monitor (#3) – Monitor located between UNC Research Building and Trickling Filter on north side of plant property.
Switchgear Monitor (#4) – Monitor located across from Switchgear building on north side of plant property.

<sup>1</sup> Maximum reading zero all of October
<sup>2</sup> Maximum reading zero all of October
<sup>3</sup> Maximum reading zero all of October
<sup>4</sup> Maximum reading zero all of October
<sup>5</sup> Maximum reading zero all of November
<sup>6</sup> Maximum reading zero all of November
<sup>7</sup> Maximum reading zero all of November
<sup>8</sup> Maximum reading zero all of November
<sup>9</sup> Maximum reading zero all of November
<sup>10</sup> Maximum reading zero all of December
<sup>11</sup> Maximum reading zero all of December
<sup>12</sup> Maximum reading zero all of December