ORANGE WATER AND SEWER AUTHORITY

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

November 1, 2010

Dear Piney Mt. Homeowners Association Board of Directors:

Orange Water and Sewer Authority, under a 1994 Agreement with the Piney Mountain Homeowners' Association (PMHOA), operates and maintains the wastewater pump station, force main, and sewer collector lines that provide wastewater service to the individual properties within the Piney Mountain Subdivision.

On an annual basis OWASA provides a summary of the activities and expenditures related to the operation of the Piney Mountain Subdivision wastewater system. This report for Fiscal Year 2010 covers the period July 2009 to June 2010.

Financial Status:

A capital reserve fund was established to fund future renewal and replacement of the wastewater system components. The balance in the capital reserve account at the beginning of this reporting period was $51,464.39 and the ending balance as of June 30, 2010 was $72,995.81. After approval by the PMHOA in September 2007, property owner contributions to this fund were increased to $40.00 per month per property. Our understanding is that the capital reserve contribution will increase to $50.00 per month per property beginning January 2013.

Last year, at the request of the PMHOA, the reserve fund account was moved from OWASA's investments with Wachovia Bank to an individual account with the Durham Self Help Credit Union in an effort to maximize the interest earning potential. During the time that the capital reserve funds were deposited in the Durham Self Help Credit Union, $678.69 in interest was earned. In May 2010, OWASA was notified by the North Carolina Local Government Commission that the General Statutes do not allow public funds to be deposited with credit unions. To correct this situation, the capital reserve funds were moved back to an account with Wells Fargo (Wachovia) on June 23, 2010. While Wells Fargo is currently paying little or no interest on collateralized accounts, they have agreed to waive that portion of the service charges on the capital reserve fund account that are in excess of the interest earned to avoid operating at a negative interest rate.

With regards to the monthly service fees and capital reserve charges, there are a few homeowner accounts that are not current. OWASA's approval to operate the wastewater system requires that all direct and indirect cost for operation of the wastewater facilities that serve the Piney Mountain Subdivision must be recovered directly from the users. Any past due charges from properties that are in bankruptcy or foreclosure will eventually need to be collected. At the appropriate time, any amount outstanding will be divided and equally billed to the current Piney Mountain customer base.

For budgetary purposes it appears that the operation and maintenance expenses are in the range of $35,000 per year. The table below provides a summary of the total cost of system operation for the past five years:

Year	Total Charges
2006	$36,003.63
2007	$32,833.79
2008	$32,741.97
2009	$33,653.05
2010	$37,676.10

System Maintenance:

Following the funding portion of the report there is a section detailing any maintenance work that was performed over the past year and any future maintenance work that is planned. A summary of the corrective maintenance activities reported for the period is noted below:

Month/Year	Identified Maintenance Task
July 2009	Remove grease
August 2009	Power failure Remove grease
September 2009	Remove foam
October 2009	Remove grease/foam
November 2009	Power failure Remove grease/foam
April 2010	Remove grease/foam
May 2010	Remove grease/foam
June 2010	Replace pump control float Remove grease/foam

With the exception of the items noted above the Piney Mountain Subdivision wastewater system only required routine operational checks which are currently performed one to two times per week.

System Operation:

As with past reports, the SYSTEM PERFORMANCE section details the monthly rainfall for the reporting period as measured at our Water Treatment Plant on Jones Ferry Road in Carrboro along with the total flow pumped by the pump station within that month based on meter readings collected by the City of Durham. There continues to be some indication that

individual homeowner systems may be allowing groundwater or surface water to enter the collections system. You will note higher total flows in the months of November 2009, December 2009 and January 2010 when rainfall amounts exceeded five inches during the month.

Typical areas where stormwater may enter the wastewater system include: cracked or leaking septic tanks; drain spouts, outside stairwells or foundation drains tied to the plumbing system; grading problems that allow the septic tank or pump basin covers to be covered by standing water; and grading problems where stormwater flows across the septic tank or pump basin cover.

The final row of the performance summary details the average monthly discharge per residence based on 55 homes within the Piney Mountain. Subdivision being connected to the wastewater system. With the recent conservation initiative by OWASA customers in the Chapel Hill and Carrboro area, the average residential water use has been reduced to approximately 4,500 gallons of water per month of which about 90-95% (4,000-4,275 gallons) is returned to the wastewater system. The average wastewater discharge of 4,737 gallons per month by the Piney Mountain Subdivision customers is slightly higher than this range.

For comparison, the table below provides a five year summary of the total rainfall and average discharge for the Piney Mountain wastewater system.

Year	Total rainfall (in.)	Average Use (gals./month/connection)
2006	43.76	4,907
2007	53.28	5,072
2008	38.63	4,143
2009	56.18	4,483
2010	46.47	4,737

Oil and Grease Issues:

The pump station continues to accumulate a buildup of grease which requires additional maintenance and cost to remove the material. Excess grease in the wastewater system is related to the improper disposal of fats, oils and grease (FOGs) primarily associated with cooking and dishwashing. Fats, oils and grease should not be discharged down the drain but wiped or scraped off cooking equipment and disposed of in the trash.

In August/September 2009 our maintenance staff began to notice a light gray, fluffy substance accumulating in the pump station wet well. A sample of this substance was collected and sent to a laboratory for analysis. Sample results indicated the substance was composed of a layer high in oil and grease and a layer that had a lower oil/grease content. For some reason the

material disappeared in late November 2009 and no further reports of a light gray, fluffy substance were logged until April 2010. The material continued to be present throughout the summer months. In an attempt to remove the material from the pump station wet well our maintenance staff conducted a trial of several chemicals that were recommended by a wastewater chemical supplier. In the trials to date, the chemical addition has not changed or eliminated the substance being observed. OWASA staff will continue to monitor the presence of the material during the coming winter months to see if it disappears again which would provide some indication that the material may be the result of a biological growth.

Pharmaceutical Disposal:

The proper disposal of pharmaceuticals is an area that OWASA continues to stress to its customers. The effect on the environment from pharmaceuticals and personal care products discharged into the wastewater system and eventually into waterways is an increasing concern. In most cases, unused pharmaceuticals should not be flushed down the toilet but mixed with an undesirable substance (cat litter, coffee grounds, etc.) and put in a sealed container to be thrown out with the trash. Chapel Hill and Durham have recently advertised and sponsored pharmaceutical collection days at fire departments or local shopping malls.

STEP System Maintenance:

For a number of years this report has noted the importance of performing routine septic tank maintenance on those properties served by a STEP (septic tank effluent pump) system. This maintenance would require hiring a private firm to remove the solids and grease that accumulate in the tank over years of operation. For most residential dwellings it is recommended that a septic tank be cleaned (solids pumped out) every three to six years. This timeframe may increase or decrease depending on the number of members in the household and the size of the septic tank. The Orange County Health Department should be able to provide further information on proper septic tank maintenance if needed. You can also find information about septic tank maintenance, recommended pumping frequency and use of additives (cleaners) at the following North Carolina State University website:

http://www.soil.ncsu.edu/publications/Soilfacts/AG-439-13/index.htm#Are_Septic_Tank_Cleaners_Necessary

Should you have any questions about this report or would like to see different or additional content please do not hesitate to give me a call at 537-4218.

With best regards,

John W. Greene, P.E.
General Manager of Operations

Attachment

ORANGE WATER AND SEWER AUTHORITY
PINEY MOUNTAIN SUBDIVISION WASTEWATER SYSTEM
ANNUAL REPORT

REPORT PERIOD: July, 2009-June, 2010

CAPITAL RESERVE ACCOUNT:

Previous Balance 6/30/09:	$ 51,464.39
Collected this period:	$ 20,852.73
Interest this period:	$ 678.69
Service charges:	$ 0.00
Expended this period:	$ 0.00
Balance as of 6/30/10	$ 72,995.81

BILLING/COLLECTION:

City of Durham:	$ 27,917.72
Piedmont Electric:	$ 1,384.01
Verizon:	$ 826.44
Site Maintenance:	$ 0.00
Administrative:	$ 2,057.02
Preventative Maintenance:	$ 5,490.91
Corrective Maintenance:	$ 0.00
TOTAL:	$ 37,676.10
Billing Adjustment:	$ 0.00
Billed to Homeowners:	$ 37,676.10

MAINTENANCE WORK PERFORMED:

Pump Station: Routine operational checks and grease removal. Replaced pump control float.
Collector Lines: No work required.
Force Main: No work required

MAINTENANCE WORK SCHEDULED/PLANNED:

Pump Station: No planned work
Collector Lines: No planned work
Force Main: Inspect sections of the ductile iron force main on a 5 year cycle for indications of corrosion. Last inspection performed in March 2009.

SYSTEM OVERFLOWS AND CONDITION:

Event Date: No sewer overflows during the period noted

NUMBER OF CONNECTIONS:

Connections as of 6/30/10: 55

SYSTEM PERFORMANCE:

	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUN.
Total Rainfall (in.)	2.21	3.24	2.61	2.14	7.88	7.34	5.27	4.60	3.15	0.65	5.16	2.22
Total Flow (1,000 gal.)	154.3	177.7	210.0	222.1	308.2	432.1	488.8	183.5	240.5	252.7	273.7	198.7
Average (gal./month/unit)	2,807	3,232	3,818	4,039	5,604	7,856	8,888	3,338	4,373	4,596	4,977	3,313