



ORANGE WATER AND SEWER AUTHORITY

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

October 2, 2009

Dear Piney Mt. Homeowners Association Board of Directors:

For the past several years OWASA has provided a summary of the activities and expenditures related to the operation of the Piney Mt. Pump Station. The attached report covers the period July 2008 to June 2009 and includes information on the operation of the wastewater pump station, force main, and collector lines which are maintained by OWASA under a 1994 Agreement with the Piney Mountain Homeowners' Association (HOA).

The purpose for providing this annual report was to develop better communications between OWASA and the Piney Mt. Subdivision homeowners on the condition of the wastewater system that serves the development and to provide early notice on any operational items that were anticipated to need attention or reconstruction.

The attached one page report includes a summary of the funds in the capital or maintenance reserve fund. Contributions to this fund were increased after approval by the HOA to \$40.00 per month per property in September 2007. OWASA staff had estimated that the contribution to the reserve account needed to be \$59.00 per month per property to provide the capital necessary to address future wastewater facility rehabilitation and/or replacements. However, after review by an engineer hired by the HOA, the HOA elected to begin the contributions at \$40.00 per month per property and increase this amount by \$10.00 every 5 years (next increase scheduled for 2013). In June 2009, at the request of the HOA, 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. The balance in the capital reserve account was \$51,464.39 as of June 30, 2009.

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. During the time period noted the wastewater system only required routine maintenance. There were no system components that required rehabilitation or replacement. In March 2009, OWASA staff inspected sections of the force main which travels from



*Exterior View of Force Main Pipe Installed
in 1995*

the pump station along Mt. Sinai Road to the Durham wastewater system at the intersection of Mt. Sinai Road and Kerley Road. This inspection involved digging up and cutting out sections of the force main at two locations (approximately 50' and 4800' from the intersection of Mt. Sinai Road and Taproot Lane). This same inspection work was performed in November 2004. The inspection of the force main piping at the two locations showed virtually no change in the pipe's condition. The exterior surface of the pipe showed minimal corrosion and pitting. The interior surface of the pipe still had the original cement mortar lining and coating intact. The 1995 pipe removed was also compared to sections of pipe installed during the 2004 inspection and again no visible



*Interior View of Force Main Pipe Installed
in 1995*

changes in the condition of the pipe were apparent. OWASA staff did detect severe pipe corrosion in the Durham gravity system downstream of the force main discharge. Because of the long force main distance and the fact that the waste discharged from the individual property pump systems may already be septic by the time it reaches the Piney Mt. pump station, it is possible the corrosion noted is due to hydrogen sulfide gas. OWASA staff contacted the City of Durham and their utility staff reviewed the problems noted and took corrective actions to repair the corroded gravity pipe sections.

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 from the City of Durham. There continues to be some indication that individual system may be allowing groundwater or surface water to enter the collections system. Typical areas to review 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; grading problems where stormwater flows across the septic tank or pump basin cover. The correlation between rainfall and pump station flow is always hard to gauge because it depends on factors such as: the billing cycle; how hard it rains (intensity) at any one time; how long it rains (duration); and what the weather pattern has been in the past days or weeks before the rain event. However, any efforts to reduce the amount of stormwater entering the collection system should result in a reduction in the amount of wastewater gallons billed by the City of Durham.

The final row of the performance summary details the average monthly discharge per residence based on 55 homes within the Piney Mt. 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

Piney Mt. Subdivision Homeowners
Association Board of Directors
October 2, 2009
Page 3

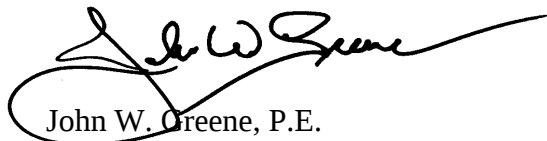
approximately 4,500 gallons of water per month of which about 90-95% (4,000-4,275 gallons) is returned to the wastewater system. It appears that the average usage of the Piney Mountain Subdivision customers is slightly higher than this range.

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 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. Recently, we have dispatched staff and equipment approximately every two to three weeks to remove a substance at the pump station which if left unattended would cause operational problems.

The proper disposal of pharmaceuticals is another area where OWASA has started providing information to its customers. The effect on the environment from pharmaceuticals and personal care products discharged into the wastewater system and eventually into waterways is becoming of increased 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. Our most recent brochure providing information to the consumer on the proper disposal of grease and unused pharmaceuticals is enclosed for reference.

Should you have any questions about the 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, 2008-June, 2009

MAINTENANCE RESERVE ACCOUNT:

Previous Balance 6/30/08:	\$ 23,782.23
Collected this period:	\$ 27,720.21
Interest this period:	\$ 34.50
Expended this period:	\$ (72.55)
Balance as of 6/30/09	\$ 51,464.39

BILLING/COLLECTION:

City of Durham:	\$ 25,561.08
Piedmont Electric:	\$ 1,215.63
Verizon:	\$ 801.69
Site Maintenance:	\$ 0.00
Administrative Fee:	\$ 1,092.24
Preventative Maintenance:	\$ 5,483.83
Corrective Maintenance:	\$ 0.00
TOTAL:	\$ 34,154.47
Billing Adjustment:	\$ (501.42)
Billed to Homeowners:	\$ 33,653.05

MAINTENANCE WORK PERFORMED:

Pump Station: Routine operational checks and grease removal.
Collector Lines: No work required.
Force Main: Dug up and inspected pipe at two locations

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 6/30/09: 55

SYSTEM PERFORMANCE:

	JUL.	AUG.	SEP.	OCT.	NOV.	DEC.	JAN.	FEB.	MAR.	APR.	MAY	JUN.
Total Rainfall (in.)	7.42	7.22	9.97	1.13	3.25	4.64	2.48	1.14	7.04	1.73	3.81	6.35
Total Flow (1,000 gal.)	3,083	1,230	2,940	2,235	2,273	3,000	2,625	1,995	2,955	4,268	743	2,243
Average (gal./month/unit)	5,605	2,236	5,345	4,064	4,132	5,455	4,773	3,627	5,373	7,759	1,350	4,077