

OWASA Agenda Item**AGENDA ITEM****REPORT ON THE POTENTIAL PHASE OUT OF THE NORTH FOREST HILLS PUMP STATION****PURPOSE**

- To discuss the potential phase out of the North Forest Hills Pump Station, and it's potential benefit to unsewered portions of the Piney Mountain residential area

BACKGROUND

- The North Forest Hills Pump Station is located near the intersection of Apple St. and Forbush Mountain Rd., on an OWASA easement. Several residences are in close proximity to the pump station.
- This pump station has a current capacity of approximately 55 gallons per minute (gpm), and currently has no on-site back-up generator. When a generator is needed, a portable generator is parked on the side of Apple St. and wiring is run across the ground to the pump station location
- OWASA staff have investigated the feasibility of phasing out the North Forest Hills Pump Station and have identified two gravity sewer alignments that could replace the pump station.
- Over 50 property owners in the Piney Mountain area, in the vicinity of this pump station, have property that is currently unsewered. These properties have houses of older construction and are believed to be on septic systems.
- Residents of this area have expressed to OWASA interest in having sewer service available to their properties. OWASA staff were most recently contacted by Piney Mountain resident Mildred Council in April 2002 regarding the sewer availability issue. A public meeting was held on June 18, 2002 and 12 property owners attended, including several residents of Apple St. OWASA staff presented information on public sewer extensions with assessments.
- Because this area may be considered low to moderate income, grants through the Community Development Block Grant Program may be pursued to offset a portion of the cost of a sewer extension assessment. Chris Berndt from the Town of Chapel Hill Planning Department explained this process to the attendees of the June 18, 2002 meeting.
- A resident of 103 Apple St. (Major Geer) contacted OWASA staff in February 2003 to discuss the possibility of the six unsewered lots on Apple St. extending sewer to the nearby North Forest Hills Pump Station. OWASA staff advised Mr. Geer that the phase out of that pump station was under evaluation, and that if the phase out proceeded, the

REPORT ON THE POTENTIAL PHASE OUT OF THE NORTH OFREST HILLS PUMP
STATION

April 17, 2003

Page 2 of 2

50

new gravity sewer line would present a better option for sewer service to the six Apple St. lots.

- The alignment currently considered most feasible for pump station phase out would allow three to four Apple St lots and one Piney Mountain Rd. lot to directly connect to gravity sewer.
- The alignment currently under consideration would also provide the basis for extending sewer to other currently unsewered lots, and possibly reduce the cost for residents, should they elect to pursue an extension with assessment. Specifically:
 - Extension of approximately 200 to 400 LF of sewer to the “phase out” line would allow 2 remaining unsewered lots on Apple St to connect.
 - Extension of approximately 1190 LF up Piney Mountain Rd would allow an additional 13 currently unsewered lots to connect to gravity sewer.
- The current draft of the fiscal year (FY) 2004 Capital Improvements Budget (CIB) has approximately \$293,000 for design, easement acquisition, and construction for the North Forest Hills Pump Station phase out.

ACTION NEEDED

- None at this time

STAFF RECOMMENDATIONS

Staff believes there are sufficient benefits to OWASA and to nearby residents that would be realized by the phase-out to proceed with the design, easement acquisition, and construction of the gravity sewer line. If the Board of Directors agrees, funds will remain in the CIB and staff will proceed with the North Forest Hills Pump Station phase out during the FY 2004-2005 timeframe.

April 17, 2003

MEMORANDUM

DATE: April 17, 2003
TO: Ed Kerwin
THROUGH: Imtiaz Ahmad
FROM: Barbara L. Oslund, P.E.
SUBJECT: THE NORTH FOREST HILLS PUMP STATION PHASE OUT

Staff has evaluated the possibilities for phasing out the North Forest Hills Pump Station, and replacing its function with a new gravity sewer line. Our preliminary evaluations indicate that there is at least one viable route for the gravity sewer, and that the surrounding residences would benefit from the pump station phase out. OWASA seeks to eliminate older pump stations as options for replacement with gravity sewer become feasible (usually due to growth in the area of the pump station). Minimizing the number of pump stations in the system helps to insure reliability and reduce overall maintenance.

The North Forest Hills Pump Station is located near the intersection of Apple St. and Forbush Mountain Rd. (please see attached Figure), on an OWASA easement. Several residences are in close proximity to the pump station. This pump station has a current capacity of approximately 55 gallons per minute (gpm), and is in need of reliability improvements (e.g., by-pass pump quick-connect and permanent on-site back-up generator) if the pump station is to remain in service. When a generator is needed to run the pump station, a portable generator is parked on the side of Apple St. and wiring is run across the ground to the pump station location.

The attached Figure presents two gravity sewer alignment options (Sewer Main Option "A" and Sewer Main Option "C") that appear to be most feasible to staff at this time. Proceeding with either alignment option would require that easements be obtained from up to eight property owners, some which already have sewer service. Because these property owners would not be directly benefiting by providing easement for a sewer, the easement acquisition process may be challenging and require significant time and effort.

The alignment options would involve installation of between 1000 and 1200 linear feet of 8-inch diameter gravity sewer. It is likely that rock will be encountered during excavation in this area, and depending on which alignment is selected, the sewer could be located at depths greater than eight feet. If we proceed with this project, Engineering staff would select a design engineer to complete a detailed design, and formally bid the construction. The following table summarizes the costs that are estimated for this project (and that are included in the current draft of the Capital Improvements Budget [CIB]).

52

<i>Project Task</i>	<i>Estimated Cost (FY 2004 dollars)</i>
Planning	\$0
Land/ROW	\$10,000
Eng./Design	\$45,000
Construction	\$223,000
Inspection	\$15,000
Equipment	\$0
Contingency	\$30,000
Total	\$323,000

Another important aspect of this pump station phase out is the potential for the new gravity sewer line to be a critical first phase for future sewer service to several residences that are currently unsewered. These properties have houses of older construction and are believed to be on septic systems. Over 50 property owners in the Piney Mountain area have property that does not currently have access to sewer service. The alignments currently considered most feasible for pump station phase out would allow three to four Apple St. lots and one Piney Mountain Rd. lot to directly connect to gravity sewer.

The alignment currently under consideration would also provide the basis for extending sewer to other currently unsewered lots, and possibly reduce the cost for residents, should they elect to pursue an extension with assessment. This is shown as Sewer Main "B" on Figure 1. Specifically:

- Extension of approximately 200 to 400 LF of sewer to the "phase out" line would allow 2 remaining unsewered lots on Apple St to connect.
- Extension of approximately 1190 LF up Piney Mountain Rd would allow an additional 13 currently unsewered lots to connect to gravity sewer.

Residents of the unsewered Piney Mountain area have expressed to OWASA interest in having sewer service available to their properties. OWASA staff were most recently contacted by Piney Mountain resident Mildred Council in April 2002 regarding the sewer availability issue. A public meeting was held on June 18, 2002 and 12 property owners attended, including several residents of Apple St. OWASA staff presented information on public sewer extensions with assessments. Because this area may be considered low to moderate income, grants through the Community Development Block Grant Program may be pursued to offset a portion of the cost of a sewer extension assessment. Chris Berndt from the Town of Chapel Hill Planning Department explained this process to the attendees of the June 18, 2002 meeting.

In addition, a resident of 103 Apple St. (Major Geer) contacted OWASA staff in February 2003 to discuss the possibility of the six unsewered lots on Apple St. extending sewer to the nearby North Forest Hills Pump Station. OWASA staff advised Mr. Geer that the phase out of that

Mr. Ed Kerwin
North Forest Hills Pump Station Phase Out
April 17, 2003
Page 3 of 3

53

pump station was under evaluation, and that if the phase out proceeded, the new gravity sewer line would present a better option for sewer service to the six Apple St. lots.

Staff believes there are sufficient benefits to OWASA and to nearby residents that would be realized by the phase out, and would like to proceed with the design, easement acquisition process, and construction of the gravity sewer line. If the Board of Directors agrees, funds will remain in the CIB and staff will proceed with the North Forest Hills Pump Station phase out during the FY 2004-2005 timeframe. Staff will also notify area residents that are interested in sewer service, and update them on the phase out plans and the impact this may have on the potential for sewer extension

Please let me know if you need any further information.

Barbara L. Oslund, P.E.
Engineering Manager – Capital Improvements Projects

Attachments (1)