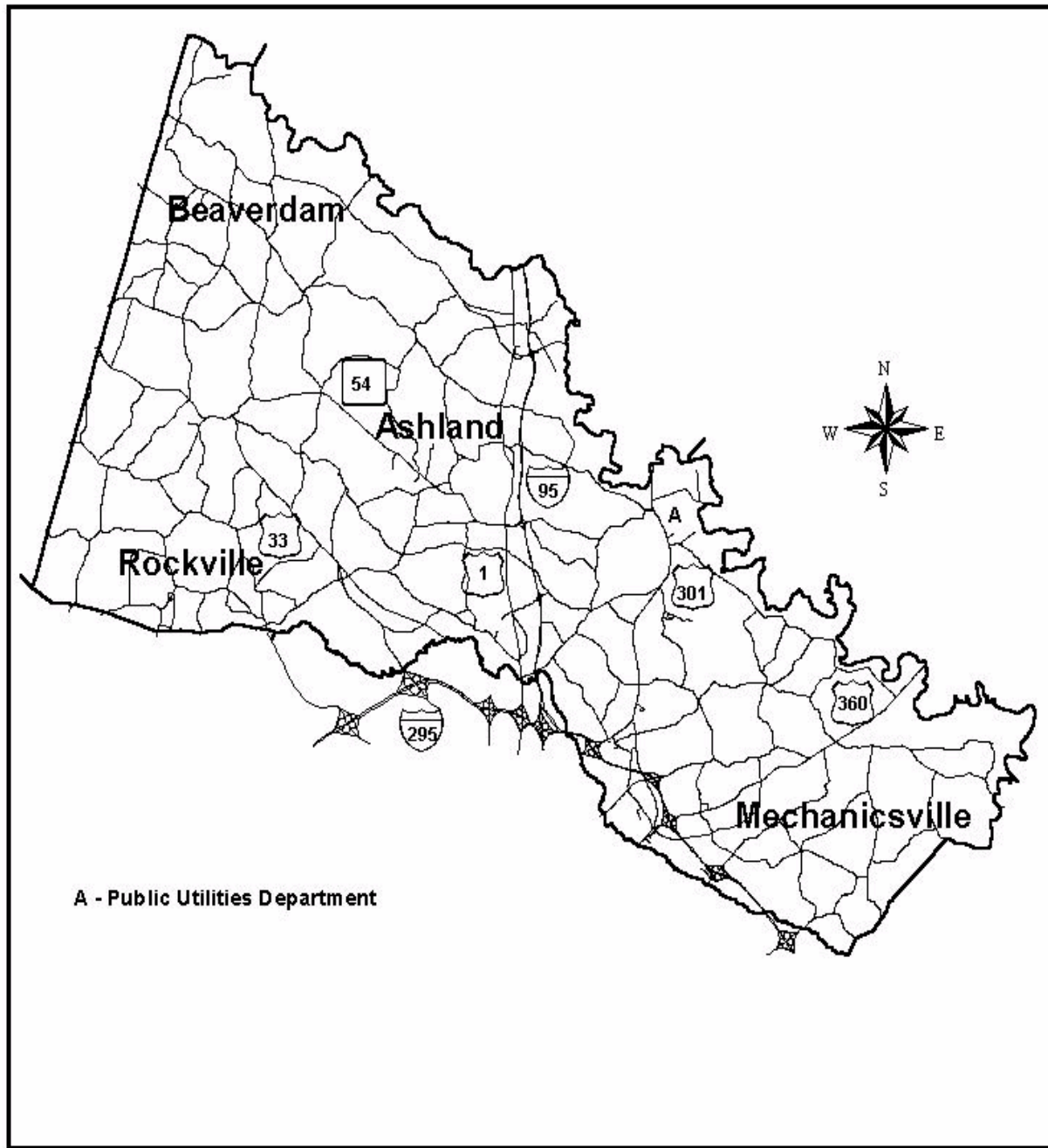


## PUBLIC UTILITIES

The Public Utilities Department is located at the Hanover County Complex on Rt. 301. Capital improvements (e.g., water/sewer lines) are shown with a map, if applicable. Refer to the description of the Public Utilities Department in the operating budget document for a comprehensive overview of the utility system.



## **Public Utilities Easement Acquisition Policy**

Hanover County has established an easement acquisition policy for the acquisition of easements for various needs of the County including drainage, utility and other easements needed to construct, install, maintain and/or operate public facilities. Following the initiation of the project, which includes such information as property owner information, acquisition costs, environmental concerns, and any other recommendations, a right-of-entry must be obtained in order to start survey and design of the project on the affected properties. Public Utilities must review all plats and construction plans associated with the project. Once reviewed, a copy of all plats and plans are forwarded to the County's contract appraiser to estimate a cost for the appraiser's service and to produce appraisal reports. Upon completion of the appraisal reports, a utility agent will be responsible for any necessary deed preparation.

Following the necessary deed preparation, the utility agent will attempt to acquire the easement through the negotiation process. Special acquisition procedures may be involved when dealing with organizations such as school boards, churches and non-profit groups, State owned property, railroad crossings, and estates. If an agreement cannot be reached for a particular easement, the Utility Agent may have to initiate condemnation proceedings. Conversely, if the County's offer is accepted the owner will execute the deed. If the appraised value is more than \$5,000 and a deed of trust exists, the noteholder must also execute the deed. Once the deed has been executed and recorded the agent will provide the County Administrator's Office with the original deed for filing.

# Utilities

Functional Area: Utilities

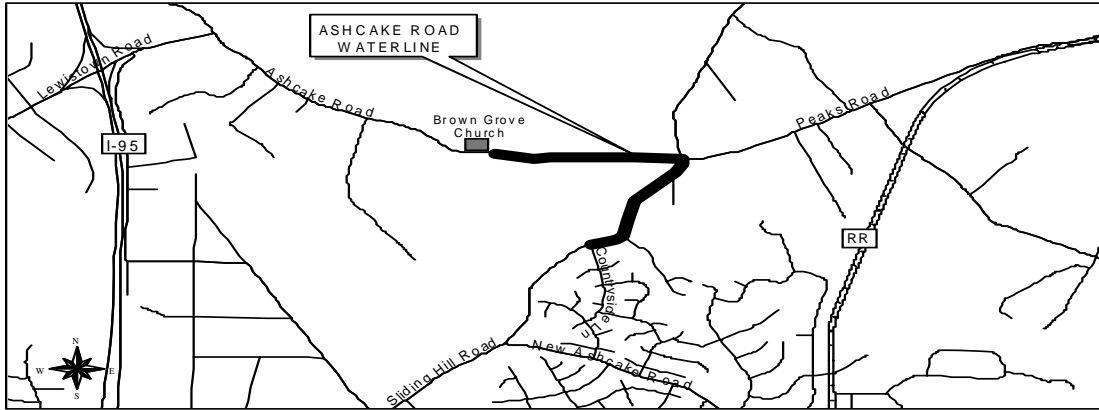
Department (s): Public Utilities

Project: Ashcake Road Water Line

Location: Ashcake Road from Countryside Lane to Brown Grove Church

Project Contact: Utility Engineer - (804) 365-6019

Description/ Justification: This project provides design and construction of 7,000' of 20" waterline along Sliding Hill Road from Countryside Lane to Ashcake Road then along Ashcake Road to Brown Grove Church.



Useful Life: 50 years

Comp. Plan Impact/Compliance: Yes

Funding Sources: Capacity Fees & User Fees

Timetable: Design and easement acquisition (FY10)

PY Allocation: \$0

Operating Impact: \$0

	FY07	FY08	FY09	FY10	FY11	Totals
<b>Funding Sources</b>						
User Fees	\$ -	\$ -	\$ -	\$ 27,400	\$ -	\$ 27,400
Capacity Fees	-	-	-	246,600	-	246,600
<b>Total Sources</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 274,000</b>	<b>\$ -</b>	<b>\$ 274,000</b>
<b>Funding Uses</b>						
Professional	\$ -	\$ -	\$ -	\$ 137,000	\$ -	\$ 137,000
Land	-	-	-	137,000	-	137,000
<b>Total Uses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 274,000</b>	<b>\$ -</b>	<b>\$ 274,000</b>

# Utilities

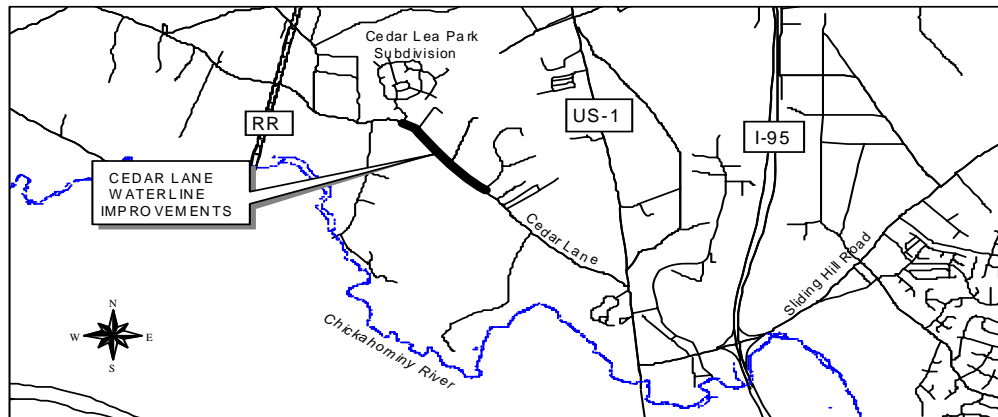
Department (s): Public Utilities

Project: Cedar Lane Waterline Improvements

Location: Cedar Lane from Brookhollow Drive to CedarLea Parkway

Project Contact: Utility Engineer - (804) 365-6019

Description: This project provides design, easement acquisition and construction of 3,300' of 24" waterline along Cedar Lane from Brookhollow Drive to CedarLea Parkway. This waterline provides improved water distribution service for domestic service and fire suppression use along Cedar Lane. The waterline is sized to convey water from a planned water treatment plant as discussed in the 2002-2022 Comprehensive Plan.



Useful Life: 50 years

Comp. Plan Impact/Compliance: Yes

Funding Sources: Capacity Fees & User Fees

Timetable: Design and easement acquisition (FY09); Construction (FY10)

PY Allocation: \$0

Operating Impact: \$0

	FY07	FY08	FY09	FY10	FY11	Totals
<b>Funding Sources</b>						
User Fees	\$ -	\$ -	\$ 37,000	\$ 153,750	\$ -	\$ 190,750
Capacity Fees	-	-	111,000	461,250	-	572,250
<b>Total Sources</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 148,000</b>	<b>\$ 615,000</b>	<b>\$ -</b>	<b>\$ 763,000</b>
<b>Funding Uses</b>						
Professional	\$ -	\$ -	\$ 74,000	\$ -	\$ -	\$ 74,000
Land	-	-	74,000	-	-	74,000
Construction	-	-	-	615,000	-	615,000
<b>Total Uses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 148,000</b>	<b>\$ 615,000</b>	<b>\$ -</b>	<b>\$ 763,000</b>

# Utilities

Functional Area: Public Utilities

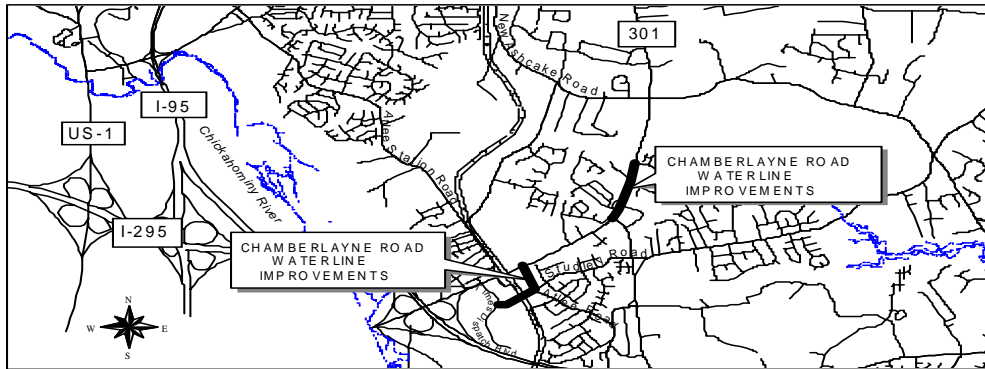
Department (s): Public Utilities

Project: Chamberlayne Rd. Waterline Improvements

Location: Along Studley Road and Atlee Road from Times Dispatch Boulevard to Chamberlayne Road and along Chamberlayne Road from Shady Grove Road to Crown Colony Parkway

Project Contact: Utility Engineer - (804) 365-6019

Description: This project provides in FY 2008 design and easement acquisition for 6,000' of 24" waterline along Studley Road and Atlee Road from Times Dispatch Boulevard to Chamberlayne Road and along Chamberlayne Road from Shady Grove Road to Crown Colony Parkway. The waterline improvements provide increased transmission capacity in the area from the Lockwood Pump Station. This will allow the transmission of water to the planned Garnett Road Water Storage Tank and Pump Station while maintaining pressure for domestic service and fire suppression use in the Chamberlayne Road and New Ashcake Road areas. Construction is planned for FY 2010.



Useful Life: 50 years

Comp. Plan Impact/Compliance: Yes

Funding Sources: Capacity Fees

Timetable: Design and easement acquisition (FY08); Construction (FY10)

PY Allocation: \$0

Operating Impact: \$0

	FY07	FY08	FY09	FY10	FY11	Totals
<b>Funding Sources</b>						
Capacity Fees	\$ -	\$ 324,000	\$ -	\$ 1,336,000	\$ -	\$ 1,660,000
<b>Total Sources</b>	<b>\$ -</b>	<b>\$ 324,000</b>	<b>\$ -</b>	<b>\$ 1,336,000</b>	<b>\$ -</b>	<b>\$ 1,660,000</b>
<b>Funding Uses</b>						
Professional	\$ -	\$ 162,000	\$ -	\$ -	\$ -	\$ 162,000
Land	-	162,000	-	-	-	162,000
Construction	-	-	-	1,336,000	-	1,336,000
<b>Total Uses</b>	<b>\$ -</b>	<b>\$ 324,000</b>	<b>\$ -</b>	<b>\$ 1,336,000</b>	<b>\$ -</b>	<b>\$ 1,660,000</b>

# Utilities

Functional Area: Public Utilities

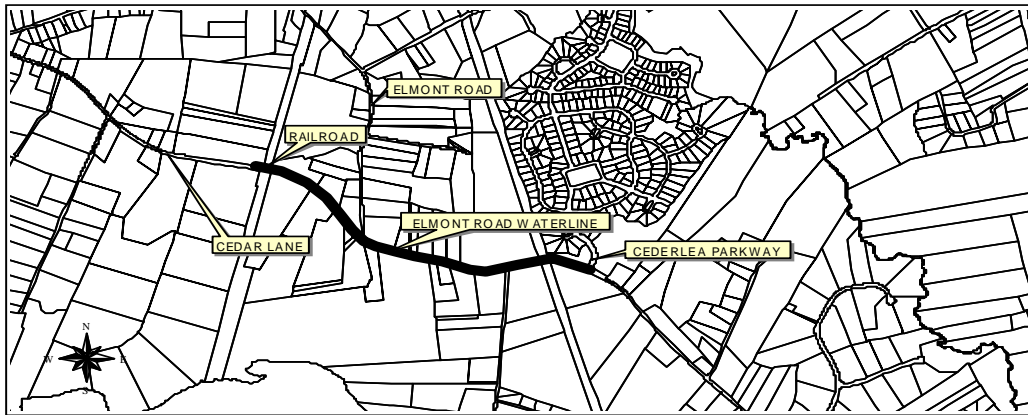
Department (s): Public Utilities

Project: Elmont Rd. Waterline

Location: West along Cedar Lane from Cedarlea Parkway to just west of the railroad tracks

Project Contact: Utility Engineer - (804) 365-6019

Description: This project provides for design in FY2011 and construction in FY2012 of 2,700' of 24" waterline and 1,600' of 30" waterline along Cedar Lane from CedarLea Parkway to just west of the railroad tracks.



Useful Life: 50 years

Comp. Plan Impact/Compliance: Yes

Funding Sources: Capacity Fees

Timetable: Design & easement acquisition (FY11)

PY Allocation: \$0

Operating Impact: \$0

	FY07	FY08	FY09	FY10	FY11	Totals
<b>Funding Sources</b>						
Capacity Fees	\$ -	\$ -	\$ -	\$ -	\$ 450,000	\$ 450,000
<b>Total Sources</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 450,000</b>	<b>\$ 450,000</b>
<b>Funding Uses</b>						
Professional	\$ -	\$ -	\$ -	\$ -	\$ 225,000	\$ 225,000
Land	-	-	-	-	225,000	225,000
Construction	-	-	-	-	-	-
<b>Total Uses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 450,000</b>	<b>\$ 450,000</b>

# Utilities

Functional Area: Public Utilities

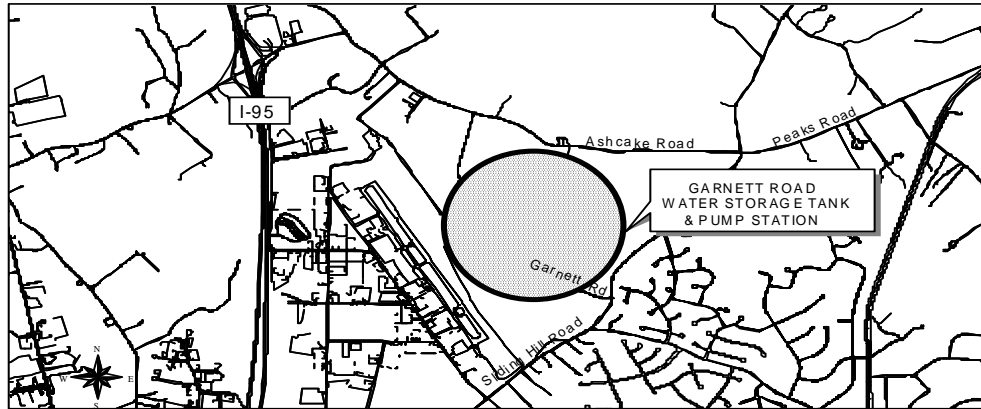
Department (s): Public Utilities

Project: Garnett Rd. Water Storage Tank and Pump Station

Location: In the vicinity of the intersection of Sliding Hill Road and Garnett Road

Project Contact: Utility Engineer - (804) 365-6019

Description: This project provides for land acquisition in FY 2007 and design in FY 2010 for a one million gallon water storage tank and pump station in the vicinity of the intersection of Sliding Hill Road and Garnett Road. The facility will pump water from the Lockwood service area to the Ashland service area. It is required to meet domestic service and fire suppression demands.



Useful Life: 35 years

Comp. Plan Impact/Compliance: Yes

Funding Sources: Capacity Fees, User Fees & Long Term Debt

Timetable: Land acquisition (FY07); Design (FY10)

PY Allocation: \$0

Operating Impact: \$0

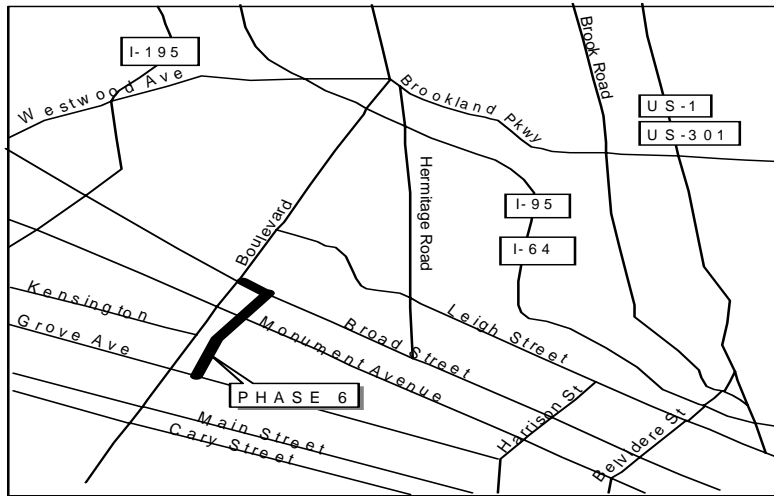
	FY07	FY08	FY09	FY10	FY11	Totals
<b>Funding Sources</b>						
Capacity Fees	\$ -	\$ -	\$ -	\$ 288,000	\$ -	\$ 288,000
Long Term Debt	200,000	-	-	-	-	200,000
User Fees	-	-	-	32,000	-	32,000
<b>Total Sources</b>	<b>\$ 200,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 320,000</b>	<b>\$ -</b>	<b>\$ 520,000</b>
<b>Funding Uses</b>						
Professional	\$ -	\$ -	\$ -	\$ 320,000	\$ -	\$ 320,000
Land	200,000	-	-	-	-	200,000
Construction	-	-	-	-	-	-
<b>Total Uses</b>	<b>\$ 200,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 320,000</b>	<b>\$ -</b>	<b>\$ 520,000</b>

# Utilities

Functional Area: Public Utilities  
 Department (s): Public Utilities  
 Project: Hanover-Richmond Waterline  
 Location: Vicinity of Broad Street at The Boulevard within City of Richmond  
 Project Contact: Utility Engineer - (804) 365-6019  
 Description: This project provides for water resource development to serve the Surburban Service Area via a water transmission pipeline from the City of Richmond. The previous five phases funded construction of a 30" and 36" water transmission main generally along Chamberlayne Avenue, Westwood Avenue, and Hermitage Road from the City of Richmond at the intersection of Broad Street and Boulevard to the County.  
 FY09-FY10 is the final segment and will increase the diameter of the transmission main to 42" and extend it 3,000' from Broad Street to Grove Avenue either along Mulberry Street or The Boulevard. The approximate hydraulic capacity will be 20 MGD upon completion of the FY09-FY10 segment.

Included in this project is \$13,223,000 over five years for jointly funded capital improvements in the City.

In FY11, a capacity payment to the City of Richmond of \$3,489,000 is required by contract for the purchase of an additional 5 MGD of water treatment plant capacity. The total amount of water treatment plant capacity that Hanover will have purchased from Richmond after this payment is 20 MGD.



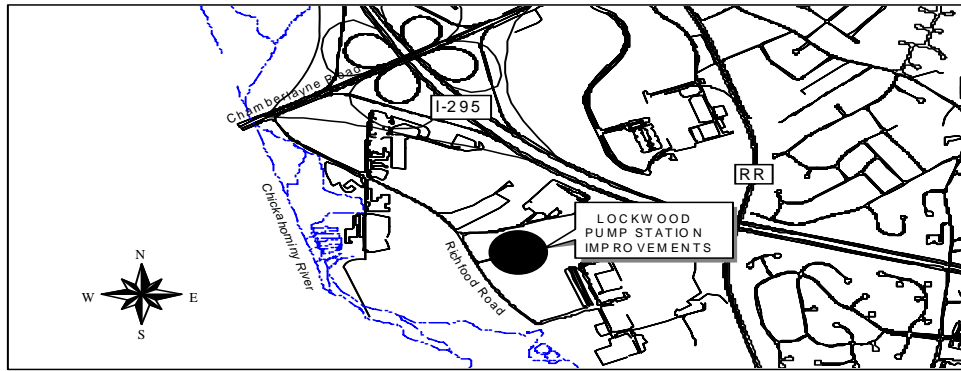
Useful Life: 35 years  
 Comp. Plan Impact Compliance: Yes  
 Funding Sources: Capacity Fees & Long Term Deb  
 Timetable: Annual joint capital costs (FY07-11); Richmond WTP capacity payment for total of 20 MGD (FY11); Phase 6 Design (FY09); Phase 6 Construction (FY10)  
 PY Allocation: \$4,847,000 (FY06)  
 Operating Impact: \$0

	FY07	FY08	FY09	FY10	FY11	Totals
<b>Funding Sources</b>						
Capacity Fees	\$ -	\$ 3,626,000	\$ 3,062,000	\$ 2,374,000	\$ 7,269,000	\$ 16,331,000
Long Term Debt	2,426,000	-	-	-	-	2,426,000
<b>Total Sources</b>	<b>\$ 2,426,000</b>	<b>\$ 3,626,000</b>	<b>\$ 3,062,000</b>	<b>\$ 2,374,000</b>	<b>\$ 7,269,000</b>	<b>\$ 18,757,000</b>
<b>Funding Uses</b>						
Professional	\$ -	\$ -	\$ 153,500	\$ -	\$ -	\$ 153,500
Land	-	-	153,500	-	-	153,500
Construction	-	-	-	1,738,000	-	1,738,000
Joint Capital	2,426,000	3,626,000	2,755,000	636,000	3,780,000	13,223,000
Capacity Payments	-	-	-	-	3,489,000	3,489,000
<b>Total Uses</b>	<b>\$ 2,426,000</b>	<b>\$ 3,626,000</b>	<b>\$ 3,062,000</b>	<b>\$ 2,374,000</b>	<b>\$ 7,269,000</b>	<b>\$ 18,757,000</b>

# Utilities

Functional Area: Public Utilities  
 Department (s): Public Utilities  
 Project: Lockwood Pump Station Improvements  
 Location: Lockwood Pump Station on Richfood Road  
 Project Contact: Utility Engineer - (804) 365-6019

Description: This project provides additional pumping capacity at the Lockwood Water Pump Station. The FY2007 improvements will result in a total pumping capacity of 15.3 MGD. The FY2011-2012 improvements will provide a total pumping capacity of 20MGD. These capacity increases are coordinated with the increases in purchased plant capacity from the City of Richmond.



Useful Life: 35 years  
 Comp. Plan Impact/Compliance: Yes  
 Funding Sources: Long Term Debt, Capacity Fees & User Fees  
 Timetable: Construction (FY07) ; Design (FY11)  
 PY Allocation: \$0

Operating Impact: FY08 \$39,000    FY09 \$41,000    FY10 \$43,000    FY11 \$45,000

	FY07	FY08	FY09	FY10	FY11	Totals
<b>Funding Sources</b>						
Capacity Fees					\$ 184,500	\$ 184,500
User Fees					184,500	184,500
Long Term Debt	400,000	-	-	-	-	400,000
<b>Total Sources</b>	\$ 400,000	\$ -	\$ -	\$ -	\$ 369,000	\$ 769,000
<b>Funding Uses</b>						
Professional	\$ -	\$ -	\$ -	\$ -	\$ 369,000	\$ 369,000
Construction	400,000	-	-	-	-	400,000
<b>Total Uses</b>	\$ 400,000	\$ -	\$ -	\$ -	\$ 369,000	\$ 769,000

# Utilities

Functional Area: Public Utilities

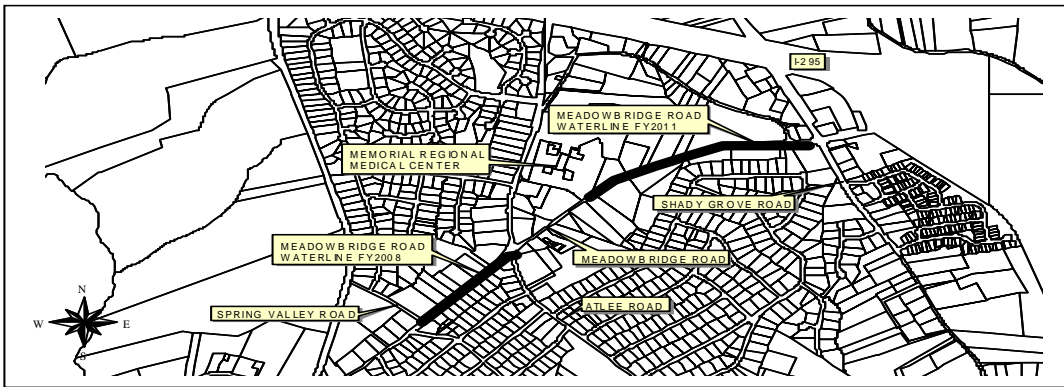
Department (s): Public Utilities

Project: Meadowbridge Road Waterline

Location: Meadowbridge Road from Spring Valley Road to Atlee Road and Memorial Regional Medical Center entrance to Shady Grove Road

Project Contact: Utility Engineer - (804) 365-6019

Description: This project provides design, easement acquisition and construction in FY2008 of 1,500' of 16" waterline from the vicinity of Spring Valley Road to Atlee Road. This waterline will provide increased water supply to the Mechanicsville area to meet projected demands. FY2011 funds are for the design and easement acquisition of 2,800' of 16" waterline from the east entrance to Memorial Regional Medical Center to Shady Grove Road.



Useful Life: 50 years

Comp. Plan Impact/Compliance: Yes

Funding Sources: Capacity Fees & User Fees

Timetable: Design, easement acquisition & construction (FY08)  
Design and easement acquisition (FY11)

PY Allocation: \$0

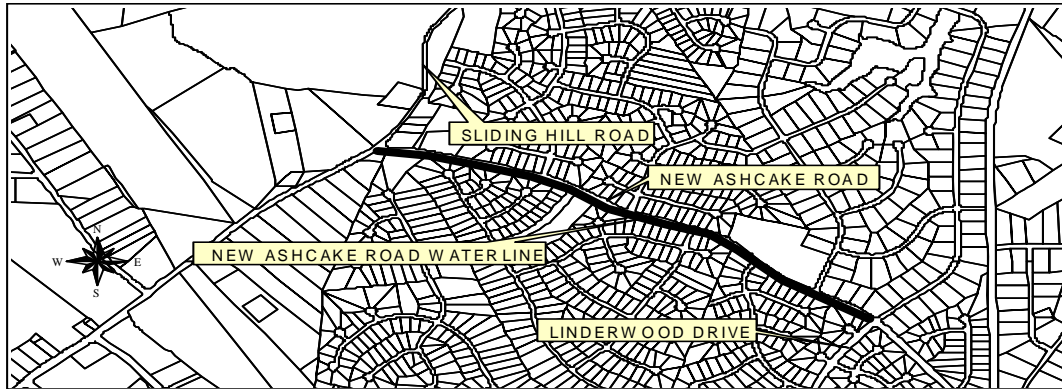
Operating Impact: \$0

	FY07	FY08	FY09	FY10	FY11	Totals
<b>Funding Sources</b>						
User Fees	\$ -	\$ 74,000	\$ -	\$ -	\$ 24,000	\$ 98,000
Long Term Debt	-	-	-	-	-	-
Capacity Fees	-	222,000	-	-	72,000	294,000
<b>Total Sources</b>	<b>\$ -</b>	<b>\$ 296,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 96,000</b>	<b>\$ 392,000</b>
<b>Funding Uses</b>						
Professional	\$ -	\$ 48,000	\$ -	\$ -	\$ 48,000	\$ 96,000
Land	-	48,000	-	-	48,000	96,000
Construction	-	200,000	-	-	-	200,000
<b>Total Uses</b>	<b>\$ -</b>	<b>\$ 296,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 96,000</b>	<b>\$ 392,000</b>

# Utilities

Functional Area: Public Utilities  
 Department (s): Public Utilities  
 Project: New Ashcake Road Waterline  
 Location: New Ashcake Road between Linderwood Drive and Sliding Hill Road  
 Project Contact: Utility Engineer - (804) 365-6019

Description: This project provides design in FY 2010 and construction in FY 2013 of 5,400' of 24" waterline along New Ashcake Road from Linderwood Drive to Sliding Hill Road. The waterline will provide water transmission capacity to transfer water from the Lockwood Pump Station to the Hanover Industrial Air Park, Route 1, and Ashland areas and meet projected domestic and fire suppression demands.



Useful Life: 50 years  
 Comp. Plan Impact/Compliance: Yes  
 Funding Sources: Capacity Fees & User Fees  
 Timetable: Design and easement acquisition (FY10); Construction (FY13)  
 PY Allocation: \$0  
 Operating Impact: \$0

	FY07	FY08	FY09	FY10	FY11	Totals
<b>Funding Sources</b>						
User Fees	\$ -	\$ -	\$ -	\$ 22,000	\$ -	\$ 22,000
Capacity Fees	-	-	-	198,000	-	198,000
<b>Total Sources</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 220,000</b>	<b>\$ -</b>	<b>\$ 220,000</b>
<b>Funding Uses</b>						
Professional	\$ -	\$ -	\$ -	\$ 110,000	\$ -	\$ 110,000
Land	-	-	-	110,000	-	110,000
Construction	-	-	-	-	-	-
<b>Total Uses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 220,000</b>	<b>\$ -</b>	<b>\$ 220,000</b>

# Utilities

Functional Area: Public Utilities

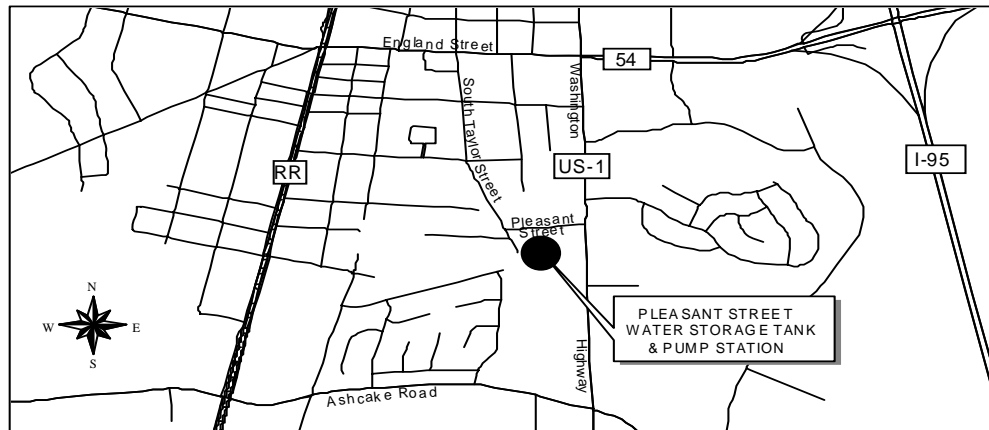
Department (s): Public Utilities

Project: Pleasant St. Water Storage Tank & Pump Station Improvements

Location: South Taylor Street and Pleasant Street in the Town of Ashland

Project Contact: Utility Engineer - (804) 365-6019

Description: This project provides for recoating of the existing one million gallon tank and any necessary structural repairs.



Useful Life: 35 years

Comp. Plan Impact/Compliance: No

Funding Sources: User Fees

Timetable: Design & Construction (FY07)

PY Allocation: \$63,000

Operating Impact: \$0

	FY07	FY08	FY09	FY10	FY11	Totals
<b>Funding Sources</b>						
User Fees	\$ 450,000	\$ -	\$ -	\$ -	\$ -	450,000
<b>Total Sources</b>	<b>\$ 450,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>450,000</b>
<b>Funding Uses</b>						
Professional	\$ 75,000	\$ -	\$ -	\$ -	\$ -	75,000
Construction	375,000	-	-	-	-	375,000
<b>Total Uses</b>	<b>\$ 450,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>450,000</b>

# Utilities

Functional Area: Public Utilities  
 Department (s): Public Utilities  
 Project: Sliding Hill Rd. Waterline Improvements  
 Location: Sliding Hill Road from New Ashcake Road to Countryside Lane  
 Project Contact: Utility Engineer - (804) 365-6019  
 Description: This project provides design in FY 2010 and construction in FY 2013 for 2,700' of 20" waterline along Sliding Hill Road from New Ashcake Road to Countryside Lane.



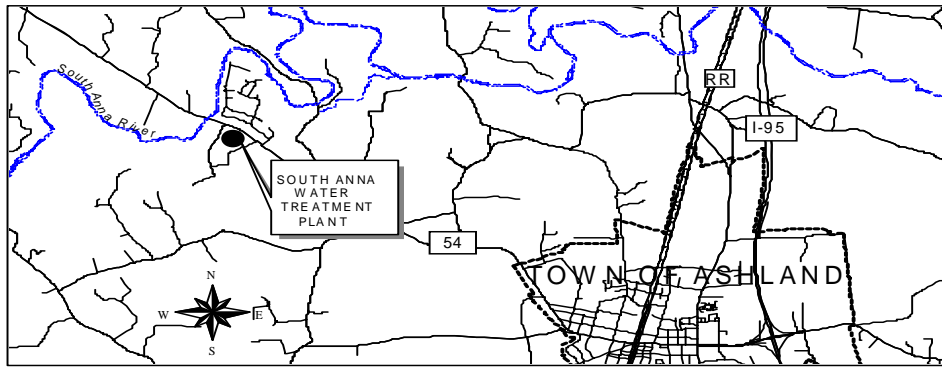
Useful Life: 50 years  
 Comp. Plan Impact/Compliance: Yes  
 Funding Sources: Capacity Fees  
 Timetable: Design and easement acquisition (FY10)  
 PY Allocation: \$0  
 Operating Impact: \$0

	FY07	FY08	FY09	FY10	FY11	Totals
<b>Funding Sources</b>						
Capacity Fees	\$ -	\$ -	\$ -	\$ 53,000	\$ -	\$ 53,000
<b>Total Sources</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 53,000</b>	<b>\$ -</b>	<b>\$ 53,000</b>
<b>Funding Uses</b>						
Professional	\$ -	\$ -	\$ -	\$ 26,500	\$ -	\$ 26,500
Land	-	-	-	26,500	-	26,500
Construction	-	-	-	-	-	-
<b>Total Uses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 53,000</b>	<b>\$ -</b>	<b>\$ 53,000</b>

# Utilities

Functional Area: Public Utilities  
 Department (s): Public Utilities  
 Project: South Anna Water Treatment Plant Upgrade  
 Location: South Anna Water Treatment Plant  
 Project Contact: Utility Engineer - (804) 365-6019

Description: The South Anna Water Treatment Plant was taken out of service in 1999 because it was not cost effective to have it in service, and it was not equipped to meet all VDH regulatory requirements. This project will include design and construction necessary to upgrade the water treatment plant to current VDH standards at its existing capacity of 2.0 MGD.



Useful Life: 35 years  
 Comp. Plan Impact/Compliance: No  
 Funding Sources: User Fees  
 Timetable: Design and construction (FY11)  
 PY Allocation: \$0

Operating Impact: FY11  
 \$991,000

	FY07	FY08	FY09	FY10	FY11	Totals
<b>Funding Sources</b>						
User Fees	\$ -	\$ -	\$ -	\$ -	\$ 1,545,000	\$ 1,545,000
<b>Total Sources</b>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 1,545,000</u>	<u>\$ 1,545,000</u>
<b>Funding Uses</b>						
Professional	\$ -	\$ -	\$ -	\$ -	\$ 150,000	\$ 150,000
Construction	-	-	-	-	1,395,000	1,395,000
<b>Total Uses</b>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 1,545,000</u>	<u>\$ 1,545,000</u>

# Utilities

Functional Area: Public Utilities

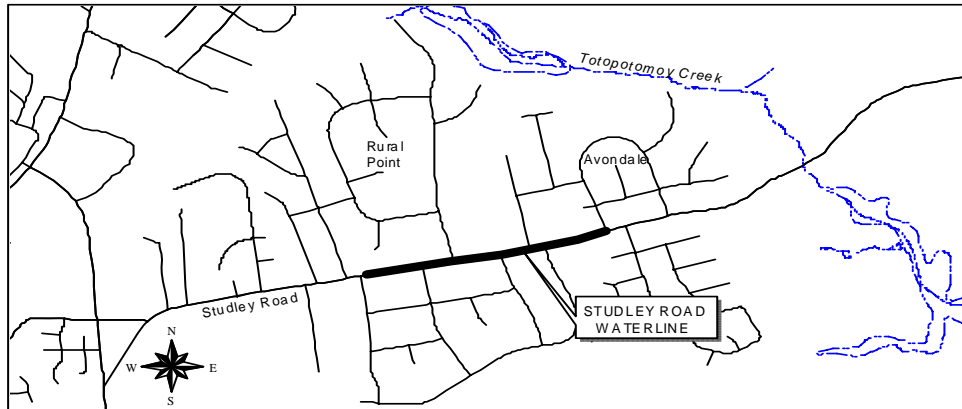
Department (s): Public Utilities

Project: Studley Rd. Waterline

Location: Studley Road from Rural Point Subdivision to West Wenlock Drive

Project Contact: Utility Engineer - (804) 365-6019

Description: This project provides for 3,200' of 12" waterline along Studley Road from Rural Point Subdivision to West Wenlock Drive. This waterline is required to provide increased fire suppression flow to the Avondale Subdivision and to support future waterline extensions to Rural Point Road.



Useful Life: 50 years

Comp. Plan Impact/Compliance: Yes

Funding Sources: Capacity Fees

Timetable: Design and easement acquisition (FY09); Construction (FY10)

PY Allocation: \$0

Operating Impact: \$0

	FY07	FY08	FY09	FY10	FY11	Totals
<b>Funding Sources</b>						
Capacity Fees	\$ -	\$ -	\$ 70,000	\$ 329,000	\$ -	\$ 399,000
<b>Total Sources</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 70,000</b>	<b>\$ 329,000</b>	<b>\$ -</b>	<b>\$ 399,000</b>
<b>Funding Uses</b>						
Professional	\$ -	\$ -	\$ 35,000	\$ -	\$ -	\$ 35,000
Land	-	-	35,000	-	-	35,000
Construction	-	-	-	329,000	-	329,000
<b>Total Uses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 70,000</b>	<b>\$ 329,000</b>	<b>\$ -</b>	<b>\$ 399,000</b>

# Utilities

Functional Area: Public Utilities

Department (s): Public Utilities

Project: Vulnerability Assessment Implementation

Location: Various Infrastructure Facilities

Project Contact: Utility Engineer - (804) 365-6019

Description: A Federally-mandated "Vulnerability Assessment" was conducted on the county's water treatment and distribution facilities. This project involves implementation of the recommended security enhancements defined in the Vulnerability Assessment.

Useful Life: 35 years

Comp. Plan Impact/Compliance: No

Funding Sources: User Fees & Long Term Debt

Timetable: N/A

PY Allocation: \$349,000

Operating Impact: FY07 \$17,000    FY08 \$13,000    FY09 \$13,400    FY10 \$13,800

	FY07	FY08	FY09	FY10	FY11	Totals
<b>Funding Sources</b>						
Long Term Debt	\$ 252,000	\$ -	\$ -	\$ -	\$ -	\$ 252,000
User Fees	-	249,000	-	-	-	249,000
<b>Total Sources</b>	<b>\$ 252,000</b>	<b>\$ 249,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 501,000</b>
<b>Funding Uses</b>						
Professional	\$ 88,200	\$ 87,150	\$ -	\$ -	\$ -	\$ 175,350
Construction	163,800	161,850	-	-	-	325,650
<b>Total Uses</b>	<b>\$ 252,000</b>	<b>\$ 249,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 501,000</b>

# Utilities

Functional Area: Public Utilities

Department (s): Public Utilities

Project: Waterline Extensions and Facility Improvements

Location: Suburban Service Area

Project Contact: Utility Engineer - (804) 365-6019

Description: This project provides for waterline extensions and facility improvements that become necessary in order to provide for enhanced service within the Suburban Service Area. These extensions and improvements will support the existing customer base and economic development projects.

Useful Life: 50 years

Comp. Plan Impact/Compliance: Yes

Funding Sources: Capacity Fees, User Fees & Long Term Debt

Timetable: Design and construction (FY07-FY11)

PY Allocation: \$120,000

Operating Impact: \$0

	FY07	FY08	FY09	FY10	FY11	Totals
<b>Funding Sources</b>						
User Fees	\$ -	\$ 13,000	\$ 13,500	\$ 14,000	\$ 14,500	\$ 55,000
Long Term Debt	125,000	-	-	-	-	125,000
Capacity Fees	-	117,000	121,500	126,000	130,500	495,000
<b>Total Sources</b>	<b>\$ 125,000</b>	<b>\$ 130,000</b>	<b>\$ 135,000</b>	<b>\$ 140,000</b>	<b>\$ 145,000</b>	<b>\$ 675,000</b>
<b>Funding Uses</b>						
Professional	\$ 12,500	\$ 13,000	\$ 13,500	\$ 14,000	\$ 14,500	\$ 67,500
Construction	112,500	117,000	121,500	126,000	130,500	607,500
<b>Total Uses</b>	<b>\$ 125,000</b>	<b>\$ 130,000</b>	<b>\$ 135,000</b>	<b>\$ 140,000</b>	<b>\$ 145,000</b>	<b>\$ 675,000</b>

# Utilities

Functional Area: Public Utilities

Department (s): Public Utilities

Project: Waterline Replacement

Location: Suburban Service Area

Project Contact: Utility Engineer - (804) 365-6019

Description: Replace aged and undersized waterlines in various streets within the Suburban Service Area to improve flow for fire suppression and capacity.

Useful Life: 50 years

Comp. Plan Impact/Compliance: No

Funding Sources: User Fees & Long Term Debt

Timetable: Design and construction (FY07-FY11)

PY Allocation: \$120,000

Operating Impact: \$0

	FY07	FY08	FY09	FY10	FY11	Totals
<b>Funding Sources</b>						
Long Term Debt	\$ 125,000	\$ -	\$ -	\$ -	\$ -	\$ 125,000
User Fees	-	130,000	135,000	140,000	145,000	550,000
<b>Total Sources</b>	<b>\$ 125,000</b>	<b>\$ 130,000</b>	<b>\$ 135,000</b>	<b>\$ 140,000</b>	<b>\$ 145,000</b>	<b>\$ 675,000</b>
<b>Funding Uses</b>						
Professional	\$ 20,000	\$ 22,000	\$ 25,000	\$ 25,000	\$ 25,000	\$ 117,000
Construction	105,000	108,000	110,000	115,000	120,000	558,000
<b>Total Uses</b>	<b>\$ 125,000</b>	<b>\$ 130,000</b>	<b>\$ 135,000</b>	<b>\$ 140,000</b>	<b>\$ 145,000</b>	<b>\$ 675,000</b>

# Utilities

Functional Area: Public Utilities

Department (s): Public Utilities

Project: Water Tank Rehabilitation

Location: Suburban and Rural water systems

Project Contact: Utility Engineer - (804) 365-6019

Description: This project provides for continuing funding of rehabilitation of existing water storage tanks throughout the Suburban and Rural water systems. Specific and planned repairs are scheduled for the following tanks: Atlee Road, FY07; Diane Ridge, FY08; Strawhorn, FY09; Jackson Avenue, FY10; Airpark (as needed) FY11.

Useful Life: 35 years

Comp. Plan Impact/Compliance: No

Funding Sources: User Fees & Long Term Debt

Timetable: Design and construction (FY07-FY11)

PY Allocation: \$54,000

Operating Impact: \$0

	FY07	FY08	FY09	FY10	FY11	Totals
<b>Funding Sources</b>						
Long Term Debt	\$ 225,000	\$ -	\$ -	\$ -	\$ -	\$ 225,000
User Fees	-	80,000	60,000	225,000	64,000	429,000
<b>Total Sources</b>	<b>\$ 225,000</b>	<b>\$ 80,000</b>	<b>\$ 60,000</b>	<b>\$ 225,000</b>	<b>\$ 64,000</b>	<b>\$ 654,000</b>
<b>Funding Uses</b>						
Professional	\$ 40,000	\$ 16,000	\$ 6,000	\$ 22,500	\$ 6,400	\$ 90,900
Construction	185,000	64,000	54,000	202,500	57,600	563,100
<b>Total Uses</b>	<b>\$ 225,000</b>	<b>\$ 80,000</b>	<b>\$ 60,000</b>	<b>\$ 225,000</b>	<b>\$ 64,000</b>	<b>\$ 654,000</b>

# Utilities

Functional Area: Public Utilities

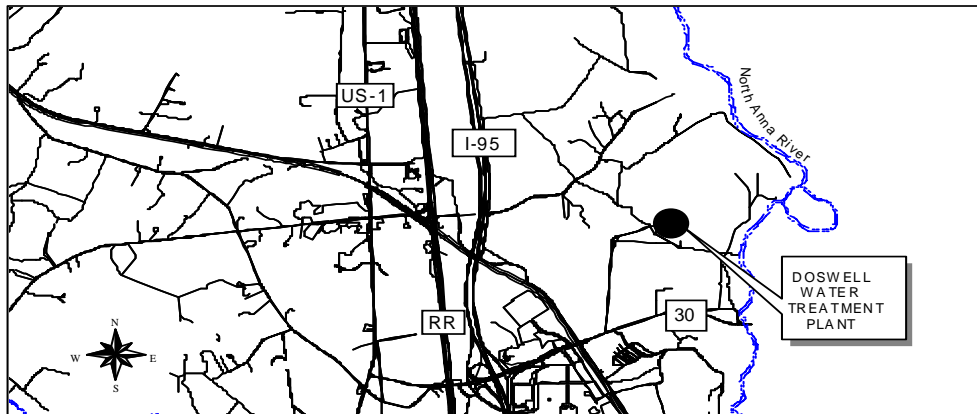
Department (s): Public Utilities

Project: Water Treatment Plant Rehabilitation

Location: Doswell Water Treatment Plant

Project Contact: Utility Engineer - (804) 365-6019

Description: This project provides for continuing funding of rehabilitation of various equipment and structural components and process enhancements at the Doswell Water Treatment Plant. FY08 Raw Pump Drive # 1; FY11 Sludge Collector Drive Basin # 3.



Useful Life: 35 years

Comp. Plan Impact/Compliance: No

Funding Sources: User Fees

Timetable: Design and construction (FY08-FY11)

PY Allocation: \$54,000

Operating Impact: \$0

	FY07	FY08	FY09	FY10	FY11	Totals
<b>Funding Sources</b>						
User Fees	\$ -	\$ 60,000	\$ -	\$ -	\$ 70,000	\$ 130,000
<b>Total Sources</b>	<b>\$ -</b>	<b>\$ 60,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 70,000</b>	<b>\$ 130,000</b>
<b>Funding Uses</b>						
Professional	\$ -	\$ 6,000	\$ -	\$ -	\$ 7,000	\$ 13,000
Construction	-	54,000	-	-	63,000	117,000
<b>Total Uses</b>	<b>\$ -</b>	<b>\$ 60,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 70,000</b>	<b>\$ 130,000</b>

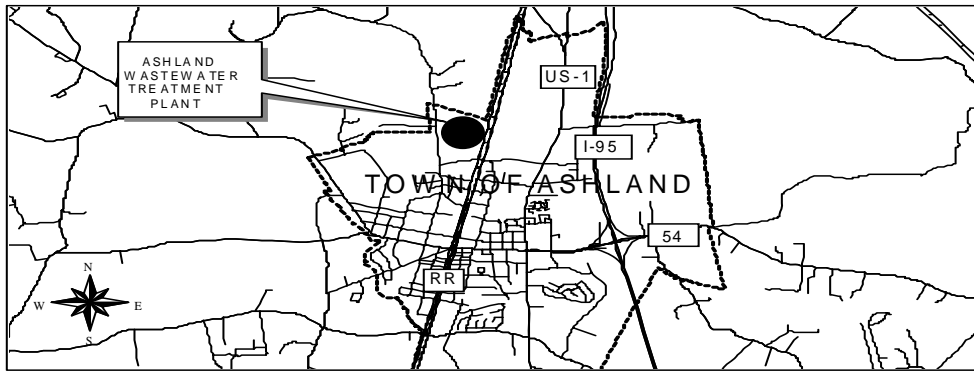
# **Utilities**

## **Wastewater Collections and Treatment Projects**

# Utilities

Functional Area: Public Utilities  
 Department (s): Public Utilities  
 Project: Ashland WWTP Biological Nutrient Removal  
 Location: Ashland WWTP  
 Project Contact: Utility Engineer - (804) 365-6019

Description: Design, construction & implementation of process changes to meet impending biological nutrient removal requirements. The Virginia Department of Environmental Quality is in the process of requiring POTW's to limit the amount of nitrogen and phosphorous discharged by wastewater treatment plants. This project includes all the necessary improvements to meet more stringent nutrient limits in the plant's discharge. The project includes replacement of existing pump equipment (MPS, RAS and WAS pumps) with in-kind equipment.



Useful Life: 35 years  
 Comp. Plan Impact/Compliance: No  
 Funding Sources: State Funding & Long Term Debt  
 Timetable: Design and construction (FY09)  
 PY Allocation: \$0  
 Operating Impact: \$0

	FY07	FY08	FY09	FY10	FY11	Totals
<b>Funding Sources</b>						
VDEQ - WQIA	\$ -	\$ -	\$ 1,429,000	\$ -	\$ -	\$ 1,429,000
Long Term Debt	-	-	1,429,000	-	-	1,429,000
<b>Total Sources</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 2,858,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 2,858,000</b>
<b>Funding Uses</b>						
Professional	\$ -	\$ -	\$ 256,800	\$ -	\$ -	\$ 256,800
Land	-	-	-	-	-	-
Construction	-	-	2,601,200	-	-	2,601,200
<b>Total Uses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 2,858,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 2,858,000</b>

# Utilities

Functional Area: Public Utilities

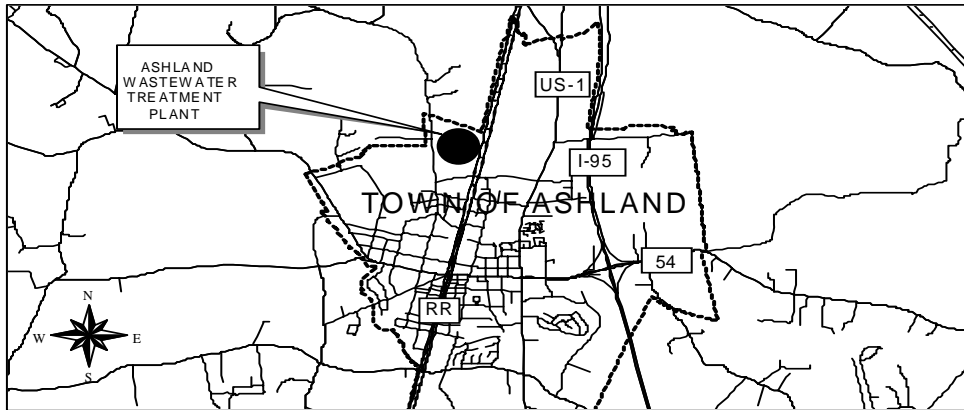
Department (s): Public Utilities

Project: Ashland WWTP Return Activated Sludge Pump Upgrade

Location: Ashland WWTP

Project Contact: Utility Engineer - (804) 365-6019

Description: The return activated sludge pump's VFD's are 12 years old and parts are becoming increasing difficult to secure. This project includes the purchase and installation of three drive units.



Useful Life: 5 years

Comp. Plan Impact/Compliance: No

Funding Sources: User Fees

Timetable: Design and construction (FY08)

PY Allocation: \$0

Operating Impact: \$0

	FY07	FY08	FY09	FY10	FY11	Totals
<b>Funding Sources</b>						
User Fees	\$ -	\$ 155,000	\$ -	\$ -	\$ -	\$ 155,000
<b>Total Sources</b>	<b>\$ -</b>	<b>\$ 155,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 155,000</b>
<b>Funding Uses</b>						
Professional	\$ -	\$ 15,000	\$ -	\$ -	\$ -	\$ 15,000
Construction	-	140,000	-	-	-	140,000
<b>Total Uses</b>	<b>\$ -</b>	<b>\$ 155,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 155,000</b>

# Utilities

Functional Area: Public Utilities

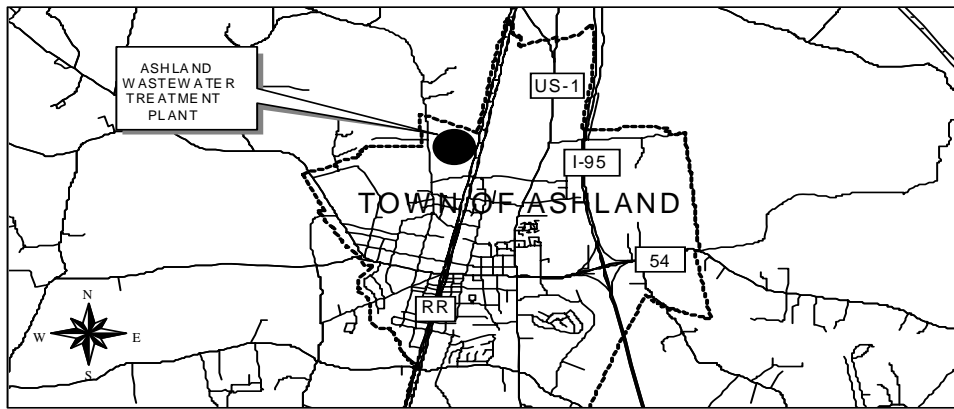
Department (s): Public Utilities

Project: Ashland WWTP Treatment Unit Rehabilitation

Location: Ashland WWTP

Project Contact: Utility Engineer - (804) 365-6019

Description: This project includes structural repairs for exposed concrete at the orbital, clarifier, and digester units. The project also includes resurfacing of units after structural repairs are made.



Useful Life: 35 years

Comp. Plan Impact/Compliance: No

Funding Sources: User Fees

Timetable: Design and construction (FY07)

PY Allocation: \$0

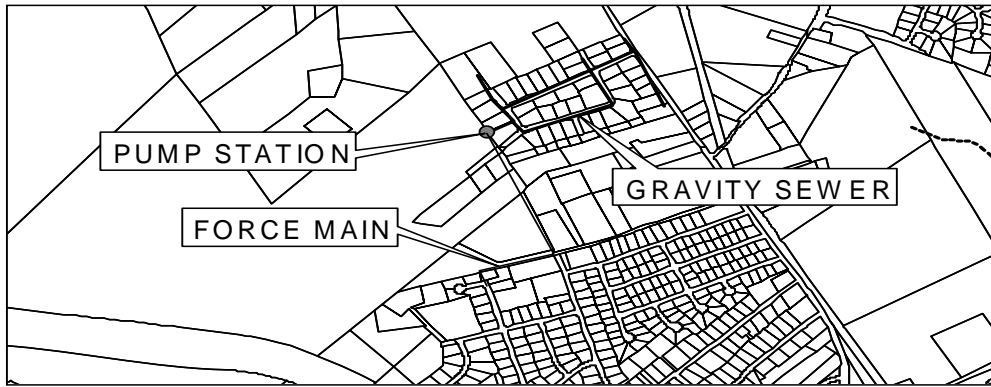
Operating Impact: \$0

	FY07	FY08	FY09	FY10	FY11	Totals
<b>Funding Sources</b>						
User Fees	\$ 230,000	\$ -	\$ -	\$ -	\$ -	230,000
<b>Total Sources</b>	<b>\$ 230,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>230,000</b>
<b>Funding Uses</b>						
Professional	\$ 30,000	\$ -	\$ -	\$ -	\$ -	30,000
Construction	200,000	-	-	-	-	200,000
<b>Total Uses</b>	<b>\$ 230,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>230,000</b>

# Utilities

Functional Area: Public Utilities  
 Department (s): Public Utilities  
 Project: Atlee Manor Sewer Service District  
 Location: Atlee Manor Subdivision  
 Project Contact: Utility Engineer - (804) 365-6019

Description: This project provides for the construction of a sanitary sewer collection system to serve the 44 existing homes in the Atlee Manor Service District. The sanitary sewer system will consist of approximately 4,800' of 8" gravity sewer, 44 individual sewer laterals, 2,500' of force main and a pump station with a capacity of approximately 37,500 gpd. Individual houses, assuming reduced capacity fees paid, will be connected to the new sewer system and the existing septic tank and drainfields will be abandoned as part of the project.



Useful Life: 50 years  
 Comp. Plan Impact/Compliance: No  
 Funding Sources: Federal Funding & Atlee Manor Service District  
 Timetable: Construction (FY07)  
 PY Allocation: \$200,000  
 Operating Impact: \$0

	FY07	FY08	FY09	FY10	FY11	Totals
<b>Funding Sources</b>						
Capacity Fees	\$ 708,400	\$ -	\$ -	\$ -	\$ -	708,400
VRLF - Long Term Debt	579,600	-	-	-	-	579,600
<b>Total Sources</b>	<b>\$ 1,288,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>1,288,000</b>
<b>Funding Uses</b>						
Construction	\$ 1,288,000	\$ -	\$ -	\$ -	\$ -	1,288,000
<b>Total Uses</b>	<b>\$ 1,288,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>1,288,000</b>

# Utilities

Functional Area: Public Utilities

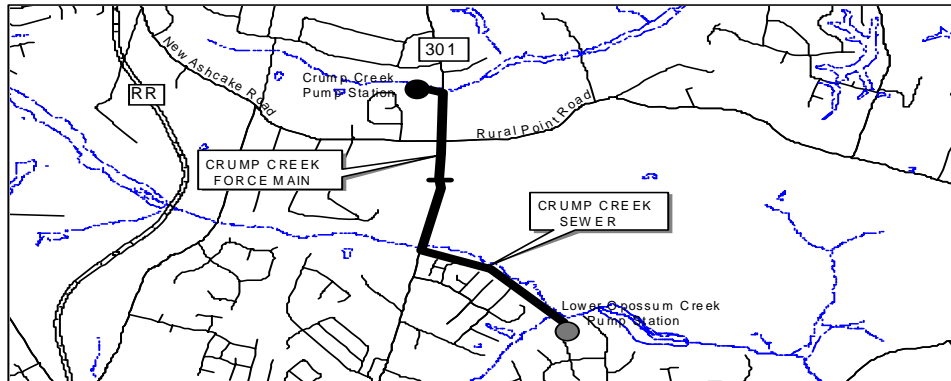
Department (s): Public Utilities

Project: Crump Creek Sewerage Improvements

Location: Crump Creek Pump Station near Pearsons Corner and along Chamberlayne Road and Totopotomoy Creek from the pump station to Opossum Creek

Project Contact: Utility Engineer - (804) 365-6019

Description: This project provides for design and easement acquisition in FY 2010 and construction in FY 2012 of improvements to the Crump Creek Pump Station to achieve a capacity of 0.5 MGD, 2,600' of 10" force main and 5,900' of 15" and 30" sanitary sewer. These improvements will provide increased capacity at the Crump Creek Pump Station for projected growth in the service area.



Useful Life: 50 years

Comp. Plan Impact/Compliance: Yes

Funding Sources: Capacity Fees

Timetable: Design and easement acquisition (FY10); Construction (FY12)

PY Allocation: \$0

Operating Impact: \$0

	FY07	FY08	FY09	FY10	FY11	Totals
<b>Funding Sources</b>						
Capacity Fees	\$ -	\$ -	\$ -	\$ 300,000	\$ -	\$ 300,000
<b>Total Sources</b>	\$ -	\$ -	\$ -	\$ 300,000	\$ -	\$ 300,000
<b>Funding Uses</b>						
Professional	\$ -	\$ -	\$ -	\$ 250,000	\$ -	\$ 250,000
Land	-	-	-	50,000	-	50,000
<b>Total Uses</b>	\$ -	\$ -	\$ -	\$ 300,000	\$ -	\$ 300,000

# Utilities

Functional Area: Public Utilities

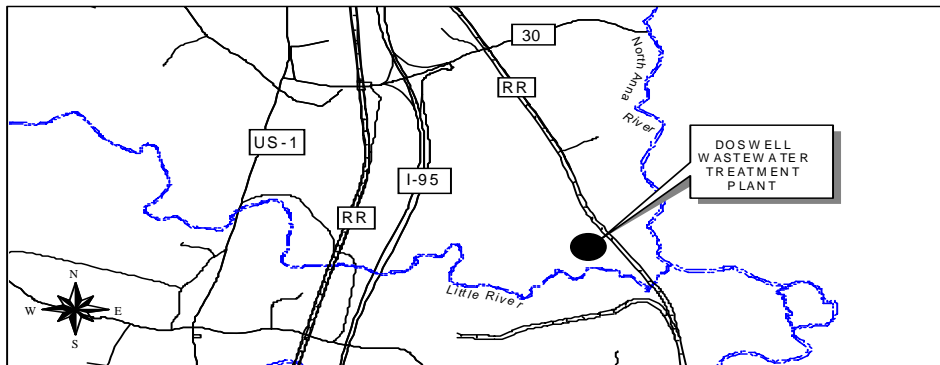
Department (s): Public Utilities

Project: Doswell WWTP Biological Nutrient Removal

Location: Doswell Wastewater Treatment Plant

Project Contact: Utility Engineer - (804) 365-6019

Description: Design, construction & implementation of process changes to meet impending biological nutrient removal requirements. The Virginia Department of Environmental Quality is in the process of requiring POTW's to limit the amount of nitrogen and phosphorous discharged by wastewater treatment plants. This project includes all the necessary improvements to meet more stringent nutrient limits in the plant's discharge.



Useful Life: 35 years

Comp. Plan Impact/Compliance: No

Funding Sources: State Funding & Long Term Debt

Timetable: Design and construction (FY09)

PY Allocation: \$0

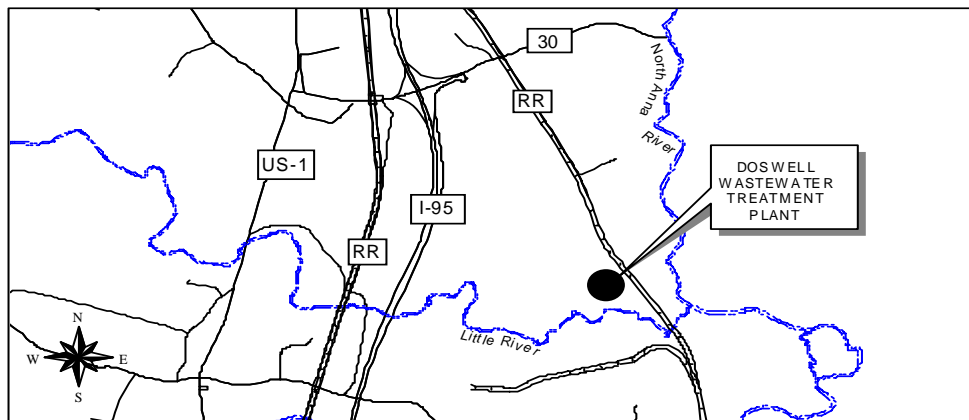
Operating Impact: \$0

	FY07	FY08	FY09	FY10	FY11	Totals
<b>Funding Sources</b>						
VDEQ - WQIA	\$ -	\$ -	\$ 1,800,000	\$ -	\$ -	\$ 1,800,000
Long Term Debt	-	-	1,800,000	-	-	1,800,000
<b>Total Sources</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 3,600,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 3,600,000</b>
<b>Funding Uses</b>						
Professional	\$ -	\$ -	\$ 318,000	\$ -	\$ -	\$ 318,000
Land	-	-	-	-	-	-
Construction	-	-	3,282,000	-	-	3,282,000
<b>Total Uses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 3,600,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 3,600,000</b>

# Utilities

Functional Area: Public Utilities  
 Department (s): Public Utilities  
 Project: Doswell WWTP Generator Replacement  
 Location: Doswell Wastewater Treatment Plant  
 Project Contact: Utility Engineer - (804) 365-6019

Description: The existing 350 Kw generator is over twenty years old and has served its useful life. Its replacement is anticipated as being necessary in FY08. The project also includes replacement of the transfer switch and miscellaneous improvements.



Useful Life: 5 years  
 Comp. Plan Impact/Compliance: No  
 Funding Sources: User Fees  
 Timetable: Construction (FY08)  
 PY Allocation: \$0  
 Operating Impact: \$0

	FY07	FY08	FY09	FY10	FY11	Totals
<b>Funding Sources</b>						
User Fees	\$ -	\$ 75,000	\$ -	\$ -	\$ -	\$ 75,000
<b>Total Sources</b>	<b>\$ -</b>	<b>\$ 75,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 75,000</b>
<b>Funding Uses</b>						
Equipment	\$ -	\$ 75,000	\$ -	\$ -	\$ -	\$ 75,000
<b>Total Uses</b>	<b>\$ -</b>	<b>\$ 75,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 75,000</b>

# Utilities

Functional Area: Public Utilities

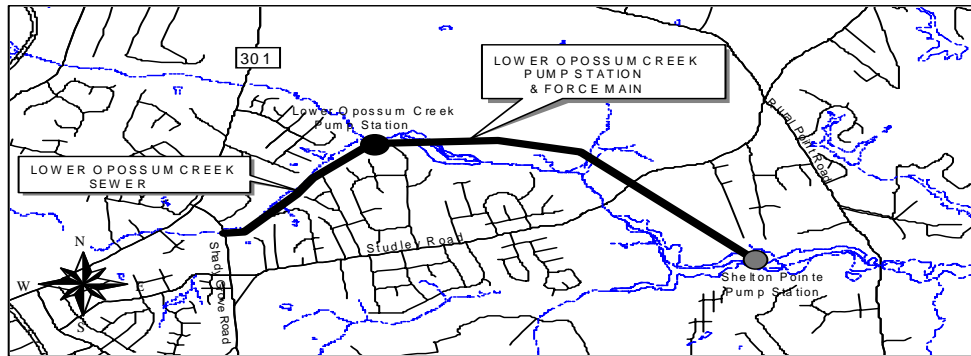
Department (s): Public Utilities

Project: Lower Opossum Creek Sewerage Improvements

Location: Along Opossum Creek from Shady Grove Road to Totopotomoy Creek and generally along Totopotomoy Creek from Opossum Creek to the Shelton Pointe Pump Station

Project Contact: Utility Engineer - (804) 365-6019

Description: This project provides for design and site/easement acquisition in FY2007 and construction in FY 2009 of a 3.8 MGD pump station near the confluence of Opossum and Totopotomoy Creeks, 4,400' of 30" sanitary sewer along Opossum Creek from Shady Grove Road to the new pump station, and 11,500' of 24" force main from the new pump station to the existing Shelton Pointe Pump Station. The project also includes the abandonment of the existing Avondale and Berkeley Forest pump stations.



Useful Life: 35 years

Comp. Plan Impact/Compliance: Yes

Funding Sources: Capacity Fees, User Fees & Long Term Debt

Timetable: Design and easement acquisition (FY07); Construction (FY09)

PY Allocation: \$0

Operating Impact: **FY10**  
\$25,000

	FY07	FY08	FY09	FY10	FY11	Totals
<b>Funding Sources</b>						
User Fees	\$ -	\$ -	\$ 1,001,154	\$ -	\$ -	1,001,154
Long Term Debt	1,442,000	-	-	-	-	1,442,000
Capacity Fees	-	-	5,499,846	-	-	5,499,846
<b>Total Sources</b>	<b>\$ 1,442,000</b>	<b>\$ -</b>	<b>\$ 6,501,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>7,943,000</b>
<b>Funding Uses</b>						
Professional	\$ 721,000	\$ -	\$ -	\$ -	\$ -	721,000
Land	721,000	-	-	-	-	721,000
Construction	-	-	6,501,000	-	-	6,501,000
<b>Total Uses</b>	<b>\$ 1,442,000</b>	<b>\$ -</b>	<b>\$ 6,501,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>7,943,000</b>

# Utilities

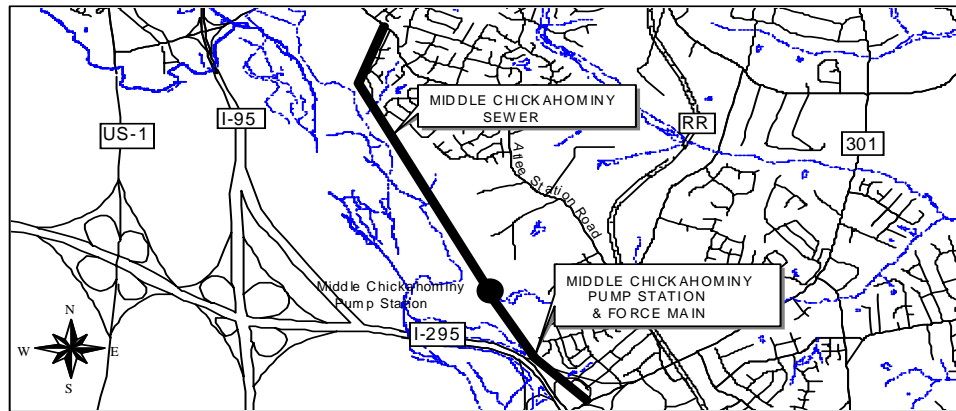
Functional Area: Public Utilities

Department (s): Public Utilities

Location: Along the Chickahominy River between Green Ridge Subdivision and Chamberlayne Road

Project Contact: Utility Engineer - (804) 365-6019

Description: This project provides for construction in FY 2009 for a new pump station, approximately 13,200' of sanitary sewer, and approximately 4,500' of force main along the Chickahominy River from west of Green Ridge Subdivision to Chamberlayne Road. The project will provide local sanitary sewer service and will convey wastewater from the existing Sliding Hill Pump Station to the existing 24" sanitary sewer at Chamberlayne Road. The project includes the abandonment of the existing Beechwood Farms Pump Station.



Useful Life: 35 years

Comp. Plan Impact/Compliance: Yes

Funding Sources: Capacity Fees & User Fees

Timetable: Construction (FY09)

PY Allocation: \$0

Operating Impact: FY09 FY10  
\$25,750 \$26,500

	FY07	FY08	FY09	FY10	FY11	Totals
<b>Funding Sources</b>						
User Fees	\$ -		\$ 1,008,288			\$ 1,008,288
Capacity Fees	-	-	3,659,712	-	-	3,659,712
<b>Total Sources</b>	\$ -	\$ -	\$ 4,668,000	\$ -	\$ -	\$ 4,668,000
<b>Funding Uses</b>						
Construction	\$ -	\$ -	\$ 4,668,000	\$ -	\$ -	\$ 4,668,000
<b>Total Uses</b>	\$ -	\$ -	\$ 4,668,000	\$ -	\$ -	\$ 4,668,000

# Utilities

Functional Area: Public Utilities

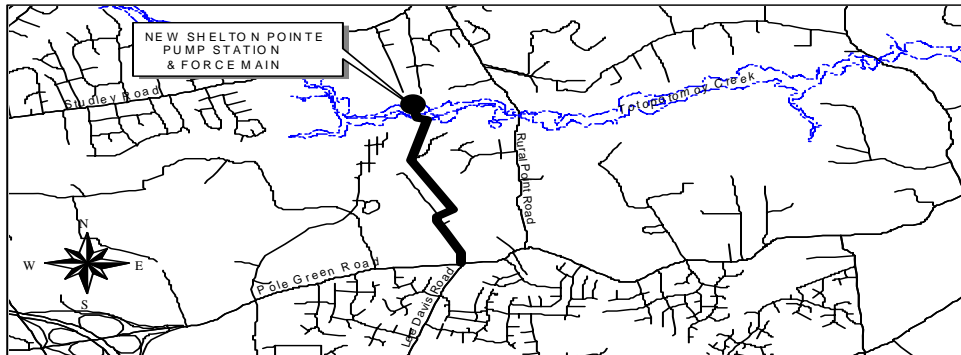
Department (s): Public Utilities

Project: Shelton Point Wastewater Pump Station and Force Main

Location: Site of existing Shelton Point Pump Station and from the pump station to the intersection of Pole Green Road and Lee Davis Road

Project Contact: Utility Engineer - (804) 365-6019

Description: The FY2008 project consists of replacing the existing Shelton Point Pump Station and constructing 7,000' of 16" force main. This project will increase the capacity of the facility from 0.09 MGD to 0.8 MGD. The force main will begin at the site of the existing pump station and end in the general vicinity of the intersection of Pole Green Road and Lee-Davis Road where it will connect to the existing 24" Lee-Davis Road Pump Station Force Main. The FY2011 project is for the design and easement acquisition for a 30" force main from the Shelton Point Pump Station directly to the Totopotomoy Wastewater Treatment Plant.



Useful Life: 35 years

Comp. Plan Impact/Compliance: Yes

Funding Sources: Capacity Fees & User Fees

Timetable: Construction (FY08); Design and easement acquisition (FY11)

PY Allocation: \$849,000

Operating Impact: FY09 \$25,000      FY10 \$25,750

	FY07	FY08	FY09	FY10	FY11	Totals
<b>Funding Sources</b>						
User Fees	\$ -	\$ 396,770	\$ -	\$ -	\$ 91,080	\$ 487,850
Capacity Fees	-	3,210,230	-	-	736,920	3,947,150
<b>Total Sources</b>	\$ -	\$ 3,607,000	\$ -	\$ -	\$ 828,000	\$ 4,435,000
<b>Funding Uses</b>						
Professional	\$ -	-	-	\$ -	\$ 414,000	\$ 414,000
Land	-	-	-	-	414,000	414,000
Construction	-	3,607,000	-	-	-	3,607,000
<b>Total Uses</b>	\$ -	\$ 3,607,000	\$ -	\$ -	\$ 828,000	\$ 4,435,000

# Utilities

Functional Area: Public Utilities

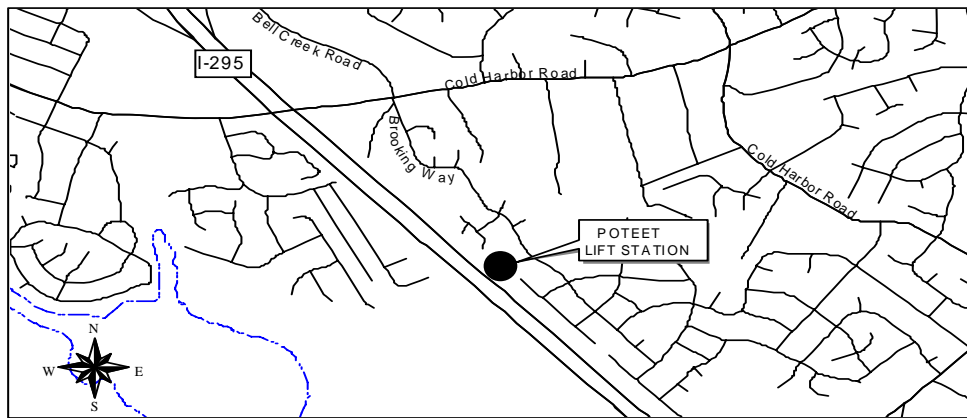
Department (s): Public Utilities

Project: Poteet Wastewater Lift Station Replacement

Location: Poteet Lift Station in High Point Farms subdivision

Project Contact: Utility Engineer - (804) 365-6019

Description: The pump station was constructed in 1985 and is at the end of its service life. This project includes design of a replacement pump station.



Useful Life: 35 years

Comp. Plan Impact/Compliance: No

Funding Sources: User Fees & Long Term Debt

Timetable: Design (FY09); Construction (FY10)

PY Allocation: \$0

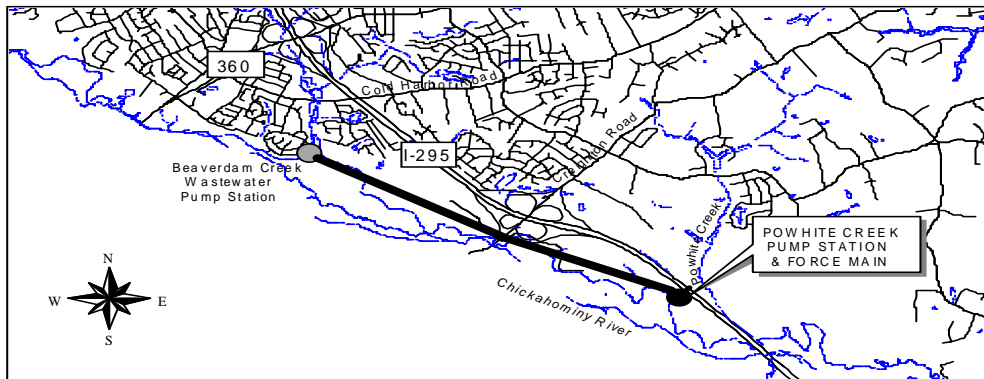
Operating Impact: \$0

	FY07	FY08	FY09	FY10	FY11	Totals
<b>Funding Sources</b>						
Long Term Debt	\$ -	\$ -	\$ 25,000	\$ -	\$ -	\$ 25,000
User Fees	-	-	-	350,000	-	350,000
<b>Total Sources</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 25,000</b>	<b>\$ 350,000</b>	<b>\$ -</b>	<b>\$ 375,000</b>
<b>Funding Uses</b>						
Professional	\$ -	\$ -	\$ 25,000	\$ -	\$ -	\$ 25,000
Land	-	-	-	-	-	-
Construction	-	-	-	350,000	-	350,000
<b>Total Uses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 25,000</b>	<b>\$ 350,000</b>	<b>\$ -</b>	<b>\$ 375,000</b>

# Utilities

Functional Area: Public Utilities  
 Department (s): Public Utilities  
 Project: Powhite Creek Wastewater Pump Station and Force Main  
 Location: Near Powhite Creek south of Interstate 295  
 Project Contact: Utility Engineer - (804) 365-6019

Description: This provides additional funding due to construction cost increases. This project provides a 0.7 MGD wastewater pump station on Powhite Creek south of Interstate 295 and 18,500' of 10" force main from the pump station to the Beaverdam Creek Wastewater Pump Station. This project provides public sanitary sewer into the Powhite Creek watershed to meet the Phased Suburban Development Plan schedule of the County's Comprehensive Plan. The project includes a gravity sanitary sewer extension to the north side of Interstate 295.



Useful Life: 35 years  
 Comp. Plan Impact/Compliance: Yes  
 Funding Sources: Capacity Fees  
 Timetable: Construction (FY07)  
 PY Allocation: \$0

Operating Impact: **FY07** \$5,000    **FY08** \$5,000    **FY09** \$5,000

	<b>FY07</b>	<b>FY08</b>	<b>FY09</b>	<b>FY10</b>	<b>FY11</b>	<b>Totals</b>
<b>Funding Sources</b>						
Long Term Debt	\$ 700,000	\$ -	\$ -	\$ -	\$ -	700,000
<b>Total Sources</b>	<b>\$ 700,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>700,000</b>
<b>Funding Uses</b>						
Construction	\$ 700,000	\$ -	\$ -	\$ -	\$ -	700,000
<b>Total Uses</b>	<b>\$ 700,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>700,000</b>

# Utilities

Functional Area: Public Utilities

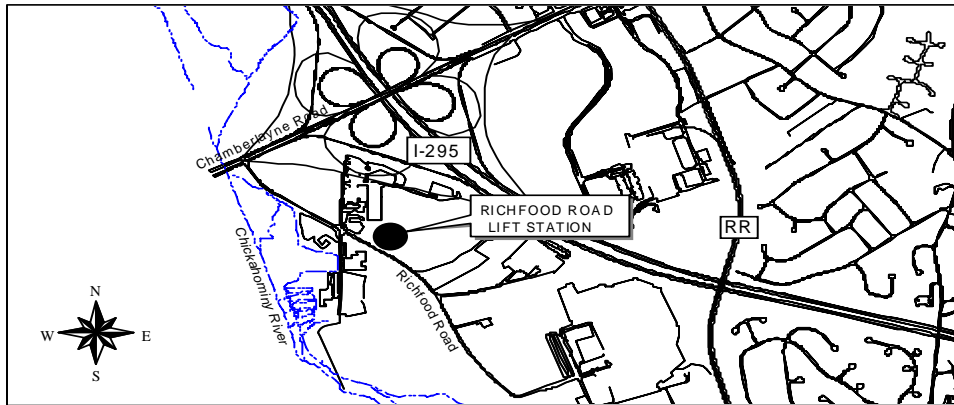
Department (s): Public Utilities

Project: Richfood Rd. Wastewater Lift Station Rehabilitation

Location: Richfood Road Lift Station

Project Contact: Utility Engineer - (804) 365-6019

Description: This pump station was constructed in 1980. The pumps and rail system are at the end of their useful life and will be replaced.



Useful Life: 35 years

Comp. Plan Impact/Compliance: No

Funding Sources: User Fees

Timetable: Design and construction (FY07)

PY Allocation: \$0

Operating Impact: \$0

	FY07	FY08	FY09	FY10	FY11	Totals
<b>Funding Sources</b>						
User Fees	\$ 87,000	\$ -	\$ -	\$ -	\$ -	\$ 87,000
<b>Total Sources</b>	<b>\$ 87,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 87,000</b>
<b>Funding Uses</b>						
Professional	\$ 5,000	\$ -	\$ -	\$ -	\$ -	\$ 5,000
Construction	82,000	-	-	-	-	82,000
<b>Total Uses</b>	<b>\$ 87,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 87,000</b>

# Utilities

Functional Area: Public Utilities

Department (s): Public Utilities

Project: Sanitary Sewer and Facility Rehabilitation

Location: Suburban and Courthouse Systems

Project Contact: Utility Engineer - (804) 365-6019

Description: This project provides for minor sanitary sewer and facility rehabilitation and improvements that become necessary in order to maintain wastewater infrastructure. The next priority is Airpark collection sytem rehabilitation.

Useful Life: 50 years

Comp. Plan Impact/Compliance: No

Funding Sources: User Fees & Long Term Debt

Timetable: Design and construction (FY07-FY11)

PY Allocation: \$205,000 (FY06)

Operating Impact: \$0

	FY07	FY08	FY09	FY10	FY11	Totals
<b>Funding Sources</b>						
Long Term Debt	\$ -	\$ -	\$ 220,000	\$ -	\$ -	\$ 220,000
User Fees	210,000	215,000	-	225,000	230,000	880,000
<b>Total Sources</b>	<b>\$ 210,000</b>	<b>\$ 215,000</b>	<b>\$ 220,000</b>	<b>\$ 225,000</b>	<b>\$ 230,000</b>	<b>\$ 1,100,000</b>
<b>Funding Uses</b>						
Professional	\$ 21,000	\$ 21,500	\$ 22,000	\$ 22,500	\$ 23,000	\$ 110,000
Construction	189,000	193,500	198,000	202,500	207,000	990,000
<b>Total Uses</b>	<b>\$ 210,000</b>	<b>\$ 215,000</b>	<b>\$ 220,000</b>	<b>\$ 225,000</b>	<b>\$ 230,000</b>	<b>\$ 1,100,000</b>

# Utilities

Functional Area: Public Utilities

Department (s): Public Utilities

Project: Sanitary Sewer Extensions and Facility Improvements

Location: Suburban Area and Courthouse Systems

Project Contact: Utility Engineer - (804) 365-6019

Description: This project provides for sanitary sewerline extensions and facility improvements necessary in order to provide increased service capacity to wastewater infrastructure.

Useful Life: 50 years

Comp. Plan Impact/Compliance: Yes

Funding Sources: Capacity Fees & Long Term Debt

Timetable: Design and construction (FY08-FY11)

PY Allocation: \$120,000 (FY06)

Operating Impact: \$0

	FY07	FY08	FY09	FY10	FY11	Totals
<b>Funding Sources</b>						
Long Term Debt	\$ -	\$ -	\$ 120,000	\$ -	\$ -	\$ 120,000
Capacity Fees	-	120,000	-	120,000	120,000	360,000
<b>Total Sources</b>	<b>\$ -</b>	<b>\$ 120,000</b>	<b>\$ 120,000</b>	<b>\$ 120,000</b>	<b>\$ 120,000</b>	<b>\$ 480,000</b>
<b>Funding Uses</b>						
Professional	-	12,000	12,000	12,000	12,000	48,000
Construction	-	108,000	108,000	108,000	108,000	432,000
<b>Total Uses</b>	<b>\$ -</b>	<b>\$ 120,000</b>	<b>\$ 120,000</b>	<b>\$ 120,000</b>	<b>\$ 120,000</b>	<b>\$ 480,000</b>

# Utilities

Functional Area: Public Utilities

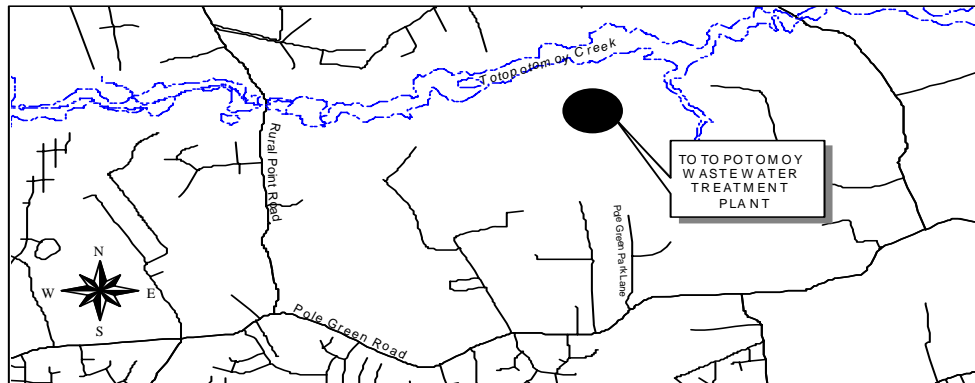
Department (s): Public Utilities

Project: Totopotomoy Wastewater Treatment Plant Expansion

Location: Totopotomoy Wastewater Treatment Plant

Project Contact: Utility Engineer - (804) 365-6019

Description: Study, design, and/or construction of new facilities at the Totopotomoy WWTP to meet new Chesapeake Bay nutrient allocation requirements that were adopted by the State Water Control Board in November 2005 and expansion of the WWTP to greater than 5 mgd capacity. These funds are for the study and design of required improvements and, depending on the nature of the improvements, construction of the first phase of improvements.



Useful Life: 35 years

Comp. Plan Impact/Compliance: Yes

Funding Sources: Capacity Fees

Timetable: Design & Construction (FY07)

PY Allocation: \$0

Operating Impact:

	FY07	FY08	FY09	FY10	FY11	Totals
<b>Funding Sources</b>						
Long Term Debt	1,405,400	-	-	-	-	1,405,400
Capacity Fees	\$ 594,600	\$ -	\$ -	\$ -	\$ -	594,600
<b>Total Sources</b>	<b>\$ 2,000,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>2,000,000</b>
<b>Funding Uses</b>						
Professional	\$ 1,000,000	\$ -	\$ -	\$ -	\$ -	1,000,000
Construction	1,000,000	-	-	-	-	1,000,000
<b>Total Uses</b>	<b>\$ 2,000,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>2,000,000</b>

# Utilities

Functional Area: Public Utilities

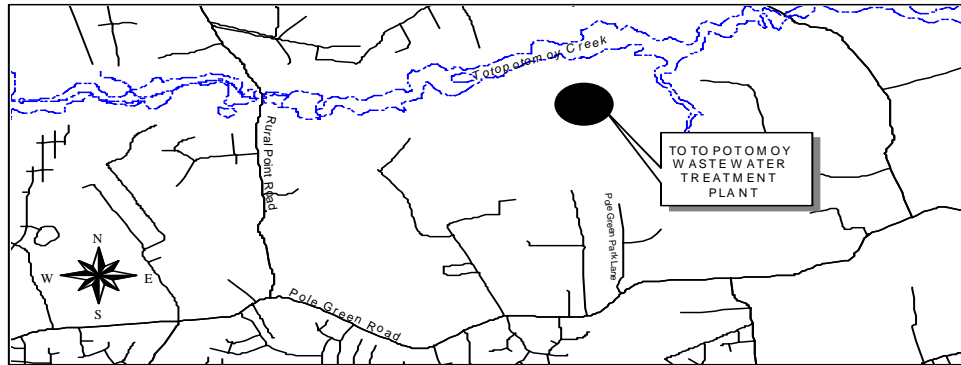
Department (s): Public Utilities

Project: Totopotomoy WWTP Effluent Filters

Location: Totopotomoy Wastewater Treatment Plant

Project Contact: Utility Engineer - (804) 365-6019

Description: The addition of filters will be required to meet a more stringent nutrient limit of 3mg/l Total Nitrogen (limit of technology) if mandated by the Virginia Department of Environmental Quality in response to the requirements of the Chesapeake Bay program. Also, as plant flows increase effluent filters will be needed to assure compliance with strict permit limits for biochemical oxygen demand and suspended solids.



Useful Life: 35 years

Comp. Plan Impact/Compliance: No

Funding Sources: User Fees & Long Term Debt

Timetable: Design & Construction (FY09)

PY Allocation: \$0

Operating Impact: FY09 \$33,000      FY10 \$33,000

	FY07	FY08	FY09	FY10	FY11	Totals
<b>Funding Sources</b>						
Long Term Debt	\$ -	\$ -	\$ 2,400,000	\$ -	\$ -	\$ 2,400,000
User Fees	-	-	1,340,000	-	-	1,340,000
<b>Total Sources</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 3,740,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 3,740,000</b>
<b>Funding Uses</b>						
Professional	\$ -	\$ -	\$ 340,000	\$ -	\$ -	\$ 340,000
Construction	-	-	3,400,000	-	-	3,400,000
<b>Total Uses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 3,740,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 3,740,000</b>

# Utilities

Functional Area: Public Utilities

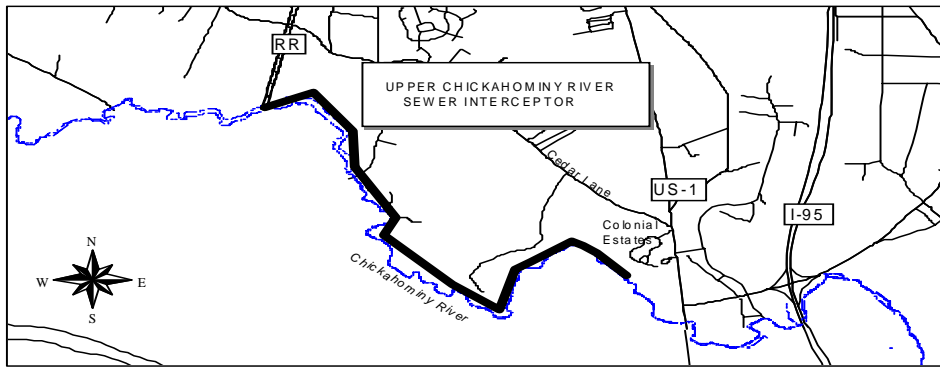
Department (s): Public Utilities

Project: Upper Chickahominy River Sanitary Sewer Interceptor

Location: Along the Chickahominy River from Colonial Estates to Holly Hill Road and along the Chickahominy River from Holly Hill Road to CSX Railroad

Project Contact: Utility Engineer - (804) 365-6019

Description: This project provides for design and easement acquisition in FY2009 of 16,100' of 30" sanitary sewer along the Chickahominy River from Colonial Estates to the west side of CSX Railroad. Construction is planned for FY2011. The project will provide sanitary sewer service to the 2009-2012 development phase west of the CSX Railroad.



Useful Life: 50 years

Comp. Plan Impact/Compliance: Yes

Funding Sources: Long Term Debt & Capacity Fees

Timetable: Design & easement acquisition (FY09); Construction (FY11)

PY Allocation: \$0

Operating Impact: \$0

	FY07	FY08	FY09	FY10	FY11	Totals
<b>Funding Sources</b>						
Capacity Fees	\$ -	\$ -	\$ -	\$ -	\$ 6,592,000	\$ 6,592,000
Long Term Debt	-	-	1,559,000	-	-	1,559,000
<b>Total Sources</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 1,559,000</b>	<b>\$ -</b>	<b>\$ 6,592,000</b>	<b>\$ 8,151,000</b>
<b>Funding Uses</b>						
Professional	\$ -	\$ -	\$ 779,500	\$ -	\$ -	\$ 779,500
Land	-	-	779,500	-	-	779,500
Construction	-	-	-	-	6,592,000	6,592,000
<b>Total Uses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 1,559,000</b>	<b>\$ -</b>	<b>\$ 6,592,000</b>	<b>\$ 8,151,000</b>

# Utilities

Functional Area: Public Utilities

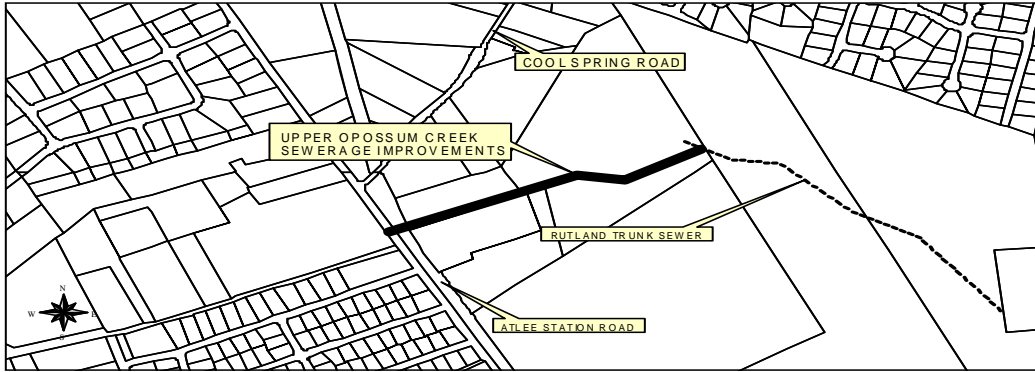
Department (s): Public Utilities

Project: Upper Opossum Creek Sewerage Improvements

Location: From an existing force main in Atlee Station Road to the proposed Rutland Trunk Sewer

Project Contact: Utility Engineer - (804) 365-6019

Description: This project provides for design and easement acquisition in FY2008 and construction in FY2009 of 1,700' of 16" force main to connect the existing Pump Station #5 (behind Atlee High School) force main to the 36" trunk sewer that is to be constructed in conjunction with the Rutland Subdivision project. This project will provide the County with the ability to treat additional wastewater at the Totopotomoy Wastewater Treatment Plant, if it desires, once the Lower Opossum Creek Sewerage Improvements project is placed into service.



Useful Life: 50 years

Comp. Plan Impact/Compliance: Yes

Funding Sources: Capacity Fees & Long Term Debt

Timetable: Design and easement acquisition (FY08); Construction (FY09)

PY Allocation: \$0

Operating Impact: \$0

	FY07	FY08	FY09	FY10	FY11	Totals
<b>Funding Sources</b>						
Long Term Debt	\$ -	\$ -	\$ 245,000	\$ -	\$ -	\$ 245,000
Capacity Fees	-	74,000	-	-	-	74,000
<b>Total Sources</b>	\$ -	\$ 74,000	\$ 245,000	\$ -	\$ -	\$ 319,000
<b>Funding Uses</b>						
Professional	\$ -	\$ 37,000	\$ -	\$ -	\$ -	\$ 37,000
Land	-	37,000	-	-	-	37,000
Construction	-	-	245,000	-	-	245,000
<b>Total Uses</b>	\$ -	\$ 74,000	\$ 245,000	\$ -	\$ -	\$ 319,000

# Utilities

Functional Area: Public Utilities

Department (s): Public Utilities

Project: Wastewater Treatment Plant Rehabilitation

Location: Ashland, Doswell and Courthouse Wastewater Treatment Plants

Project Contact: Utility Engineer - (804) 365-6019

Description: This project provides for continuing funding of rehabilitation of existing wastewater treatment plants (Ashland, Doswell and Courthouse). FY06 includes the replacement of Ashland WWTP scraper arms/blades, scum troughs, skimmer assemblies and scum blades with in-kind equipment for two clarifier units. FY07 includes complete replacement of Ashland WWTP's existing pump and motor with in-kind equipment and rebuild/replace influent pump # 3. FY08 includes replacing Ashland WWTP fencing along perimeter of plant. FY09 includes replacement of two Ashland WWTP clarifier drive units with in-kind equipment, replacement of 4 Doswell WWTP treatment unit aerators and 2 treatment unit mixers with in-kind equipment within the equalization tanks.

Useful Life: 35 years

Comp. Plan Impact/Compliance: No

Funding Sources: User Fees & Long Term Debt

Timetable: Design and construction (FY07-11)

PY Allocation: \$110,000

Operating Impact: \$0

	FY07	FY08	FY09	FY10	FY11	Totals
<b>Funding Sources</b>						
Long Term Debt	\$ -	\$ -	\$ 295,000	\$ -	\$ -	\$ 295,000
User Fees	115,000	120,000	-	130,000	135,000	500,000
<b>Total Sources</b>	<b>\$ 115,000</b>	<b>\$ 120,000</b>	<b>\$ 295,000</b>	<b>\$ 130,000</b>	<b>\$ 135,000</b>	<b>\$ 795,000</b>
<b>Funding Uses</b>						
Professional	\$ 11,500	\$ 12,000	\$ 29,500	\$ 13,000	\$ 13,500	\$ 79,500
Construction	103,500	108,000	265,500	117,000	121,500	715,500
<b>Total Uses</b>	<b>\$ 115,000</b>	<b>\$ 120,000</b>	<b>\$ 295,000</b>	<b>\$ 130,000</b>	<b>\$ 135,000</b>	<b>\$ 795,000</b>

# Utilities

Functional Area: Public Utilities

Department (s): Public Utilities

Project: Communication System Radio Replacement

Location: N/A

Project Contact: Utility Engineer - (804) 365-6019

Description: This project is for the replacement of six base stations and fifty seven hand held radios for the department. The replacement will coincide with implementation of the County's new Communication System.

Useful Life: 5 years

Comp. Plan Impact/Compliance: No

Funding Sources: User Fees

Timetable: Radio replacement (FY10)

PY Allocation: \$0

Operating Impact: \$0

	FY07	FY08	FY09	FY10	FY11	Totals
<b>Funding Sources</b>						
User Fees	\$ -	\$ -	\$ -	\$ 166,500	\$ -	\$ 166,500
<b>Total Sources</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 166,500</b>	<b>\$ -</b>	<b>\$ 166,500</b>
<b>Funding Uses</b>						
Equipment	\$ -	\$ -	\$ -	\$ 166,500	\$ -	\$ 166,500
<b>Total Uses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 166,500</b>	<b>\$ -</b>	<b>\$ 166,500</b>

# Utilities

Functional Area: Public Utilities

Department (s): Public Utilities

Project: SCADA System

Location: Utility Water and Wastewater Facilities

Project Contact: Utility Engineer - (804) 365-6019

Description: This project provides for upgrading/replacing the Supervisory Control and Data Acquisition system. The existing system is functional, however, the manufacturer's support is limited because of the age of the system. In addition, this upgrade will provide a more reliable/faster communication system that will enhance the efficiency and reliability of the facilities. SCADA permits department personnel to monitor and control the operation of local and remote facilities.

Useful Life: 5 years

Comp. Plan Impact/Compliance: No

Funding Sources: User Fees

Timetable: Design and construction (FY07)

PY Allocation: \$0

Operating Impact: \$0

	FY07	FY08	FY09	FY10	FY11	Totals
<b>Funding Sources</b>						
User Fees	\$ 300,000	\$ -	\$ -	\$ -	\$ -	\$ 300,000
<b>Total Sources</b>	<b>\$ 300,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 300,000</b>
<b>Funding Uses</b>						
Professional	\$ 75,000	\$ -	\$ -	\$ -	\$ -	\$ 75,000
Construction	225,000	-	-	-	-	225,000
<b>Total Uses</b>	<b>\$ 300,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 300,000</b>

# Utilities

Functional Area: Public Utilities

Department (s): Public Utilities

Project: Heavy Equipment Replacement

Location: Public Utilities

Project Contact: Utility Engineer - (804) 365-6019

Description: Replacement or purchase of paving roller and trailer. This equipment is primarily used by Maintenance to make repairs to the County's water distribution and wastewater collection systems. These purchases will enable Public Utilities to have two fully equipped construction crews to respond to work orders.

Useful Life: 5 years

Comp. Plan Impact/Compliance: No

Funding Sources: User Fees

Timetable: Purchase Trailer/ Paving Roller (FY10)

PY Allocation: \$75,000

Operating Impact: \$0

	FY07	FY08	FY09	FY10	FY11	Totals
<b>Funding Sources</b>						
User Fees	\$ -	\$ -	\$ -	\$ 53,000	\$ -	\$ 53,000
<b>Total Sources</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 53,000</b>	<b>\$ -</b>	<b>\$ 53,000</b>
<b>Funding Uses</b>						
Trailer/ Paving Roller	\$ -	\$ -	\$ -	\$ 53,000	\$ -	\$ 53,000
<b>Total Uses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 53,000</b>	<b>\$ -</b>	<b>\$ 53,000</b>

# Utilities

Functional Area: Public Utilities  
 Department (s): Public Utilities  
 Project: Water Meter Replacement  
 Location: Town of Ashland  
 Project Contact: Utility Engineer - (804) 365-6019

Description: This project is for the replacement of water meters within the Town of Ashland. The meters were installed in the late 1980's or early 1990s and approximately 50% of the meters read in hundreds of gallons. They are reaching the end of their useful life. The meters will be replaced with Sensus/Invensys SR-II Water Meter with TRPL Registers, plus housing reading in 1000 gallons. The replacement of the old meters with the Sensus/Invensys meters will be consistent with what is being used in the Suburban service area.

Useful Life: 5 years

Comp. Plan  
 Impact/Compliance: No

Funding Sources: User Fees

Timetable: Meter replacement (FY08)

PY Allocation: \$0

Operating Impact: \$0

	FY07	FY08	FY09	FY10	FY11	Totals
<b>Funding Sources</b>						
User Fees	\$ -	\$ 230,000	\$ -	\$ -	\$ -	\$ 230,000
<b>Total Sources</b>	<b>\$ -</b>	<b>\$ 230,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 230,000</b>
<b>Funding Uses</b>						
Professional	-	-	-	-	-	-
Utility Meters	\$ -	\$ 230,000	\$ -	\$ -	\$ -	\$ 230,000
<b>Total Uses</b>	<b>\$ -</b>	<b>\$ 230,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 230,000</b>

# Utilities

Functional Area: Public Utilities

Department (s): Public Utilities

Project: Variable Frequency Drive Replacement

Location: Pleasant Street Pump Station

Project Contact: Utility Engineer - (804) 365-6019

Description: This project is for the replacement of the Pleasant Street Pump Station VFD's (variable frequency drives) in FY2010.

Useful Life: 5 years

Comp. Plan Impact/Compliance: No

Funding Sources: User Fees

Timetable: VFD's replacement (FY10)

PY Allocation: \$0

Operating Impact: \$0

	FY07	FY08	FY09	FY10	FY11	Totals
<b>Funding Sources</b>						
User Fees	\$ -	\$ -	\$ -	\$ 57,000	\$ -	\$ 57,000
<b>Total Sources</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 57,000</b>	<b>\$ -</b>	<b>\$ 57,000</b>
<b>Funding Uses</b>						
VFD's	\$ -	\$ -	\$ -	\$ 57,000	\$ -	\$ 57,000
<b>Total Uses</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 57,000</b>	<b>\$ -</b>	<b>\$ 57,000</b>

# Utilities

Functional Area: Public Utilities

Department (s): Public Utilities

Project: Vehicle Replacement

Location: N/A

Project Contact: Utility Engineer - (804) 365-6019

Description: This project is the replacement of vehicle # 9301, which is a Maintenance vehicle. The estimated mileage at the beginning of the replacement year will be approximately 252,000 to 261,000.

Useful Life: 5 years

Comp. Plan Impact/Compliance: No

Funding Sources: User Fees

Timetable: Purchase vehicle (FY08)

PY Allocation: \$0

Operating Impact: \$0

	FY07	FY08	FY09	FY10	FY11	Totals
<b>Funding Sources</b>						
User Fees	\$ -	\$ 55,000	\$ -	\$ -	\$ -	\$ 55,000
<b>Total Sources</b>	<b>\$ -</b>	<b>\$ 55,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 55,000</b>
<b>Funding Uses</b>						
Utility Truck	\$ -	\$ 55,000	\$ -	\$ -	\$ -	\$ 55,000
<b>Total Uses</b>	<b>\$ -</b>	<b>\$ 55,000</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 55,000</b>