

# **Public Utilities Fund**

## **DESCRIPTION**

The County's Department of Public Utilities operates and maintains public water and wastewater systems in the Suburban Service Area, the Hanover Courthouse Area and five rural residential subdivisions (collectively, the "System"). The Suburban Service Area is the crescent shaped area north of the Chickahominy River, generally between and along Route 1 to the west and Creighton Road to the east, including the Town of Ashland, the Doswell area, and the Route 33 area adjacent to Henrico County. The County provides utility service to approximately 19,472 water customers and 17,661 wastewater customers.

The County operates the System as a self-supporting enterprise fund, the Utility Enterprise Fund, whereby the operations and capital expenditures are funded with revenues generated from customer user fees and one-time fees paid for capacity at the time of connection to the System. County General Fund tax dollars are not used to fund either the operating or capital budgets of the System. The Utility Enterprise Fund reimburses the County's General Fund for services provided by other County departments to support the Department of Public Utilities and pays a service charge to the General Fund in lieu of tax payments. The Board of Supervisors establishes and revises the water and wastewater rates and a fee charged to customers of the System and adopts annual operating and capital improvements plan budgets.

The Department develops overall operations, maintenance and capital construction plans for the System to support Hanover's Comprehensive Plan for development and services to ensure operational reliability and adequate capacity and to remain in compliance with local, State and Federal regulations. The Department of Public Utilities operates the System with County personnel and maintains the System with a combination of County personnel and private contractors. The Department's personnel read meters, prepare bills, and maintain customer accounts. The Department's activities extend to providing assistance to other utility purveyors within the County, supporting economic development

initiatives, and participating in regional approaches to providing water and wastewater services. These activities are accomplished with 94.5 full-time employees.

## **MISSION**

The Mission of the Department of Public Utilities is "to provide water and wastewater services that, within regulatory guidelines, meet or exceed our customers' needs and expectations for safety, quality and quantity; to provide these services at a competitive price and in a fair and equitable and environmentally responsible manner, and to provide opportunities for personal and professional development for employees at all levels of the department."

## **EXISTING FACILITIES & SERVICE AREA**

The County's water system consists of eleven potable water wells, two surface-water treatment plants, and seven water pumping stations. The water transmission and distribution system is comprised of approximately 366 miles of water lines ranging in size from 2 to 30 inches in diameter. The Doswell Water Treatment Plant is rated at 4 million gallons per day (mgd), was constructed in 1974 and upgraded and expanded in 1991. The South Anna Water Treatment Plant is rated a 2.0 mgd and was constructed in the early 1960's. The South Anna plant is currently not in service and would require substantial rehabilitation and upgrades to return it to service. Additional water supplies are provided by long-term contracts with City of Richmond and Henrico County, which serve the Suburban Service Area and the Route 33 area, respectively. In the Route 33 area, the County provides water service to Tyson Foods and a limited number of residential and commercial customers via a water purchase agreement with Henrico County. The County also has an interconnection with the Henrico County system along Route 1 at the Chickahominy River, which is not routinely utilized. Rural Systems operated by the County are Georgetown, Dianne Ridge, Oak Hill Estates, Strawhorn, Sinclair Manor, and Courthouse.

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The County's wastewater system consists of four wastewater treatment plants and thirty-eight wastewater pumping stations. The wastewater collection system is comprised of approximately 348 miles of sanitary sewers and force mains. The Doswell Wastewater Treatment Plant is rated at 1.0 mgd, serves the Doswell area and was placed in service in 1975. Ashland Town is served by the 2.0 mgd Ashland Wastewater Treatment Plant, which was placed in service in 1992. The Hanover Courthouse area is served by the 0.08 mgd Courthouse Wastewater Treatment Plant, which has a 1978 in-service date. The Totopotomoy Wastewater Treatment Plant is rated at 5.0 mgd, was placed into service in September 2004 and serves a portion of the Suburban Service Area. The majority of wastewater generated in the Suburban Service Area is pumped from Hanover's Beaverdam Creek Wastewater Pump Station (5.4 mgd average capacity) to Henrico County's Strawberry Hill Wastewater Pump Station for conveyance to and treatment by Henrico's wastewater treatment plant.

### **WATER SUPPLY CONTRACTS**

The County has purchased water from Henrico County since 1974. This water supply currently provides water for Hanover's Route 33 service area. On April 10, 1995, the County negotiated a new agreement with Henrico County to purchase up to 0.775 mgd. The term of the Henrico water contract is through June 30, 2014, and continues thereafter until terminated by either the County Manager of Henrico or the County Administrator of Hanover, upon giving the other party ten years written notice. On December 16, 2006 the Board of Supervisors approved the first Amendment to the Henrico Contract to revise and upgrade the methodology for calculating the cost of capacity reserved for Hanover County.

On July 1, 1994, the County entered into a contract with the City of Richmond, which established a long-term potable water supply for the Suburban Service Area. The term of the Richmond contract is through June 30, 2035, and continues thereafter until terminated by either the City Manager of Richmond by giving fifteen years written notice (such notice may not be given earlier than July 1, 2025), or the County Administrator by giving ten years notice (such notice may not be given earlier than July 1, 2020), unless a shorter time for notice is mutually agreed upon. The ultimate capacity available to the County is 20 mgd, which is being purchased in 5 mgd increments. The County's current available capacity from Richmond is 15 mgd. The fourth and final 5 mgd capacity purchase occurs in 2010.

### **WASTEWATER TREATMENT CONTRACT**

While the County treats a portion of the wastewater it collects, it also purchases wastewater treatment services from Henrico County. Hanover has purchased such services since 1979. On April 10, 1995, the two counties entered a new wastewater agreement, which provides long-term wastewater treatment for the Suburban Service Area. The term of the contract is through June 30, 2014, and continues thereafter until terminated by mutual agreement by the two counties in writing. The new agreement increased the capacity from 3.69 mgd to 5.4 mgd, which is based upon a 90-day rolling average. Wastewater is conveyed to Henrico County's Strawberry Hill Pump Station from Hanover's Beaverdam Creek Pump Station via a 20" force main.

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### BUDGET SUMMARY

	<b>FY07 Actual</b>	<b>FY08 Budget</b>	<b>FY09 Budget</b>	<b>FY08 to FY09</b>
<b>Expenditures</b>				
Personnel	\$ 5,384,492	\$ 5,982,361	\$ 6,271,569	4.8%
Operating	7,412,893	11,109,076	10,305,391	(7.2%)
Operating Capital	297,548	415,210	393,810	(5.2%)
<b>Debt Service</b>				
Principal	2,033,671	2,354,088	2,804,393	19.1%
Interest	1,569,319	2,097,506	1,866,895	(11.0%)
Capital Improvements	5,990,723	10,060,000	19,714,098	96.0%
<b>Total Expenditures</b>	<b>\$ 22,688,646</b>	<b>\$ 32,018,242</b>	<b>\$ 41,356,156</b>	<b>29.2%</b>
<b>Revenues</b>				
Permits, Fees, and Licenses	\$ 348,356	\$ 241,438	\$ 243,852	1.0%
Use of Money and Property	1,282,820	301,545	451,560	49.7%
Charges for Services	19,061,057	19,096,336	21,805,972	14.2%
Miscellaneous Revenue	140,189	89,604	90,500	1.0%
Recovered Costs	171,696	171,696	173,413	1.0%
Non Operating Revenue	3,928,731	4,800,000	4,495,000	(6.4%)
Other Revenue	5,601,776	25,000	25,000	0.0%
Prior Year Balance	-	292,623	4,070,859	1291.2%
Long-term debt	-	7,000,000	10,000,000	42.9%
<b>Total Revenue</b>	<b>\$ 30,534,625</b>	<b>\$ 32,018,242</b>	<b>\$ 41,356,156</b>	<b>29.2%</b>
 Generated Revenue Percent	 100.0%	 77.2%	 66.0%	
 Full-time Positions	 93.0	 94.0	 95.0	 1.1%
Part-time Positions	-	1.0	1.0	0.0%
Full-time Equivalents	93.0	94.5	95.5	1.1%

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## LARGEST CUSTOMERS

The following table provides annual data on the County's ten largest water customers for the fiscal year ended June 30, 2007:

	<b>Water Usage *</b>	<b>Water Revenue</b>	<b>% of Total Revenue</b>
• Bear Island Paper Company, L.P.	545,124	\$911,879	8.41 %
• Tyson Food	247,720	833,893	7.69
• Paramount's Kings Dominion	120,926	227,379	2.10
• Doswell Limited Partnership	67,497	135,587	1.25
• Hanover Medical Park Complex	39,112	98,789	0.91
• Randolph-Macon College	23,129	83,743	0.77
• Aqua Virginia	20,507	65,558	0.60
• Media General	12,374	33,886	0.31
• Hanover Crossing Apartments	12,723	45,519	0.42
• Hanover Manufacturing	11,965	31,629	0.29
Total	<u>1,101,077</u>	<u>\$2,467,862</u>	<u>22.76 %</u>

The ten largest water customers together represent about 22.76% of total water operating and non-operating revenues, with the largest customer representing approximately 8.41 % of that total.

\*in 1000 gallons

The following table provides annual data on the County's ten largest wastewater customers for the fiscal year ended June 30, 2007:

	<b>Wastewater Usage *</b>	<b>Wastewater Revenue</b>	<b>% of Total Revenue</b>
• Paramount's Kings Dominion	140,222	\$ 530,615	4.19 %
• Hanover Medical Park Complex	39,115	165,011	1.30
• Randolph-Macon College	21,419	104,797	0.83
• Hanover Crossing Apartments	12,723	60,570	0.48
• Bear Island Paper Company, L.P.	12,407	53,937	0.43
• Hanover Manufacturing	11,965	51,114	0.40
• Ramada Inn/Super 8	11,864	50,035	0.40
• Doswell All American Plaza	10,620	45,013	0.36
• Mill Trace Apartments	8,671	45,631	0.36
• Covenant Woods	8,453	40,836	0.32
Total	<u>277,459</u>	<u>\$ 1,147,559</u>	<u>9.07 %</u>

\*in 1000 gallons

The ten largest wastewater customers together represent about 9.07% of operating and non-operating wastewater revenues with the largest customer, representing approximately 4.19% of that total.

Water and wastewater usage by a specific customer may not be equal based upon the specific needs for each service.

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## **FINANCIAL AND BUDGETARY PROCEDURES**

The Director of Public Utilities has responsibility for budgeting, accounting, procurement, billing, collection activities, capital construction, financial and strategic planning for the System. Mr. Frank W. Harksen, Jr. has served as the Director of Public Utilities since January 1999.

The operating budget and the Capital Improvement Plan for the System are updated and prepared annually for presentation to the County Administrator in December. Preparation of the annual operating and Capital Improvement Plan budgets begins in September. It is presented to the County's Board of Supervisors in March and approval usually occurs in April.

In support of the County's Comprehensive Plan and the Voluntary Settlement Agreement with the Town of Ashland, which provided for annexation of certain territory and the merger of the Ashland and County water and wastewater systems, the Department of Public Utilities plans, implements and funds improvements to make water and wastewater capacity available to an expansion area sometime during the five year period after an area comes in to phase, typically toward the end of the five year period, and areas within the Town of Ashland. When the County does make capacity available to an area, it is normally to a single point within or near the area. The County does not make water and wastewater service available to every parcel in an area when an area is in phase. The intent of the plan is that the Department make water and wastewater treatment capacity available so that every lot within the Suburban Service Area could be serviced by public water and wastewater if a property owner desired to extend public water and/or wastewater to their property.

The self-supporting Utility Enterprise Fund, which is funded by utility ratepayers, reimburses the County's General Fund through a calculated allocated payment for services such as procurement, finance, information technology, human resources, administration and legal that are provided by other County departments to support

the Department of Public Utilities. And, although the Department is a part of the County government and thus tax exempt, beginning in Fiscal Year 2005, the County's General Fund also began charging a service charge to the utility as a payment in lieu of taxes to recover costs associated with services provided by the Sheriff's Office and Public Safety Department, which are not a part of the calculated allocated payment.

The system is divided into two service routes and most customers are billed bi-monthly. Bills are due and payable upon receipt by the customer, with a past due notice mailed if the bill remains unpaid 30 days after the billing date. If payment is not made in accordance with the past due notice, the County Code requires that utility service be disconnected. A \$30 fee is assessed to all accounts where service has been discontinued due to nonpayment and a 10% late penalty fee is charged for all past due accounts. The County's annual losses from uncollected accounts have been less than 1% of total billings since 1990.

## **RATES, FEES, AND CHARGES**

The principal sources of revenue for the Utilities Enterprise Fund are user fees and capacity fees. The user fee is a monthly or bi-monthly charge comprised of a base charge by meter size, levied regardless of usage, and a commodity charge that is typically based upon metered water consumption. The capacity fee is a one-time charge for each new connection to the water and wastewater systems. Capacity fees are based on the size of the water meter necessary to serve the new customer. In setting these fees, the goal is to cover projected operating, maintenance, general improvement, and rehabilitation costs with user fees. The projected capacity related capital improvement costs and the costs to support the Comprehensive Plan and Voluntary Settlement Agreement are funded with capacity fees. This practice generally allows growth in use of the County's services to pay for the costs of increasing the System capacity and expanding service territory. This rate structure applies to both water and wastewater services.

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## Rate Structure

<b>Water - Base Charges by Meter Size</b>	<b>FY2008</b>	<b>FY2009</b>
5/8 inch & 5/8 inch	\$7.44	\$7.89
1 inch	18.66	19.78
1 1/2 inch	37.21	39.44
2 inch	59.53	63.10
3 inch	119.06	126.20
4 inch	186.03	197.19
6 inch	372.06	394.38

<b>Water - Residential</b>	<b>FY2008</b>	<b>FY2009</b>
Base charge by meter size (table above)		
Consumption charge as follows:		
0 to 4,000 gallons, per 1,000 gallons	\$1.18	\$1.25
4,001 to 15,000 gallons, per 1,000 gallons	3.60	3.82
15,001 and above, per 1,000 gallons	4.70	4.98

<b>Water - Commercial Schedule I Rates</b>	<b>FY2008</b>	<b>FY2009</b>
Base charge by meter size (table above)		
Consumption charge as follows:		
0 to 15,000 gallons, per 1,000 gallons	\$3.20	\$3.39
15,001 to 1,000,000 gallons, per 1,000 gallons	3.60	3.82
Above 1,000,000 gallons, per 1,000 gallons	2.00	2.12
Separate irrigation meter, per 1,000 gallons	4.43	4.70

<b>Water - Commercial Schedule II Rates</b>	<b>FY2008</b>	<b>FY2009</b>
Base charge	114.48	121.35
Consumption charge as follows:		
All usage, per 1,000 gallons	1.87	1.98
Peak Use Fee, per 1,000 gallons greater than 150% of previous fiscal year average	1.14	1.21

<b>Water - Commercial Schedule III Rates</b>	<b>FY2008</b>	<b>FY2009</b>
Base Charge	\$11,448	\$12,135
Consumption charge as follows:		
All usage, per 1,000 gallons	1.52	1.61
Peak Use Fee, per 1,000 gallons greater than 150% of previous fiscal year average	1.14	1.21

<b>Wastewater - Base charges by meter size</b>	<b>FY2008</b>	<b>FY2009</b>
5/8 inch	\$17.98	\$18.87
3/4 inch	17.98	18.87
1 inch	17.98	18.87
1 1/2 inch	17.98	18.87
2 inch	89.88	94.37
3 inch	89.88	94.37
4 inch	89.88	94.37
6 inch	89.88	94.37

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<b>Wastewater - Residential</b>	<b>FY2008</b>	<b>FY2009</b>
Base charge by meter size (table above)		
Consumption charge as follows:		
0 to 4,000 gallons, per 1,000 gallons	\$4.83	\$5.07
4,001 and above, per 1,000 gallons	6.07	6.37
Flat Rate Wastewater	90.80	90.80

<b>Wastewater - Commercial Schedule I Rates *</b>	<b>FY2008</b>	<b>FY2009</b>
Base charge by meter size (table above)		
Consumption charge as follows:		
0 to 50,000 gallons, per 1,000 gallons	5.62	5.90
Above 50,000, per 1,000 gallons	4.49	4.72

<b>Wastewater - Commercial Schedule II Rates *</b>	<b>FY2008</b>	<b>FY2009</b>
Base charge	\$1,123.50	\$1,179.68
Consumption charge as follows:		
All usage, per 1,000 gallons	3.71	3.89
Peak Use Fee (per 1,000 gallons greater than 150% of previous fiscal year average)	1.12	1.18

### Capacity Fees

Capacity fees are the fees charged to customers when initially connected to the County's system. The detailed fee schedule is listed below.

### Residential Water

In FY08 single and multi-family units are charged \$4,773 for a standard connection. The per unit fee will be \$5,060 in FY09.

<b>Commercial, Industrial, and Public Facilities Water</b>	<b>FY2008</b>	<b>FY2009</b>
All capacity fees for these entities are based on meter size		
5/8 inch	\$4,774	\$5,060
1 inch	11,934	12,650
1 1/2 inch	23,868	25,300
2 inch	38,189	40,480
3 inch	76,378	80,960
4 inch	119,340	126,500
6 inch	238,680	253,001
8 inch	381,888	404,801

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## Residential Wastewater

In FY08 single and multi-family units are charged \$7,249 for a standard connection. The per unit fee will be \$7,684 in FY09.

<b>Commercial, Industrial, and Public Facilities</b>	<b>FY2008</b>	<b>FY2009</b>
All capacity fees for these entities are based on meter size		
5/8 inch	\$7,249	\$7,684
1 inch	18,122	19,209
1 1/2 inch	36,244	38,419
2 inch	57,990	61,470
3 inch	115,981	122,940
4 inch	181,220	192,093
6 inch	362,440	384,186
8 inch	579,904	614,698

## **OBJECTIVES**

- Provide reliable water and wastewater service in accordance with all applicable regulatory requirements.
- Maintain fiscal integrity to provide for system growth, adequate maintenance, and replacement of capital to ensure quality service, system reliability and control future costs.
- Emphasize continuing education to maintain staff competency ensuring EPA regulatory compliance.
- Continue implementing Capital Improvement Plan meeting customer capacity needs Comprehensive Plan requirements and economic development.
- Receive NACWA (National Association of Clean Water Agencies) Peak Performance Awards.

## **SERVICE LEVELS**

	<b>FY07</b>	<b>FY08</b>	<b>FY08</b>	<b>FY09</b>
	<u>Actual</u>	<u>Budget</u>	<u>Forecast</u>	<u>Budget</u>
Water customers	19,472	19,400	19,764	20,060
Wastewater customers	17,661	17,600	17,926	17,926
Customer calls	33,378	22,000	33,879	34,387
Plans reviewed	723	450	600	735
Samples collected	303,358	315,000	310,000	310,000
Water distributed (mgd)	8.80	9.00	9.14	9.27
Wastewater collected (mgd)	6.20	7.00	7.11	7.22
Miles of water line maintained	366	365	-	-
Miles of sewer line maintained	348	351	-	-