

# **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 19,260 water customers and 17,384 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 AND 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 369 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.

## **Public Utilities Fund**

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 358 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.

## Public Utilities Fund

### BUDGET SUMMARY

	FY06 Actual	FY07 Budget	FY08 Budget	FY07 to FY08
Expenditures				
Personnel	\$ 4,959,100	\$ 5,706,959	\$ 5,982,361	4.8%
Operating	9,295,504	12,147,481	11,109,076	(8.5%)
Operating Capital	251,493	475,645	415,210	(12.7%)
Debt Service				
Principal	1,957,330	2,633,670	2,354,088	(10.6%)
Interest	988,352	1,682,123	2,097,506	24.7%
Capital Improvements	10,047,976	10,264,955	10,060,000	(2.0%)
Total Expenditures	<u>\$ 27,499,755</u>	<u>\$ 32,910,833</u>	<u>\$ 32,018,242</u>	<u>(2.7%)</u>

### Revenues

Permits, Fees, and Licenses	\$ 209,973	\$ 238,600	\$ 241,438	1.2%
Use of Money and Property	626,693	201,500	301,545	49.7%
Charges for Services	18,572,744	17,738,243	19,096,336	7.7%
Miscellaneous Revenue	225,177	86,994	89,604	3.0%
Recovered Costs	171,696	171,696	171,696	0.0%
Non Operating Revenue	5,090,032	6,568,800	4,800,000	(26.9%)
Other Revenue	3,488,831	25,000	25,000	0.0%
Prior Year Balance	-	-	292,623	100.0%
Long-term debt		7,880,000	7,000,000	(11.2%)
Total Revenue	<u>\$ 28,385,146</u>	<u>\$ 32,910,833</u>	<u>\$ 32,018,242</u>	<u>(2.7%)</u>

Generated Revenue Percent                      100.0%                      76.1%                      77.2%

Full-time Positions                                      92                                      93                                      94                                      1.1%  
Part-time Positions                                      -                                      -                                      1                                      100.0%

### LARGEST CUSTOMERS

The following table provides annual data on the County's ten largest water customers for the fiscal year ended June 30, 2006:

	<u>Water Usage *</u>	<u>Water Revenue</u>	<u>% of Total Revenue</u>
• Bear Island Paper Company,L.P.	517,243	\$ 793,694	5.66 %
• Tyson Food	297,322	753,984	5.38
• Paramount's Kings Dominion	140,627	224,039	1.60
• Doswell Limited Partnership	68,387	115,049	0.82
• Hanover Medical Park Complex	39,956	94,711	0.68
• Randolph-Macon College	26,296	90,519	0.65
• Media General	16,325	42,142	0.30
• Aqua Virginia	14,618	33,567	0.24
• All American Plazas Inc	8,690	24,580	0.18
• Cold Harbor LLC	7,992	32,236	0.23
Total	<u>\$ 1,137,456</u>	<u>\$ 2,204,522</u>	<u>15.7 %</u>

\*in 1,000 gallons

# Public Utilities Fund

The ten largest water customers together represent about 15.7% of total water billing, with the largest customer representing approximately 5.7 % of total water billing.

The following table provides annual data on the County’s ten largest wastewater customers for the fiscal year ended June 30, 2006:

	<u>Wastewater Usage *</u>	<u>Revenue</u>	<u>% of Total Revenue</u>
• Paramount’s Kings Dominion	100,391	\$ 345,308	2.42 %
• Hanover Medical Park Complex	33,751	124,003	0.87
• Randolph-Macon College	19,815	88,368	0.62
• Supervalu Inc.	10,176	35,565	0.25
• All American Plazas, Inc.	8,690	32,082	0.22
• Cold Harbor LLC	7,992	46,649	0.33
• Bear Island Paper Company, L.P.	7,273	27,779	0.19
• Truckstops of America	5,331	19,791	0.14
• NJ Properties	4,063	14,105	0.10
• Media General	3,053	12,514	0.09
Total	<u>200,535</u>	<u>\$ 746,164</u>	<u>5.22 %</u>

\*in 1000 gallons

The ten largest wastewater customers together represent about 5.22% of total wastewater billing, with the largest customer, representing approximately 2.42% of total wastewater billing.

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

## **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.

## Public Utilities Fund

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.

### **Rate Structure**

<b>Water - Base Charges by Meter Size</b>	<b>FY2007</b>	<b>FY2008</b>
5/8 inch & 5/8 inch	\$7.02	\$7.44
1 inch	17.60	18.66
1 1/2 inch	35.10	37.21
2 inch	56.16	59.53
3 inch	112.32	119.06
4 inch	175.50	186.03
6 inch	351.00	372.06

<b>Water - Residential</b>	<b>FY2007</b>	<b>FY2008</b>
Base charge by meter size (table above)		
Consumption charge as follows:		
0 to 4,000 gallons, per 1,000 gallons	\$1.11	\$1.18
4,001 to 15,000 gallons, per 1,000 gallons	3.40	3.60
15,001 and above, per 1,000 gallons	4.43	4.43

<b>Water - Commercial Schedule I Rates</b>	<b>FY2007</b>	<b>FY2008</b>
Base charge by meter size (table above)		
Consumption charge as follows:		

## Public Utilities Fund

0 to 15,000 gallons, per 1,000 gallons	\$3.02	\$3.20
15,001 to 1,000,000 gallons, per 1,000 gallons	3.40	3.60
Above 1,000,000 gallons, per 1,000 gallons	1.89	2.00
Separate irrigation meter, per 1,000 gallons	4.43	4.43

<b>Water - Commercial Schedule II Rates</b>	<b>FY2007</b>	<b>FY2008</b>
Base charge	\$108.00	114.48
Consumption charge as follows:		
All usage, per 1,000 gallons	1.76	1.87
Peak Use Fee, per 1,000 gallons greater than 150% of previous fiscal year average	1.08	1.14

<b>Water - Commercial Schedule III Rates</b>	<b>FY2007</b>	<b>FY2008</b>
Base Charge	\$10,800	\$11,448
Consumption charge as follows:		
All usage, per 1,000 gallons	1.43	1.52
Peak Use Fee, per 1,000 gallons greater than 150% of previous fiscal year average	1.08	1.14

<b>Wastewater - Base charges by meter size</b>	<b>FY2007</b>	<b>FY2008</b>
5/8 inch	\$17.12	\$17.98
3/4 inch	17.12	17.98
1 inch	17.12	17.98
1 1/2 inch	17.12	17.98
2 inch	85.60	89.88
3 inch	85.60	89.88
4 inch	85.60	89.88
6 inch	85.60	89.88

<b>Wastewater - Residential</b>	<b>FY2007</b>	<b>FY2008</b>
Base charge by meter size (table above)		
Consumption charge as follows:		
0 to 4,000 gallons, per 1,000 gallons	\$4.60	\$4.83
4,001 and above, per 1,000 gallons	5.78	6.07
Flat Rate Wastewater	86.48	90.80

<b>Wastewater - Commercial Schedule I Rates *</b>	<b>FY2007</b>	<b>FY2008</b>
Base charge by meter size (table above)		
Consumption charge as follows:		
0 to 50,000 gallons, per 1,000 gallons	5.35	5.62
Above 50,000, per 1,000 gallons	4.28	4.49

<b>Wastewater - Commercial Schedule II Rates *</b>	<b>FY2007</b>	<b>FY2008</b>
Base charge	\$1,070	\$1,123.50
Consumption charge as follows:		
All usage, per 1,000 gallons	3.53	3.71
Peak Use Fee (per 1,000 gallons greater than 150% of previous fiscal year average)	1.07	1.12

# Public Utilities Fund

## 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 FY07 single and multi-family units are charged \$4,590 for a standard connection. The per unit fee will be \$4,774 in FY08.

<b>Commercial, Industrial, and Public Facilities Water</b>	<b>FY2007</b>	<b>FY2008</b>
All capacity fees for these entities are based on meter size		
5/8 inch	\$4,590	\$4,774
1 inch	11,475	11,934
1 1/2 inch	22,950	23,868
2 inch	36,720	38,189
3 inch	73,440	76,378
4 inch	114,750	119,340
6 inch	229,500	238,680
8 inch	367,200	381,888

### Residential Wastewater

In FY07 single and multi-family units are charged \$6,970 for a standard connection. The per unit fee will be \$7,249 in FY08.

<b>Commercial, Industrial, and Public Facilities</b>	<b>FY2007</b>	<b>FY2008</b>
All capacity fees for these entities are based on meter size		
5/8 inch	\$6,970	\$7,249
1 inch	17,425	18,122
1 1/2 inch	34,850	36,244
2 inch	55,760	57,990
3 inch	111,520	115,981
4 inch	174,250	181,220
6 inch	348,500	362,440
8 inch	557,600	579,904

# Public Utilities Fund

## 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.

<b>SERVICE LEVELS</b>	<b>FY06 <u>Budget</u></b>	<b>FY06 <u>Actual</u></b>	<b>FY07 <u>Budget</u></b>	<b>FY07 <u>Forecast</u></b>	<b>FY08 <u>Budget</u></b>
Water customers	18,950	19,260	19,400	19,125	19,400
Wastewater customers	17,200	17,384	17,600	17,300	17,600
Customer calls	23,300	21,763	22,000	24,000	22,000
Plans reviewed	581	538	450	408	450
Samples collected	385,000	307,843	375,000	310,000	315,000
Water distributed (mgd)	8.75	9.11	9.25	9.00	9.25
Wastewater collected (mgd)	.47	5.66	7.00	6.75	7.00
Miles of water line maintained	362	369	365	358	365
Miles of sewer line maintained	347	358	351	348	351