

Public Utilities

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 18,825 water customers and 17,001 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 fees 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 92 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 11 potable water wells, two surface water treatment plants, and 7 water-pumping stations. The water transmission and distribution system is comprised of approximately 354 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

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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 a connection to the Henrico County system along Route 1 at the Chickahominy River, which is not routinely utilized. The rural systems operated by the County are Georgetown, Dianne Ridge, Oak Hill Estates, Strawhorn, Sinclair Manor, and Courthouse.

The County's wastewater system consists of four wastewater treatment plants and 38 wastewater pumping stations. The wastewater collection system is comprised of approximately 346 miles of sewers. The Doswell Wastewater Treatment Plant is rated at 1.0 mgd and serves the Doswell area. Ashland 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 5.00 mgd and was placed into service in September 2004. The majority of wastewater generated in the Suburban Service Area is pumped by the Beaverdam Creek Wastewater Pump Station (5.4 mgd average capacity) to Henrico County's Strawberry Hill wastewater pump station.

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 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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LARGEST CUSTOMERS

The following table provides annual data on the County's ten largest water customers for the fiscal year ended June 30, 2005:

	<u>Water Usage *</u>	<u>Water Revenue</u>	<u>% of Total Revenue</u>
• Bear Island Paper Company, L.P.	477,038	\$ 731,033	6.40 %
• Tyson Food	347,406	617,655	5.40
• Paramount's Kings Dominion	139,563	209,229	1.83
• Doswell Limited Partnership	59,790	95,919	0.84
• Hanover Medical Park Complex	32,564	72,728	0.64
• Randolph-Macon College	24,682	81,609	0.71
• All American Plazas Inc	11,950	26,729	0.23
• Media General	11,210	30,180	0.26
• Cold Harbor LLC	10,926	39,718	0.35
• Kosmo Corporation	9,144	26,679	0.23
Total	<u>\$ 1,124,273</u>	<u>\$ 1,931,479</u>	<u>16.9 %</u>

*in 1,000 gallons

The ten largest water customers together represent about 16.9% of total water billing, with the largest customer, representing approximately 6.4 % 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, 2005:

	<u>Wastewater Usage *</u>	<u>Wastewater Revenue</u>	<u>% of Total Revenue</u>
• Paramount's Kings Dominion	98,478	\$ 319,942	2.28 %
• Hanover Medical Park Complex	28,752	100,187	0.72
• Randolph-Macon College	21,065	90,491	0.65
• Supervalu Inc.	14,156	46,524	0.33
• All American Plazas, Inc.	11,950	40,918	0.29
• Cold Harbor LLC	10,926	53,496	0.38
• NJ Properties	6,259	20,973	0.15
• Truckstops of America	5,888	20,533	0.15
• Bear Island Paper Company, L.P.	5,610	20,965	0.15
• Media General	4,987	17,955	0.13
Total	<u>208,071</u>	<u>\$ 731,985</u>	<u>5.23 %</u>

*in 1000 gallons

The ten largest wastewater customers together represent about 5.23% of total wastewater billing, with the largest customer, representing approximately 2.28% of total wastewater billing.

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 February 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

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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

Proposed Rates may be modified before final public submission of the budget.

Water- Base Charges by Meter Size	FY2006	FY2007
5/8 inch	\$5.31	\$7.02
3/4 inch	5.31	7.02
1 inch	7.42	17.60
1 1/2 inch	9.56	35.10
2 inch	15.39	56.16
3 inch	58.38	112.32
4 inch	74.30	175.50
6 inch	111.47	351.00

Water-Residential	FY2006	FY2007
Base charge by meter size (table above)		
Consumption charge as follows:		
0 to 4,000 gallons, per 1,000 gallons	\$1.01	\$1.11
4,001 to 15,000 gallons, per 1,000 gallons	3.26	3.40
15,001 to 50,000 gallons, per 1,000 gallons	4.11	4.43
50,001 to 1,000,000 gallons, per 1,000 gallons	3.33	4.43
1,000,001 and above, per 1,000 gallons	1.51	4.43

Water-Commercial Schedule I Rates *	FY2006	FY2007
Base charge by meter size (table above)		
Consumption charge as follows:		
0-15,000 gallons, per 1,000 gallons	N/A	3.02
15,001 to 1,000,000 gallons, per 1,000 gallons	N/A	3.40
Above 1,000,000 gallons, per 1,000 gallons	N/A	1.89
Separate irrigation meter, per 1,000 gallons	N/A	4.43

Water-Commercial Schedule II Rates *	FY2006	FY2007
Base charge	N/A	\$108.00
Consumption charge as follows:		
All usage, per 1,000 gallons	N/A	1.76
Peak Use Fee, per 1,000 gallons greater than 150% of previous fiscal year average	N/A	1.08

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Water-Commercial Schedule III Rates *	FY2006	FY2007
Base Charge	N/A	\$10,800
Consumption charge as follows:		
All usage, per 1,000 gallons	N/A	1.43
Peak Use Fee, per 1,000 gallons greater than 150% of previous fiscal year average	N/A	1.08

* In prior years one rate schedule applied to all customers.

Wastewater- Base charges by meter size	FY2006	FY2007
5/8 inch	\$16.29	\$17.12
3/4 inch	16.29	17.12
1 inch	22.82	17.12
1 1/2 inch	29.33	17.12
2 inch	47.23	85.60
3 inch	179.25	85.60
4 inch	228.12	85.60
6 inch	342.19	85.60

Wastewater-Residential	FY2006	FY2007
Base charge by meter size (table above)		
Consumption charge as follows:		
0 to 4,000 gallons, per 1,000 gallons	\$4.65	\$4.60
4,001 to 15,000 gallons, per 1,000 gallons	4.93	5.78
15,001 to 50,000 gallons, per 1,000 gallons	5.67	5.78
above 50,000, per 1,000 gallons	3.42	5.78

Flat Rate Wastewater	\$ 69.37	\$ 86.48
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Wastewater-Commercial Schedule I Rates *	FY2006	FY2007
Base charge by meter size (table above)		
Consumption charge as follows:		
0 to 50,000 gallons, per 1,000 gallons	N/A	5.35
Above 50,000, per 1,000 gallons	N/A	4.28

Wastewater-Commercial Schedule II Rates *	FY2006	FY2007
Base charge	N/A	\$1,070
Consumption charge as follows:		
All usage, per 1,000 gallons	N/A	3.53
Peak Use Fee (per 1,000 gallons greater than 150% of previous fiscal year average)	N/A	1.07

*In prior years one rate schedule applied to all customers.

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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

Single and multi-family units are currently charged \$3,979 for a standard connection. The proposed per unit fee will be \$4,590.

Commercial, Industrial, and Public Facilities Water	FY2006	FY2007
All capacity fees for these entities are based on meter size.		
5/8 inch	\$3,979	\$4,590
1 inch	9,948	11,475
1 1/2 inch	19,895	22,950
2 inch	31,832	36,720
3 inch	63,664	73,440
4 inch	99,475	114,750
6 inch	198,950	229,500
8 inch	318,320	367,200

Residential Wastewater

Single and multi-family units are currently charged \$5,962 for a standard connection. The proposed per unit fee will be \$ 6,970.

Commercial, Industrial, , and Public Facilities	FY2006	FY2007
All capacity fees for these entities are based on meter size.		
5/8 inch	\$5,962	\$6,970
1 inch	14,905	17,425
1 1/2 inch	29,810	34,850
2 inch	47,696	55,760
3 inch	95,392	111,520
4 inch	149,050	174,250
6 inch	298,100	348,500
8 inch	476,960	557,600

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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 Award.

SERVICE LEVELS	<u>FY05 Budget</u>	<u>FY 05 Actual</u>	<u>FY 06 Budget</u>	<u>FY 06 Forecast</u>	<u>FY 07 Budget</u>
Water customers	18,800	18,825	18,950	19,125	19,400
Wastewater customers	16,900	17,001	17,200	17,300	17,600
Customer calls	23,600	22,800	23,300	24,000	22,000
Plans reviewed	570	570	581	408	450
Samples collected	318,000	377,000	385,000	325,000	375,000
Water distributed (mgd)	8.50	8.18	8.75	9.0	9.25
Wastewater collected (mgd)	5.20	6.28	6.47	6.75	7.00
Miles of water line maintained	330	354	362	358	365
Miles of sewer line maintained	305	346	347	348	351

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BUDGET HIGHLIGHTS

FY06

The FY06 budget is a maintenance level budget.

FY07

Salaries and benefits includes funding for a new Utility Technician position and benchmarked positions. All other funding is at the maintenance level.

BUDGET SUMMARY

Expenditures

	FY05 Budget	FY05 Actual	FY06 Budget	FY07 Budget	Percent Change
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Salaries and Fringe Benefits	\$ 4,985,430	\$ 4,707,190	\$ 5,199,071	\$ 5,706,958	9.8%
Operating Expenditures	14,314,299	8,420,856	15,831,991	16,463,275	3.7%
Operating Capital Outlay	477,971	367,626	208,828	165,600	3.7%
Sub-total	19,777,700	13,495,672	21,239,890	22,335,833	3.7%
Capital Improvement Program	11,708,000	7,914,619	8,469,000	10,575,000	24.9%
Total Expenditures	\$ 31,485,700	\$ 21,410,291	\$ 29,708,890	\$ 32,910,833	10.8%

Revenue

Permits, Privilege Fees, and Regulatory Licenses	\$ 255,100	\$ 236,085	\$ 243,000	\$ 238,600	-1.8%
Revenues from the Use of Money and Property	324,000	596,773	200,000	201,500	0.8%
Charges for Services	14,995,600	14,913,850	15,996,430	17,738,243	10.9%
Miscellaneous Revenue	82,000	122,304	84,460	86,994	3.0%
Recovered Costs	168,000	168,616	168,000	171,696	2.2%
Non Operating Revenue	15,636,000	6,285,109	12,991,000	14,448,800	11.2%
Other revenue	25,000	3,108,650	25,000	25,000	0.0%
Prior Year's Balance	-	-	1,000	-	-100.0%
Total Department Generated Revenue	\$ 31,485,700	\$ 25,431,387	\$ 29,708,890	\$ 32,910,833	10.8%

Full-time Positions	92	92	92	93	1.1%
Full-time Equivalents	92	92	92	93	1.1%