

# Public Utilities

## DESCRIPTION

The County's Department of Public Utilities operates and maintains public water and wastewater systems in the Suburban Service Area. The Suburban Service Area is the crescent shaped area north of the Chickahominy River, generally between Route 1 and Creighton Road, including Ashland, the Doswell area, the Route 33 area near the Henrico County border, the Hanover Courthouse area, and five rural residential subdivisions (collectively, the "System"). The County provides utility service to approximately 17,200 water customers and 15,300 sewer customers.

The County operates the System as a self-supporting 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 the operating or capital budgets of the System. The Utility Enterprise Fund also reimburses the County's general fund for services provided to support the Utilities Department. The Board of Supervisors establishes and revises the water and wastewater rates and fees applicable to users of the System and adopts an annual operating budget and capital improvements program budget.

The Department develops overall plans for the System in support of the Hanover County Comprehensive Plan to ensure operational reliability and to remain in compliance with local, State, and Federal regulations. Public Utilities operates the System with County personnel and maintains the System with a combination of County personnel and private contractors. Public Utilities personnel also read meters, prepare bills, and maintain customer accounts. The Department's activities extend to providing assistance to other utility purveyors within the County, support for economic development initiatives, and participating in regional approaches to providing water and wastewater services. These activities are accomplished with 89 full-time employees and one part time employee.

## MISSION

The mission 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 ten water-pumping stations. The water transmission and distribution system is comprised of approximately 300 miles of water lines ranging in size from 2 to 30 inches in diameter. The System includes approximately 8.56 million gallons of water storage. The Doswell Water Treatment Plant is rated at 4 million gallons per day (mgd) and was constructed in 1974 and upgraded in 1991. The South Anna Water Treatment Plant is rated a 2.0 mgd and was constructed in the early 1960's. The plant is currently not in service and would require substantial upgrades to return it to service. Additional water supply is provided by the 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's 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, which is not routinely utilized). The rural systems operated by the County are Georgetown, Diane Ridge, Oakhill Estates, Strawhorn, Sinclair Manor, Courthouse, Hanover Wayside and Taylor House.

The County's wastewater system consists of three wastewater treatment plants and 32 wastewater pumping stations. The wastewater collection system is comprised of approximately 288 miles of gravity 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 0.08mgd Courthouse Wastewater Treatment Plant, which has a

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1978 in service date. 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 the Henrico County 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 of water. 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 10 years written notice. In the fiscal year ended June 30, 2002, Hanover purchased approximately 336 million gallons of water in accordance with the Henrico water contract.

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 15 years written notice (such notice not to be given earlier than July 1, 2025), or the County Administrator by giving 10 years notice (such notice to be given not 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 purchased in 5 mgd increments. The County's current available capacity from Richmond is 10 mgd. Additional 5 mgd incremental capacity purchases occur in 2005 and 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 service 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 available to Hanover from 3.69 mgd to 5.4 mgd, which is based upon a 90-day rolling average.

## LARGEST CUSTOMERS

The following table provides annual data on the County's ten largest customers for the fiscal year ended June 30, 2002:

	<b>Water Usage *</b>	<b>Water Revenue</b>	<b>Percent of Total Revenue</b>
Bear Island Paper Company	462,013	\$ 774,311	7.56 %
Tyson's Food	387,295	618,961	6.04
Paramount's Kings Dominion	73,151	108,430	1.06
Doswell Limited Partnership	60,073	89,443	0.87
Hanover Medical Park Complex	33,414	66,954	0.65
Richmond Newspapers, Inc.	26,845	51,211	0.50
Randolph Macon College	17,308	53,842	0.53
All American Plazas, Inc.	9,991	23,749	0.23
AIMCO Residential Group	7,428	24,484	0.24
Hanover House Best Western	5,266	15,755	0.15
Total	<u>1,082,784</u>	<u>\$ 1,827,139</u>	<u>17.83 %</u>

\*in 1000 gallons

The ten largest customers together represent about 17.83% of total water billing, with the largest customer, representing approximately 7.56% of total water billing.

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## FINANCIAL AND BUDGETARY PROCEDURES

The Director of Public Utilities has responsibility for budgeting, accounting, procurement, billing, and collection activities for the System.

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

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 the amount of total bills 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 minimum service charge, 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, and to cover projected capacity related capital improvement costs with capacity fees. This practice generally allows growth in use of the County's services to pay for the costs of expending the System capacity. This rate structure applies to both water and wastewater services.

### RATE STRUCTURE

<u>User Fees</u>	Existing	Proposed
	FY2003	FY2004
Water, All Users		
Minimum charge based on meter size		
5/8 inch	\$ 4.86	\$ 4.86
3/4 inch	4.86	4.86
1 inch	6.80	6.80
1 1/2 inch	8.76	8.76
2 inch	14.10	14.10
3 inch	53.48	53.48
4 inch	68.06	68.06
6 inch	102.09	102.09
In addition to these charges, a volume charge is also applied.		
0-4,000 gallons, per 1,000 gallons	\$ 0.92	\$ 0.92
4,001 to 15,000 gallons, per 1,000 gallons	2.99	2.99
15,001 to 50,000 gallons, per 1,000 gallons	3.77	3.77
50,001 to 1,000,000 gallons, per 1,000 gallons	3.05	3.05
1,000,001 and above, per 1,000 gallons	1.38	1.38

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	FY2003	FY2004
<b><u>Sewer, All Users</u></b>		
Minimum charge based on meter size		
5/8 inch	\$ 14.92	\$ 14.92
3/4 inch	14.92	14.92
1 inch	20.90	20.90
1 1/2 inch	26.86	26.86
2 inch	43.26	43.26
3 inch	164.17	164.17
4 inch	208.95	208.95
6 inch	313.42	313.42
In addition to these charges, a volume charge is also applied.		
0-4,000 gallons, per 1,000 gallons	\$ 4.26	\$ 4.26
4,000 – 15,000 gallons, per 1,000 gallons		4.51
above 15,000 to 50,000 gallons, per 1,000 gallons	5.19	5.19
above 50,000, per 1,000 gallons	3.14	3.14
 Flat Rate Sewer	 \$ 60.16	 \$ 63.53

## **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. If a unit already exists when the line is placed in service, the customer will be eligible for a reduced rate of 50% of the appropriate charge if paid within 90 days of the in-service date.

### Residential Sewer

Single and multi-family units are currently charged \$5,562 for a standard connection. The proposed per unit fee will be \$5,727, an increase of 3%.

### Commercial, Industrial, Business, and Public Facilities Sewer

	FY2003	FY2004
All capacity fees for these entities are based on meter size.		
5/8 inch	\$ 5,560	\$ 5,727
1 inch	13,905	14,322
1 1/2 inch	27,810	28,644
2 inch	44,495	45,830
3 inch	88,990	91,660
4 inch	139,050	143,222
6 inch	278,100	286,443
8 inch	444,960	458,309

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## Residential Water

Single and multi family units are currently charged \$3,281 for a standard connection. The proposed per unit fee will be \$ 3,378, an increase of 3%.

## Commercial, Industrial, Business, and Public Facilities Water

	<b>FY2003</b>	<b>FY2004</b>
All capacity fees for these entities are based on meter size.		
5/8 inch	\$ 3,280	\$ 3,378
1 inch	8,200	8,446
1 1/2 inch	16,400	16,892
2 inch	26,245	27,032
3 inch	52,490	54,065
4 inch	82,014	84,475
6 inch	164,030	168,951
8 inch	264,445	270,318

## **OBJECTIVES**

- Provide reliable water and wastewater service in accordance with all applicable regulatory requirements
- Begin Implementation of Vulnerability Assessment
- Emphasize continuing education to maintain operator licenses ensuring EPA regulatory compliance
- Continue implementing Capital Improvement Program meeting customer capacity needs and economic development
- Receive American Metropolitan Sewage Peak Performance Award

<b>SERVICE LEVELS</b>	<b>FY02 <u>Budget</u></b>	<b>FY02 <u>Actual</u></b>	<b>FY03 <u>Budget</u></b>	<b>FY03 <u>Forecast</u></b>	<b>FY04 <u>Budget</u></b>
Water customers	15,700	17,200	16,995	17,600	18,000
Sewer customers	14,800	15,300	15,038	15,800	16,100
Customer calls	N/A		36,050	36,050	25,000
Plans Reviewed	530	520	546	510	523
Samples Collected	N/A	N/A	305,328	305,328	315,548
Water distributed (mgd)	8.20	8.20	8.20	8.20	8.45
Wastewater collected (mgd)	4.56	4.38	4.56	4.56	4.70
Miles of water line maintained	296	300	296	306	312
Miles of sewer line maintained	311	288	311	294	300

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## BUDGET HIGHLIGHTS

FY03

The increase in salaries and benefits is the result of three new employees added to meet the service expectations of customers. The decreases in the budget are due to a reduction in debt and capital spending.

FY04

The increase in salaries and fringe benefits is due to the addition of two additional positions. The decreases in operating expenditures and capital outlay reflect the needs of the department in FY04

## BUDGET SUMMARY

### Expenditures

	FY02 <u>Budget</u>	FY02 <u>Actual</u>	FY03 <u>Budget</u>	FY04 <u>Budget</u>	Percent <u>Change</u>
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Salaries and Fringe Benefits	\$ 4,067,749	\$ 3,704,883	\$ 4,410,072	\$ 4,657,782	5.6%
Operating Expenditures	13,328,812	8,628,215	13,005,524	12,940,891	-0.5%
Capital Outlay	9,174,595	11,600,513	5,751,596	4,049,000	-29.6%
<b>Total Expenditures</b>	<b>\$ 26,571,156</b>	<b>\$ 23,933,611</b>	<b>\$ 23,167,192</b>	<b>\$ 21,647,673</b>	<b>-6.6%</b>

### Revenue

Permits, Privilege Fees, and Regulatory Licenses	\$ 270,300	\$ 267,761	\$ 311,000	\$ 280,000	-10.0%
Revenues from the Use of Money and Property	1,209,425	614,506	1,002,000	502,000	-49.9%
Charges for Services	20,541,264	13,358,212	20,593,537	14,692,333	-28.7%
Miscellaneous Revenue	0	111,142	78,000	80,340	3.0%
Recovered Costs	168,000	168,000	168,000	168,000	0.0%
Other Revenues	2,260,908	10,017,123	750,000	5,900,000	664.5%
Reserve for Revenues	0	0	25,000	25,000	0.0%
Prior Year's Balance	2,121,259	0	239,655	0	-100.0%
<b>Total Department Generated Revenue</b>	<b>\$ 26,571,156</b>	<b>\$ 24,536,744</b>	<b>\$ 23,167,192</b>	<b>\$ 21,647,673</b>	<b>-6.6%</b>
Generated Revenue Percent of Budget	100.0%	102.5%	100.0%	100.0%	
<b>Other General Fund Revenue</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	
Other General Fund Percent of Budget	0.0%	0.0%	0.0%	0.0%	
Full-time Positions	83	83	86	88	2.3%
Part-time Positions	1	1	1	1	0.0%
Full-time Equivalents	83.5	83.5	86.5	88.5	2.3%