



# District of Columbia Water and Sewer Authority

*(A component unit of the Government of the  
District of Columbia)*

## Comprehensive Annual Financial Report 2003 Fiscal Year: October 1, 2002 to September 30, 2003

Paul L. Bender, Chief Financial Officer

Serving the Public • Protecting the Environment





# 2003

District of Columbia Water and Sewer Authority

## **Comprehensive Annual Financial Report**

(A component unit of the Government of the District of Columbia)

Fiscal Year  
October 1, 2002 to September 30, 2003

Prepared by:  
Department of Finance and Budget

**Paul L. Bender, Chief Financial Officer**

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## **Introductory Section**

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# Certificate of Achievement for Excellence in Financial Reporting

Presented to

District of Columbia  
Water and Sewer Authority

For its Comprehensive Annual  
Financial Report  
for the Fiscal Year Ended  
September 30, 2002

A Certificate of Achievement for Excellence in Financial Reporting is presented by the Government Finance Officers Association of the United States and Canada to government units and public employee retirement systems whose comprehensive annual financial reports (CAFRs) achieve the highest standards in government accounting and financial reporting.



President

Executive Director



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## BOARD OF DIRECTORS

AS OF SEPTEMBER 30, 2003

### PRINCIPAL MEMBERS

### JURISDICTION

Glenn S. Gerstell .....	District of Columbia
David J. Bardin .....	District of Columbia
Michael V. Hodge .....	District of Columbia
F. Alexis H. Roberson.....	District of Columbia
Lucy B. Murray.....	District of Columbia
Alexander A. McPhail .....	District of Columbia
Alfonso N. Cornish.....	Prince George's County, MD
Fariba Kassiri. ....	Prince George's County, MD
James A. Caldwell .....	Montgomery County, MD
Bruce F. Romer .....	Montgomery County, MD
Anthony H. Griffin .....	Fairfax County, VA

### ALTERNATE MEMBERS

### JURISDICTION

Michael E. Dutton .....	District of Columbia
Vacant .....	District of Columbia
Stephanie M. Nash.....	District of Columbia
Rodney L. Newman.....	District of Columbia
Brenda L. Richardson.....	District of Columbia
James L. Wareck.....	District of Columbia
Sherry Conway Appel.....	Prince George's County, MD
Donna MP. Wilson.....	Prince George's County, MD
Paul E. Folkers .....	Montgomery County, MD
David W. Lake .....	Montgomery County, MD
John Wesley White.....	Fairfax County, VA



# PRINCIPAL STAFF MEMBERS

AS OF SEPTEMBER 30, 2003

## GENERAL MANAGER'S STAFF

**Jerry N. Johnson** ..... **General Manager**  
 Henderson Brown ..... General Counsel  
 Johnnie Hemphill ..... Government Relations  
 Michael Hunter ..... Internal Auditor  
 Libby Lawson ..... Public Affairs  
 Linda R. Manley ..... Secretary to the Board

## OFFICE OF THE CHIEF FINANCIAL OFFICER

Paul L. Bender ..... Deputy General Manager/Chief Financial Officer  
 Olu Adebo ..... Controller  
 Michelle G. Cowan ..... Budget and Finance  
 Charles W. Kiely ..... Customer Service  
 Mujib Lodhi ..... Chief Information Officer  
 Vacant ..... Risk Management

## OPERATIONS

Michael S. Marcotte ..... Deputy General Manager/Chief Engineer  
 Walter M. Bailey ..... Wastewater Treatment  
 Kofi Boateng ..... Water Services  
 Cuthbert Braveboy ..... Sewer Services  
 Leonard Benson ..... Engineering and Technical Services  
 R. Wayne Raither ..... Maintenance Services

## SUPPORT SERVICES

Michael A. Carter ..... Interim Assistant General Manager  
 Roger L. Ball ..... Procurement  
 O.Z. Fuller ..... Fleet Management  
 Barbara Grier ..... Human Resources  
 Everett Lallis ..... Health and Safety  
 J. Jeffrey Robertson ..... Facilities



## **DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY**

5000 OVERLOOK AVENUE, S.W., WASHINGTON, D.C. 20032

January 31, 2004

Glenn S. Gerstell, Chairman  
and Members of the Board of Directors  
Jerry N. Johnson, General Manager  
5000 Overlook Avenue, S.W.  
Washington, D.C. 20032

Dear Mr. Chairman, Members of the Board, and Mr. General Manager:

I am pleased to present the District of Columbia Water and Sewer Authority's (the "Authority" or "WASA") Comprehensive Annual Financial Report (CAFR) for the fiscal year ended September 30, 2003.

The Authority's financial performance for fiscal year 2003 continued the WASA tradition of meeting high expectations. Tangible evidence of how far the Authority has come in the seven years since its creation as an independent agency was provided in July 2003: the Authority received upgraded ratings to the "AA" category on its senior lien revenue bonds from all three major rating agencies. This puts the Authority in the second highest category available to state and local issuers and achieves a major long-term objective.

The year ended with revenues exceeding expenses (change in net assets) by \$49.2 million. As required by Board policy, the Authority maintained cash reserves in excess of 180 days operating and maintenance costs (\$94.6 million in fiscal year 2003), and the Authority was in compliance with all bond covenants (see Statistical Section, Exhibit 5). The Authority ended fiscal year 2003 with operating expenditures under budget and revenues in excess of budget (see supplementary information, page 73) and an unqualified audit opinion.

These financial accomplishments are due in large part to the leadership of the Board of Directors, particularly because of your development of and adherence to sound financial policies.

Responsibility for both the accuracy of the data and the completeness and fairness of the presentation, including all disclosures, rests with WASA management. To the best of my knowledge and belief, the enclosed financial statements and schedules are accurate in all material respects and are reported in a manner designed to present fairly the financial position and results of operations of the Authority.

## **REPORT SECTIONS**

This report describes the Authority's financial activities, condition and services as a whole. As such, the report covers information about the Authority's history, its organizational structure, and its financial data. This report is divided into three sections: Introductory, Financial, and Statistical:

- The Introductory Section includes the Authority's organization structure, a list of board members and senior management, a history of governance and operations, a description of facilities, a description of the budget process, internal controls and accounting standards, the Authority's recent accomplishments and major initiatives, a discussion of economic conditions of the metropolitan Washington, D.C. area, and a description of the Authority's risk management program.
- The Financial Section includes the independent auditor's opinion, Management's Discussion and Analysis (MD&A), the Authority's fiscal year 2003 and fiscal year 2002 financial statements, the notes to the financial statements, and supplementary information.
- The Statistical Section presents selected financial and operating indicators of the Authority and statistics about the economic condition of the metropolitan Washington, D.C. area.

## **RECENT ACCOMPLISHMENTS**

Using the framework of policies and goals the Board of Directors established in fiscal year 1998, and the nine strategic goals developed by the Board in fiscal year 2002, the Authority and its management continued to build on the successes of its previous six years of operations. Major accomplishments in fiscal year 2003 were:

### **Financial Accomplishments**

- In July 2003, the Authority received upgrades to the AA category on its senior lien bond ratings from the three major rating agencies. These upgrades put the Authority in the second highest category available to state and local issuers.
- In April 2003, the Authority received a \$49.7 million appropriation from the U.S. Government to be used, with matching funds, for capital projects aimed at reducing Combined Sewer Overflows (CSO). The Authority expects to receive an additional \$30 million appropriation in fiscal year 2004.
- Due to strong financial results in fiscal year 2003, the Authority contributed \$7 million to the rate stabilization fund raising the balance to \$21.7 million, including interest. The rate stabilization fund will be used to smooth out future rate increases, in accordance with the Board's policy of gradual and predictable rate increases.

- In August 2003, WASA issued \$176 million in fixed rate revenue bonds at interest rates ranging from 5.0 percent to 5.125 percent. Proceeds were used to refund \$100 million in outstanding commercial paper and the balance was used to fund various capital projects and closing costs.
- The Board of Directors implemented a new rate structure effective October 1, 2002 (fiscal year 2003). The old structure, which was solely based on water usage, was changed to include a metering fee and a pass through of the District's right-of-way fee, in addition to usage charges.
- Total retail customer receivables declined to \$31.4 million at the end of fiscal year 2003 from \$35.1 million at the end of fiscal year 2002. This reduction is largely due to stepped up collection efforts, including more systematic field service collections, the Customer Service Department's new "Dialing for Dollars" program, settlement of several high balance accounts, and conversion to monthly billing.
- The Authority received the Government Finance Officer's Association *Distinguished Budget Presentation Award* for the fiscal year 2004 Operating and Capital Budgets.

#### **Customer Service Accomplishments**

- By the end of fiscal year 2003, more than 97,000 residential automated meters and approximately 10,000 small commercial meters (two inches or less) were installed. The total 107,000 meters comprised approximately 86 percent of all meters to be replaced, capturing approximately 35 percent of total water usage. Installation of large commercial meters, three inches or larger, begins in fiscal year 2004.
- Our customer services were enhanced by consolidation of the dispatch function within the Customer Service Department. Dispatching was previously handled in three departments, causing customers to make multiple calls or to be transferred among various departments before receiving assistance. Customers now have a single point of contact for all of their needs.

#### **Operational Accomplishments**

- Capital construction activities reached unprecedented levels in fiscal year 2003, as the Authority spent \$205.5 million on capital construction during the fiscal year. Major projects at the Blue Plains Wastewater Treatment Plant included improvements to primary and secondary treatment processes and the chemical distribution systems. The permanent facilities for sodium hypochlorite/sodium bisulfite disinfection and dechlorination were brought online, replacing potentially hazardous chlorine and sulfur dioxide processes. In the water service area, the major rehabilitation of the Bryant Street pumping station continued in fiscal year 2003.

- In February 2003, WASA's new National Pollutant Discharge Elimination System (NPDES) permit became effective. The new permit incorporated changes to the peak flow treatment requirements, new ammonia limits, an average phosphorus limit, and a new goal for total nitrogen load.
- In fiscal year 2003, WASA received the prestigious gold award from the Association of Metropolitan Sewerage Agencies for the calendar year ending December 2002, adding to three gold and two silver awards earned over the previous five years. This award recognizes the Authority's high level of compliance with federal standards for discharges from the Blue Plains Wastewater Treatment Plant into the Potomac River.
- During fiscal year 2003, WASA deployed a new radio system in collaboration with the District's Emergency Management Agency. This 800 MHz system greatly improved communication capabilities among departments. The new system immediately played a crucial role in maintaining WASA's operations during Hurricane Isabel.
- Timekeeping data collection terminals were implemented in August 2003, introducing new efficiencies to the Authority's timekeeping and payroll functions. Employees' work hours are recorded and transmitted electronically, resulting in more consistent and accurate payroll processing and streamlined payroll procedures.

## **HIGHLIGHTS AND MAJOR INITIATIVES**

In fiscal year 2003, the Authority continued to build on its first six years of successful operations by essentially redesigning delivery of various water and wastewater services, and implementing programs that impact its financial operations.

The Authority continued to work with the Environmental Protection Agency (EPA) on approval of the Combined Sewer Overflow Long Term Control Plan (LTCP), while exploring various funding sources to help mitigate the impact of this plan on ratepayers. Additionally, WASA continued to focus on its stakeholders by enhancing its customer service and refocusing on community service. During fiscal year 2003, a gain sharing program was implemented to reward employees for improved operational performance. The Authority continues to explore an Owner Controlled Insurance Program (OCIP) for our contractors and Internal Improvement Plans (IIP) continued to be implemented throughout the organization. WASA also continued to focus on technology initiatives, and the Authority's ongoing capital improvement program (CIP).

In November 2003, the Board of Directors revised its mission statement, vision statement, and strategic goals to more concisely define the Authority's responsibility and commitment to customers, the community, and the environment. In keeping with the refocused strategic goals, several programs were developed that will continue as initiatives in fiscal year 2004 and beyond. These

include the Combined Sewer Overflow Long Term Control Plan, customer service initiatives, an expanded community service role, continuing IIP(s), an owner-controlled insurance program, implementation of a WASA-wide asset management system and other technology initiatives, and an emphasis on employee relations. A detailed discussion of each of these initiatives follows:

### **Combined Sewer Overflow Long Term Control Plan**

Approximately one-third of the District of Columbia is served by a combined sewer system, in which both sanitary waste and storm water flow through the same pipes. When the collection system and/or the Blue Plains treatment plant reach capacity, typically during periods of heavy rainfall, the system is designed to overflow the excess water. These events are referred to as combined sewer overflows. Combined sewers are common in older wastewater collection systems.

The Authority's EPA permit authorizes discharges and requires WASA to develop a long-term CSO control plan (LTCP) that will result in compliance with the Federal Clean Water Act. WASA submitted its proposed LTCP to the EPA in August 2002. The CSO issue has been studied by WASA and its predecessor agency for almost two decades, and the submission of the LTCP was a significant milestone in WASA's history. The plan recommended a combination of large storage tunnels, rehabilitation of pumping stations, new pipelines, and other targeted improvements that will allow temporary storage of combined flows during storm events until they can be sent to the Blue Plains facility for treatment. Benefits of the LTCP are significant, with CSO(s) reduced by a projected 96 percent when the plan is fully implemented.

The total cost of the proposed plan is \$2.6 billion, assuming implementation over 40 years and annual inflation of three percent. If implemented as proposed, and without any outside financial assistance, the plan would require rate increases averaging about two percent annually over the 40 year construction period. Since the 2002 submission of the LTCP, WASA has been negotiating with the EPA and the U.S. Department of Justice, with particular focus on the implementation schedule and water quality standards. WASA has also been exploring various funding sources, including federal assistance, to help mitigate the impact on our ratepayers. The Authority received a \$49.7 million appropriation from the U.S. Congress in fiscal year 2003, based on a request by the Mayor of the District of Columbia, Anthony Williams. The Authority also expects to receive an additional \$30 million appropriation from the U.S Government in fiscal year 2004.

### **Customer Service Initiatives**

The Automated Meter Reading (AMR) project began in the spring of 2002, and by the end of fiscal year 2003, residential installations were completed (with the exception of meters that needed extensive ancillary work or were inaccessible), and installation of small commercial meters had started. Approximately 50 percent of water consumption flows through 2,500 of the large meters (three inches and larger), and the benefits of this project will be fully realized as these large meters are installed.



As part of the departmental realignment that has accompanied the automated meter program, an inspection function will be added to ensure that all new construction and redevelopment activities are accurately metered and billed.

The customer information and billing system (CIS), in combination with AMR, meets the Board's objective of using state-of-the-art technology to meet customer needs. Conversion from quarterly to monthly billing for AMR metered accounts in fiscal year 2003 was a major accomplishment, made possible by the CIS system and automated meter data. CIS enhancements in fiscal year 2003 allowed WASA to offer many new payment options to customers, including recurring credit card payments and budget billing. In order to continue to offer direct customer benefits, the Authority is committed to regularly upgrading this system, with the first major upgrade in fiscal year 2004.

In January 2004, the Board of Directors approved expanding the customer assistance program from homeowners to also include tenants. This program excludes first four Ccf (400 cubic feet) of water consumption from the bills of customers who meet income eligibility guidelines. The savings to qualifying customers is approximately \$84 annually. The change to offer the customer assistance program to renters is projected to increase the number of customers served by the program from approximately 1,500 to 6,000.

### **Community Service**

As part of our service to customers, WASA emphasizes extending a helping hand to the community. During the past year, employees have worked together on such projects as Christmas in April, Project Harvest, a toy and book drive, and the Anacostia River Cleanup Day. As part of the Board's refocused strategic goals, a plan will be developed and implemented in fiscal year 2004 for increased community service involvement by identifying additional public service activities.

### **Internal Improvement Plans**

The Authority continued its focus on improving services and reducing costs in fiscal year 2003 through the implementation of internal improvement plans.

The Customer Service Department continued its reorganization in fiscal year 2003, with the realignment of its meter operations, associated with the implementation of the AMR technology. This realignment resulted in the elimination of 20 positions. And, as previously mentioned, the dispatch function was consolidated in the Customer Service Department by incorporating positions from Water Services and Sewer Services Departments, providing a single point of contact for all customer questions. Efficiencies were introduced to the dispatch function by using the customer information system to generate fieldwork orders and track customer issues. The

results of these changes included much improved customer service responses, and the virtual elimination of estimated meter readings and higher accuracy on this billings.

The Blue Plains IIP began in fiscal year 2000, and was projected to result in the reduction of 228 positions at the wastewater treatment plant when fully implemented. Through September 2003, 134 positions had been eliminated. Additionally the Blue Plains IIP called for a reduction of 130 contractual positions. Other contractual position reductions are anticipated in the solids processing area, dependent on completion of the additional dewatering project at Blue Plains. Timing of further position and contractor reductions for the Blue Plains IIP continues to be dependent on the completion of WASA's \$1.76 billion capital improvement program, including such initiatives as the process computer control system, and grit and screens rehabilitation.

### **Owner-Controlled Insurance Program**

During fiscal year 2003, management began the evaluation of an owner-controlled insurance program (OCIP). Under this program WASA would take responsibility for procuring and managing insurance for construction projects, compared to the current practice of contractors purchasing their own insurance. This arrangement would result in savings to WASA by avoiding redundancies in coverage and by the overall improvement in the safety program for all contractors. OCIP(s) have become standard practice in the insurance industry, and WASA is moving forward to implement such a program in fiscal year 2004.

### **Technology Initiatives**

In December 2001, the Authority presented its 2002 - 2005 Information Technology Strategic Plan to the Board of Directors, which provided a vision for the delivery of information technology services at WASA. The plan included a recommended methodology for prioritization of projects, suggested network security and infrastructure improvements, project management initiatives, and other organizational enhancements. The Strategic Plan called for completion of several major projects over the planning period, and significant work continued on several major projects in the plan.

- The new maintenance management system became fully functional by mid-FY 2003, greatly enhancing our preventive maintenance and inventory management, with a primary focus being at the Blue Plains Wastewater Treatment Plant.
- Conceptual phase work on an asset management system was completed in fiscal year 2003 and implementation will proceed in fiscal year 2004. This system is planned to integrate our existing customer information, maintenance management, process computer control system, and mapping systems, and will assist WASA in better managing our water and sewer infrastructure.

- The Process Computer Control System (PCCS) will result in better management of chemical usage, better management of electricity consumption (minimizing peak demand usage), and other operating efficiencies. This project is critical to achieving the goals laid out in the Blue Plains internal improvement plan, and continues the Authority's efforts to integrate information technology with operational functions. During fiscal year 2003, a process control software development office was built, and software development was started for both primary and secondary processes.

### **Employee Relations**

A highlight of fiscal year 2003 was the gain-sharing program, with a payout in excess of \$400,000 to over 1,000 employees. This program, jointly overseen by WASA executive management and the presidents of each of the five local union groups, developed goals and performance measures for each work group in WASA. The goals were based on and intended to help meet the Board's strategic plan objectives. Significant operational improvements were realized as a direct result of this program.

### **Capital Improvement Program**

WASA's ultimate success in achieving its operational goals, customer service goals, and its continuing success in regulatory compliance depends in large part on the implementation of our 10-year capital improvement program. This \$1.76 billion program will roughly double the value of our physical infrastructure, and will result in improved service to all of our customers, wholesale and retail.

In both fiscal year 2002 and fiscal year 2003, the capital improvement program entered the construction phase for many of the large projects in the plan. Refer to Exhibit 4 in the Statistical Section for a comparison of capital disbursements over the past 10 years.

Major capital activities that continued in fiscal year 2003 at the Blue Plains Wastewater Treatment Plant were:

- Primary and secondary treatment facility upgrades, with budgets totaling \$104.4 million.
- The west grit chamber and influent screening facility upgrade; work also began on the east grit chamber facility; total project budgets are \$100 million.
- Additional dewatering facilities, with a total project budget of \$79.4 million, and additional chemical systems, with a total project budget of \$73.5 million.
- The alternate disinfection facility became fully operational in November 2003, completing the accelerated conversion from chlorine and sulfur dioxide to sodium hypochlorite and sodium bisulfite disinfection and dechlorination.

- The process computer control system with a budget of \$51.7 million was underway in fiscal year 2003.
- Preliminary design on the egg-shaped digester project was completed in fiscal year 2003, and final design of the foundation and vessels is scheduled to be completed in fiscal year 2004. Process design will also start in fiscal year 2004. This project, budgeted at \$257 million, will dramatically improve our operations and reduce the production of biosolids by 50 percent; biosolids hauling costs are approximately \$17 million annually.

As required by EPA regulations, WASA performs routine sampling of lead levels at the tap. For the sampling period July 2001 to June 2002, sampling revealed that lead concentrations for over ten percent of samples were above the action level specified by the EPA of 15 parts per billion. Based on these results, the Authority initiated a project to replace seven percent of the existing lead service lines annually as required by federal regulations. With over 22,000 existing lead service lines, this amounts to a requirement to replace, or demonstrate by sampling below the action level, that 1,615 water service lines meet the requirements. The first year of the program was 2003 and WASA met the requirement by the EPA mandated date of September 30, 2003. This program will continue in fiscal years 2004 and 2005 and as long as sampling results exceed the action level. WASA is working with EPA and Washington Aqueduct (WAD) to restore optimum corrosion control at the WAD treatment facilities in order to reduce lead levels below the action level.

Other major capital initiatives in fiscal year 2003 were the major rehabilitation of the Bryant Street Water Pumping Station, with a total project budget of \$54.8 million, and the Automated Meter Reading project, with a lifetime budget of \$43.4 million. The sewer system assessment, which will lead to a comprehensive sewer facilities plan, was started in fiscal year 2003 and will continue in fiscal year 2004.

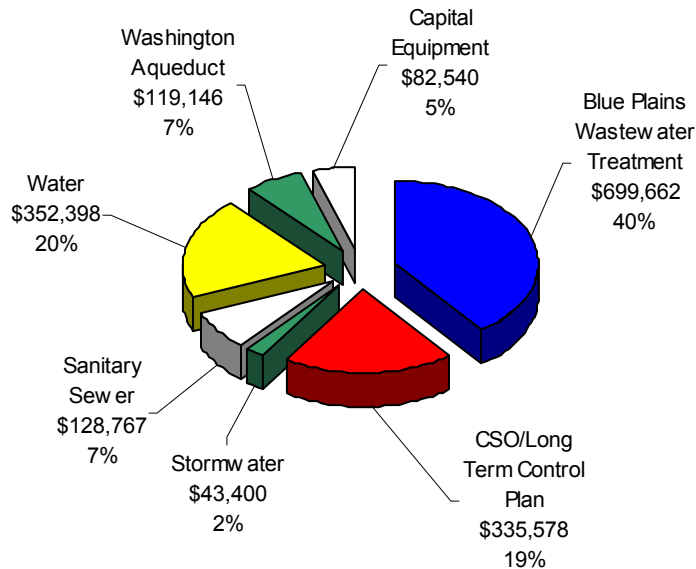
The Water and Sewer Facilities Master Plan provides a 20-year framework for developing, analyzing and evaluating changes to the CIP, and includes projects currently in the 10-year CIP as well as proposed projects to begin after completion of the current 10-year planning period. It describes current conditions and presents a vision of the needs of the water and sewer systems and the actions planned to meet those needs. This plan is scheduled to be updated in fiscal year 2004.

In the coming year, WASA plans to reexamine the issues of governance structure and regionalization pursuant to action taken by its Board of Directors in January 2001. At that time, the Board concluded that the existing governance structure should be retained and that the existing management and fiscal independence be preserved and enhanced. The January 2001 Board action provided that a follow-up study be conducted "no later than 2005."

The proposed FY 2003 – 2012 capital improvement program is \$1.76 billion on a disbursements basis. The plan is broken into seven service areas, as shown in the graph below.

### FY 2003 – FY 2012 Capital Improvement Program

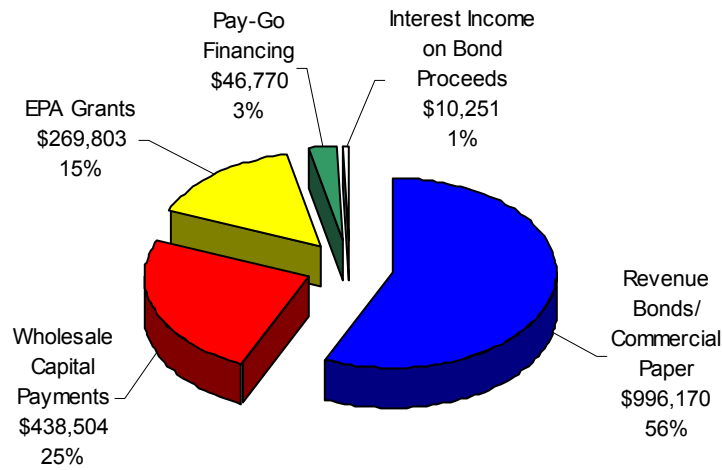
(\$ in 000's)



### Capital Financing and Debt Administration

The Authority plans to finance its \$1.76 billion capital improvement program from a variety of sources, including the issuance of revenue bonds, commercial paper, grants from the U.S. Environmental Protection Agency (EPA) and other agencies, contributions from wholesale customers, and pay-as-you-go financing. Interim financing through issuance of commercial paper notes will be periodically converted to long-term financing through the issuance of bonds. The next planned issuance of long-term debt is planned for the summer of fiscal year 2004, after drawing down most or all of the \$100 million available in the commercial paper program. As shown on the following chart, 56 percent of capital financing will come from debt issuance, a relatively low share given the size of the Authority's capital program.

**FY 2003 – 2012 Capital Improvement Program  
Sources of Funds  
(\$ in 000's)**



**Cash Position**

Consistent with Board policy, a substantial amount of the capital program was financed with pay-as-you go financing in fiscal year 2003. Unrestricted cash and investments totaled \$146.1 million as of September 30, 2003, an increase of approximately \$8.8 million. Board policy requires Authority reserves in excess of 180 days operating and maintenance costs, rate stabilization fund deposits, and other reserves for upcoming one-time disbursements, to be used to fund portions of the capital program on a pay-as-you-go basis.

**ACCOUNTING AND BUDGET PROCESSES**

**Basis of Accounting**

The Authority is a single enterprise fund and maintains accounting records using the accrual basis of accounting. Under this basis of accounting, revenues are recorded when earned, and expenses are recorded when goods and services are received.

**Internal Control**

The Authority's management is responsible for establishing and maintaining an internal control structure designed to ensure that Authority assets are adequately safeguarded against loss from unauthorized use or disposition and to maintain reliable financial records for the preparation of financial statements. The internal control structure is designed to provide reasonable, but not absolute, assurance that these objectives are met. The concept of reasonable assurance recognizes that: 1) the cost of internal controls should not exceed the benefits derived from the controls; and 2) the evaluation of costs and benefits requires management's exercise of judgment. We believe the Authority's internal accounting controls adequately safeguard its assets and provide reasonable assurance of the proper recording of financial transactions.

## **Independent Audit**

The Authority's fiscal year is from October 1 to September 30, and the Authority's financial statements are subject to an annual audit by independent certified public accountants. Thompson, Cobb, Bazilio & Associates, P.C. (TCBA) audited the Authority's financial statements for fiscal year 2003. TCBA's opinion is included in the Financial Section.

## **Budgetary Control**

Budgetary control begins with the preparation of the annual operating and capital budgets, which are developed on an expenditure basis. After three months of extensive review by the Board's Finance and Budget, Operations, and Retail Rates Committees, the budgets are approved by the Board of Directors. The budgets are loaded into the Authority's financial management system, which prevents overspending without appropriate approvals. The Department of Finance and Budget prepares daily and monthly management reports for each operating unit. They also prepare monthly reports for the Board of Directors and its various committees. The reports are reviewed and acted upon each month to ensure the Authority complies with its authorized budget levels.

## **Annual Budget Process**

After approval by the Board of Directors, the Authority is required to submit its annual operating and capital budgets to the Mayor and Council of the District of Columbia for their review and comment; however, neither can change the annual budgets of the Authority. The District then includes the Authority's budgets as an enterprise fund in the budget that it sends to the U.S. Congress for approval.

## **TEN-YEAR FINANCIAL PLAN**

First developed in fiscal year 1997, the Authority's ten-year financial plan serves as its road map to strong and predictable long-term financial performance. This plan is updated and adopted annually by the Board of Directors. The Authority's ten-year plan and overall emphasis on long and short term planning are regularly cited by the rating agencies as critical factors in WASA's bond ratings. The objectives of the ten-year plan are:

- To proactively address all known regulatory requirements and other major infrastructure and operating issues, including the Internal Improvement Plan, over the ten-year planning period;
- To raise rates gradually and predictably as needed to meet its long-term operating, capital, and financial policy requirements; and
- To meet all of the financial policies laid out by the Board of Directors, including maintaining approximately 180 days of operating and maintenance expenses in cash reserves and maintaining senior debt service coverage of 140 percent.

Since its inception, the Authority has maintained or enhanced, the financial goals set out by Board policy and the ten-year financial plan; The Authority has achieved or exceeded the Board's and other legal financing goals and requirements in every year of its existence.

## **FINANCIAL POLICIES**

During fiscal year 1998, the Authority adopted critical policies for financing, rate setting and cash management. These policies have served as the key parameters used to successfully develop the Authority's ten-year financial plan, capital improvement program, and operating budgets. The policies will continue to guide the development and implementation of the Authority's long term plans in the future. A summary of these policies follows.

### **Financing Policies**

The primary objective of the financing policies is to ensure that the Authority's financial practices result in a high quality investment-grade bond rating so as to achieve the lowest reasonable cost of debt necessary to finance the Authority's long-term capital program. The Authority is committed to 140 percent debt service coverage on senior lien debt service and maintaining an operating cash reserve equivalent to 180 days of operating and maintenance expenses. In addition, the Authority will use any excess operating reserve amounts for capital financing to reduce the need for additional long-term debt.

### **Rate Setting Policies**

The Authority's rate setting policy is simple and straightforward: the Authority will strive to set rates so that each customer will be charged for those costs necessary to provide each service, and rate increases will be predictable and gradual. The Authority will apply this rate-setting philosophy in a practical and prudent manner based on the following tenets:

- The Authority must achieve a positive net income and cash flow each year.
- Current rates must cover current costs and provide cash flow adequate to meet all bond covenant requirements.
- Rates and fees must be based on the actual cost to deliver each service.
- Rates must be based on annually updated ten-year forecasts of operating and capital budgets, with any required rate increases phased in gradually over time to avoid "rate shock."
- After the Authority achieved its required level of cash reserves, a rate stabilization fund was established to ensure gradual and predictable rate increases. In fiscal year 2000, the Authority established the rate stabilization fund, with an initial contribution of \$3.5 million. The Authority contributed \$7 million in fiscal year 2003, bringing the balance of the reserve to \$21.7 million (including interest income).



## **Cash Management and Investment Policies**

The Authority manages its cash based on the following objectives, in order of priority: safety, liquidity, return on investment, and diversity.

With the adoption of the revised fiscal year 1998 budget, the Authority's Board of Directors adopted comprehensive cash management and investment policies and implemented investment and cash management practices. These policies and practices are consistent with and based on the Government Finance Officers Association's (GFOA) guidelines and specify the amount of the total portfolio allowed in each type of investment.

In fiscal year 2001, the Board adopted revisions to the investment policy that clarified portfolio diversity requirements, and in fiscal year 2002, the Board further refined the investment policy to address the length of maturity for investments of bond proceeds, and to adopt more stringent collateralization requirements for WASA's investments.

The Authority's Department of Finance and Budget produces daily and monthly reports on all cash management and investment activities with internal peer oversight. Monthly reports to the General Manager and the Board of Directors' Finance and Budget Committee enable them to monitor the Authority's compliance with its policies.

## **RISK MANAGEMENT**

The Authority has a comprehensive risk management program designed to protect the Authority's assets and to reduce or transfer financial losses or risks to third parties by utilizing insurance contracts. The Authority has purchased \$500,000,000 in property and \$35,000,000 in liability insurance coverage to protect owned or leased facilities, buildings and equipment. The deductible for physical damage to DC WASA structures, buildings and contents is \$250,000 per claim. Flood claim deductibles are \$500,000 and \$1,000,000. The Authority also has insurance coverage for all its fleet equipment valued above \$50,000, with deductibles ranging from \$10,000 to \$25,000. The Authority self-insures all other fleet equipment and vehicles.

The Authority's liability insurance coverage provides protection from claims for damages and injuries caused by automobile accidents, broken water and sewer lines, construction, and other operational activities. The Authority self-funds the first \$1,000,000 of any one loss. Limits of up to \$100,000,000 are purchased to protect the Authority in the event of a catastrophic loss that would exceed the self-funded limit. Directors and Officers/Public Officials liability insurance is maintained up to \$20,000,000 in excess of a self-funded limit of \$200,000.

The Authority is self-insured to meet its workers compensation statutory responsibilities for all work-related injuries up to \$1,000,000. Excess workers compensation coverage is provided for any claim for statutory benefits in excess of the self-funded level. This insurance program also

enables the Authority to reduce and contain medical and compensation costs resulting from on the job injuries.

## **AUTHORITY PROFILE**

### **Reporting Entity**

The Authority is an independent, multi-jurisdictional regional utility that provides drinking water distribution and wastewater conveyance and treatment services to residential, commercial and governmental customers in the District of Columbia, and wastewater conveyance and treatment to wholesale users in Montgomery and Prince George's Counties in Maryland and Fairfax and Loudoun Counties in Northern Virginia. The Authority's service area has a population of over two million people. These activities are fully accounted for in this report.

The operations of the Authority are accounted for as a component unit of the Government of the District of Columbia and are included in the Government of the District of Columbia's Comprehensive Annual Financial Report. The Authority is considered a component unit, because the District of Columbia Government is ultimately legally responsible for a portion of the Authority's long-term debt. This Comprehensive Annual Financial Report of the Authority is issued separately to provide the Board of Directors, Authority customers, local and federal government officials, employees, investors, suppliers and other interested parties a comprehensive financial accounting of the Authority's operations and financial position for fiscal years 2003 and 2002.

### **History of the Authority**

#### **(Legislative History and Relationship to the District of Columbia)**

In 1996, the regional participants in the Authority's service area, including the District of Columbia, Montgomery and Prince George's Counties in Maryland, Fairfax and Loudoun Counties in Virginia, and the United States Congress, agreed to create an independent, multi-jurisdictional water and wastewater authority from its predecessor agency. In April 1996, the Council of the District of Columbia passed the "Water and Sewer Authority Establishment and Department of Public Works Reorganization Act of 1996 (as amended)," (the Act), a statute that provided the groundwork for the Authority to become operationally independent on October 1, 1996.

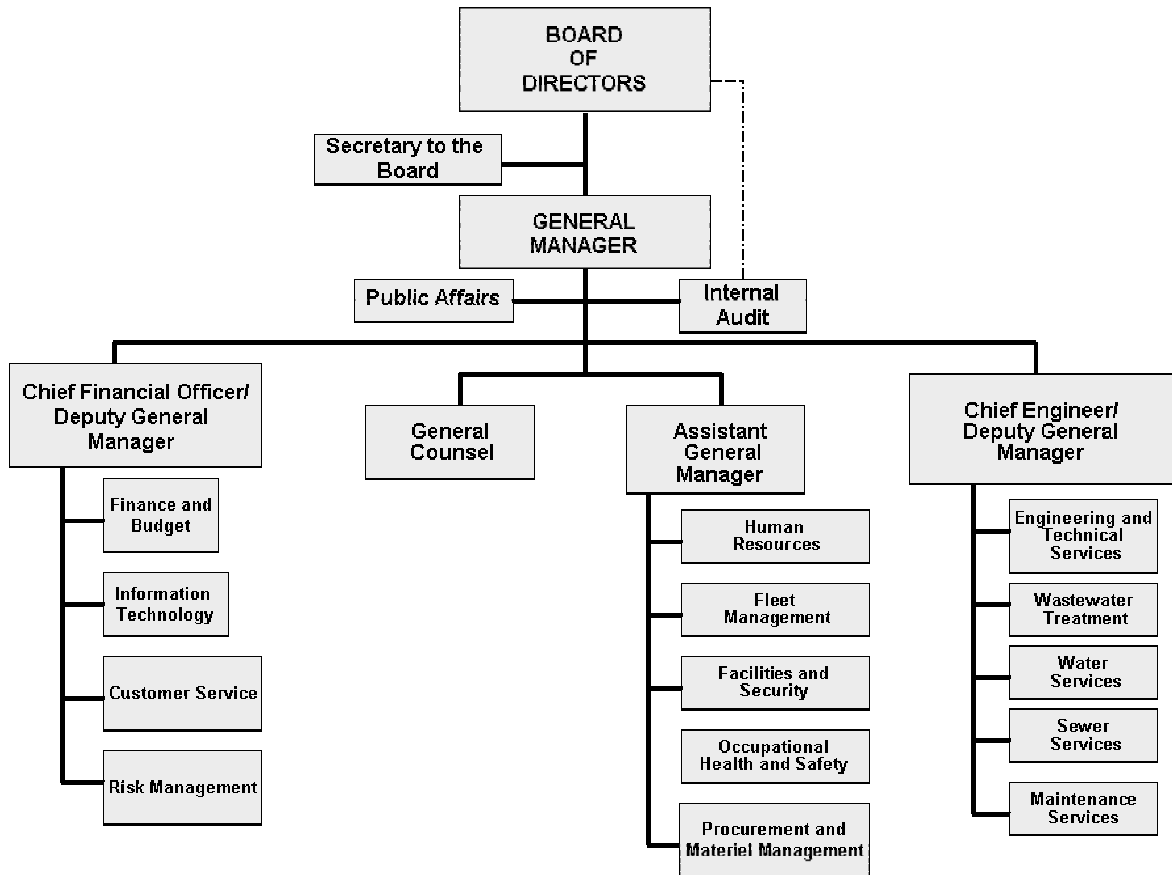
In accordance with the Act, the District has authorized the Authority to use all of the property and assets related to its water distribution and wastewater treatment and conveyance services and transferred to the Authority any liabilities that are directly attributable to those assets. The District has retained full legal title to these assets. The assets will remain under the control of the Authority for as long as any Authority revenue bonds remain outstanding.

The Authority is required by the Act to reimburse the District for debt service on general obligation debt issued by the District, the proceeds of which were used to finance certain water and

wastewater projects undertaken by WASA's predecessor agency. The District's financial plan also provided for repayments by the District to the Authority of approximately \$83 million over a period of five years to reimburse the Authority for borrowings by the District from its predecessor agency; the final payment was made in fiscal year 2001.

The Act also requires the Authority to establish rates, fees and other charges for all services provided by the Authority. These rates and charges, in addition to certain wholesale wastewater treatment contracts, generate revenues adequate to pay all of the costs of operating the Authority. The Authority's rate setting powers are not subject to the oversight of, or regulation by, the District or any other agency or authority.

### Governance and Organization Structure



The Authority is governed by a Board of Directors consisting of eleven principal and eleven alternate members who represent the District of Columbia, Montgomery and Prince George's Counties in Maryland, and Fairfax County in Virginia. The Mayor of the District of Columbia appoints, and the Council confirms, all District Board members, including the Chairperson. In addition, the Mayor appoints the five principals and five alternate members who represent the surrounding jurisdictions based on submissions from those jurisdictions. The Authority may only take action on policy matters after it receives a favorable vote of no less than six members of the

Board of Directors. All Board members participate in decisions directly affecting the general management of the joint-use facilities, and only the District of Columbia members participate in those matters that affect only District ratepayers.

The Authority's day-to-day operations are managed by a General Manager, who is appointed by the Board of Directors. The General Manager is supported by the Chief Engineer, the Chief Financial Officer, and an Assistant General Manager. The Chief Engineer oversees all technical operations, including Wastewater Treatment Services, Water Services, Sewer Services, Engineering and Technical Services, and Maintenance Services. The Chief Financial Officer oversees Finance and Budget, Customer Service, Risk Management, and Information Technology. The Assistant General Manager oversees Human Resources, Fleet Management, Procurement/Materiel Management, Facilities and Security, and Occupational Health and Safety. Also reporting to the General Manager are offices of the General Counsel, Internal Auditor and Public Affairs.

### **Agreements with Other Jurisdictions and Entities**

#### **Wholesale Wastewater Treatment – Intermunicipal Agreements**

In 1985, the District signed the Blue Plains Intermunicipal Agreement (the IMA) with Fairfax County in Virginia, and Montgomery and Prince George's Counties in Maryland. The IMA outlines terms relating to facility location, sizing, capacity allocations and funding and long-term management of the wastewater treatment and disposal process. It also established a uniform payment basis for facilities and future improvements. IMA signatories share the cost of operations, maintenance, and the capital program of the Blue Plains facility; the three surrounding counties comprise 60 percent of the Blue Plains capacity.

#### **Other Wholesale Wastewater Treatment Agreements**

Beginning in October 1963, the Authority entered into separate agreements with other entities that did not participate in the IMA and that were tributary to the Potomac Interceptor sewer: Loudoun County Sanitation Authority (LCSA); Washington-Dulles International Airport; the Department of the Navy; the National Park Service; and the Town of Vienna, Virginia. The agreements provide for the pro-rata recovery of the Authority's costs of constructing, operating, and maintaining the Potomac Interceptor and certain other sewers, and the Blue Plains facility. Under these agreements, the Authority recovers its capital and operating and maintenance costs from each user each quarter based on a rate per million gallons as applied to each user's metered sewage quantity. In November 1998, the Authority executed a new agreement with LCSA that increased its share of treatment capacity at Blue Plains to 13.8 million gallons per day (mgd). LCSA now pays its share of capital and operating costs on the same basis as the other IMA entities.

## **Water Supply Agreements**

The Authority purchases water from the Washington Aqueduct, which is owned by the federal government and operated by the U.S. Army Corps of Engineers under the direction of the Secretary of the Army. All water treated by the Washington Aqueduct is purchased by the Authority and the Aqueduct's two other customers, Arlington County and the City of Falls Church, Virginia. In July 1997, the Authority executed a new operating agreement with the U.S. Army Corps of Engineers that provides for the continued ownership and operation of the Aqueduct by the Corps of Engineers, but gives the Authority and other Aqueduct customers greater participation in budget preparation and oversight of operations. The new agreement also outlines each customer's pro rata share of operating and capital costs based on water purchased; the Authority's pro rata share of Aqueduct expenses is approximately 76 percent.

In 1982, the District entered into the Water Supply Coordination Agreement with the Washington Suburban Sanitary Commission and the Fairfax County Water Authority. This agreement formalizes commitments to cooperatively manage the region's water supply system. The Authority has provided for backup and peak day water supply through participation in the Little Seneca Lake and Bloomington Reservoir (now called Jennings Randolph Lake) projects. The Little Seneca project was constructed and is operated by the Washington Suburban Sanitary Commission. The Authority funds 40 percent of its capital and operating costs. The Bloomington Reservoir project was constructed by the federal government and is operated by the U.S. Army Corps of Engineers. The Authority funds 30 percent of its applicable capital and operating costs.

## **AUTHORITY FACILITIES**

### **The Wastewater System**

#### **History and Service Area**

The first wastewater treatment facilities for the Washington metropolitan area were constructed at the site of the present Blue Plains Wastewater Treatment Plant. These facilities treated up to 130 mgd for a population of over 650,000, and provided primary treatment only. Since that time, there have been several expansions and upgrades. In 1949, Blue Plains was expanded to 175 mgd; and again to 240 mgd in 1959. Chlorination facilities and secondary (biological) treatment were also added. When the Federal Clean Water Act was enacted in 1972 requiring all municipal sewage treatment systems to incorporate secondary or advanced levels of treatment, Blue Plains was once again expanded and upgraded to comply with the federal regulations. Work on these tertiary treatment projects and expansion was completed in 1983. Finally, work was completed in fiscal year 1997 to expand the Blue Plains tertiary treatment capacity to 370 mgd.

## **Sewage Collection**

The sewage collection system consists of approximately 1,800 miles of sanitary and combined sewers, 22 flow-metering stations, nine off-site wastewater-pumping stations, and 16-storm water pumping stations. The sewers range from eight inches in diameter to 27-foot arch sewers. The sewers are generally constructed of vitrified clay, brick, and concrete. Approximately two-thirds of the District is served by separate sanitary and storm sewers; however, combined sanitary and storm sewer systems are prevalent in the downtown area and older portions of the service area.

## **Biosolids Disposal**

In 1984, officials from all the jurisdictions served by Blue Plains established procedures for soliciting and entering into contracts for hauling and disposing of biosolids from Blue Plains. This high quality material consistently meets all applicable requirements of federal regulations. Most of the 1,300 tons per day of biosolids produced by the facility is directly land applied at various sites in Maryland and Virginia. Montgomery and Prince George's Counties retain contractual responsibility for the disposal of their share of biosolids generated at Blue Plains, and they currently use land application or landfill methods to meet their obligations.

The Biosolids Management Program, developed by WASA through a stakeholders group that included neighboring jurisdictions, and adopted by the Board of Directors in 1999, calls for full biosolids digestion as our primary long-term solution and continuing land application as long as it is financially advantageous. The Authority has completed the preliminary design of installation of new egg-shaped digesters, which will contribute greatly to onsite odor control and reduced odors in the product that leaves Blue Plains. Final design of the foundation and vessels will be completed in fiscal year 2004, and process design will start. When completed, this facility will significantly reduce the volume of biosolids produced.

## **The Water System**

### **History and Service Area**

Prior to the establishment of the Washington Aqueduct Division of the United States Army Corps of Engineers (the Aqueduct) in 1858, residents of the District obtained their drinking water from springs and wells. The distribution system consisted primarily of bored logs and some cast iron pipes. Water from the Potomac River was tapped into the system in 1863. By 1905, the Washington City Tunnel, McMillan Reservoir and Filtration Plant, and the Bryant Street Pumping Station were completed. The Dalecarlia Filtration Plant and Pumping Station and all other major components of the present water supply and distribution system were in operation by 1928.

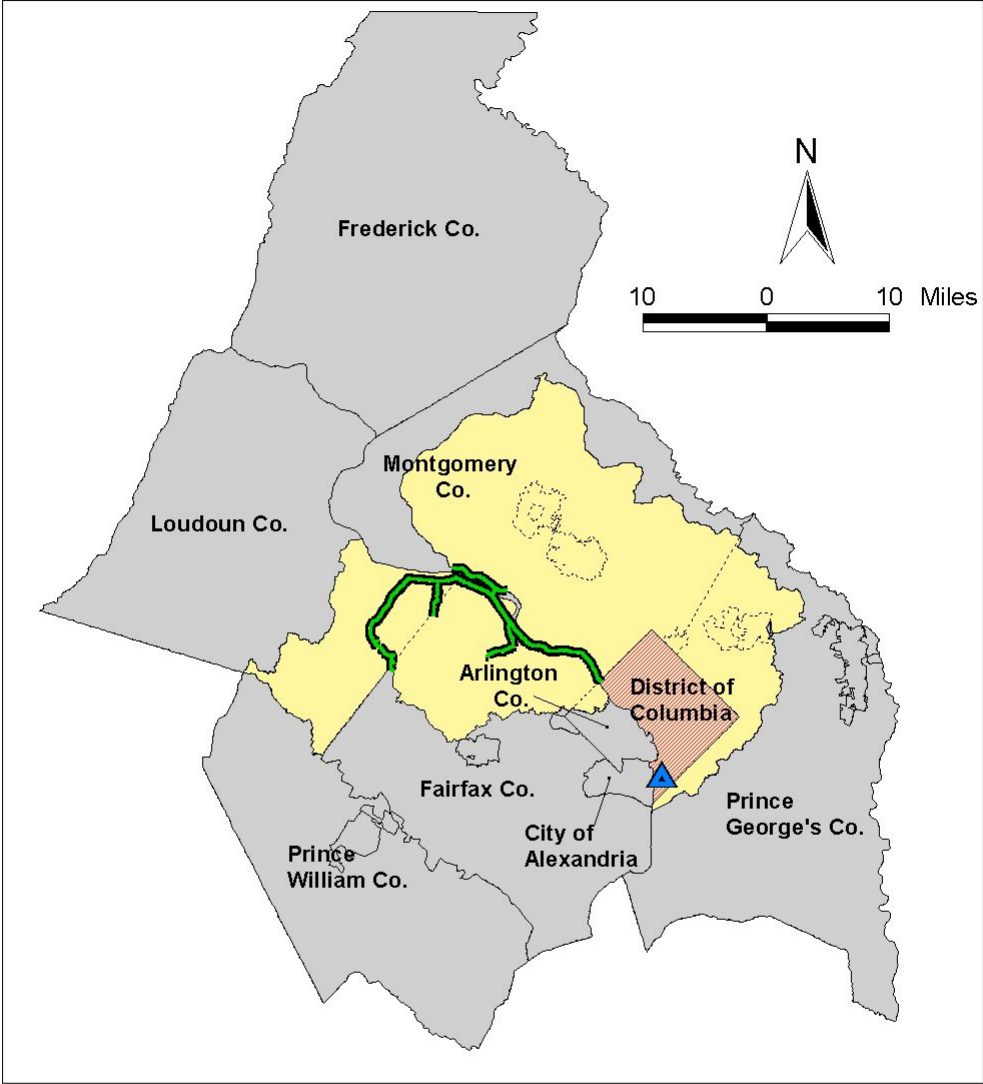
## **Water Treatment and Distribution System**

Although the Authority is responsible for management of the treated water distribution system serving the District and certain Department of Defense and other small customers outside the District, the water itself is treated by the Washington Aqueduct Division of the U.S. Army Corps of Engineers (the Aqueduct). The Authority purchases its water from the Aqueduct and transmits and distributes the water through five pumping stations, five distribution reservoirs and four elevated tanks. The Aqueduct's water treatment and transmission system consists of the Great Falls Intake on the Potomac River; two parallel nine-mile long raw water conduits from Great Falls to the Dalecarlia Reservoir; the Little Falls Intake and Pumping Station on the Potomac River; the Dalecarlia and McMillan Reservoirs and Water Treatment Plants; the Dalecarlia Pumping Station; the Georgetown conduit and reservoir; the Washington City Tunnel; the East Shaft Pumping Station; several treated water transmission lines and three ground storage reservoirs.







The Authority's Department of Water Services oversees the entire water distribution system serving the District. The Authority's water distribution system includes 1,300 miles of pipes and mains ranging from 4 to 78 inches in diameter. The system includes cast iron, ductile iron, reinforced and pre-stressed concrete, and steel pipe, and contains more than 36,000 valves and hydrants. The Authority also operates and maintains five pumping stations: Bryant Street, Old Fort Reno, New Fort Reno, 16th and Alaska, and Anacostia. All five pumping stations have adequate pumping capacity to meet peak demands.

The Authority's service area below covers the District of Columbia, most of Montgomery and Prince George's counties, and parts of Fairfax and Loudoun counties.

**District of Columbia-Water and Sewer Authority (DCWASA)**



**Legend**  
**Facilities managed by & Service Areas served by DCWASA**

-  Blue Plains Wastewater Treatment Plant
-  Potomac Interceptor
-  Jurisdictional Boundaries
-  DC Water Distribution & Sewage Collection Systems
-  Blue Plains Service Area (suburban portion)
-  Blue Plains Service Area (DC portion)

Prepared for DCWASA by Department of Environmental Programs  
 Metropolitan Washington Council of Governments  
 Created on: February, 2001



## **ECONOMIC CONDITION**

Although the District of Columbia is known primarily as the nation's capital, it is an international city with a vibrant tourism industry and business climate. It is also the nucleus of the fifth largest metropolitan area in the United States. In 2001, the District's estimated resident population was 573,822, while the 2001 estimate of the metropolitan area population was 5.1 million and encompassed 24 additional jurisdictions in Maryland and Virginia. In 2002, the District had the second highest per capita personal income of all states.

The District's economic base is driven by the federal and local governments and the related diplomatic embassies and international organizations. The federal civilian workforce in the District averaged 191,900 employees in fiscal year 2003, while an additional 155,300 federal employees worked elsewhere in the metropolitan area. The District is host to 170 foreign embassies and other recognized diplomatic missions. A number of international organizations, such as the International Monetary Fund, the World Bank, the World Health Organization, and the Organization of American States are headquartered in the District. In 2002, an estimated 18.6 million people visited the Washington Metropolitan Area not only to do business with federal government and regional enterprises but also to visit the national monuments, historic sites, museums, and other major cultural attractions.

Per capita personal income in the District was \$42,120 in 2002 compared to \$30,941 in the United States. The relatively high per capita and household incomes in the District is a direct result of a combination of factors, including a high labor force participation rate, multiple earner households, small household size (average of 2.21 persons), a large percentage of college graduates and a substantial concentration of employed residents in highly-skilled occupations.

## **AWARDS**

The Government Finance Officers Association awarded a Certificate of Achievement for Excellence in Financial Reporting to the Authority for its comprehensive annual financial report for the fiscal year ended September 30, 2002 (see page 3). The Certificate of Achievement is a prestigious national award, recognizing conformance with the highest standards for preparation of financial reports. A Certificate of Achievement is valid for a period of one year only. The Authority believes its current report continues to conform to the Certificate of Achievement program requirements, and plans to submit it to GFOA. The Authority has thus far received the GFOA Award for every year of its existence.

The Authority received the GFOA's *Distinguished Budget Presentation Award* for its fiscal year 2004 Operating and Capital budgets for the second consecutive time. In order to qualify for the distinguished Budget Presentation Award, the Authority's budget document was judged to be proficient in several categories, including presentation as a policy document, financial plan, operations guide and a communication device.

## **ACKNOWLEDGEMENTS**

I acknowledge and thank all members of the Board of Directors, led by our Chairman, Glenn S. Gerstell, for providing strong financial policy direction and in depth monthly reviews of WASA's financial performance. Our continuing strong financial results and position directly flow from the Board's strong policy direction and oversight.

I acknowledge the leadership of our General Manager, Jerry N. Johnson. He provides innovative and consistent day-to-day guidance, ensuring that the Authority remains focused every day on meeting our commitments to our customers, our community and our employees.

I also acknowledge the hard work and dedication of the Authority's financial operation staff, other departments and staff, and the General Manager's staff in preparing this report. Special thanks go to Olu Adebo, Controller; Michelle Cowan, Director of Finance and Budget; Jean Wilson, Senior Financial Analyst, and Temi Abosede, Senior Accountant, for their outstanding financial leadership in fiscal year 2003 and their work in completing this report.

## **CONCLUSION**

The Authority, in its seventh year, continued its annual tradition of building on a strong financial foundation. We again met or exceeded all of our financial targets, including all Board of Directors' policies. I look forward to another similarly productive year in fiscal year 2004.

Respectfully submitted,



Paul L. Bender

Chief Financial Officer

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**Financial  
Section**

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**THOMPSON, COBB, BAZILIO & ASSOCIATES, P.C.**

*Certified Public Accountants and Management, Systems and Financial Consultants*

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**Independent Auditor's Report**

Board of Directors  
District of Columbia Water and Sewer Authority:

We have audited the accompanying statements of net assets of the District of Columbia Water and Sewer Authority (WASA) (a component unit of the District of Columbia) as of September 30, 2003 and 2002, and the related statements of revenues, expenses and changes in net assets and cash flows for the years then ended. These financial statements are the responsibility of WASA's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

The Management's Discussion and Analysis on pages thirty-five through forty-five is not a required part of the basic financial statements but is supplementary information required by the Governmental Accounting Standards Board. We have applied certain limited procedures, which consisted principally of inquiries of management regarding the methods of measurement and presentation of the supplementary information. However, we did not audit the information and express no opinion on it.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the District of Columbia Water and Sewer Authority as of September 30, 2003 and 2002, and the results of its operations and its cash flows for the years then ended in conformity with accounting principles generally accepted in the United States of America.

Washington, DC *Thompson, Cobb, Bazilio & Associates, P.C.*  
December 31, 2003

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# DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

## Management's Discussion and Analysis

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This section of the District of Columbia Water and Sewer Authority's (WASA or Authority) annual financial report presents the analysis of the Authority's financial performance during the fiscal year that ended on September 30, 2003. The Management's Discussion and Analysis (MD&A) should be read in conjunction with the Authority's basic financial statements, beginning on page 47.

### HIGHLIGHTS

#### Financial Highlights

- The Authority's net assets increased by \$49.2 million to \$804.0 million, or 6.5 percent, as a result of this year's operations (see analysis on page 4).
- Operating expenses increased by \$6.9 million to \$216.0 million, or 3.3 percent primarily due to higher contractual expenses and depreciation expense.
- Operating revenues increased by \$7.1 million to \$255.8 million, or 2.8 percent primarily due to higher wholesale wastewater charges.
- Restricted assets increased by \$34.6 million to \$83.9 million, or 70.0 percent due to receipt of a \$49.7 million congressional appropriation for combined sewer overflow projects.
- Utility plant (capital assets) increased by \$188.9 million to \$1.5 billion, or 14.2 percent due to an increase in capital expenditures.
- The Authority's long-term debt, including current maturities and commercial paper notes, increased by \$59.0 million to \$526.0 million, or 12.6 percent due to the issuance of \$176.2 million in new long-term fixed rate revenue bonds and the payoff of \$100 million of short-term outstanding commercial paper notes.

#### Authority Highlights

*Bond Ratings* – In July 2003, the Authority received upgrades to the “AA” category on its senior lien bond ratings from all three rating agencies. This puts the Authority in the second highest category available to state and local issuers. All three rating agencies cited the Authority's strong financial performance, ongoing rate increases, and improved management and Board policy direction as key factors in their upgrade. By reducing the interest rates WASA pays on its debt borrowing, customer's bills will be lower than if the Authority had not received these rating upgrades.

*Change in Rate Structure* – The Authority implemented a new rate structure in fiscal year 2003, which identifies WASA services and District of Columbia charges. The new structure is discussed in more detail on page 11.

*Long-Term Debt* – The Authority's total debt outstanding increased by \$59.0 million to \$526.0 million due primarily to the issuance of \$176.2 million of subordinate lien revenue bonds. Proceeds of this issue were used to repay \$100.0 million of outstanding commercial paper notes, with the balance used for new capital projects and cost of issuance. Interest rates on this new debt are fixed and range from 5.0 to 5.125 percent, with a final maturity of 2033. In the future, the Authority plans to use its commercial paper program for interim financing of its capital program, with permanent financings to occur every 12 to 24 months as needed.

*Combined Sewer Overflow Long-Term Control Plan (LTCP)* – The Authority presented its LTCP to the United States Environmental Protection Agency (EPA) in August 2002. This plan could require the Authority to make \$1.1 billion (in 2001 dollars) in capital improvements to reduce combined sewer overflows, in addition to \$143 million in CSO control projects already included in the Authority's 10-year capital improvement plan. In fiscal year 2003, the Authority received a \$49.7 million appropriation of matching funds from the United States Congress for initial funding of the LTCP, and there are indications that an appropriation of \$30 million will be received in fiscal year 2004. The Authority drew down about \$3 million of this funding for capital costs



## DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

### Management's Discussion and Analysis

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incurred in fiscal year 2003 related to combined sewer overflow, and the balance of the fiscal year 2003 appropriation is included in deferred revenue.

*Automated Meter Reading Project* – Installation of automated meters started in fiscal year 2002, and by the end of fiscal year 2003, approximately 107,000 of 124,000 meters had been installed. This new system relies on cellular technology to transmit water consumption information to WASA and introduces new accuracy and efficiency into our customer service activities. With the timeliness of data transfer from the automated meters, the Authority was able to move from quarterly billings to monthly billings for residential accounts in fiscal year 2003. This transition to monthly billing has positively improved cash flow by reducing customer receivable balances due to the shorter billing cycle.

*Rate Stabilization Fund* – The Authority increased its rate stabilization fund to \$21.5 million at the end of fiscal year 2003, with an allocation of \$7 million from operating cash flows. The Board's rate setting policy and the Authority's indenture allow for contributions to this account annually as cash reserves and debt service coverage permit. The balance in this account will be used in future years to smooth out peak rate increases by providing a source of cash for future operations.

### USING THIS ANNUAL REPORT

This annual report consists of three parts: Management's Discussion and Analysis; the Financial Statements; and Supplementary Information. The Financial Statements also include notes that explain in more detail some of the information in the Financial Statements.

### Required Financial Statements

The Financial Statements of the Authority report information about the Authority using accounting methods similar to those used by private sector companies. These statements offer short-term and long-term financial information about its activities. The *Statement of Net Assets* is the first required statement; it includes all of the Authority's assets and liabilities and provides information about the nature and amounts of investments in resources (assets) and nature and extent of obligations (liabilities). It also provides the basis for computing the rates of return, evaluating the capital structure of the Authority and assessing the liquidity and financial flexibility of the Authority. All of the current year's revenues and expenses are accounted for in the *Statement of Revenues, Expenses, and Changes in Net Assets*, which is the second required financial statement. This statement measures the profitability of the Authority's operations over the past year and can be used to determine whether the Authority has successfully recovered all its costs through its user fees and other charges. The final required financial statement is the *Statement of Cash Flows*. The primary purpose of this statement is to provide information about the Authority's cash receipts, cash payments, and net changes in cash resulting from operations, investing, and capital and non-capital financing activities. It also provides information regarding sources of cash, uses of cash, and the changes in the cash balance during the reporting period.

### FINANCIAL ANALYSIS OF THE AUTHORITY AS A WHOLE

The *Statement of Net Assets* and the *Statement of Revenues, Expenses and Changes in Net Assets* report information about the Authority's financial condition. The Authority's net assets, i.e., the difference between assets and liabilities, are a measure of financial health or financial position. Over time, increases or decreases in the Authority's net assets are one indicator of whether its financial health is improving or deteriorating. However, other non-financial factors such as changes in economic conditions, population growth, and new or changed legislation also need to be considered in assessing the Authority's financial condition.

# DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

## Management's Discussion and Analysis

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**Table 1**  
**Condensed Statements of Net Assets**  
**(\$ in 000's)**

	<u>FY 2003</u>	<u>FY 2002</u>
Capital Assets, net	\$ 1,515,229	\$ 1,326,290
Current and Other Assets	<u>539,932</u>	<u>482,729</u>
Total Assets	<u>2,055,161</u>	<u>1,809,019</u>
Current Liabilities	142,132	233,256
Long-Term Debt Outstanding	510,010	355,018
Long-Term Liabilities	<u>599,046</u>	<u>465,979</u>
Total Liabilities	<u>1,251,188</u>	<u>1,054,253</u>
Net Assets		
Invested in Capital Assets, Net of Debt	588,294	534,819
Restricted	27,394	41,596
Unrestricted	<u>188,285</u>	<u>178,351</u>
Total Net Assets	<u>\$ 803,973</u>	<u>\$ 754,766</u>

### Analysis of Net Assets

The Authority's net assets exceeded liabilities by \$804.0 million at the close of fiscal year 2003. The Authority's net assets include investment of \$588.3 million in capital assets (e.g., infrastructure, building improvements, equipment and fleet), less any related outstanding debt used to acquire those assets. The Authority uses these capital assets to provide services to its customers. Although the Authority's investment in its capital assets is reported net of related debt, it should be noted that the resources needed to repay this debt must be provided from other sources, since the capital assets themselves cannot be liquidated for these liabilities. An additional portion of the Authority's net assets, \$27.4 million, represents resources that are subject to external restrictions (primarily related to the Authority's bond indenture) on how they may be used. The remaining balance of \$188.3 million is unrestricted.

# DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

## Management's Discussion and Analysis

**Table 2**  
**Condensed Statements of Revenues,**  
**Expenses, and Changes in Net Assets**  
**(\$ in 000's)**

	FY 2003	FY 2002
Operating revenues:		
Residential, commercial and multi-family customers	\$ 147,870	\$ 148,134
Federal government	26,884	28,501
District government and DC Housing Authority	16,072	16,496
Charges for wholesale wastewater treatment	61,682	53,211
Other	3,287	2,387
Total operating revenues	<u>255,795</u>	<u>248,729</u>
Operating expenses:		
Personnel services	64,091	62,162
Contractual services	63,065	59,166
Chemicals, supplies and small equipment	14,768	13,683
Utilities and rent	20,804	20,071
Depreciation and amortization	39,524	37,099
Water purchases	13,723	16,904
Total operating expenses	<u>215,975</u>	<u>209,085</u>
Operating income	39,820	39,644
Nonoperating revenue (expense):		
Interest income	3,090	6,806
Interest expense and fiscal charges	(17,816)	(16,339)
Other	-	19
Federal grants contributions	39,626	18,848
Payment in lieu of taxes and right of way fee	(15,513)	(15,247)
Total nonoperating revenue (expense)	<u>9,387</u>	<u>(5,913)</u>
Changes in net assets	49,207	33,731
Total net assets, beginning of year	754,766	721,035
Total net assets, end of year	<u>\$ 803,973</u>	<u>\$ 754,766</u>

### Analysis of Changes in Net Assets

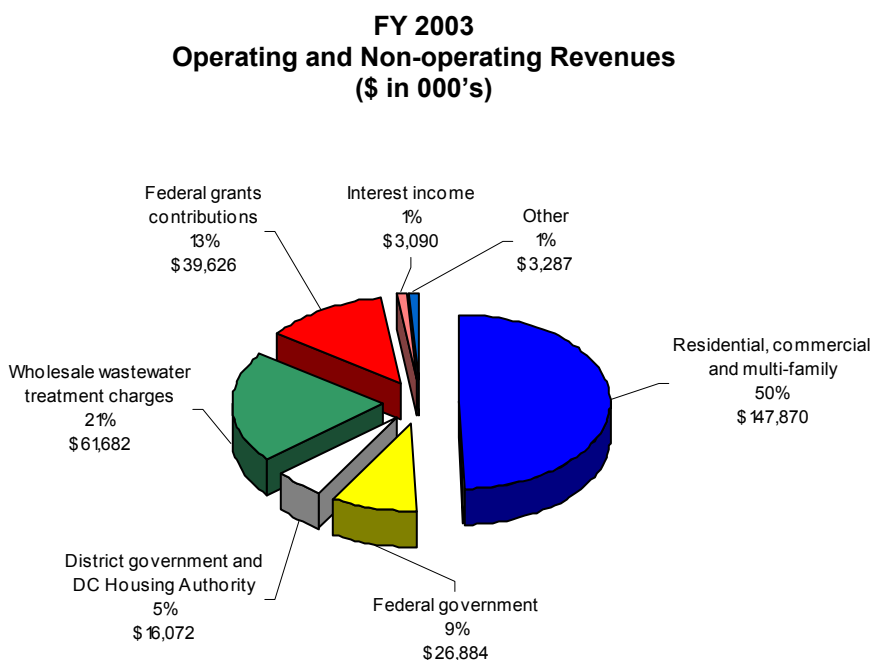
The Authority's financial performance remained strong in fiscal year 2003, with net assets of \$804.0 million, an increase of \$49.2 million over fiscal year 2002, including Federal grant contributions. Excluding Federal grant contributions, which can vary significantly from year to year based on capital spending and other factors, operating income, was \$39.8 million, in line with fiscal year 2002.

# DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

## Management's Discussion and Analysis

### Operating and Non-operating Revenues

Total operating and non-operating revenues were \$298.5 million in fiscal year 2003, an increase of \$24.1 million, or 8.7 percent over fiscal year 2002. This increase was primarily due to an \$8.5 million increase in wholesale wastewater treatment revenues and an increase in Federal grant contributions in the amount of \$20.8 million. These increases were offset by decreases of \$3.7 million in interest income and \$1.6 million in revenues from Federal customers.



A detailed analysis of operating and non-operating revenue variance follows:

- Water and wastewater user charges from residential, commercial and multi-family customers remained steady in fiscal year 2003 at \$147.9 million.
- Water and wastewater user charges from Federal government customers were \$26.9 million in fiscal year 2003, a decrease of \$1.6 million, or 5.7 percent over fiscal year 2002, primarily due to lower consumption.
- Water and wastewater user charges from the District government and District of Columbia Housing Authority were \$16.0 million in fiscal year 2003, a decrease of \$0.42 million, or 2.6 percent over fiscal year 2002, primarily due to lower consumption.
- Wholesale wastewater treatment charges were \$61.7 million in fiscal year 2003, an increase of \$8.5 million, or 16.0 percent over fiscal year 2002, primarily due to higher capital reimbursable costs of the wastewater treatment plant. Per the IMA (see Note 1), wholesale partners pay a share of these costs based on their purchased capacity in the plant. These payments are then amortized into income over depreciable life of assets (i.e., 60 years).

# DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

## Management's Discussion and Analysis

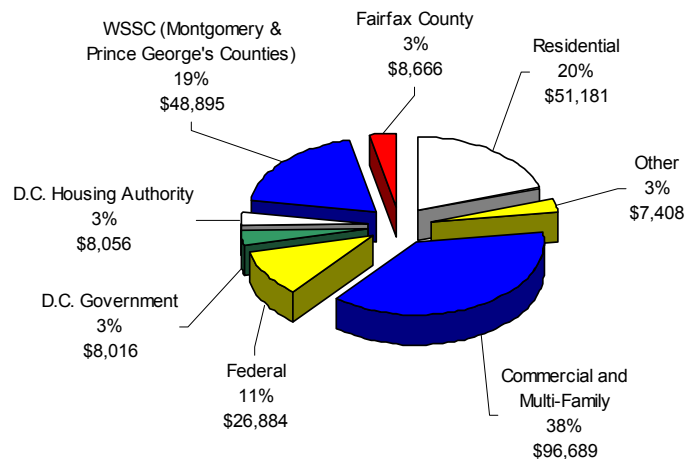
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- Interest income, a non-operating revenue item was \$3.0 million in fiscal year 2003, a decrease of \$3.7 million, or 54.6 percent over fiscal year 2002, as a result of lower interest rates and the impact of a one time interest income accrual in fiscal year 2002 for amounts due from WSSC (see Note 8b on page 62).
- Federal grant contributions were \$39.6 million in fiscal year 2003, an increase of \$20.8 million, or 110.2 percent over fiscal year 2002, due to significantly increased capital expenditures in fiscal year 2003 compared to prior year.

### *Diversity and Stability of Operating Revenues*

The Authority's operating revenue base is very diverse, including established customers such as the Federal government, the District government, surrounding jurisdictions in Maryland and Virginia and commercial and residential customers within the District. No one category accounts for more than 38 percent of total revenue.

**FY 2003  
Operating Revenue By Source  
(\$ in 000's)**



A description of each revenue source as well as a discussion of recent trends in each category follows:

- Revenues from commercial and multi-family customers in the District comprise approximately 38 percent of the Authority's total operating revenues. Commercial revenues are especially strong due to the presence of many national associations, government-consulting firms, and colleges and universities in the District. The commercial customer category also includes multi-family dwellings.
- The Authority provides wastewater conveyance and treatment services to Montgomery and Prince George's Counties in Maryland through the Washington Suburban Sanitary Commission (WSSC) and Fairfax and Loudoun Counties in Northern Virginia. Operating revenues from these users account for 22 percent of the Authority's revenues and are based on their share of operating costs at Blue Plains.

# DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

## Management's Discussion and Analysis

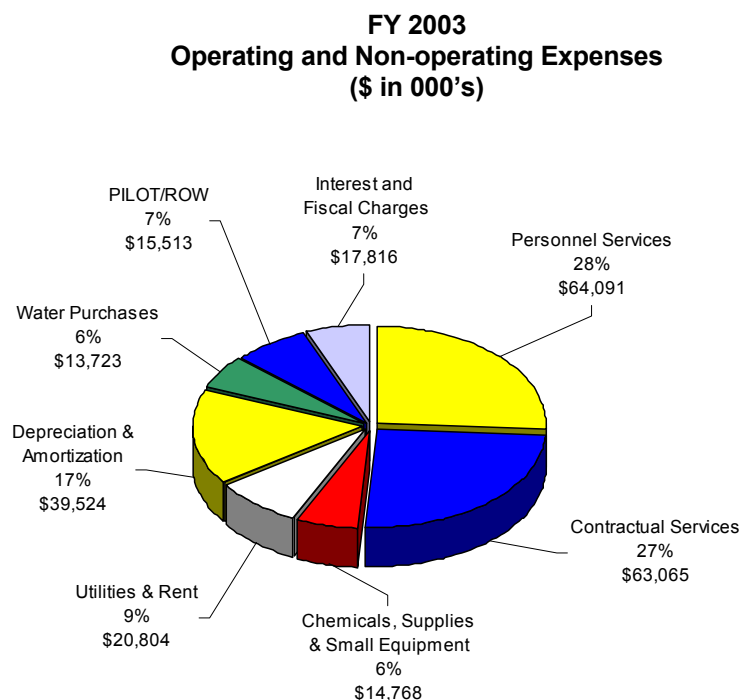
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Operating costs are allocated to each user based on their sewer flows and purchased capacity at Blue Plains.

- Residential customers in the District account for 20 percent of total revenues.
- Payments from the Federal government comprise 11 percent of the Authority's total operating revenues and include customers such as the U.S. Congress, the Smithsonian Institution, and other federal agencies.
- Revenue from the District of Columbia government and the District of Columbia Housing Authority makes up six percent of total operating revenue.

### Expenses

Operating expenses increased by \$6.9 million, or 3.3 percent in fiscal year 2003, primarily due to a \$3.9 million increase in contractual services, a \$1.9 million increase in personnel services and a \$2.5 million increase in depreciation expense. These increases were offset by a \$3.2 million decrease in water purchases expense. Non-operating expenses and transfers-out were steady between both years.



A detailed analysis of the operating expenses follows:

- Personnel service expenses were \$64.1 million in fiscal year 2003, an increase of \$1.9 million, or 3.1 percent over fiscal year 2002, in line with the 3.0 percent average wage increases, offset slightly by higher vacancy rates.

## DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

### Management's Discussion and Analysis

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- Contractual service expenses were \$63.1 million in fiscal year 2003, an increase of \$3.9 million, or 6.6 percent over fiscal year 2002, primarily due to higher risk and legal claims accruals (see Note 12 on page 68) and higher paving costs.
- Chemicals, supplies, and small equipment expenses were \$14.8 million in fiscal year 2003, an increase of \$1.1 million, or 7.9 percent over fiscal year 2002, primarily due to increases in consumable inventory usage and chemical prices.
- Depreciation and amortization expenses were \$39.5 million in fiscal year 2003, an increase of \$2.4 million, or 6.5 percent over fiscal year 2002, in line with the increase in capital assets.
- Water purchases expenses were \$13.7 million in fiscal year 2003, a decrease of \$3.2 million, or 18.8 percent over fiscal year 2002, due to decreases in both water rates and volume of water purchased.

### CAPITAL ASSETS AND DEBT ADMINISTRATION

#### Capital Assets

At the end of fiscal year 2003, the authority had \$1.5 billion invested in a broad range of capital assets, including its wastewater collection, wastewater treatment and water distribution systems. This amount represents a net increase of nearly \$188.9 million, or 14.2 percent over last year due to a record level of capital spending.

Table 3 summarizes the Authority's capital assets, net of accumulated depreciation at September 30, 2003 and 2002. The changes are presented in detail in Note 4 to the financial statements.

**Table 3**  
**Capital Assets**  
**Net of Accumulated Depreciation**  
**(\$ in 000's)**

	<u>FY 2003</u>	<u>FY 2002</u>
Blue Plains Regional Wastewater Treatment Plant	\$ 1,020,772	\$ 1,020,109
Wastewater Collection Facilities	325,591	321,685
Water Distribution System	317,736	304,026
Capital Equipment	85,545	76,743
Construction in Progress	368,440	171,365
Less Accumulated Depreciation	(602,855)	(567,638)
Net Capital Assets	<u>\$ 1,515,229</u>	<u>\$ 1,326,290</u>

# DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

## Management's Discussion and Analysis

### Debt Administration

At the end of fiscal year 2003, the Authority had a total of \$526.4 million in debt outstanding, an increase of \$59.0 million, or 12.6 percent, over fiscal year 2002 (see Note 10 on page 63) for more information on long-term debt).

### Long-Term Debt Outstanding As Of September 30, 2003 (\$ in 000's)

<b>SENIOR DEBT</b>	<b>INTEREST RATES</b>	<b>FINAL MATURITY</b>	<b>AMOUNT OUTSTANDING</b>
Notes payable to the federal government for Washington Aqueduct	Variable	2018	\$ 1,173
1998 public utility revenue bonds	5.50 - 6.00	2028	266,120
<b>SUBTOTAL SENIOR DEBT</b>			<u>267,293</u>
<b>SUBORDINATE DEBT</b>			
2003 public utility revenue bonds	5.00 - 5.125	2033	176,220
Notes payable to the federal government for Jennings Randolph Reservoir	3.25	2041	16,895
Notes payable to WSSC for Little Seneca Reservoir	5.98 - 6.60	2014	360
1991 District of Columbia general obligation bonds	6.30 - 6.75	2008	400
1993 District of Columbia general obligation bonds	4.90 - 6.00	2012	47,731
1994 District of Columbia general obligation bonds	4.55 - 6.50	2011	10,910
2001 District of Columbia general obligation bonds	6.02	2008	6,604
<b>TOTAL SUBORDINATE DEBT</b>			<u>259,120</u>
<b>TOTAL DEBT OUTSTANDING</b>			526,413
<b>CURRENT PORTION OF DEBT OUTSTANDING</b>			<u>15,892</u>
<b>DEBT OUTSTANDING, LESS CURRENT PORTION</b>			<u>\$ 510,521</u>

Long-term debt outstanding as presented on the accompanying statements of net assets includes net unamortized bond premiums, discounts and issuance costs of (\$511) on September 30, 2003.

In August 2003, the Authority issued subordinated lien public utility revenue bonds (Series 2003 Bonds). Gross proceeds from the Series 2003 Bonds totaled \$176.2 million, including \$3.4 million of original issue discount and \$2.8 million for cost of issuance. Approximately \$70.0 million was used to fund various capital projects; \$100.0 million was used to repay outstanding commercial paper. The scheduled payment of principal and interest on the Series 2003 bonds are guaranteed by a municipal bond insurance policy issued by Financial Guaranty Insurance Company (FGIC). The Authority expects to issue additional public utility revenue bonds in fiscal year 2004.

In November 2001, the Authority closed on its \$100 million commercial paper program. This program provides interim financing for a portion of the Authority's \$1.76 billion Capital Improvement Program. Other financing sources include long-term revenue bonds, EPA grants, wholesale customer contributions, and pay-as-you-go financing. Under the commercial paper program, the Authority issues fixed-rate, short-term (no greater than 270 days) notes. WASA's commercial paper program is backed by a direct pay letter of credit issued by Westdeutsche Landesbank Giroznetrale (West LB). The notes are rated based on West LB's rating; in effect



# DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

## Management's Discussion and Analysis

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the letter of credit of the bank substitutes the Authority's security with the paying ability of the bank, enhancing the appeal and marketability of the notes.

**Table 4**  
**WASA Commercial Paper Ratings**

Moody's Investors' Service	P1	superior ability to repay
Standard & Poor's Corporation	A1+	extremely strong capacity to repay
Fitch Ratings	F1+	extremely strong capacity to repay

In April 1998, the Authority issued its first series of senior lien revenue bonds in the amount of \$266 million. Gross proceeds from the Series 1998 bonds totaled \$285.2 million, including \$18.8 million of original issue premium. Approximately \$77.2 million was used to fund new capital projects; \$181.0 million was used to repay the outstanding balances of a revolving line of credit, certain notes payable to the Federal government, and to advance refund the Authority's share of certain District of Columbia general obligation bonds.

Current WASA debt outstanding includes notes payable to the Federal government for the Washington Aqueduct and Jennings Randolph Reservoir, notes payable to the Washington Suburban Sanitary Commission for the Little Seneca Lake; and District of Columbia General Obligation bonds, in addition to outstanding revenue bonds and commercial paper.

**Table 5**  
**WASA Bond Ratings**

Moody's Investors' Service	Aa3	Stable Outlook
Standard & Poor's Corporation	AA-	Stable Outlook
Fitch Ratings	AA-	Stable Outlook

## RATES

The Board of Directors approved a revised rate and fee structure for fiscal year 2003, which included splitting the bill into two sections:

**WASA services section**, which includes a new metering fee to recover costs associated with installing, operating, and maintaining meters and an accompanying reduction of approximately 5.3 percent in our base water and sewer rates; and

**District of Columbia Government section**, which includes a pass through of the District of Columbia's right of way fee/ payment in lieu of taxes as a separate line item on WASA's bill and the previously approved District storm water rate.

Starting on October 1, 2003 for fiscal year 2004, the Authority raised its retail water and wastewater rates by 2.5 percent and is considering rate increases ranging from five percent to six percent thereafter.

## **DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY**

### **Management's Discussion and Analysis**

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#### **CONTACTING THE AUTHORITY'S FINANCIAL MANAGEMENT**

This financial report is designed to provide our customers and creditors with a general overview of the Authority's finances and to demonstrate the Authority's accountability for the money it receives. If you have questions about this report or need additional financial information, contact the Office of the Chief Financial Officer at 5000 Overlook Avenue, S.W. Washington D.C. 20032. A copy of this report is also available on WASA' web site at [www.dcwasa.com](http://www.dcwasa.com) or call 202-787-2000.

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**DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY**

Statements of Net Assets

September 30, 2003 and 2002

(In thousands)

<b>Assets</b>	<b>2003</b>	<b>2002</b>
<b>Current assets:</b>		
Cash and cash equivalents (note 3)	\$ 131,078	\$ 132,391
Investments (note 3)	14,978	4,900
Customer receivables, net of allowance for doubtful accounts of \$6,961 in 2003 and \$6,671 in 2002 (note 7)	41,406	52,356
Due from Federal government (note 6)	41,454	33,932
Due from District government (note 13)	17,740	17,627
Due from other jurisdictions (note 8)	33,706	22,576
Inventory	6,913	7,758
Prepaid	150	5
<b>Total current assets</b>	<b>287,425</b>	<b>271,545</b>
<b>Noncurrent assets:</b>		
Restricted cash assets (notes 3 and 10):		
Combined Sewer Overflow (CSO) federal appropriation	46,825	—
Revenue bond debt service reserve fund	23,565	23,726
Revenue bond fund - interest account	8,656	7,454
Revenue bond construction fund	4,842	—
Commercial paper proceeds	20	18,115
<b>Total restricted cash assets</b>	<b>83,908</b>	<b>49,295</b>
Utility plant (note 4):		
In-service	1,749,644	1,722,563
Less accumulated depreciation	(602,855)	(567,638)
<b>Net utility plant in service</b>	<b>1,146,789</b>	<b>1,154,925</b>
Construction in progress	368,440	171,365
<b>Net utility plant</b>	<b>1,515,229</b>	<b>1,326,290</b>
Other noncurrent assets:		
Due from other jurisdictions (note 8)	32,887	30,206
Purchased capacity (less accumulated amortization of \$31,760 in 2003 and \$28,964 in 2002) (note 5)	135,712	131,683
<b>Total other noncurrent assets</b>	<b>168,599</b>	<b>161,889</b>
<b>Total noncurrent assets</b>	<b>1,767,736</b>	<b>1,537,474</b>
<b>Total Assets</b>	<b>2,055,161</b>	<b>1,809,019</b>
<b>Liabilities</b>		
<b>Current liabilities:</b>		
Accounts payable and accrued expenses	78,069	67,086
Compensation payable (note 9)	7,941	7,844
Accrued interest	9,885	9,076
Due to stormwater fund (note 13)	154	149
Due to jurisdictions	10,176	5,969
Deferred revenue	20,015	31,304
Commercial paper note payable (note 11)	—	90,000
Current maturities of long-term debt (note 10)	15,892	21,828
<b>Total current liabilities</b>	<b>142,132</b>	<b>233,256</b>
<b>Noncurrent liabilities:</b>		
Deferred revenue	536,746	454,931
Deferred revenue-CSO	46,629	—
Other liabilities (note 12)	15,671	11,048
Long-term debt excluding current maturities (note 10)	510,010	355,018
<b>Total noncurrent liabilities</b>	<b>1,109,056</b>	<b>820,997</b>
<b>Total liabilities</b>	<b>1,251,188</b>	<b>1,054,253</b>
<b>Net Assets</b>		
Invested in capital assets, net of related debt	588,294	534,819
Restricted for:		
Debt service	22,356	23,481
Capital projects	5,038	18,115
Unrestricted	188,285	178,351
<b>Total net assets</b>	<b>\$ 803,973</b>	<b>\$ 754,766</b>

See accompanying notes to financial statements.

**DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY**

## Statements of Revenues, Expenses and Changes in Net Assets

Years ended September 30, 2003 and 2002

(In thousands)

	2003	2002
Operating revenue:		
Water and wastewater user charges:		
Residential, commercial and multi-family customer:	\$ 147,870	\$ 148,134
Federal government	26,884	28,501
District government and DC Housing Authority (note 13)	16,072	16,496
Charges for wholesale wastewater treatment	61,682	53,211
Other	3,287	2,387
Total operating revenue	255,795	248,729
Operating expenses:		
Personnel services	64,091	62,162
Contractual services	63,065	59,166
Chemicals, supplies and small equipment	14,768	13,683
Utilities and rent	20,804	20,071
Depreciation and amortization	39,524	37,099
Water purchases	13,723	16,904
Total operating expenses	215,975	209,085
Operating income	39,820	39,644
Nonoperating revenue (expense):		
Interest income	3,090	6,806
Other	—	19
Interest and fiscal charges	(17,816)	(16,339)
Total nonoperating revenue (expenses)	(14,726)	(9,514)
Income before contributions and transfers	25,094	30,130
Federal grants contributions	39,626	18,848
Payment in lieu of taxes and right of way fee (note 13)	(15,513)	(15,247)
Change in net assets	49,207	33,731
Total net assets, beginning of year	754,766	721,035
Total net assets, ending of year	\$ 803,973	\$ 754,766

See accompanying notes to financial statements

**DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY**

Statements of Cash Flows

Years ended September 30, 2003 and 2002

(In thousands)

	2003	2002
Cash flows from operating activities:		
Cash received from customers	\$ 253,855	\$ 250,347
Cash paid to suppliers for goods and services	(105,964)	(101,930)
Cash paid to employees for services	(63,994)	(73,961)
<b>Net cash provided by operating activities</b>	<b>83,897</b>	<b>74,456</b>
Cash flows from capital and related financing activities:		
Proceeds from notes payable to Federal government	1,165	7,836
Proceeds from issuance of commercial paper	10,000	90,000
Repayments of commercial paper	(100,000)	—
Proceeds from revenue bonds	170,000	—
Proceeds from other jurisdictions	73,736	37,648
Repayments of bond principal and notes payable to federal and district government	(22,856)	(29,033)
Acquisition of utility plant and purchased capacity	(205,469)	(140,361)
Payments of interest and fiscal charges	(21,211)	(21,504)
Contributions of capital from Federal government	76,930	15,957
<b>Net cash used in capital and related financing activities</b>	<b>(17,705)</b>	<b>(39,457)</b>
Cash flows from non-capital financing activities -		
Transfers-Out (payment in lieu of taxes and Right of way fee)	(25,971)	(9,629)
<b>Net cash used by non-capital financing activities</b>	<b>(25,971)</b>	<b>(9,629)</b>
Cash flows from investing activities:		
Cash received for interest	3,157	4,276
Investment purchases	(29,947)	(19,976)
Investment maturities	19,869	68,277
<b>Net cash provided by investing activities</b>	<b>(6,921)</b>	<b>52,577</b>
<b>Net increase (decrease) in cash and cash equivalents</b>	<b>33,300</b>	<b>77,947</b>
<b>Cash and cash equivalents (including restricted) at beginning of year</b>	<b>181,686</b>	<b>103,739</b>
<b>Cash and cash equivalents (including restricted) at end of year</b>	<b>\$ 214,986</b>	<b>\$ 181,686</b>
Operating income	\$ 39,823	\$ 39,644
Adjustments to reconcile operating income to net cash provided by operating activities:		
Depreciation and amortization	39,524	37,099
Change in operating assets and liabilities:		
Decrease in customer and other receivables	12,709	1,885
Decrease in inventory	700	1,120
Decrease in payables and accrued liabilities	10,000	(3,261)
Decrease in deferred revenue	(18,859)	(2,031)
<b>Net cash provided by operating activities</b>	<b>\$ 83,897</b>	<b>\$ 74,456</b>

See accompanying notes to financial statements.

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# DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

## Notes to the Financial Statements

September 30, 2003 and 2002

(In thousands)

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### (1) Reporting Entity

The District of Columbia Water and Sewer Enterprise Fund (the Fund) was established in 1979 and was operated by the Water and Sewer Utility Administration, a division of the District of Columbia (the District) Department of Public Works. The District of Columbia Water and Sewer Authority (WASA or Authority), an independent authority of the District, was created in April 1996 and began operating October 1, 1996 under and pursuant to an act of the Council of the District entitled the "Water and Sewer Authority and Department of Public Works Reorganization Act of 1996 (as amended)", and an act of the United States Congress entitled the "District of Columbia Water and Sewer Authority Act of 1996."

WASA provides water and wastewater services to District residents, businesses, federal and municipal customers, and certain facilities of the Federal government in Virginia and Maryland. WASA also operates a regional advanced wastewater treatment plant (Blue Plains) and an interceptor trunk line that carries wastewater primarily from Loudoun and Fairfax Counties and Dulles Airport to the Blue Plains wastewater treatment facility.

WASA's wastewater service territory includes over 2 million people in Montgomery and Prince George's Counties in Maryland, Fairfax and Loudoun Counties in Virginia, and the District. The Blue Plains Intermunicipal Agreement (IMA) was executed in September 1985 among the District; Fairfax County, Virginia; and the Washington Suburban Sanitary Commission (WSSC), which comprises Montgomery and Prince George's Counties in Maryland (collectively referred to as the Participants). The IMA provided for the expansion of the Plant's processing capacity to 370 million gallons per day. The IMA also provided for the allocation of capital, operating, and maintenance costs among the Participants. Capital costs of the Plant are allocated among the Participants in proportion to their respective wastewater treatment capacity allocation as defined in the IMA. Operating costs are allocated based on wastewater flows from each participant.

The Loudoun County Sanitation Authority and the Potomac Interceptor Group also purchase wastewater services from WASA. The Potomac Interceptor Group consists of the Town of Vienna, Virginia; the U.S. Park Service; the Department of the Navy; and the Metropolitan Washington Airport Authority (Dulles Airport).

WASA purchases water from the Washington Aqueduct (Aqueduct), which is owned by the U.S. Government and operated by the U.S. Army Corps of Engineers under the direction of the Secretary of the Army. The Aqueduct operates two water purification plants for the exclusive benefit of WASA, Arlington County, Virginia and the City of Falls Church, Virginia. WASA purchases approximately 76 percent of the water produced by the Aqueduct, which is reported as water purchases.

WASA is considered a component unit of the District for financial reporting purposes because WASA is responsible for the payment of certain District long-term debt issued before WASA's creation. This debt was used to finance capital improvements for WASA's predecessor agency.



# DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

## Notes to the Financial Statements

September 30, 2003 and 2002

(In thousands)

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### (2) Summary of Significant Accounting Policies

The financial statements of WASA have been prepared in conformity with accounting principles generally accepted in the United States of America (GAAP) as applied to governmental units. The Governmental Accounting Standards Board (GASB) is the accepted primary standard-setting body for establishing governmental accounting and financial reporting principles. WASA's significant accounting policies are described below.

#### (a) *Measurement Focus And Basis of Accounting*

The term measurement focus is used to denote what is being measured and reported in the Authority's operating statements. The Authority is accounted for on the flow of "economic resources" measurement focus. The accounting objectives of this measurement focus are the determination of operating income, changes in net assets (or cost recovery), financial position and cash flows. All assets and liabilities (whether current or noncurrent) associated with their activities are reported and equity is reported as net assets.

The term basis of accounting is used to determine when a transaction or event is recognized on the Authority's financial statements. The Authority uses the full accrual basis of accounting, with revenues recorded when earned and expenses recorded when incurred, even though actual payment or receipt may not occur until after the period ends.

WASA has elected, as allowed in paragraph 7 of Governmental Accounting Standards Board (GASB) *Statement No. 20, Accounting and Financial Reporting for Proprietary Funds and Other Governmental Entities that use Proprietary Fund Accounting*, not to follow Financial Accounting Standards Board (FASB) pronouncements issued subsequent to November 30, 1989. Therefore, WASA follows all GASB pronouncements; and FASB pronouncements issued on or before November 30, 1989, unless those pronouncements conflict or contradict GASB pronouncements.

As allowed by GASB 20, WASA accounts for its regulatory assets and liabilities in accordance with the *Statement of Financial Accounting Standards Board Statement No. 71, Accounting for the Effects of Certain Types of Regulation (SFAS 71)*. In general, SFAS 71 covers the type of regulation that permits rates to be set at levels intended to recover the estimated costs of providing regulated services, including the cost of capital. There are times in which the revenues intended to cover certain costs are provided either before or after the costs have been incurred. If the costs will be recovered in the future, a regulatory asset is capitalized and reduced as the related revenues are provided. If the current recovery is for costs that will be incurred in future periods, regulatory liabilities are accrued and reduced as those costs are incurred. As of September 30, 2003 and 2002, no regulatory assets or liabilities were required to be reported in accordance with SFAS 71.

# DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

## Notes to the Financial Statements

September 30, 2003 and 2002

(In thousands)

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### (2) Summary of Significant Accounting Policies (Continued)

For the fiscal year ended September 30, 2002, WASA adopted the provisions of GASB Statement No. 34 "*Basic Financial Statements – and Management’s Discussion and Analysis – for State and Local Governments.*" Statement 34 established standards for external financial reporting for all states and local governmental entities, which includes a statement of net assets, a statement of activities and changes in net assets and a statement of cash flows.

It requires the classification of net assets into three components as described below:

- *Invested in capital assets, net of related debt* – This component of net assets consists of capital assets, including restricted capital assets, net of accumulated depreciation and reduced by the outstanding balances of any bonds or other borrowings that are attributable to the acquisition, construction, or improvement of those assets.
- *Restricted* – This component of net assets consists of restrictions placed on net assets as a result of external constraints imposed by creditors (such as through debt covenants), grantors, contributors, or laws or regulations of other governments or constraints imposed by law through constitutional provisions or enabling legislation.
- *Unrestricted net assets* – This component of net assets consist of net assets that do not meet the definition of "restricted" or "invested in capital assets, net of related debt."

For the fiscal year ended September 30, 2003, WASA adopted the provisions of GASB Statement No. 40, "*Deposit and Investment Risk Disclosures*" to amend GASB Statement No. 3. This new GASB updates the custodial credit risk disclosure requirements of Statement 3 and establishes a more comprehensive disclosure requirement. It also addresses other common risks of the deposits and investments of state and local governments. Statement 40 eliminates Category 1 and 2 custodial credit risk and disclosures are now limited to:

- Deposits that are not covered by depository insurance and are (a) uncollateralized, (b) collateralized with securities held by the pledging financial institution, or (c) collateralized with securities held by the pledging financial institution's trust department or agent but not in the depositor-government's name.
- Investment securities that are uninsured, are not registered in the name of the government, and are held by either (a) the counterparty or (b) the counterparty's trust department or agent but not in the government's name.

# DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

## Notes to the Financial Statements

September 30, 2003 and 2002

(In thousands)

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### (2) Summary of Significant Accounting Policies (Continued)

#### (b) *Revenues and Expenses*

Revenues and expenses are distinguished between operating and nonoperating items.

Operating revenues generally result from providing services in connection with the Authority's principal ongoing operations. The principal operating revenues of the Authority are water and wastewater user charges, and charges for wholesale wastewater treatment. Revenue from user charges and sales of services is recognized as the related service is provided. Refunds to customers are charged to income in the period in which those refunds are paid.

Operating expenses include the costs associated with the conveyance of water and wastewater, treatment of wastewater, administrative expenses, and depreciation of capital assets.

All revenues and expenses not meeting these definitions are reported as nonoperating revenues and expenses.

#### *Water and Wastewater User Charges*

Retail water and wastewater rates are approved by the WASA Board of Directors. Charges to the District and the Federal government are the same as those charged to retail customers. Charges for services provided but unbilled at the end of the year are recorded as revenue on an estimated basis, which considers historical usage patterns and current rates. Allowances for customer receivables that ultimately may be uncollectible are estimated and charged to expense.

#### *Charges for Wholesale Wastewater Treatment and Deferred Revenue*

The cost of operating and maintaining the Plant and related collection facilities applicable to non-District users is billed to participating jurisdictions based upon their share of flows into the Plant. The charges for operating and maintenance costs, and for overhead costs incurred on capital projects are recorded as charges for wholesale wastewater treatment revenue in the year the costs are incurred.

The costs of capital projects required for the facilities are allocated to the participating jurisdictions based on their applicable capacity allocation in the Plant. The reimbursements for capital related costs are recorded as deferred revenue and are amortized into charges for wholesale wastewater treatment over the estimated useful lives of the related assets.

#### (c) *Cash and Cash Equivalents*

WASA maintains its own cash accounts for the collection of all revenue and payment of all expenses. WASA invests all unrestricted cash balances, in excess of the required compensating balances, in interest-bearing accounts. The Authority's cash equivalents consist of unrestricted and restricted investments such as certificates of deposits, overnight repurchase agreements, and agency discount notes, which have an original maturity of 90 days or less, and are readily convertible to known amounts of cash.

# DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

## Notes to the Financial Statements

September 30, 2003 and 2002

(In thousands)

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### (2) Summary of Significant Accounting Policies (Continued)

For purposes of the accompanying statements of cash flows, cash and cash equivalents also include WASA's restricted cash.

#### (d) *Investments*

The Authority's investments consist of unrestricted and restricted investments such as commercial paper, overnight repurchase agreements, and agency discount notes, which have an original maturity in excess of 90 days. Investments are recorded at amortized cost, and certain non-participating contracts are recorded at cost. Recorded amounts approximate fair value.

#### (e) *Restricted Assets*

Restricted assets consist of an appropriation from the Federal government for combined sewer overflow projects, invested unexpended commercial paper and revenue bond proceeds, debt service reserves and funds for the current payment of revenue bond debt service. These investments, which cannot be used for routine operations, are classified as restricted assets since their use is limited by applicable bond covenants, grantors and other legal indentures.

#### (f) *Utility Plant*

Utility plant is stated at original construction cost, which includes personnel services and interest costs incurred during construction. Normal recurring maintenance and repair costs are charged to operations, whereas major repairs, improvements and replacements, which materially extend the useful lives of the assets, are capitalized. Construction in progress is reclassified to in-service upon substantial completion or when placed in service, with related depreciation commencing at that time. Capitalization thresholds are: \$500 for buildings, improvements and infrastructure; and \$5 for equipment. The cost of normal maintenance and repairs that do not add to the value of the asset or materially extend asset lives are not capitalized.

Utility plant is depreciated using the straight-line method over the following estimated useful lives:

<u>Asset Class</u>	<u>Estimated Useful Lives</u>
Infrastructure and storm drains	60 years
Heavy and hydraulic equipment	20 years
Building improvements	20 years
Equipment	5-10 years
Fleet	5-10 years

# DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

## Notes to the Financial Statements

September 30, 2003 and 2002

(In thousands)

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### (2) Summary of Significant Accounting Policies (Continued)

#### (g) *Purchased Capacity*

Historically, the District issued long-term debt to finance most of the Aqueduct's capital facilities and WASA recorded this debt and related capital costs in its financial statements. On April 1, 1997, WASA and the other Northern Virginia customers entered into an agreement with the Federal government, which provides for the funding of a significant portion of the Aqueduct's capital improvement program directly by the Federal government through borrowing, with the remaining amounts to be funded directly by each customer. WASA is responsible for funding only its portion of this debt, other related capital projects, and operating costs calculated as its pro rata share of water purchased.

WASA's payments for capital costs are recorded as purchased capacity. The Aqueduct's capital costs allocable to other jurisdictions, but funded by WASA prior to April 1, 1997, are reported as due from other jurisdictions.

Additionally, WASA's participation in the Little Seneca Lake and Jennings Randolph Reservoir (Bloomington Dam) projects is included in purchased capacity. The two projects provide backup and peak-day water supply for WASA and the other two Aqueduct customers as well as other area jurisdictions. The Jennings Randolph Reservoir was constructed by the Federal government and is operated by the U.S. Army Corps of Engineers, Baltimore District. WASA funds 30 percent of all operating and capital costs. The Little Seneca Lake was constructed and is operated by the Washington Suburban Sanitary Commission (WSSC). WASA funds 40 percent of all capital and operating costs. Purchased capacity is generally amortized over the estimated useful lives of the facilities of 60 years.

#### (h) *Inventory*

Inventory is recorded at the lower of weighted average cost or market value and consists primarily of operating and maintenance materials.

#### (i) *Debt Financing Costs*

Bond discount, premium and costs incurred to issue debt are capitalized and amortized into interest expense over the related bond issue period using the effective interest method.

#### (j) *Reclassifications*

Certain prior year amounts have been reclassified to conform to the current year presentation.

# DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

## Notes to the Financial Statements

September 30, 2003 and 2002

(In thousands)

### (2) Summary of Significant Accounting Policies (Continued)

#### (k) *Vacation and Sick Leave*

Employees earn vacation and sick leave based on a prescribed formula, which allows employees to accumulate an unlimited amount of sick pay and vacation pay up to a maximum as shown in the table below. The amount of vacation leave earned but unused by employees vests and is accrued as a liability. Sick pay does not vest and accordingly, it is recorded when used.

Employee's Length of Service	Union Employees	Non-union Employees
1 - 3 years	240 hours	240 hours
4 - 14 years	240 hours	320 hours
Over 15 years	240 hours	360 hours

### (3) Cash Deposits and Investments

#### (a) *Cash Deposits*

At September 30, 2003 and 2002, the carrying amounts of WASA's unrestricted bank deposits and cash on hand (petty cash) were \$6,583 and \$20,130 respectively. These bank deposits are entirely insured or collateralized with securities held by WASA's agent in its name.

#### (a) *Investments*

As of September 30, 2003 and 2002 WASA had the following investments:

Type of Investments	2003	Weighted Average Maturity (Years)	2002	Weighted Average Maturity (Years)
Repurchase agreements	\$ 39,096	0.003	\$ 32,361	0.003
Agency discount notes	54,938	0.880	59,894	0.110
Commercial paper	-	-	4,900	2.789
Mutual funds	129,347	0.083	69,301	0.083
Total Investments	\$ 223,381		\$ 166,456	
Portfolio weighted average maturity		0.265		0.157

WASA's investments are categorized in accordance with GASB Statement No. 40, "*Deposit and Investment Risk Disclosures*." GASB 40 eliminates Category 1 and 2 custodial credit risks required by GASB 3 and disclosures are now limited to:

- Deposits that are not covered by depository insurance and are (a) uncollateralized, (b) collateralized with securities held by the pledging financial institution, or (c) collateralized with securities held by the pledging financial institution's trust department or agent but not in the depositor-government's name.

# DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

## Notes to the Financial Statements

September 30, 2003 and 2002

(In thousands)

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### (3) Cash Deposits and Investments (Continued)

- Investment securities that are uninsured, are not registered in the name of the government, and are held by either (a) the counterparty or (b) the counterparty's trust department or agent but not in the government's name.

The Authority's investments are subject to interest rate, credit and custodial risk as described below:

*Interest Rate Risk* - As a means of limiting exposure to fair value losses arising from rising interest rates, the Authority's investment policy limits maximum maturity of non-debt-related permissible deposits and investments to no longer than 36 months.

*Credit Risk* - WASA's Board of Directors has approved a cash management and investment policy and WASA has adopted investment practices based on guidelines established by the Government Finance Officer's Association. Allowable investments include obligations of the U.S. Treasury and U.S. agencies. WASA may also invest in highly rated bankers acceptances, repurchase agreements, commercial paper, corporate notes and bonds, certificates of deposit and money market mutual funds.

*Custodial Risk* - For an investment, custodial risk is the risk that in the event of the failure of the counterparty, the Authority will not be able to recover the value of its investments or collateral securities that are in the possession of outside party. The Authority's investment policy requires that, at the time funds are invested, collateral for repurchase agreements be held in the Authority's name by a custodial agent for the term of the agreement and investments in obligations of the United States or its agencies be held by the Federal Reserve in a custodial account. Any funds not invested at the end of the day are placed in overnight repurchase agreements in the Authority's name. Repurchase agreements are collateralized at 102 percent of the investment with obligations of the U.S. Treasury or U.S. agencies, or investment grade obligations of the District or state or local governments. Highly rated means investments with a rating of AA or A-1/P-1 or better. Investments are restricted as to the amount in each type of investment to ensure appropriate diversification.

# DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

## Notes to the Financial Statements

September 30, 2003 and 2002

(In thousands)

### (4) Utility Plant

The net utility plant, including capitalized interest of \$4,819 for the year ended September 30, 2003 is as follows:

	Balance 9/30/2002	Additions	Disposals	Transfers	Balance 9/30/2003
Utility Plant					
Wastewater treatment plant	\$ 1,020,109	\$ 663	\$ -	\$ -	\$ 1,020,772
Wastewater collection facilities	321,685	3,906	-	-	325,591
Water distribution system	304,026	13,710	-	-	317,736
Capital equipment	76,743	10,542	(1,740)	-	85,545
Total utility plant in service	1,722,563	28,821	(1,740)	-	1,749,644
Less accumulated depreciation:					
Wastewater treatment plant	(264,261)	(15,317)	-	-	(279,578)
Wastewater collection facilities	(142,399)	(5,328)	-	-	(147,727)
Water distribution system	(116,104)	(4,900)	-	-	(121,004)
Capital equipment	(44,874)	(11,183)	1,511	-	(54,546)
Total accumulated depreciation	(567,638)	(36,728)	1,511	-	(602,855)
Net utility plant in service	1,154,925	(7,907)	(229)	-	1,146,789
Construction in progress	171,365	225,896	-	(28,821)	368,440
Net utility plant	\$ 1,326,290	\$ 217,989	\$ (229)	\$ (28,821)	\$ 1,515,229

The net utility plant, including capitalized interest of \$4,992 for the year ended September 30, 2002 is as follows:

	Balance 9/30/2001	Additions	Disposals	Transfers	Balance 9/30/2002
Utility Plant					
Wastewater treatment plant	\$ 924,241	\$ 95,868	\$ -	\$ -	\$ 1,020,109
Wastewater collection facilities	302,178	19,507	-	-	321,685
Water distribution system	266,441	37,585	-	-	304,026
Capital equipment	68,555	8,756	(568)	-	76,743
Total utility plant in service	1,561,415	161,716	(568)	-	1,722,563
Less accumulated depreciation:					
Wastewater treatment plant	(249,800)	(14,461)	-	-	(264,261)
Wastewater collection facilities	(137,250)	(5,149)	-	-	(142,399)
Water distribution system	(111,597)	(4,507)	-	-	(116,104)
Capital equipment	(35,062)	(10,320)	508	-	(44,874)
Total accumulated depreciation	(533,709)	(34,437)	508	-	(567,638)
Net utility plant in service	1,027,706	127,279	(60)	-	1,154,925
Construction in progress	193,132	139,949	-	(161,716)	171,365
Net utility plant	\$ 1,220,838	\$ 267,228	\$ (60)	\$ (161,716)	\$ 1,326,290



# DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

## Notes to the Financial Statements

September 30, 2003 and 2002

(In thousands)

### (5) Purchased Capacity

Purchased capacity consisted of the following as of September 30, 2003:

	Balance 9/30/2002	Additions	Balance 9/30/2003
Purchased capacity			
Jennings Randolph Reservoir	\$ 19,863	\$ -	\$ 19,863
Little Seneca Lake	12,327	-	12,327
Washington Aqueduct	128,457	6,825	135,282
Total in service	<u>160,647</u>	<u>6,825</u>	<u>167,472</u>
Less accumulated depreciation:			
Jennings Randolph Reservoir	(3,930)	(393)	(4,323)
Little Seneca Lake	(3,595)	(205)	(3,800)
Washington Aqueduct	(21,439)	(2,198)	(23,637)
Total accumulated depreciation	<u>(28,964)</u>	<u>(2,796)</u>	<u>(31,760)</u>
Purchased capacity, net	<u>\$ 131,683</u>	<u>\$ 4,029</u>	<u>\$ 135,712</u>

Purchased capacity consisted of the following as of September 30, 2002:

	Balance 9/30/2001	Additions	Balance 9/30/2002
Purchased capacity			
Jennings Randolph Reservoir	\$ 19,863	\$ -	\$ 19,863
Little Seneca Lake	12,327	-	12,327
Washington Aqueduct	119,413	9,044	128,457
Total in service	<u>151,603</u>	<u>9,044</u>	<u>160,647</u>
Less accumulated depreciation:			
Jennings Randolph Reservoir	(3,537)	(393)	(3,930)
Little Seneca Lake	(3,390)	(205)	(3,595)
Washington Aqueduct	(19,373)	(2,066)	(21,439)
Total accumulated depreciation	<u>(26,300)</u>	<u>(2,664)</u>	<u>(28,964)</u>
Purchased capacity, net	<u>\$ 125,303</u>	<u>\$ 6,380</u>	<u>\$ 131,683</u>

# DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

## Notes to the Financial Statements

September 30, 2003 and 2002

(In thousands)

### (6) Due from Federal Government

The amount due from the Federal government consists of the following at September 30:

	<u>2003</u>		<u>2002</u>
Federal grants receivable	\$ 30,005	\$	21,186
Washington Aqueduct advances	11,449		12,746
Total	<u>\$ 41,454</u>	\$	<u>33,932</u>

### (7) Customer Receivables

Customer receivables include unbilled revenues of \$11,403 and \$17,346 at September 30, 2003 and 2002, respectively.

### (8) Due From Other Jurisdictions

The amount due from other jurisdictions consists of the following at September 30:

	<u>2003</u>		<u>2002</u>
Current:			
WSSC	\$ 28,009	\$	13,017
Fairfax	2,778		5,326
Northern Virginia (a)	1,388		1,388
Loudoun County Sanitation Authority	1,243		2,541
Potomac Interceptor	288		304
Total Current	<u>33,706</u>		<u>22,576</u>
Noncurrent:			
WSSC (b)	23,024		19,779
Northern Virginia (a)	8,171		9,560
Fairfax	1,171		600
Loudoun County Sanitation Authority	520		267
Total Noncurrent	<u>32,886</u>		<u>30,206</u>
Total Due From Jurisdictions	<u>\$ 66,592</u>	\$	<u>52,782</u>

#### (a) Northern Virginia

The amount due from Northern Virginia represents the Arlington County and the City of Falls Church, Virginia portions of the debt incurred by WASA for the purpose of funding capital expenditures of the Aqueduct prior to April 1, 1997.

**DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY**

**Notes to the Financial Statements**

**September 30, 2003 and 2002**

**(In thousands)**

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**(8) Due From Other Jurisdictions (Continued)**

**(b) WSSC**

The non current amount due from WSSC includes \$16.6 million related to a 1998 settlement with A.S. McGaughan (contractor). In September 1998, WASA and the contractor reached agreement on a settlement of \$31.0 million for a large capital project (consisting primarily of eight sedimentation basins) that was under dispute due to site conditions and related construction delays. In accordance with the IMA terms this settlement was allocated among the IMA partners. WSSC's share of this settlement was \$16.6 million and includes \$2.4 million in accrued interest.

**(9) Compensated Absences**

Compensation payable for the years ended September 30, 2003 and 2002 were \$7,941 and \$7,844 respectively. These amounts include accruals for compensated absences (vacation) for the stated years as shown below. This liability is expected to be paid off within a year; therefore it is classified as a current liability.

	<u>2003</u>	<u>2002</u>
Balance, beginning of year	\$ 4,107	\$ 3,851
Increases (Incurred)	4,269	3,789
Decreases	(4,112)	(3,533)
Balance, end of year	<u>\$ 4,264</u>	<u>\$ 4,107</u>

# DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

## Notes to the Financial Statements

September 30, 2003 and 2002

(In thousands)

### (10) Long-Term Debt

WASA derives part of its funding for past and future capital projects from the issuance of revenue bonds, District general obligation bonds, notes payable to the federal government and various other non-debt sources of financing.

A schedule of long-term debt activity for period ending September 30, 2003 is shown below:

Description	Balance 9/30/2002	New Debt Issued	Debt Retired	Balance 9/30/2003	Due Within One Year
Notes payable to the federal government for Washington Aqueduct; interest is variable based on a three month taxable municipal index which, for 2003 was between 1.11% and 1.88%	\$ 7,984	\$ 1,173	\$ (7,984)	\$ 1,173	\$ 1,173
Notes payable to the federal government for Jennings Randolph Reservoir (Bloomington Dam); interest at 3.25%, maturing in 2041	17,143	-	(248)	16,895	256
Notes payable to WSSC for Little Seneca; interest ranges from 5.98% to 6.60% maturing in 2014	531	-	(171)	360	34
District of Columbia general obligation bonds:					
1991; interest ranges from 6.3% to 6.75% maturing in 2008	465	-	(65)	400	70
1993; interest ranges from 4.9% to 6.0% maturing in 2012	55,980	-	(8,249)	47,731	9,497
1994; interest ranges from 4.55% to 6.50% maturing through 2011	14,100	-	(3,190)	10,910	2,815
2001; interest at 6.02%, maturing in 2008	8,525	-	(1,921)	6,604	2,047
1998 public utility revenue bonds; interest ranges from 5.50% to 6.00%, maturing in 2028	266,120	-	-	266,120	-
2003 subordinate lien public utility revenue bonds; interest ranges from 5.0% to 5.125%, maturing in 2033	-	176,220	-	176,220	-
<b>Total Bonds and Notes</b>	<b>\$ 370,848</b>	<b>\$ 177,393</b>	<b>\$ (21,828)</b>	<b>\$ 526,413</b>	<b>\$ 15,892</b>

Long-term debt outstanding, as presented on the accompanying statement of net assets, includes net unamortized bond premiums, discounts, and issuance costs of (\$511).

# DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

## Notes to the Financial Statements

September 30, 2003 and 2002

(In thousands)

### (10) Long Term Debt (Continued)

A schedule of long-term debt activity for period ending September 30, 2002 is shown below:

Description	Balance 9/30/2001	New Debt Issued	Debt Retired	Balance 9/30/2002	Due Within One Year
Notes payable to the federal government for Washington Aqueduct; interest is variable based on a three month taxable municipal index which, for 2002 was between 1.38% and 3.36%	\$ 15,708	\$ 7,984	\$ (15,708)	\$ 7,984	\$ 7,984
Notes payable to the federal government for Jennings Randolph Reservoir (Bloomington Dam); interest at 3.25%, maturing in 2041	17,383	-	(240)	17,143	248
Notes payable to WSSC for Little Seneca; interest ranges from 5.98% to 6.60% maturing in 2014	935	-	(404)	531	171
1998 public utility revenue bonds; interest ranges from 5.50% to 6.00%, maturing in 2028	266,120	-	-	266,120	-
District of Columbia general obligation bonds:					
1991; interest ranges from 6.3% to 6.75% maturing in 2008	525	-	(60)	465	65
1993; interest ranges from 4.9% to 6.0% maturing in 2012	62,267	-	(6,287)	55,980	8,249
1994; interest ranges from 4.55% to 6.50% maturing through 2011	17,920	-	(3,820)	14,100	3,190
2001; interest at 6.02%, maturing in 2008	10,492	-	(1,967)	8,525	1,921
Total Bonds and Notes	<u>\$ 391,350</u>	<u>\$ 7,984</u>	<u>\$ (28,486)</u>	<u>\$ 370,848</u>	<u>\$ 21,828</u>

Long-term debt outstanding, as presented on the accompanying statement of net assets, includes net unamortized bond premiums of \$5,998.

#### (a) Senior Debt

Payment of the principal and interest on WASA's senior debt is secured by a pledge of WASA's gross revenues (excluding any capital contributions or grants) after provisions for payment of operating expenses. The 1998 public utility revenue bonds and notes payable to the Federal government for the Washington Aqueduct are considered senior debt under the related Master Indenture of Trust (Master Indenture).

Notes payable to the Federal government for the Washington Aqueduct are specifically secured by user charges assessed on retail customers. The proceeds of these notes are used to make capital improvements to the Washington Aqueduct.

The interest rates on these notes are reset each quarter as determined by the U.S. Treasury based on a comparable three-month taxable special fund obligation. During the years ended September 30, 2003 and 2002, the highest rate on these notes was 1.88 and 3.36 percent and the lowest rate was 1.11 and 1.38 percent, respectively.

# DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

## Notes to the Financial Statements

September 30, 2003 and 2002

(In thousands)

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### (10) Long Term Debt (Continued)

In April 1998, WASA issued approximately \$266,120 of senior lien public utility revenue bonds (Series 1998 Bonds). As required by the Master Indenture, WASA has agreed to fix, charge, and collect rates and fees at levels sufficient to cover annual senior principal and interest requirements by 120 percent (see "Bond Covenants" below). Gross proceeds from the Series 1998 Bonds totaled \$285,200 including \$18,800 of original issue premium. Approximately \$77,200 was used to fund various capital projects; \$181,000 was used to repay the outstanding balances of a revolving line of credit and certain notes payable to the Federal government and to advance-refund approximately \$152,200 of District general obligation bonds. The remainder of the gross proceeds, approximately \$27,000, was used to fund the debt service reserve fund and to pay costs of issuance. The payment of principal and interest on the Series 1998 bonds is insured by Financial Security Assurance, Inc.

WASA completed the advance-refunding portion of the April 1998 bond issuance to restructure its front-loaded debt service schedule. Approximately \$160,000 of bond proceeds was used to purchase securities that were placed in an irrevocable trust, which provides resources for all future debt service payments on the refunded debt. The refunded debt is considered defeased and the respective liabilities have been removed from the balance sheet. The advance-refunding in 1998 resulted in an economic cost (difference between the present values of the old and new debt service payments) of \$241 and an increase in aggregate debt service payments of \$119,000. The difference between the refunded debt and the new debt will be amortized as a component of interest expense over the remaining life of the refunded debt.

The total amount of refunded debt outstanding was \$51,515 and \$67,855 at September 30, 2003 and 2002, respectively.

#### (b) *Subordinate Debt*

Payment of WASA's subordinate debt is made after payment of senior debt and after certain reserves have been funded (see "Bond Covenants" below).

Notes payable to the Federal government for Jennings Randolph Reservoir are considered subordinate debt under the Master Indenture and contain no pledge of property, sinking fund provisions, or restrictive covenants. The proceeds of the notes were used to make improvements to the Jennings Randolph Reservoir for backup and peak-day water supply.

Notes payable to WSSC for the Little Seneca Lake are considered subordinate debt under the Master Indenture and contain no pledge of property, sinking fund provisions, or restrictive covenants. The proceeds of the notes were used by WSSC to construct the Little Seneca Dam and Lake for backup and peak day water supply for the Authority.

# DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

## Notes to the Financial Statements

September 30, 2003 and 2002

(In thousands)

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### (10) Long Term Debt (Continued)

Prior to the creation of WASA as an independent entity, the District issued general obligation bonds to fund improvements to the water and wastewater system. WASA is responsible for this debt, which is considered subordinate under the Master Indenture. General obligation bonds are also supported by the full faith and credit of the District and by special real property and tax deposits accounted for in the District's general fund. While WASA is not directly liable for the general obligation bonds, it is required by the enabling legislation to transfer to the District the funds necessary to pay its portion of the debt service on the bonds.

In March 1998, WASA and the District executed a memorandum of understanding that outlined certain terms for payment of WASA's share of District general obligation bonds. In particular, it contained the following three provisions: (1) WASA will establish a debt service reserve equal to 10 percent of the subsequent fiscal year's general obligation debt service; (2) on each September 1, commencing September 1, 1999, WASA will prepay the general obligation debt service due for the subsequent fiscal year; and (3) WASA will annually establish rates sufficient to provide at least 100 percent debt service coverage of WASA's share of District general obligation bonds, in accordance with the Master Indenture. As of September 30, 2003 and 2002, WASA had reserved \$1.869 million and \$1.798 million, respectively, of its unrestricted cash in connection with the debt service reserve requirement described above, and was in compliance with the other provisions of the memorandum of understanding.

In August 2003, WASA issued \$176,220 of subordinated lien public utility revenue bonds (Series 2003 Bonds). As required by the Master Indenture, WASA has agreed to fix, charge, and collect rates and fees at levels sufficient to cover 100 percent of annual principal and interest payments (see "Bond Covenants" below). Gross proceeds from the Series 2003 Bonds totaled \$176,220, including \$3,449 of original issue discount and \$2,771 for cost of issuance. Approximately \$70,000 was used to fund various capital projects; \$100,000 was used to repay outstanding commercial paper. The scheduled payment of principal and interest on the Series 2003 bonds are guaranteed by a municipal bond insurance policy issued by Financial Guaranty Insurance Company (FGIC). The Authority also purchased a surety bond policy from FGIC to meet the debt reserve fund requirement for the series 2003 bonds.

#### (c) **Bond Covenants**

The Master Indenture sets forth the establishment of accounts, the application of revenues, and certain other covenants to ensure proper operation and maintenance of the water and wastewater system and payment of debt service. Management believes the Authority was in compliance with all bond covenants as of and for the years ended September 30, 2003 and 2002. The primary requirements of the Master Indenture are summarized below:

*Rate Covenant* — The Authority has covenanted to establish and maintain rates and charges to produce revenues sufficient to pay operating expenses and annual debt service on senior and subordinate debt, to fund certain required reserves, to fund any payment in lieu of taxes and to produce net revenues sufficient at least equal to the sum of: (1) 120 percent of annual debt service on senior debt and (2) 100 percent of annual debt service on subordinate debt.

# DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

## Notes to the Financial Statements

September 30, 2003 and 2002

(In thousands)

### (10) Long Term Debt (Continued)

Net revenues are defined generally as all Authority revenues (excluding capital contributions from wholesale customers, Federal grants, or any proceeds derived from the sale of capital assets) less operating and maintenance expenses (excluding any payment in lieu of taxes, depreciation and amortization charges and certain extraordinary, nonrecurring expenses).

*Debt Service Reserve Fund* — For each series of senior debt issued, the Authority is required to establish a debt service reserve fund, which is only to be used to pay senior debt service in the event of insufficient funds. The Series 1998 Bonds debt service reserve fund balance as of September 30, 2003 and 2002 was \$23,565 and \$23,726, respectively, and is required to be maintained at 125 percent of current and future average annual Series 1998 debt service.

#### (d) *Debt Service to Maturity*

The future debt-servicing obligations at September 30, 2003 are as follows:

<u>Fiscal year</u>	<u>Principal</u>	<u>Interest</u>	<u>Total</u>
2004	\$ 15,892	\$ 27,972	\$ 43,864
2005	16,134	27,164	43,298
2006	13,385	26,299	39,684
2007	7,548	25,575	33,123
2008	13,951	24,922	38,873
2009 - 2013	61,354	113,449	174,803
2014 - 2018	68,024	95,629	163,653
2019 - 2023	89,069	73,848	162,917
2024 - 2028	127,927	43,795	171,722
2029 - 2033	108,481	16,433	124,914
2034 - 2038	2,764	581	3,345
2039 - 2042	1,884	124	2,008
Total	<u>\$ 526,413</u>	<u>\$ 475,791</u>	<u>\$ 1,002,204</u>

### (11) Commercial Paper

*Commercial Paper* — The Board of Directors of the Authority approved WASA's commercial paper program on November 1, 2001, with the Series A and B notes not to exceed \$50,000 each at any one time. Proceeds from the sale of the notes are used to finance costs incurred in connection with the construction of capital improvements to WASA's wastewater treatment collection and disposal system, its water distribution system and capital equipment.

Series A and B notes are secured by separate letters of credit, issued by Westdeutsche Landesbank Girozentrale (WestLB) and are rated P1, A1+ and F1+ by Moody's, S&P and Fitch respectively. The letter of credit expires on November 27, 2006.



**DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY**

**Notes to the Financial Statements**

**September 30, 2003 and 2002**

**(In thousands)**

**(11) Commercial Paper (Continued)**

At September 30, 2003, WASA has Board authority and letters of credit in place to issue a total of \$100 million in commercial paper and WASA plans to use its entire commercial paper facility during FY 2004.

A schedule of commercial paper activity for period ending September 30, 2003 is shown below:

Description	Balance 9/30/2002	Addition	Reduction	Balance 9/30/2003
Commercial Paper Notes Payable				
Series A, interest ranges from 1.40% to 1.50%, maturing through 2003	50,000	-	(50,000)	-
Series B, interest ranges from 1.40% to 1.65%, maturing through 2003	40,000	10,000	(50,000)	-
Total Commercial Paper	<u>\$ 90,000</u>	<u>\$ 10,000</u>	<u>\$ (100,000)</u>	<u>\$ -</u>

A schedule of commercial paper activity for period ending September 30, 2002 is shown below:

Description	Balance 9/30/2001	Addition	Reduction	Balance 9/30/2002
Commercial Paper Notes Payable				
Series A, interest ranges from 1.40% to 1.50%, maturing through 2003	-	50,000	-	50,000
Series B, interest ranges from 1.40% to 1.65%, maturing through 2003	-	40,000	-	40,000
Total Commercial Paper	<u>\$ -</u>	<u>\$ 90,000</u>	<u>\$ -</u>	<u>\$ 90,000</u>

**(12) Commitments and Contingencies – Other Liabilities**

A schedule of other liabilities for periods ending September 30, 2003 and 2002 is shown below

Description	Balance 9/30/2003	Balance 9/30/2002
Federal Grants	2,545	2,985
Litigation	4,125	2,588
Risk Management	9,001	5,475
Total Other Liabilities	<u>\$ 15,671</u>	<u>\$ 11,048</u>

# DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

## Notes to the Financial Statements

September 30, 2003 and 2002

(In thousands)

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### (12) Commitments and Contingencies – Other Liabilities (Continued)

#### (a) Federal Grants

WASA's capital and operating grants are subject to financial and compliance audits by the EPA, the grantor, or its representatives. WASA's management does not expect that the results of these audits will have a material adverse effect on the accompanying financial statements.

#### (b) Litigation

WASA is a party in various legal actions and claims brought by or against it. In the opinion of WASA's management and legal counsel, the ultimate resolution of these actions and claims will not materially affect the financial position or results of operations of WASA.

	<u>2003</u>	<u>2002</u>
Balance, beginning of year	\$ 2,588	\$ 2,329
Current year claims and changes in estimates	1,920	331
Claim payments	(383)	(72)
Balance, end of year	<u>\$ 4,125</u>	<u>\$ 2,588</u>

#### (c) Risk Management

WASA is exposed to various risks of loss related to torts; theft of, damage to, and destruction of assets; errors and omissions; injuries to employees; and natural disasters. Effective April 7, 1998, WASA purchased certain commercial insurance coverages. Prior to that date WASA was either self-insured or covered under District programs. For each of the five most recent years, settlement of claims has not exceeded insurance coverages.

WASA has purchased \$500,000 property coverage to protect its owned or leased facilities, buildings and contents. Except for catastrophic on-site protection provided on the Property Policy, WASA self-insures its fleet of vehicles. The deductible for each claim for buildings and contents is \$250, except \$500 and \$1,000 deductibles for flood. Off-site watercraft and specified equipment are insured under an Inland Marine Policy. Deductibles range from \$10 to \$25 on this policy.

WASA has purchased liability insurance coverage to protect it from claims alleging damages and injuries caused by automobile accidents, broken water lines, construction, and other activities. Limits of \$100,000 have been secured in excess of a deductible of \$1,000 for each occurrence. Public Officials' liability insurance has been secured with limits of \$20,000 in excess of a deductible of \$200 per claim.

WASA self-insures workers' compensation claims for work-related injuries. In order to mitigate the potential self-assumed costs of medical expenses, rehabilitation and lost wages, WASA purchases an Excess Workers Compensation Policy. The Authority contracts with a third party administrator to support the workers' compensation claims management program.

# DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

## Notes to the Financial Statements

September 30, 2003 and 2002

(In thousands)

### (12) Commitments and Contingencies – Other Liabilities (Continued)

Liabilities are recognized when it is probable that losses have occurred and the amounts of the losses can be reasonably estimated. Liabilities include an amount for claims that have been incurred but not reported to date. Because actual claims liabilities depend on such complex factors as inflation, changes in governing laws and standards, and court awards, the process used in computing claims liabilities is reevaluated periodically to take into consideration the history, frequency and severity of recent claims and other economic and social factors. These liabilities are computed using a combination of actual claims experience and statistically estimated amounts. WASA has computed contingency amounts for grants disallowance, litigation and claims and are included in other liabilities on the accompanying balance sheet.

Changes in the balances of workers' compensation claims and general liability claims during the years ended September 30, 2003 and 2002, were as follows:

	<u>2003</u>	<u>2002</u>
Balance, beginning of year	\$ 5,475	\$ 4,101
Current year claims and changes in estimates	6,133	4,458
Claim payments	(2,608)	(3,084)
Balance, end of year	<u>\$ 9,000</u>	<u>\$ 5,475</u>

For FY 2003, WASA performed a comprehensive review of its worker's compensation and other general liability claims. Based on this review, accruals for prior year claims were increased to reflect managements' best estimate of the total liability.

#### (d) Construction Commitments

Contractual commitments for utility plant construction and capital equipment for the years ended September 30, 2003 and 2002 were \$327,706 and \$309,717 respectively.

	<u>2003</u>	<u>2002</u>
Total contract commitments	\$ 548,783	\$ 449,666
Less work performed and retainage	(221,077)	(139,949)
Outstanding contract commitments	<u>\$ 327,706</u>	<u>\$ 309,717</u>

### (13) Related Party and Similar Transactions

The enabling legislation, described in Note 1, established that the District would pay for water and wastewater services. WASA recorded revenues of \$9,943 and \$10,270 from the District government and \$6,129 and \$6,226 from the District of Columbia Housing Authority (DCHA) for fiscal years 2003 and 2002, respectively. Both the District government and DCHA revenues are included in water and wastewater user charges in the accompanying statements of revenues, expenses and changes in net assets.

# DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

## Notes to the Financial Statements

September 30, 2003 and 2002

(In thousands)

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### (13) Related Party and Similar Transactions (Continued)

WASA recorded expenses of \$10,413 and \$9,847, for payments-in-lieu-of-taxes to the District for services such as road repairs, fire protection, police protection, and other services for the years ended September 30, 2003 and 2002, respectively. WASA also recorded an expense of \$5,100 and \$5,400 for the District's right-of-way fee, charged to all area utilities for infrastructure occupancy in public streets for the years ended September 30, 2003 and 2002, respectively.

The amount due from the District government for the years ended September 30, 2003 and 2002 were \$17,740 and \$17,627 respectively. These amounts are for WASA's share of fiscal year 2004 and 2003 debt service on general obligation bonds originally issued to finance WASA's capital improvements that WASA prepaid in accordance with a memorandum of understanding with the District, as described in Note 10.

On October 18, 2000, the District of Columbia City Council approved the Storm Water Compliance Amendment Act of 2000, which created the "Storm Water Permit Compliance Enterprise Fund" (Fund). The Act established the Authority as the Storm Water (Administrator). The Administrator is responsible for monitoring and coordinating the activities of all District agencies, including the activities of the Authority, which are required to maintain compliance with the Storm Water Permit. The Authority is reimbursed for all its cost incurred to administer the Fund by the Fund. Also the Authority does not assume any of the Funds liabilities or obligations. The permit was issued to the District of Columbia government by the Environmental Protection Agency. The legislation also established a rate for recovery of storm water compliance costs, which is collected by the Authority from its customers on the District's behalf. The Authority incurred \$844 and \$527 of administrative expenses for years ended September 30, 2003 and 2002, respectively.

Additionally, the Authority had \$154 and \$149 of receivables due to Storm Water Fund for years ended September 30, 2003 and 2002. The amount shown on the balance sheet as Due to Storm Water Fund is net of collection and administrative costs

### (14) Employee Benefits

#### (a) *Defined Benefit Plans*

WASA employees hired prior to October 1, 1987, participate in certain federal benefit plans. The plans are cost sharing multi-employer plans, which provide retirement and disability benefits, annual cost-of-living adjustments, and death benefits to plan participants and beneficiaries.

In addition, the plans issue a publicly available financial report that includes financial statements and required supplementary information. Employees and WASA each contribute a percentage of the employees' salaries to the Federal government, which administers the plans. During fiscal years 2003, 2002 and 2001, WASA's contributions to the plans were \$1,604, \$2,043 and \$1,995 respectively. These amounts were 100 percent of the required contributions under the plans for each of the fiscal years presented. The required percent of salaries to be contributed by the employees was 7.00 percent for the three fiscal years ending 2003. The required percent of salaries to be contributed by WASA was 8.51 percent for the three fiscal years ending 2003.

# DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

## Notes to the Financial Statements

September 30, 2003 and 2002

(In thousands)

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### (14) Employee Benefits (Continued)

#### (b) *Defined Contribution Plan*

Employees who were hired after September 30, 1987, participate in the U.S. Social Security system and a defined contribution plan sponsored by the District government. The District of Columbia Defined Contribution Plan (D.C. Code 1-627) is a qualified trust under Internal Revenue Code Section 401. During fiscal years 2003 and 2002, the Authority's contribution was seven percent of base pay toward the plan on behalf of each eligible employee. Employees do not contribute to the plan, and they become eligible participants after a one-year waiting period. Employees become 100 percent vested in their account balance after five years of service.

Starting in January 2000, non-represented employees who were hired after September 30, 1987, participate in the U.S. Social Security system and a defined contribution plan sponsored by the Authority. The District of Columbia Water and Sewer Defined Contribution Plan is a qualified trust under Internal Revenue Code Section 401. The Authority makes a contribution of seven percent of base pay toward the plan on behalf of each eligible employee.

The Authority also makes an additional contribution of five percent of all base earnings above the Social Security Wage Base. In addition, the Authority makes a matching contribution of 100 percent of the amount that the employee defers to the Section 457(b) Deferred Compensation Plan up to a maximum contribution of three percent of base pay.

There is no waiting period before an employee becomes a participant of this plan and employees do not contribute to the plan. Employees become 100 percent vested in their account balance after three years of service

During fiscal years 2003 and 2002, the Authority's contributions to both defined contribution plans were \$2,506 and \$2,341 respectively.

#### (c) *Post Employment Insurance Plans*

At no cost to WASA, the federal government provides healthcare and life insurance benefits to certain retired WASA employees under the Federal Employees' Health Benefits Program and the Federal Employee's Group Life Insurance Program. WASA does not provide health and life insurance benefits to any post 1987 employees.

# DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

## SUPPLEMENTARY INFORMATION

**District of Columbia Water and Sewer Authority  
Budgetary Comparison Schedule  
For the Year Ended September 30, 2003  
(\$ in 000's)**

	Budget	Actual	Variance
<b>Operating revenues:</b>			
Residential and commercial user charges	\$ 135,708	\$ 147,870	\$ (12,162)
Federal government	31,916	26,884	5,032
District government	12,352	16,072	(3,720)
Charges for wholesale waste water treatment	49,635	61,682	(12,047)
Interest income	3,694	3,090	604
Other	29,711	3,287	26,424
<b>Total operating revenues</b>	<b>263,016</b>	<b>258,885</b>	<b>4,131</b>
<b>Operating expenses:</b>			
Personnel services	74,729	71,028	3,701
Contractual Services	63,310	63,065	245
Water purchases	18,365	13,723	4,642
Chemicals, supplies and small equipment	19,752	13,178	6,574
Utilities and rent	18,865	20,804	(1,939)
Sub total operating expenses	195,021	181,798	13,223
Interest and fiscal charges (debt service)	43,800	36,674	7,126
Payment in lieu of tax & right of way fee	14,922	15,513	(591)
Total operating expenses	253,743	233,985	19,758
Personnel services charged to capital projects	(6,000)	(6,937)	937
<b>Total net operating expenses</b>	<b>247,743</b>	<b>227,048</b>	<b>(20,695)</b>
Revenues over (under) expenses	<b>\$ 15,273</b>	<b>\$ 31,837</b>	<b>\$ (16,564)</b>
Increase (decrease) to reconcile budgetary to GAAP			
Inventory issuance		(1,590)	
Non budgeted expenses (e.g. bad debt)		(201)	
Depreciation expense		(39,524)	
Federal grants contributions		39,626	
Long-term debt principal payments		19,059	
<b>Changes in Net Assets</b>		<b>\$ 49,207</b>	

# DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

## SUPPLEMENTARY INFORMATION

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### Note To Supplementary Information On Budgetary Accounting And Control For the Year Ended September 30, 2003

#### BUDGETARY ACCOUNTING AND CONTROL

##### **Budget Law**

The Authority prepares its annual operating budget under the provisions of its enabling legislation. In accordance with those provisions, the following process is used to adopt the annual budget.

- Development of the 10-year financial plan
- Development of individual departmental operating budgets, based on the financial framework in the 10-year financial plan
- Review and development of proposed budget by the General Manager
- Presentation of proposed budget to the Board of Directors
- Review and development of proposed budget by the Board of Directors
- Adoption of proposed budget by the Board of Directors
- Submission of proposed budget to the District of Columbia for inclusion in its budget
- District of Columbia budget submission to U.S. Congress

##### **Budget Accounting**

The Authority is a single enterprise fund and maintains accounting records using the accrual basis of accounting, in accordance with Generally Accepted Accounting Principles (GAAP). Under this basis of accounting, revenues are recorded when earned, and expenses are recorded when goods and services are received. The Authority's expenditure budget is prepared on a comparable basis to GAAP, with the exception of debt service, which is budgeted in full when due, including principal and interest. Depreciation is not budgeted; depreciation and interest expense are recorded as expenses for financial statement purposes.

##### **Budget Requirements**

After the U.S. Congress approves the budget, the operating and capital budgets are loaded into the Authority's financial management system, which prevents overspending without appropriate approvals. The Department of Finance and Budget prepares daily and monthly management reports for each operating unit, management staff, the Board of Directors, and its various committees. The reports are consistently reviewed each month to ensure the Authority complies with its authorized budget levels.



**Statistical  
Section**



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**EXHIBIT 1: OPERATING REVENUE BY SOURCE**  
**FY 1994 - 2003**  
**(\$000)**

REVENUE SOURCE	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
Residential/Commercial	\$ 104,407	\$ 101,696	\$ 101,078	\$ 115,294	\$ 138,697	\$ 138,328	\$ 131,399	\$ 139,429	\$ 148,134	\$ 147,870
Governmental										
Federal	23,192	22,966	21,946	24,024	25,068	26,859	24,092	26,199	28,501	26,884
DC Government (1)	-	-	-	12,268	21,883	11,168	10,883	9,543	10,293	9,943
DC Housing Authority	6,518	6,338	6,623	7,035	7,770	5,720	5,194	6,284	6,203	6,129
Subtotal Governmental	29,710	29,304	28,569	43,327	54,721	43,747	40,169	42,026	44,997	42,956
<b>TOTAL RETAIL REVENUES</b>	<b>\$ 134,117</b>	<b>\$ 131,000</b>	<b>\$ 129,647</b>	<b>\$ 158,621</b>	<b>\$ 193,418</b>	<b>\$ 182,075</b>	<b>\$ 171,568</b>	<b>\$ 181,455</b>	<b>\$ 193,131</b>	<b>\$ 190,826</b>
Charges for Sewer Treatment	51,526	40,080	35,989	52,333	50,566	56,107	50,284	52,542	53,211	61,682
Other Revenues	4,190	3,977	5,854	6,230	14,459	4,450	6,078	3,483	2,387	3,287
Wholesale Water Revenues (2)	7,770	2,522	9,546	4,310	-	-	-	-	-	-
Refunds to Customers	(269)	(259)	-	-	-	-	-	-	-	-
<b>TOTAL REVENUES</b>	<b>\$ 197,334</b>	<b>\$ 177,320</b>	<b>\$ 181,036</b>	<b>\$ 221,494</b>	<b>\$ 258,443</b>	<b>\$ 242,632</b>	<b>\$ 227,930</b>	<b>\$ 237,480</b>	<b>\$ 248,729</b>	<b>\$ 255,795</b>

(1) As part of the Authority's enabling legislation, the District of Columbia Government pays the Authority for water and sewer services.

(2) In FY 1997, the Authority entered into an operating agreement with the U.S. Army Corps of Engineers, which operates the Washington Aqueduct. Prior to the execution of the agreement, amounts paid to the Aqueduct by its other customers (the City of Falls Church and Arlington County, Virginia) were recorded as revenue of the Authority.

Source: FY 1994 - 2003 Audited Statements of Revenue, Expenses and Changes in Net Assets

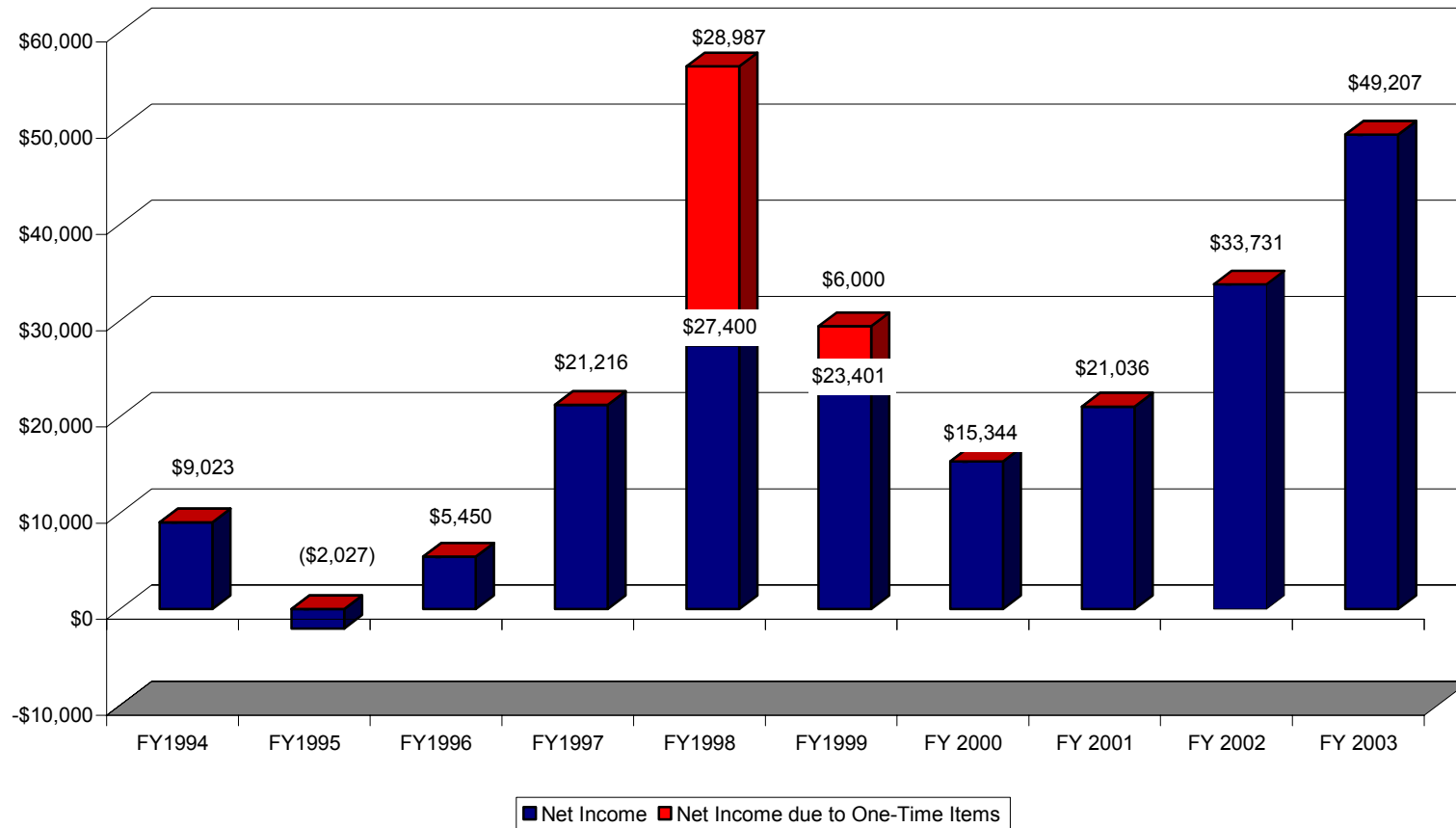
**EXHIBIT 2: OPERATING EXPENSES BY CATEGORY**  
**FY 1994 - 2003**  
**(\$000)**

<b>EXPENSE CATEGORY</b>	<b>1994</b>	<b>1995</b>	<b>1996</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>
Personnel	\$ 53,473	\$ 49,669	\$ 50,758	\$ 51,197	\$ 53,956	\$ 60,674	\$ 63,078	\$ 62,055	\$ 62,162	\$ 64,091
Contractual	40,693	43,808	40,539	55,904	66,340	56,017	54,552	58,976	59,166	63,065
Supplies	21,899	15,855	14,686	14,057	17,722	11,431	13,129	15,488	13,683	14,768
Occupancy	15,839	15,337	15,392	16,668	21,173	21,225	20,091	21,219	20,071	20,804
Depreciation & Amortization	17,528	18,830	18,660	25,695	26,278	28,227	30,329	32,971	37,099	39,524
Water Purchases	15,807	18,077	16,760	21,620	23,313	18,922	16,358	17,085	16,904	13,723
PILOT/Right of Way Fee <sup>(1)</sup>	-	-	-	-	-	-	9,177	15,026	15,247	15,513
Miscellaneous	243	244	387	1,407	-	-	-	-	-	-
<b>TOTAL OPERATING EXPENSES</b>	<b>\$ 165,482</b>	<b>\$ 161,820</b>	<b>\$ 157,182</b>	<b>\$ 186,548</b>	<b>\$ 208,782</b>	<b>\$ 196,496</b>	<b>\$ 206,714</b>	<b>\$ 222,820</b>	<b>\$ 224,332</b>	<b>\$ 231,488</b>

<sup>(1)</sup> PILOT / Right of way fee not considered operating expense for financial reporting purposes.

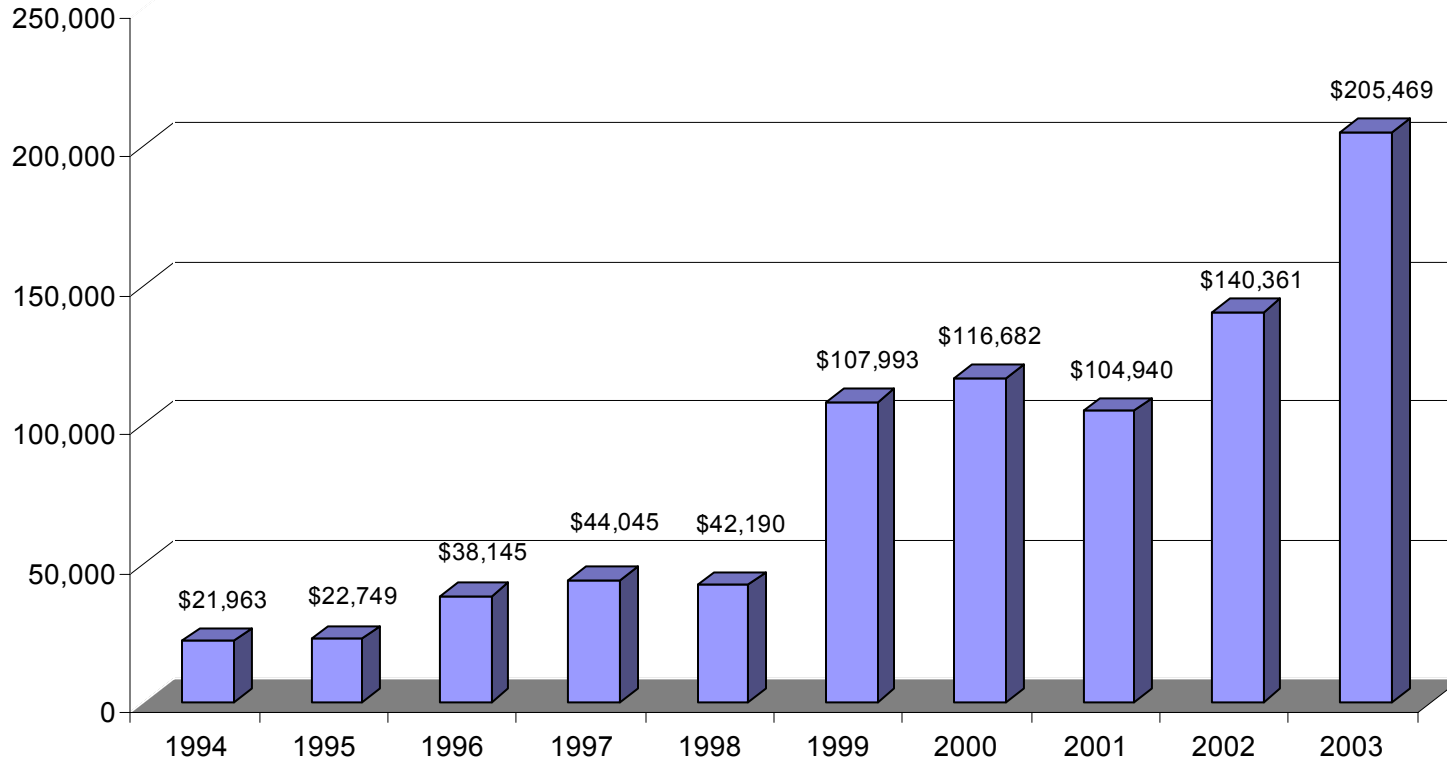
Source: FY 1994 - 2003 Audited Statements of Revenue, Expenses and Changes in Net Assets

**EXHIBIT 3: NET ASSETS / NET INCOME**  
**FY 1994 - 2003**  
**(\$000)**



Source: FY 1994 – 2003 Audited Statements of Revenue, Expenses and Changes in Net Assets

**EXHIBIT 4: CAPITAL DISBURSEMENTS  
FY 1994 - 2004  
(\$000)**



Note: These disbursements include the Authority's share of Washington Aqueduct's capital disbursements, which in FY 1997 – 2002 have been financed by U.S. Treasury notes.

Source: FY 1994 – 2003 Audited Statements of Cash Flows

**EXHIBIT 5: DEBT SERVICE COVERAGE (1)**  
**FY 2003**  
**(\$000)**

Prepared in accordance with the Authority's Master Trust Indenture, which corresponds closely to cash basis accounting

Retail Receipts	\$	191,066
Wholesale Receipts		50,050
<b>Total Operating Receipts</b>	\$	<u>241,116</u>
Non-Operating Receipts		23,898
Contributions to Rate Stabilization Fund		(7,000)
<b>Total Receipts</b>	\$	<u>258,014</u>
<b>Total Operating Disbursements</b>	\$	171,167
<b>Revenue Less Operating Expenses</b>	\$	86,846
Prior year federal billing reconciliation		(14,069)
Prior year wholesale customers reconciliation		2,663
<b>Net Revenues Available for Senior Debt Service</b>	\$	<u>75,441</u>
Senior Debt Service	\$	14,875
Subordinate Debt Service	\$	21,911
<b>SENIOR DEBT SERVICE COVERAGE</b>		5.07x
<b>Net Revenues Available for Subordinate Debt Service <sup>(1)</sup></b>	\$	60,566
<b>SUBORDINATE DEBT SERVICE COVERAGE</b>		2.76x
<b>COMBINED DEBT SERVICE COVERAGE</b>		2.05x

<sup>(1)</sup> Net revenues less senior debt service.

Source: Authority Department of Finance and Budget

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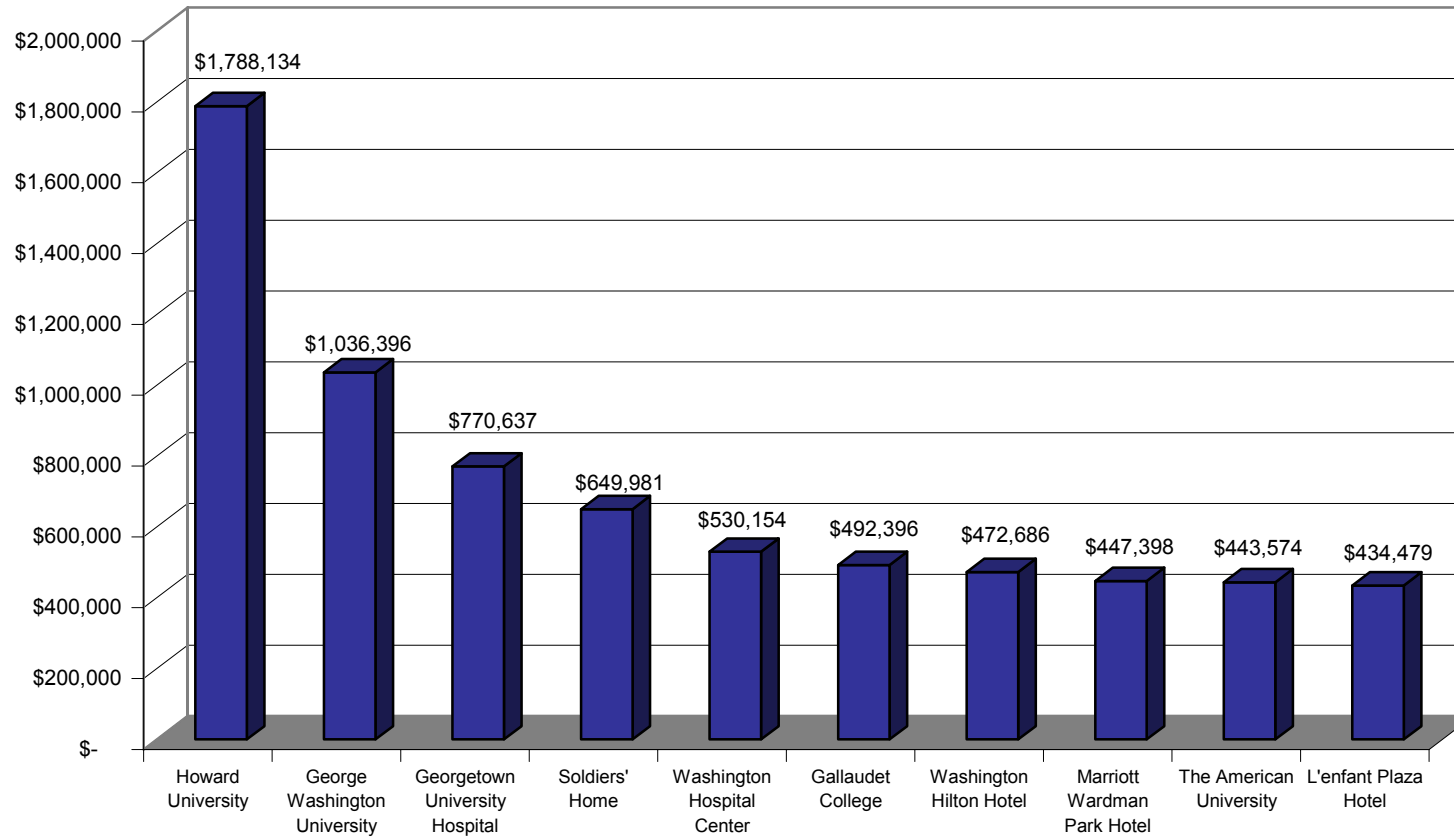
**EXHIBIT 6: NUMBER AND TYPE OF CUSTOMER ACCOUNTS  
AS OF SEPTEMBER 30, 2003**

<u>TYPE OF ACCOUNT</u>	<u>NUMBER OF ACCOUNTS</u>
<b>Residential</b>	101,783
<b>Commercial <sup>(A)</sup></b>	18,111
<b>Governmental</b>	
Federal	538
District of Columbia	565
DC Housing Authority	<u>1,469</u>
<b>Total Governmental</b>	2,572
<b>WASA</b>	29
<b>Wholesale</b>	<u>7</u>
<b>TOTAL NUMBER OF ACCOUNTS</b>	<u><u>122,502</u></u>

<sup>(A)</sup> Included in commercial accounts are 47 exempt accounts  
(39 for Howard University and 8 for Soldiers' Home)

Source: D.C. Water and Sewer Authority Department of Customer Service

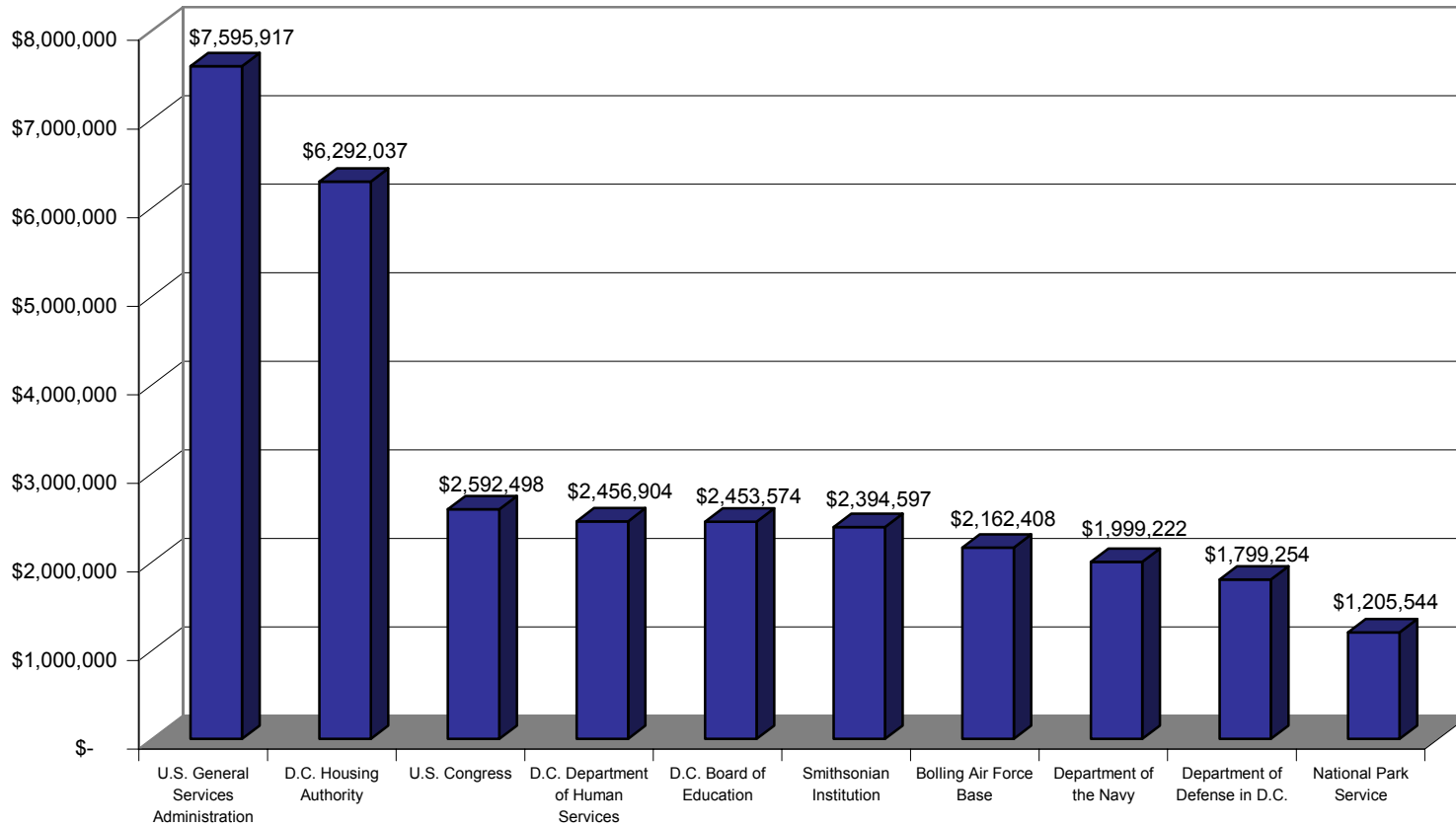
**EXHIBIT 7: LARGEST COMMERCIAL CUSTOMER ACCOUNTS  
FY 2003**



Source: Authority Department of Customer Service



**EXHIBIT 8: LARGEST RETAIL CUSTOMER ACCOUNTS  
(INCLUDES GOVERNMENT AND RESIDENTIAL)  
FY 2003**



Source: Authority Department of Customer Service

**EXHIBIT 9: HISTORY OF RETAIL WATER & SEWER RATES  
PER Ccf  
FY 1980 – 2003**

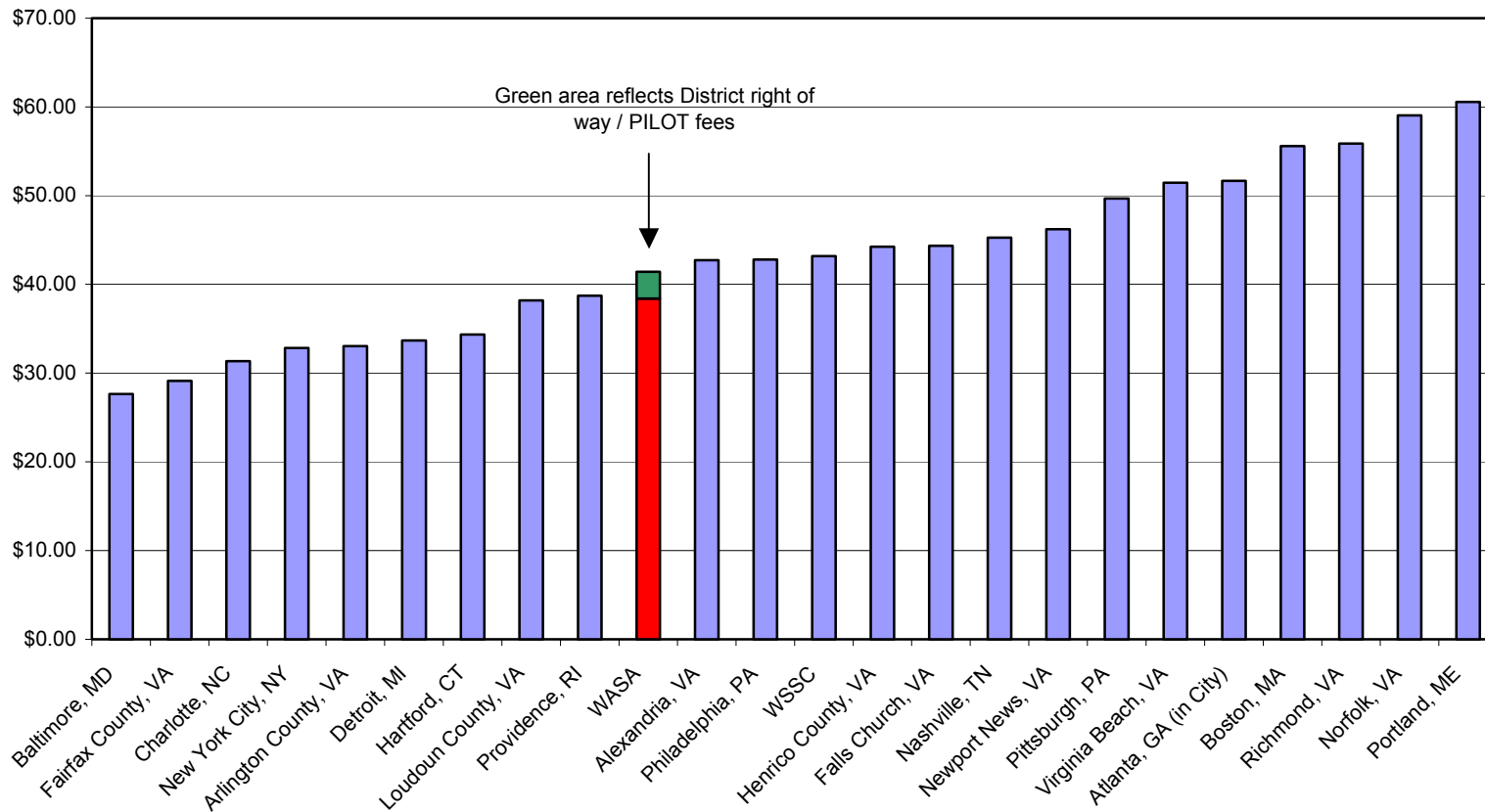
<b>FISCAL YEARS</b>	<b>METERING FEE</b>	<b>PUBLIC SPACE OCCUPANCY FEE</b>	<b>WATER CONSUMPTION RATE</b>	<b>SEWER CONSUMPTION RATE</b>	<b>COMBINED RATE</b>	<b>AVERAGE MONTHLY BILL <sup>2</sup></b>
1980-1983	\$ -	\$ -	\$ 0.460	\$ 0.677	\$ 1.137	\$ 9.471
1984	-	-	0.537	0.998	1.535	\$ 12.787
1985	-	-	0.698	1.297	1.995	\$ 16.618
1986	-	-	0.873	1.621	2.494	\$ 20.775
1987-1996	-	-	1.004	1.864	2.868	\$ 23.890
1997	-	-	1.380	2.710	4.090	\$ 34.070
1998	-	-	1.380	2.710	4.090	\$ 34.070
1999	-	-	1.380	2.710	4.090	\$ 34.070
2000	-	-	1.576	2.710	4.286	\$ 35.702
2001-2002	-	-	1.786	2.710	4.496	\$ 37.452
2003 (1)	2.010	0.360	1.690	2.570	6.630	\$ 40.490

<sup>1</sup> All rates are for one hundred cubic feet (1 Ccf) consumption with the exception of the flat metering fee, which became effective on October 1, 2002.

<sup>2</sup> Average consumption is 8.33 Ccf per month.

Source: D.C. Water and Sewer Authority Department of Finance & Budget

**EXHIBIT 10: RESIDENTIAL WATER & WASTEWATER BILL COMPARISONS  
MONTHLY BASIS  
AS OF SUMMER 2003 (1)**



(1) This analysis is based on 5/8" meters and 8.33 Ccf (hundred cubic feet) per month consumption (25 Ccf per quarter) for residential customers.

Source: Authority Department of Finance & Budget

**EXHIBIT 11: SCHEDULE OF INSURANCE  
AS OF SEPTEMBER 30, 2003**

<b>TYPE OF COVERAGE</b>	<b>COMPANY</b>	<b>POLICY PERIOD</b>	<b>COVERAGE LIMITS</b>
Blanket Property and Boiler & Machinery	Factory Mutual Insurance Company	October 1, 2002 – October 1, 2003	\$500,000,000 Blanket Buildings and Contents – Specified Locations \$10,000,000 Miscellaneous Locations \$100,000,000 Earth Movement \$100,000,000 Flood, except \$10,000,000 Blue Plains Flood Included in Blanket – TRIA Terrorism \$1,000,000 - Other Terrorism \$10,000,000 Extra Expense and Expediting Costs \$10,000,000 Transit Any One Shipment Deductibles: \$250,000 Any Loss, except \$500,000 Flood, except \$1,000,000 Blue Plains Flood
Miscellaneous Equipment Floater Policy	Lexington Insurance Company	April 7, 2003 – April 7, 2004	\$6,000,000 Per Occurrence Deductibles: \$10,000 Per Occurrence, except \$20,000 Watercraft, except \$25,000 Skimmer Boats
Fidelity & Crime Insurance	Factory Mutual Insurance Company	October 1, 2002 – October 1, 2003	\$5,000,000 - Employee Dishonesty, Forgery, Computer Fraud, Money & Securities Deductible: \$50,000 Per Occurrence
Commercial General Liability	Self-Funded		\$1,000,000 each occurrence
Commercial Automobile	Self-Funded		\$1,000,000 any one accident 100% Physical Damage - self-funded
Worker's Compensation	Self-Funded		Statutory WC Benefits Employer's Liability - \$1,000,000 Each Accident; \$1,000,000 Disease/ Employee
Excess Worker's Compensation Insurance	National Union	April 7, 2003 – April 7, 2004	\$50,000,000 - WC Benefits; \$1,000,000 - Employer's Liability (Included - Terrorism) Retentions: \$1,000,000/accident; \$1,000,000 Disease/ Employee.
Excess General Liability, Automobile Liability, and Employers Liability Insurance	AEGIS Insurance	April 7, 2003 – April 7, 2004	\$35,000,000 in excess of \$1,000,000 (Included - Terrorism)
Excess Liability	Energy Insurance Mutual	April 7, 2003 – April 7, 2004	\$65,000,000 in excess of \$35,000,000 (\$25,000,000 - Terrorism sublimit)
Public Official Liability	AEGIS Insurance	April 7, 2003 – April 7, 2004	\$20,000,000 Each Loss / Aggregate Retention: \$200,000/ wrongful act

**EXHIBIT 12: WATER DEMAND  
FY 1996 - 2003**

<b>FISCAL YEAR</b>	<b>ANNUAL DELIVERIES TO SYSTEM (MG)</b>	<b>AVERAGE DAY (MG)</b>	<b>MAXIMUM MONTH AVERAGE (MGD)</b>	<b>MAXIMUM DAY (MGD)</b>	<b>TOTAL ANNUAL WATER SOLD (MGD)</b>	<b>AVERAGE DAY (MG)</b>
1996	51,553	141.2	161.3	192.4	39,416	108.0
1997	49,172	134.7	158.3	207.2	37,405	102.5
1998	47,671	130.6	159.2	178.7	37,323	102.3
1999	50,140	137.4	167.0	201.3	34,428	94.3
2000	48,051	131.6	153.0	209.7	31,987	87.6
2001	48,144	131.9	148.3	180.4	32,008	87.7
2002	48,634	133.2	152.1	170.3	32,147	88.1
2003	45,655	125.1	141.2	164.9	31,335	85.8

Source: Authority Department of Water Services and Washington Aqueduct

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**EXHIBIT 13: WATER DELIVERED (PUMPED) AND BILLED (SOLD) IN Ccf  
FY 1996 – 2003**

<b>FISCAL YEAR</b>	<b>TREATED WATER DELIVERED</b>	<b>WATER BILLED</b>	<b>SOLD/PUMPED RATIO</b>
1996	68,921,591	52,695,847	76.46%
1997	65,737,500	50,007,037	76.07%
1998	63,730,922	49,896,545	78.29%
1999	67,032,821	46,026,213	68.66%
2000	64,239,492	42,763,218	66.57%
2001	64,363,369	42,791,940	66.48%
2002	65,019,144	42,977,802	66.10%
2003	61,036,537	41,891,644	68.63%

Source: Ccf Delivered, Washington Aqueduct; Ccf Billed, Authority  
Department of Customer Service

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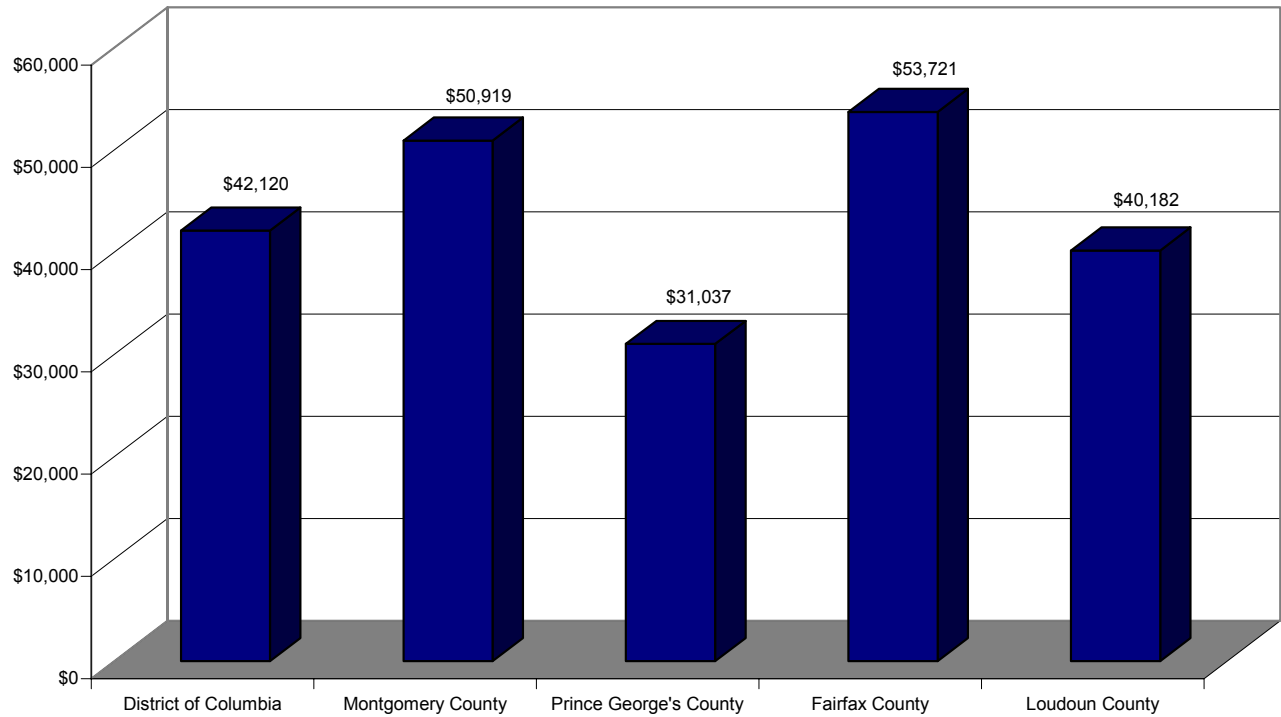
**EXHIBIT 14: POPULATION OF SERVICE AREA JURISDICTIONS (2001)**

<b>JURISDICTION</b>	<b>POPULATION</b>
District of Columbia	573,822
Montgomery County	895,021
Prince George's County	819,796
Fairfax County	1,021,199
Loudoun County	190,180

Source: United States Department of Commerce, Economics and Statistics Administration,  
Bureau of Economic Analysis

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**EXHIBIT 15: PER CAPITA PERSONAL INCOME (2001)  
DISTRICT OF COLUMBIA (2002)**



Source: U.S. Department of Commerce, Bureau of Economic Analysis  
D.C. Office of the Chief Financial Officer



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**EXHIBIT 16: UNEMPLOYMENT RATES (2002)**

<b>JURISDICTIONS</b>	<b>UNEMPLOYMENT RATE</b>
District of Columbia	6.4%
Montgomery County	2.8%
Prince George's County	4.8%
Fairfax County	3.0%
Loudoun County	3.6%

Source: U.S. Department of Labor, Bureau of Labor Statistics

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**EXHIBIT 17: EMPLOYMENT BY SECTOR (2001)**

	DISTRICT OF COLUMBIA	MONTGOMERY COUNTY	PRINCE GEORGE'S COUNTY	FAIRFAX COUNTY <sup>(A)</sup>	LOUDOUN COUNTY <sup>(B)</sup>
Agriculture, Forestry, Mining, etc.	(C)	0.17%	0.11%	0.03%	0.46%
Construction	1.82%	6.09%	9.31%	5.91%	10.25%
Manufacturing	0.51%	3.41%	3.19%	(C)	3.64%
Transportation & Public Utilities	(C)	1.60%	(C)	(C)	10.82%
Wholesale & Retail Trade	3.30%	12.12%	15.71%	12.22%	10.71%
Finance, Insurance & Real Estate	5.15%	10.29%	6.40%	8.31%	5.59%
Services	44.28%	51.63%	38.73%	56.82%	43.64%
Government (Federal, State & Local)	28.80%	13.56%	19.58%	11.49%	11.60%
Military	3.07%	1.14%	2.28%	0.98%	0.61%
<b>TOTAL</b>	<b>86.93%</b>	<b>100.00%</b>	<b>95.31%</b>	<b>95.75%</b>	<b>97.33%</b>

<sup>(A)</sup> Mining data for Fairfax County are not included

<sup>(B)</sup> Utilities and wholesale trade data for Loudoun County are not included

<sup>(C)</sup> Indicates data are not shown to avoid disclosure of confidential information

Source: U.S. Department of Commerce, Bureau of Economic Analysis

**EXHIBIT 18: SUMMARY OF MAJOR PERMITS & ADMINISTRATIVE ORDERS  
FY 2003**

<b>Wastewater</b>	<b>Description</b>	<b>Expiration Date</b>	<b>Current Status</b>
<b>National Pollutant Discharge Elimination System</b>  Permit # DC0021199	Authorizes discharge of treated wastewater from Blue Plains into the Potomac River and from the combined sewer system into Rock Creek, the Anacostia River, and the Potomac River. Prescribes operating conditions for the plant and sewer system.	February 25, 2008	Some permit conditions are stayed while under appeal
<b>1995 Consent Decree</b>  Civil Action 90-1643-JGP and 84-2842-JGP	Requires certain actions including:  Review procurement practices & maintenance procedures  Undertake Operational Capability Review  Conduct a pilot project for biological nitrogen reduction	N/A	In Compliance  All items completed; awaiting action to terminate decree
1996 Stipulated Agreement & Order  Civil Action 96-669-TFH	Requires certain actions including:  Rehabilitate and maintain certain facilities and capital equipment in good operating condition  Maintain certain records and data for status reports and prepare monthly reports on status of compliance  Maintain user fees in separate accounts and make timely payment of invoices	N/A	In Compliance  All items completed; awaiting action to terminate agreement and order
2003 Consent Decree  Civil Action 90-5-1-107137	Requires certain actions including:  Replacement/repair of control structures  Cleaning/inspection of catch basins  Rehabilitation of pumping stations  Rehabilitation of Blue Plains grit chambers and influent screens  Inspection of certain sewers and siphons  Public education/outreach activities  Payment of civil penalty of \$250,000  Conduct/support of supplemental environmental projects	N/A	All activities thus far required completed on schedule

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**EXHIBIT 18: SUMMARY OF MAJOR PERMITS & ADMINISTRATIVE ORDERS  
FY 2003 (Continues)**

<b>Water</b>	<b>Description</b>	<b>Expiration Date</b>	<b>Current Status</b>
<b>1996 Administrative Order &amp; Consent Agreement</b>	Requires compliance with the WASA-prepared and EPA-approved remediation plan:	N/A	In Compliance
111-96-001-DS	Public notification program		All items completed as of 12-31-2002.
	Financial management program		
	Water quality sampling program		
	Storage facility rehabilitation program		
	Cross connection control program		
	Storage facility maintenance program		
	Corrosion control treatment program		

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**EXHIBIT 19: MISCELLANEOUS STATISTICS ABOUT AUTHORITY OPERATIONS  
FY 2003**

**Utilities & Supplies Per Day (at Blue Plains)**

Electrical Power	745,000 KWH
Natural Gas	20,000 CF
Sodium Hypochlorite	2,500 gallons
Sodium Bisulfite	5,600 pounds
City Water	525,000 gallons
Lime	83,500 pounds
Sodium Hydroxide	49,400 pounds
Methanol	15,000 gallons
Ferric Chloride (10% Iron)	10,500 gallons

**Wastewater Treatment Capacity**

Average Day	370 MGD
Peak 4 Hour Flow, through complete process	740 MGD
Excess Storm Flow, primary treatment only	336 MGD
Peak Flow	1,076 MGD

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**EXHIBIT 19: MISCELLANEOUS STATISTICS ABOUT AUTHORITY OPERATIONS  
FY 2003 (Continues)**

**Wastewater Plant Permit Limitations**

<b>Parameter</b>	<b>Monthly</b>	<b>Weekly</b>
Biochemical Oxygen Demand (carbonaceous)	5.0 mg/L (15,429 lbs./day)	7.5 mg/L (23,143 lbs./day)
Total Suspended Solids (TSS)	7.0 mg/L (21,600 lbs./day)	10.5 mg/L (32,400 lbs./day)
Ammonia Nitrogen		
Summer (5/1 – 10/31)	4.2 mg/L (12,960 lbs/day)	6.1 mg/L (18,823 lbs/day)
Winter 1 (11/1 – 2/14)	11.1 mg/L (34,253 lbs/day)	14.8 mg/L (45,670 lbs/day)
Winter 2 (2/15 – 4/30)	12.8 mg/L (39,500 lbs/day)	17.0 mg/L (52,460 lbs/day)
Total Phosphorus (annual average)	0.18 mg/L (555 lbs/day)	0.35 mg/L (1080 lbs/day)
Dissolved Oxygen		
Minimum daily average	5.0 mg/L	
Not less than	4.0 mg/L	
pH		
Minimum	6.0 units	
Maximum	8.5 units	
Total Chlorine	Non detectable at any time	
Fecal Coliform	200/100 ml	400/100 ml
Chesapeake Bay Voluntary Agreement		
Total Nitrogen (Annual Average)	7.5 mg/L	

**Wastewater Plant Processes**

**Primary Treatment**

Influent Pumping Capacity	1,300 MGD
Number of bar screens	13
Number of aerated grit chambers	16
Total volume of aerated grit chambers	2.3 MG
Number of primary clarifiers	36
Average detention time (clarifiers)	2.5 hours
Average hydraulic loading (clarifiers)	1008 gallons/square foot/day
Maximum hydraulic loading (clarifiers)	2,929 gallons/square foot/day

**EXHIBIT 19: MISCELLANEOUS STATISTICS ABOUT AUTHORITY OPERATIONS  
FY 2003 (Continues)**

**Secondary Treatment**

Number of reactors	6
Total reactor volume	27.7 MG
Number of clarifiers	24
Average reactor detention time	1.6 hours
Average clarifier hydraulic loading	763 gal/sq ft/day
Number of centrifugal blowers	6
Total blower capacity	280,000 cu ft/minute
Average MLSS	2,200 mg/L
Average SRT	1.6 days
Average SVI	80-100 ml/g
Effluent dissolved oxygen	2-3 mg/L
Effluent alkalinity	140 mg/L as CaCO <sub>3</sub>

**Nitrification/Denitrification**

Number of reactors	12
Total reactor volume	55.2 MG
Aerobic Volume	33.1-44.2MG
Anoxic Volume	11.0-22.1MG
Number of clarifiers	28
Average reactor detention time	3.3 hours
Average clarifier hydraulic loading	755-gal/sq ft/day
Number of centrifugal blowers	5
Total blower capacity	291,500 cu ft/minute
Number of turbine aerators	120
Average MLSS	1,800 mg/L

Average reactor pH	7.3
Average SRT	21 days
Average SVI	80 – 110 ml/g
Effluent alkalinity	110 mg/L as CaCO <sub>3</sub>
Effluent dissolved oxygen (Post - Aeration)	6.8 – 7.2 mg/L
Dual purpose sedimentation tanks (in either secondary treatment or nitrification)	8
Total Dual Purpose Surface Area	197,160 sq ft

**Filtration & Disinfection**

Number of filters	40
Total filter area	83,200 sq ft
Average filtration rate	3.4 gal/minute/sq ft
Average filter run time	55 hours
Depth of anthracite media	24 inches
Depth of sand media	12 inches
Depth of Gravel Support Layer	12 inches
Number of chlorine contact tanks	4
Average contact time	42 minutes