District of Columbia Water and Sewer Authority

Serving the Public • Protecting the Environment

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

FY 2001

Comprehensive Annual Financial Report 2001

Fiscal Year: October 1, 2000 to September 30, 2001

Paul L. Bender
Chief Financial Officer

2001

District of Columbia Water and Sewer Authority

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

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Prepared by:
Department of Finance and Budget

Paul L. Bender, Chief Financial Officer

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Presented to

District of Columbia Water and Sewer Authority

For its Comprehensive Annual Financial Report for the Fiscal Year Ended September 30, 2000

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President

Jeffrey L. Esser

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As of September 30, 2001

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AS OF SEPTEMBER 30, 2001

GENERAL MANAGER'S STAFF

Jerry N. Johnson .... **General Manager**

Henderson Brown .... General Counsel

Michael Hunter .... Internal Auditor

Libby Lawson .... Public Affairs

OFFICE OF THE CHIEF FINANCIAL OFFICER

Paul L. Bender .... Deputy General Manager/Chief Financial Officer

Michelle Cowan .... Budget and Finance

Olu Adebo .... Controller

Rhoberta Piper .... Customer Service

Mujib Lodhi .... Chief Information Officer

Edward Hamilton .... Procurement

Karen Cole .... Risk Management

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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

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Barbara Grier .... Human Resources

O.Z. Fuller .... Fleet Management

David Simpson .... Facilities

David Cornelius .... Security

Everett Lallis .... Health and Safety

DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY
5000 OVERLOOK AVENUE, S.W., WASHINGTON, D.C. 20032

February 7, 2002

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

Dear Chairman, Members of the Board, and Mr. Johnson:

The conclusion of FY 2001 marks a significant milestone for the District of Columbia Water and Sewer Authority (the "Authority"): five successful years of operation as an independent agency. The past five years have been a period of rapid change and great progress. Service to our retail and wholesale customers has improved dramatically. The Authority's financial performance has been consistently strong over the past five years, exceeding expectations of industry leaders and the financial community. This dramatic progress is due in large part to the leadership of the Board of Directors, particularly because of their insistence on developing sound, conservative financial policies and their perseverance in ensuring each policy's consistent implementation.

FY 2001 was also marked by the tragic events of September 11. As a provider of essential water and wastewater services to residents and businesses in the nation's capital and to the federal government, the Authority has taken significant actions to help ensure that critical infrastructure is protected. Interim security improvements were made at critical facilities to ensure immediate safety, even at facilities where permanent upgrades were underway prior to September 11. In addition, the Authority accelerated its planned conversion of a key chemical treatment process (from chlorine and sulfur dioxide to safer liquid chemicals) in the two months following September 11, substantially reducing the risks associated with the unlikely event of a chemical release.

This report describes the Authority's financial activities, condition and services as a whole. As such, the report covers information from the Authority's history to its organizational structure to 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, discussion of financial results to date, a description of the budget process, internal controls and accounting standards, the Authority's 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 Authority's audited FY 2000 and FY 2001 financial statements. Finally, the Statistical Section presents selected financial and operating indicators of the Authority and statistics regarding the economic condition of the metropolitan Washington area. Management is responsible both for the accuracy of the data and the completeness and fairness of the presentation, including all disclosures.

RECENT ACCOMPLISHMENTS

The end of FY 2001 marks the Authority's fifth year of operations as an independent agency. Using the framework of policies and goals the Board of Directors established in FY 1998, the Authority and its management continued to build on the successes of its first four years of operations. Major accomplishments of FY 2001 follow.

- Implementation of the Customer Service Internal Improvement Plan continued in FY 2001. The new customer information and billing system went live in June, improving service to our customers with features that include on-line payment mechanisms and Internet account access. Efficiencies achieved by the new system include outsourcing the billing and account maintenance functions.
- Substantial investment in metering improvements continued in FY 2001, with completion of the large meter testing and repair program. Implementation of the Authority's comprehensive meter replacement/automated meter reading system is underway, with project management and organizational tasks largely complete, and installation of new meters to begin in early spring 2002.
- WASA successfully closed on its commercial paper program in November 2001 and issued the first draw of $60 million in December. Reception of this first borrowing was excellent, with favorably low interest rates ranging from 1.65 percent to 1.70 percent, five to ten basis points lower than general market indices.
- WASA's own financial management system was successfully implemented, independent of the District of Columbia's system as required by our enabling legislation, and affording internal control of WASA's day-to-day fiscal transactions.
- The time and attendance module of the payroll/human resources system was implemented in FY 2001. This module allows for accurate and uniform pay calculations, greatly reduces the amount of paperwork, and improves processing time.
- Agreement was reached with all five WASA collective bargaining units, with a new contract calling for pay for performance beginning in FY 2003. This is the first collective bargaining agreement for a District of Columbia agency to contain such a provision. In addition, WASA began its performance management system for non-union employees in FY 2001.
- WASA completed its draft Combined Sewer Overflow (CSO) long-term control plan in June 2001, a major accomplishment. The CSO issue has been studied by WASA and its predecessor agency for almost two decades, and the development of this draft plan represents a significant milestone in WASA history.

- In FY 2001, WASA began its responsibilities as the District of Columbia's Stormwater Administrator. As part of this effort, WASA coordinates the operational and financial activities of the Department of Health, the Department of Public Works, and WASA to meet the requirements of the District's stormwater permit. In FY 2001, a separate enterprise fund was established to account for the new stormwater fee and associated stormwater permit compliance activities.
- WASA has met all Environmental Protection Agency (EPA) drinking water quality requirements for the 64rd consecutive month as of January 2002.
- In FY 2001, WASA received the prestigious gold award from the Association of Metropolitan Sewerage Agencies, the third time in four years that WASA has received the award.
- Internal Improvement Plans were initiated in FY 2001 for both the Water Services and Sewer Services Departments. When completed, these plans will result in operational improvements.
- At the end of FY 2001, $3 million was reserved for the rate stabilization fund. This amount was added to the $3.5 million contribution to the fund at the end of FY 2000.

MAJOR INITIATIVES

Technology Initiatives

One of the keystones of the Authority's transformation efforts is technology. Over the next 10 years, the Authority will invest $79 million in systems and hardware, with a primary focus of fully integrating technology into the delivery of water and wastewater services. Remarkable strides were made in FY 2001 in establishing WASA's technology foundation, including a new financial management system, a new customer information and billing system, and a new time and attendance system. These system implementations followed initiatives begun in FY 1997: an aggressive personal computer replacement program; connecting all WASA employees via a wide area network; and the initial development of WASA's web site.

In FY 2002, the Authority will complete the update of its Information Technology Strategic Plan, which will present a comprehensive assessment of the current technology environment, and a plan to make WASA an industry leader, with technology thoroughly integrated into all aspects of delivery of water and wastewater services. The Strategic Plan calls for completion of several major projects over the next few years.

- The automated meter reading project started in FY 2002, and the project will be completed over the next three years. The system will rely on cellular technology to transmit water consumption information to WASA and will introduce further accuracy and efficiency into our customer service activities.

- Implementation of the new maintenance management system is underway and will provide plant and asset management.

- The process computer control system will allow for automation of a significant number of plant processes at Blue Plains, resulting 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 the three phases of project implementation are scheduled to be completed over the next seven years at a cost of $52 million.

- WASA's new customer-focused website will be unveiled in early spring 2002, supporting e-business transactions, offering enhanced educational information, and providing more information about WASA's role in the community. Additionally, opportunities for vendors doing business with WASA will be enhanced with a variety of online announcements.

- Infrastructure improvements include data redundancy improvements and a systematic desktop hardware replacement program that calls for upgrades on a three-year cycle.

Internal Improvement Plans

A primary focus of the Authority over the next few years will be to improve service to its customers through implementation of Internal Improvement Plans (IIP's). At the direction of the Board, implementation of the Customer Service IIP is well underway. As discussed earlier, the new customer information and billing system went live in June 2001, and as a result, the Authority has achieved its dual goals of increasing operating efficiency and improving service to its customers. With the new system, the billing and account maintenance functions have been outsourced.

The reorganization of Customer Service operations, started in FY 2001, will continue in FY 2002. Thirty-six Customer Care positions were reclassified as part of the reorganization. The implementation of the automated meter reading system, beginning in FY 2002, will introduce further accuracy and efficiency into customer service activities, with meter consumption information transmitted from meters directly to WASA. Both systems will reduce manpower needs while improving service. Additional investments in interactive voice response and automated service dispatch over the next few years will also yield operating efficiencies.

Implementation of the Blue Plains Internal Improvement Plan continues. These plans project total position reductions of 228 and an annual cost savings of $23 to $24 million when fully implemented in seven to eight years. In FY 2001, 35 positions were eliminated at the plant. An additional 50 positions have been reduced in fiscal years 2002 and 2003 as a part of the Board of Directors approval of the FY 2002 revised and FY 2003 proposed budgets. In addition to implementing changes in operations, achievement of the cost reduction goals is dependent on completion of the Authority's capital improvement program.

IIP's were undertaken for the Water Services Department and the Sewer Services Department in FY 2001, and plans will continue to be developed for other key operating departments in WASA.

Employee Investment and Labor Relations

A new labor agreement was approved by the Board of Directors in the fall of 2001, retroactive to 2000. Approved pay increases were three percent for 2000 and 2001, and four percent for 2002 and 2003. These increases are in line with federal and regional pay levels. The contract introduces pay-for-performance in 2003, the first such provision for any District of Columbia agency. An innovative employee gainsharing program will also be implemented in 2003, which allows employees to earn cash awards based on group level attainment of predefined goals.

In 2001, a performance management program was implemented for non-union employees. The program is designed to provide two-way communication of performance goals and expectations. Training sessions were conducted for managers and staff throughout the Authority to promote a thorough understanding of the pay-for performance program.

In FY 2001, approximately 74 percent of WASA employees were part of five collective bargaining units, and 26 percent were non-union.

Impact of September 11

FY 2001 was marked by the terrorist attacks of September 11. We worked with the Federal Bureau of Investigation, our neighbors at the Naval Research Laboratory and Bolling Air Force Base, and the District of Columbia and federal governments to assure that coordinated security measures were in place. Ensuring security has always been a critical matter for WASA; grant funding was already in place for electronic security improvements at water facilities. Interim security improvements were made immediately after September 11 at other critical facilities, with permanent upgrades underway. A major accomplishment was removing chlorine and sulfur dioxide railcars from the Blue Plains facility by accelerating the planned conversion to liquid chemicals. Construction of permanent liquid chemical storage and feed facilities is underway, assuring safety both at the plant and for the entire community.

WASA continues to monitor the effects of September 11 and the slowdown in the regional economy on water consumption and revenues, particularly in the tourism area, although to date little lasting impact on water consumption has been noted.

New Fee and Rates Proposals

In conjunction with the adoption of the FY 2003 budget in January 2002, the District members of the Board of Directors approved the consideration of several fee and rate changes, as outlined below. These proposed changes will be considered by the Board this spring and summer, and the process for making any changes to the current rate structure will include community meetings and public hearings. If the new fee and rate structure is adopted, it will become effective on October 1, 2002.

- Implementation of a monthly metering fee designed to recover costs associated with installing, operating, and maintaining meters.
- Pass-through of the District of Columbia's right of way occupancy fee as a separate line item on retail customers' bills. This is a fee imposed by the District of Columbia at a rate of $0.88 per linear foot for all utility lines, which all other utilities doing business in the District show as a pass-through line item on their bills.
- Reduction in retail water and sewer rates of approximately five percent.

In total, these proposed changes are projected to yield an increase of approximately $10.6 million in FY 2003 revenues.

Combined Sewer Overflow Management

Like many older systems, approximately one-third of the District of Columbia is served by a combined sewer system where both sanitary waste and stormwater flow through the same pipes. When the collection system and/or Blue Plains 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 (CSO's). The Authority's EPA permit authorizes discharges and requires WASA to develop a long-term CSO control plan that will result in compliance with the requirements of the federal Clean Water Act. A draft plan was released in June 2001 and a final plan will be presented to the EPA in 2002. The draft recommended a combination of large storage tunnels, rehabilitation of pumping stations, new pipelines, and other targeted improvements that will allow storage of combined flows during storm events until they can be sent to Blue Plains for treatment. Implementation of the plan ultimately adopted by the Authority and approved by EPA is expected to occur over the next 10 to 20 years, depending on the requirements of the Authority's future EPA permits.

The projected capital cost of this plan totals approximately $1.05 billion (in FY 2001 dollars) and is not reflected in the ten-year financial plan and the CIP. The Authority has begun development of a financing plan that includes the identification of outside financing sources, as well as potential alternative rate and fee structures. The FY 2001 – 2010 ten-year financial plan includes a $1.8

million grant, approved by the United States Congress, to be used to mitigate CSO's into the Anacostia and Potomac Rivers.

Stormwater

In FY 2001, WASA began its responsibilities as the District of Columbia's Stormwater Administrator. Over the past few years WASA has been working with the District's Departments of Health and Public Works and the Mayor's Stormwater Task Force to address the requirements of the District's stormwater permit that was issued to the District in April 2000. During FY 2001 the District of Columbia Council passed legislation that named WASA as Stormwater Administrator with responsibilities for coordination and administration of all three agencies' stormwater control efforts. In addition, City Council established a fee (to appear on WASA's water and sewer bill) to support all three agencies' incremental efforts through permit expiration in FY 2003. WASA began implementing this fee in June 2001. Annual implementation costs are projected to total $3 million for all three agencies, with WASA's share amounting to approximately $1 million. In addition, a separate enterprise fund was established to account for the fee and stormwater activities, and separate audited financial statements have been prepared for FY 2001.

Major activities in FY 2002 and FY 2003 will include preparation of a detailed management and implementation plan, additional outfall monitoring, and preparation for permit renewal. The District's current permit expires in April 2003, and it is anticipated that the EPA will issue the District a new stormwater permit that could include substantially more rigorous requirements, including additional programmatic spending. It is anticipated that any incremental requirements of WASA due to the new permit will be fully paid from proceeds of the stormwater fee or other outside sources.

Water Sold/Pumped Ratio

Like other water utilities, the Authority closely monitors the amount of water that is pumped from its treatment source (in the Authority's case, the Washington Aqueduct) versus the amount that is actually sold to customers. In FY 2001, the Authority's sold/pumped ratio remained at approximately 66 percent. Efforts aimed at improving this ratio include completing a comprehensive water audit in FY 2002. In FY 2001, the large meter testing and repair program was completed to correct meters that were under-registering, and the comprehensive meter replacement Automated Meter Reading project will begin in FY 2002, which will further improve the water sold/pumped ratio. Additionally, operational and capital improvements are underway to improve response time to leaks and water main breaks and to replace old valves.

Capital Improvement Program

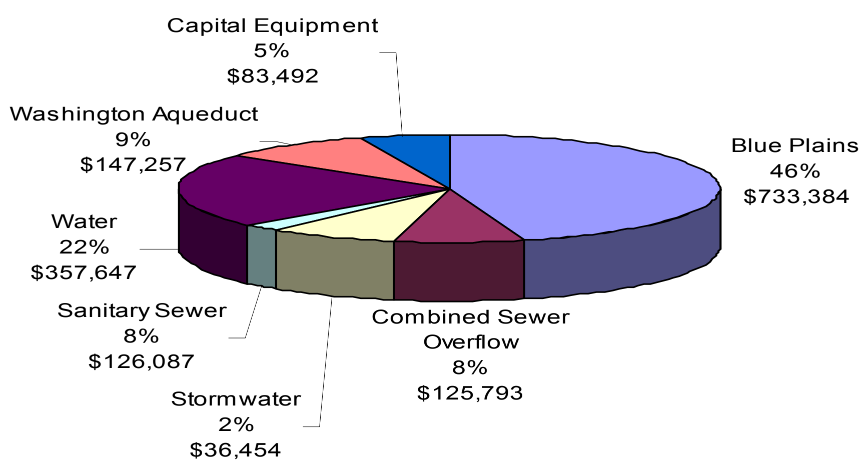
WASA's ultimate success in achieving the goals of the Internal Improvement Plan and its continued success in regulatory compliance depends in large part on the implementation of our 10-year capital improvement program. This $1.6 billion program will roughly double the value of our physical infrastructure, and will result in improved service to all of our customers, both wholesale and retail.

Major capital activities already underway or scheduled to begin in FY 2002 include additional dewatering at the Blue Plains facility, with a total project budget of $87.5 million; rehabilitation of seven sanitary and combined sewer pumping stations, budgeted at $128.6 million; and additional chemical facilities at Blue Plains, with a total project budget of $62.7 million. Completion of these projects over the next few years will result in lower contractual services expenses, consistent with IIP goals. Partially offsetting some of these decreases will be higher costs for chemicals (such as sodium hypochlorite) associated with the alternate disinfection project.

The proposed FY 2001 – 2010 capital improvement program is $1.61 billion on a disbursements basis. The plan is broken into seven service areas, as shown in the graph below.

FY 2001 – FY 2010 Capital Improvement Program

($ in 000's)



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. 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 FY 2001 and 2000.

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, and Fairfax County 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" (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 FY 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.

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 therefrom; 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.

Budgetary Control

Budgetary control begins with the preparation of the annual operating and capital budgets, which are developed on an expenditure basis. After three to four months of extensive and detailed review by the Budget and Finance and Operations 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, management staff, the Board of Directors and its various committees. The reports are reviewed 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 its review and comment; however, neither has power to 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 FY 1997, the Authority's ten-year financial plan serves as its road map to strong, 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 were cited by the rating agencies as a 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 the financial goals set out by Board policy and the ten-year financial plan.

FINANCIAL POLICIES

During FY 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 (CIP), 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 practical 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 approximately 180 days of operating and maintenance expenses. In addition, after it establishes adequate cash reserves required by its bond indenture and required for other activities, the Authority will use any excess 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 FY 2000, the Authority contributed $3.5 million to the rate stabilization fund and at the end of FY 2001, and additional $3 million was contributed to the fund.

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 FY 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 FY 2001, the Board adopted revisions to the investment policy that clarified portfolio diversity requirements. Specifically, the revisions formalized WASA's practice of limiting investment in any one corporate issuer to five percent of the total portfolio and limited each investment to 10 percent of the outstanding debt of any one corporate issuer.

The Authority's Department of Finance and Budget produces daily and monthly reports on all cash management and investment activities with significant peer oversight. Monthly reports to the General Manager and the Board of Directors' Budget and Finance 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 and transfer financial loss and risks to third parties by utilizing insurance contracts. The Authority maintains property and liability insurance that exceeds self-funded levels. The property coverage protects the Authority's owned or leased facilities, buildings, fleet vehicles and equipment. The self-funded limit for building and contents is $250,000 and $10,000 for equipment. The Authority self-funds 100 percent of the coverage for all vehicles owned or leased.

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 $50,000.

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.

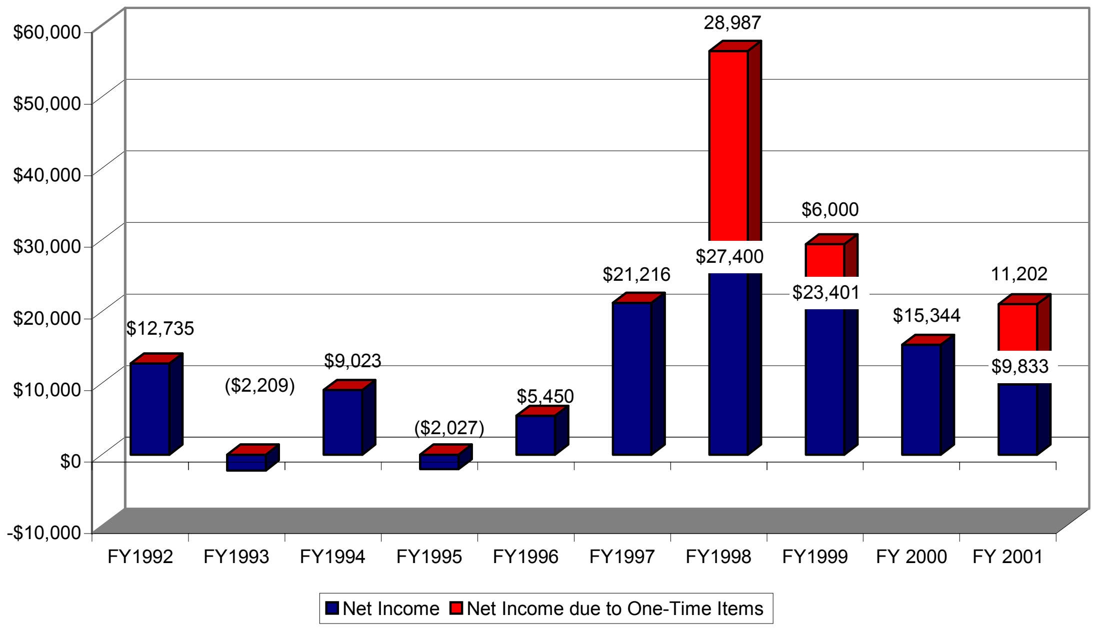
FY 2001 FINANCIAL RESULTS

Net Income

The Authority's net income totaled $21.0 million in FY 2001, an increase of $5.7 million compared to FY 2000. The change in net income is primarily due to the Authority recognizing $11.2 million in revenue for federal grants contributions. Starting in FY 2001, the Authority adopted Government Accounting Standards Board Statement 33, *Accounting and Financial Reporting for Nonexchange Transactions.* This statement requires governments to recognize capital contributions as revenues, not contributed capital.

Excluding federal grant contributions recognized as revenue, net income in FY 2001 is approximately $5.5 million less than FY 2000, due primarily to the District's right of way fee. This is a fee of $0.88 per linear foot, charged to all utilities that have lines running under city streets. The chart below shows a ten-year trend in net income, including two one-time items and the FY 2001 recognition of grants as revenues.

NET INCOME
FY 1992 – 2001
(In $000's)



Notes:

(1) In FY 1999, a downward revision was made to wholesale wastewater treatment deferred revenue (advance) from jurisdictions, which produced a one-time increase in net income of $6 million.

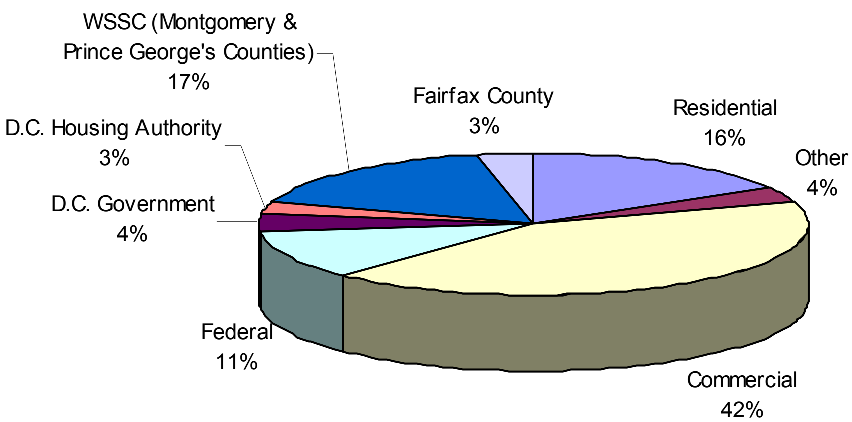
(2) In FY 1998, WASA reached a settlement with Loudoun County Sanitation Authority for $40 million to compensate the Authority for the original cost of building additional capacity to serve Loudoun County, which resulted in $19 million in additional interest income in FY 1998. Also, the Authority made a downward revision in the allowance for uncollectible account receivables from $28.6 to $18.7 million as a result of more aggressive collections actions initiated by the Board. This produced a one-time increase in revenues of $10 million.

(3) GASB 33 does not allow for restatement of prior year revenues.

Operating Revenue

Fiscal year 2001 operating revenue of $237 million represents an increase of $9.5 million, or four percent compared to FY 2000. This increase is mainly attributable to a two percent increase in water consumption compared to FY 2000 and a five percent rate increase in April 2001.

REVENUE BY SOURCE
FY 2001



Diversity and Stability of Revenues

The Authority's 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 42 percent of total revenue. A description of each revenue source as well as a discussion of recent trends in each category follows:

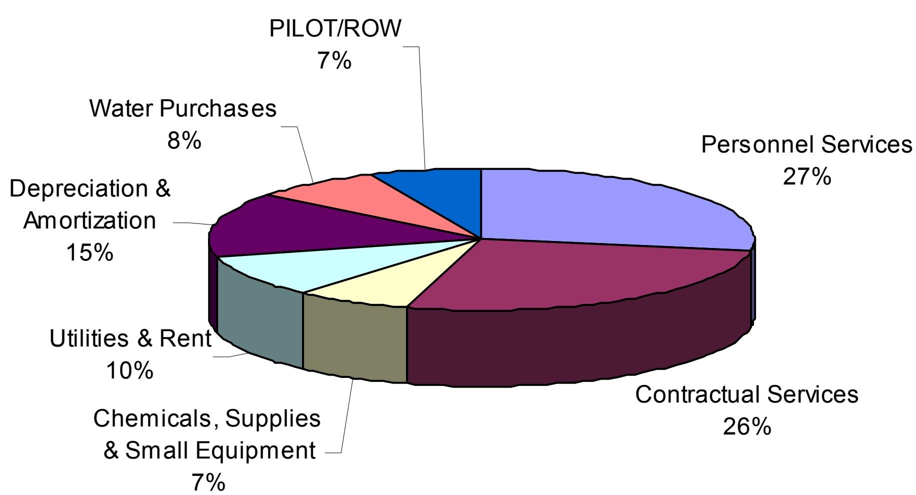
- Revenues from commercial customers in the District comprise approximately 42 percent of the Authority's total operating revenues. Commercial revenues are especially strong due to the presence of many national associations, government consulting firms and colleges and universities in the District. The 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 20 percent of the Authority's revenues, and are based on their share of operating costs at Blue Plains, allocated to each user based on sewer flows.
- Residential customers in the District account for only 16 percent of total revenues.
- Payments from the federal government comprise approximately 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 seven percent of total operating revenue.

Operating Expenses

Total operating expenses in FY 2001 were $222.8 million, an increase of $16.1 million, or 7.8 percent compared to FY 2000.

OPERATING & MAINTENANCE EXPENSES
FY 2001



- **Personnel Services:** Expenses decreased slightly from FY 2000, in part due to reductions in filled position levels.

- **Contractual Services:** Expenses increased by $4.4 million or eight percent compared to prior year in this category. This increase is attributable to higher biosolids hauling costs due to increased prices for contracts that were signed in FY 2001. Utilities throughout the area are experiencing similar price escalations. Repaving costs associated with new requirements by the District of Columbia for all utilities also contributed to increased FY 2001 expenses, and legal expenses and workers' compensation claims increased as well.

- **Chemicals, Supplies and Small Equipment:** Expenses increased by $2.4 million or 18 percent compared to prior year in this category, due primarily to higher costs for methanol and other chemicals.

- **Utilities and Rent:** Expenses increased by $1.1 million or 5.6 percent compared to prior year, due primarily to increased gas and electric costs.

- **Depreciation and Amortization:** Non-cash depreciation charges, totaling $33 million, increased by $2.6 million compared to FY 2000, in line with the $56 million increase in total utility plant in service and purchased capacity.

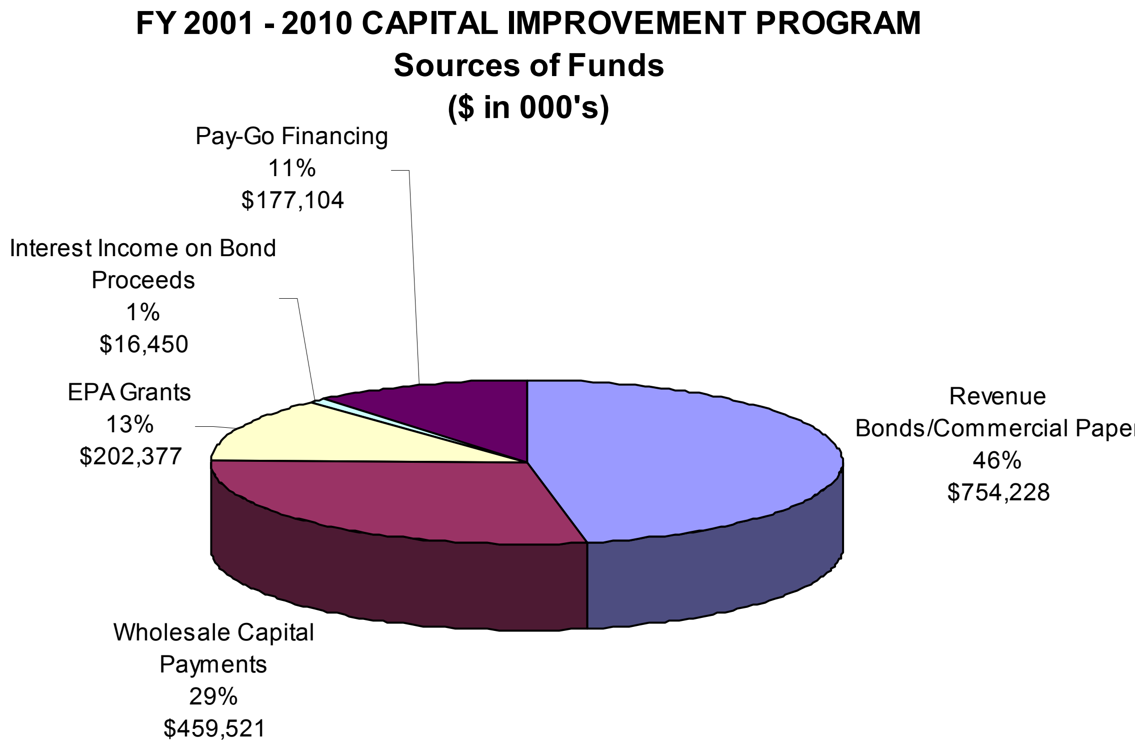
- **Water Purchases:** Expense remained relatively stable, in line with the Authority's budget and prior years.

Cash Position

Consistent with Board policy, a substantial amount of the CIP was financed with pay-as-you-go financing. Unrestricted cash totaled $125 million as of September 30, 2001, a decrease of approximately $32 million. Board policy requires the Authority to use excess reserves over 180 days' operating and maintenance costs (approximately $90 million in FY 2001) to fund portions of the capital program on a pay-as-you-go basis.

Capital Financing and Debt Administration

The Authority plans to finance its $1.6 billion capital improvement program with a variety of sources, including the issuance of revenue bonds, a tax exempt commercial paper program, grants from the U.S. Environmental Protection Agency (EPA), contributions from wholesale customers, and pay-go financing. The first draw on commercial paper occurred in December 2001, with maturities ranging from June to July 2002. This interim financing will be periodically converted to long-term financing through the issuance of fixed rate bonds. As shown on the following chart, 46 percent of capital financing will come from debt issuance, a relatively low share given the size of the Authority's capital program.



In FY 1999, the Authority developed a detailed capital financing plan, which continued into FY 2001. The financing plan's goals are securing the lowest cost of capital possible and maximizing administrative and operating flexibility. The plan includes:

- Establishing an interim commercial paper financing program for capital construction. The first borrowing under this program occurred in late calendar year 2001.
- Issue fixed rate bonds approximately annually to take out interim financing.
- Utilize available pay-go financing, first to pay down any high cost debt, such as taxable U.S. Treasury notes for the Authority's share of Washington Aqueduct improvements, and second for the capital improvement program. Through FY 2001, the Authority has prepaid $34 million in U.S. Treasury notes. Pay-go financing represents any available cash after funding the Authority's 180-day operating and maintenance reserve.

As of September 30, 2001, the Authority had approximately $391 million in debt outstanding, as shown on the following table. Based on the Authority's current capital program, total debt is projected to grow to approximately $1 billion by FY 2009, and debt service is projected to grow from approximately 15 percent of the Authority's operating budget in FY 2001 to 27 percent in FY 2010.

LONG-TERM DEBT OUTSTANDING
AS OF SEPTEMBER 30, 2001
($ in 000's)

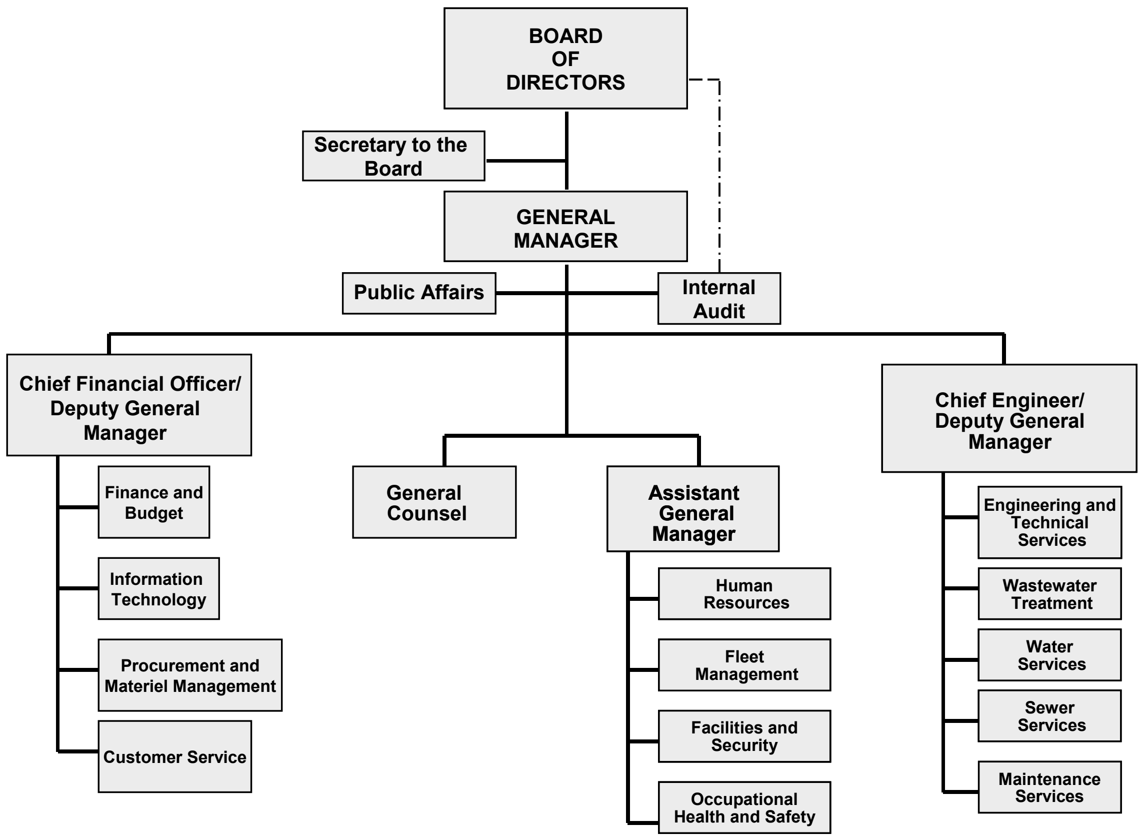
SENIOR DEBT	INTEREST RATES	FINAL MATURITY	AMOUNT OUTSTANDING
Notes payable to the federal government for Washington Aqueduct	Variable	2018	$ 15,708
1998 public utility revenue bonds	5.50 - 6.00	2028	266,120
SUBTOTAL SENIOR DEBT			281,828
SUBORDINATE DEBT			
Notes payable to the federal government for Jennings Randolph Reservoir	3.25	2041	17,383
Notes payable to WSSC for Little Seneca Reservoir	5.98 - 6.60	2014	935
1991 District of Columbia general obligation bonds	6.30 - 6.75	2008	525
1993 District of Columbia general obligation bonds	4.90 - 6.00	2012	62,267
1994 District of Columbia general obligation bonds	4.55 - 6.50	2011	17,920
2001 District of Columbia general obligation bonds	6.02	2008	10,492
TOTAL SUBORDINATE DEBT			109,522
TOTAL DEBT OUTSTANDING			391,350
CURRENT PORTION OF DEBT OUTSTANDING			28,498
DEBT OUTSTANDING, LESS CURRENT PORTION			$ 362,852

Long term debt outstanding as presented on the accompanying balance sheets includes net unamortized bond premiums of $6,271 on September 30, 2001.

During the spring of 2000, the three major rating agencies (Moody's Investor Service, Inc., Standard & Poor's, and Fitch Ratings) upgraded WASA's bond ratings. All three agencies cited the substantial progress the Authority has made over the past three years, as well as the strong planning and policies that have been put into place by the Board and management.

Rating Agency	Rating
Moody's	"A1" with stable outlook
Standard & Poor's	"A" with positive outlook
Fitch Ratings	"A+" with stable outlook

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 which 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, Procurement/Materiel Management, Risk Management, and Information Technology. The Assistant General Manager oversees Human Resources, Fleet 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, and comprise 60 percent of 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. 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 customers' pro rata share of operating and capital costs based on water purchased; the Authority's pro rata share of Aqueduct expenses is currently 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 the region's 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 all 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 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 FY 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 stormwater 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 1,100 tons per day of biosolids produced by the facility is directly land applied at various sites in Maryland and Virginia. Small quantities also are incinerated offsite. 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 alternative solution and continuing land application as long as financially advantageous. The Authority has prepared a plan to install new egg-shaped digesters, which will contribute greatly to onsite odor control and reduced odors in the product that leaves Blue Plains. When completed, this facility will significantly reduce the volume of biosolids produced.

The Water System

History and Service Area

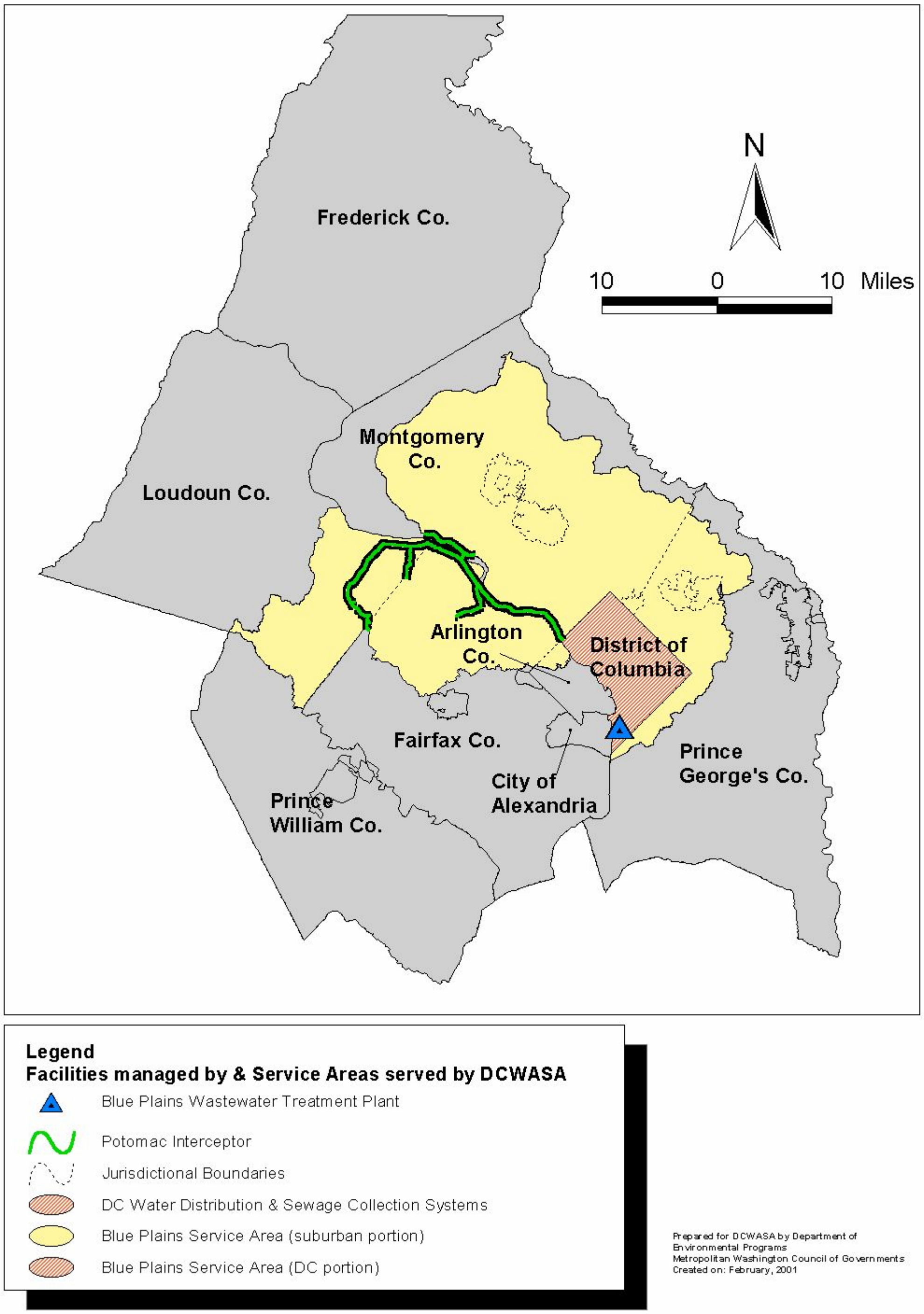
Prior to the establishment of the Washington Aqueduct Division of the United States Army Corps of Engineers (the Aqueduct) in 1858, residents of the District obtained their drinking water from springs and wells. The distribution system consisted primarily of bored logs and some cast iron pipes. Water 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 almost 1,300 miles of pipes and mains ranging from 4 to 78 inches in diameter. The system includes cast iron, ductile iron, reinforced and prestressed 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.

District of Columbia-Water and Sewer Authority (DCWASA)



Note: Service area covers the District of Columbia, most of Montgomery and Prince George's counties, and parts of Fairfax and Loudoun counties.

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 2000, the District's estimated resident population was 572,059, while the 2000 estimate of the metropolitan area population was 4.9 million and encompassed 24 additional jurisdictions in Maryland and Virginia. In 2000, 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 184,000 employees in 2000, while an additional 152,700 federal employees worked elsewhere in the metropolitan area. The District is host to 137 foreign embassies and 36 other recognized diplomatic missions, with more than 7,500 employees. 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 2000, an estimated 19.2 million persons 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 $38,374 in 2000 compared to $29,451 for 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 2.30 persons), a large percentage of college graduates and a substantial concentration of employed residents in highly-skilled occupations.

CERTIFICATE OF ACHIEVEMENT

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, 2000 (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.

INDEPENDENT AUDIT

The Authority's fiscal year is for the period from October 1 to September 30, and the Authority's financial statements are subject to an annual audit by independent certified public accountants. For

FY 2001, Thompson, Cobb, Bazilio & Associates, P.C. (TCBA) audited the Authority financial statements. TCBA's opinion is included in the Financial Section.

ACKNOWLEDGEMENTS

I gratefully acknowledge the hard work and dedication of the Authority's financial operations staff in preparing this report. Many departments and the General Manager's staff also contributed significantly to this effort. I also thank Olu Adebo, Controller, Michelle Cowan, Director of Finance and Budget, and Jean Wilson, Senior Financial Analyst, for their outstanding financial leadership in FY 2001 and their work in completing this report.

CONCLUSION

The Authority, in its fifth year, continues to build on its record of success. Financial performance is extremely strong, and all targets and Board of Directors policies have been met. We continued to make improvements in our core operations, through the implementation of new systems that improve service both to our customers and employees. These exceptional results did not occur by accident; they occurred because the Board developed a prudent long-term financial plan grounded in strong financial policies, and then executed the plan. We expect to continue this record in FY 2002 and beyond.

Respectfully submitted,

Paul L. Bender

Chief Financial Officer

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Financial Section

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THOMPSON, COBB, BAZILIO & ASSOCIATES, PC
Certified Public Accountants and Management, Systems, and Financial Consultants

■ Main Office:
1101 15th Street, N.W.
Suite 400
Washington, DC 20005
(202) 737-3300
Fax: (202) 737-2684

□ Regional Office:
100 Pearl Street
14th Floor
Hartford, CT 06103
(860) 249-7246
Fax: (860) 275-6504

□ Regional Office:
21250 Hawthorne Boulevard
Suite 500
Torrance, CA 90503
(310) 792-7001
Fax: (310) 792-7004

Independent Auditor's Report

Board of Directors
District of Columbia Water and Sewer Authority:

We have audited the accompanying balance sheet of the District of Columbia Water and Sewer Authority (WASA) (a component unit of the District of Columbia) as of September 30, 2001, and the related statements of revenue, expenses and changes in retained earnings and cash flows for the year 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 audit. The financial statements of the District of Columbia Water and Sewer Authority as of September 30, 2000, were audited by other auditors whose report dated December 29, 2000, expressed an unqualified opinion on those statements.

We conducted our audit in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit 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 audit provides a reasonable basis for our opinion.

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, 2001, and the results of its operations and its cash flows for the year then ended in conformity with accounting principles generally accepted in the United States of America.

Washington, DC
January 2, 2002

Thompson, Cobb, Bazilio & Associates, P.C.

DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

Balance Sheets

September 30, 2001 and 2000

(In thousands)

Assets		**2001**	**2000**
Current assets:			
Cash and cash equivalents (notes 2 and 3)	$	124,964	156,687
Customer receivables, net of allowance for doubtful accounts of $6,671 in 2001 and 2000 (note 7)		52,872	50,668
Due from federal government (note 6)		24,095	20,461
Due from District of Columbia (notes 5 and 13)		17,080	20,463
Due from other jurisdictions (note 8)		3,662	6,766
Inventory (note 2)		8,841	10,104
Prepaid insurance		43	—
Total current assets		231,557	265,149
Restricted assets (notes 2, 3 and 11):			
Revenue bond debt service reserve fund		24,529	24,393
Revenue bond fund - interest account		7,446	7,591
Total restricted assets		31,975	31,984
Utility plant (note 4):			
In-service		1,561,415	1,518,612
Less accumulated depreciation		(533,709)	(512,975)
Net utility plant in service		1,027,706	1,005,637
Construction in progress		193,132	151,930
Net utility plant		1,220,838	1,157,567
Other noncurrent assets:			
Due from other jurisdictions (note 8)		34,420	33,282
Purchased capacity (less accumulated amortization of $26,300 in 2001 and $23,750 in 2000) (notes 2 and 9)		125,303	111,216
Total other noncurrent assets		159,723	144,498
Total Assets	$	1,644,093	1,599,198

Liabilities and Equity			
Current liabilities:			
Accounts payable and accrued expenses	$	51,608	47,993
Compensation payable (note 2)		14,291	7,864
Accrued interest		8,975	9,039
Due to stormwater fund		483	—
Deferred revenue (note 2)		48,726	51,403
Current installments of long-term debt (note 11)		28,498	17,691
Total current liabilities		152,581	133,990
Noncurrent liabilities:			
Deferred revenue (note 2)		392,489	371,912
Other liabilities		8,865	11,080
Long-term debt excluding current installments (note 11)		369,123	382,217
Total noncurrent liabilities		770,477	765,209
Total liabilities		923,058	899,199
Equity:			
Contributed capital, (notes 2 & 10)		394,613	399,183
Retained earnings		326,422	300,816
Total equity		721,035	699,999
Total Liabilities and Equity	$	1,644,093	1,599,198

See accompanying notes to financial statements.

DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

Statements of Revenue, Expenses and Changes in Retained Earnings
Years ended September 30, 2001 and 2000
(In thousands)

		2001	2000
Operating revenue:			
Water and waste water user charges:			
Residential and commercial customers	$	139,429	131,399
Federal government		26,199	24,092
District government		15,827	16,077
Charges for wholesale waste water treatment		50,515	50,284
Other		5,510	6,078
Total operating revenue		237,480	227,930
Operating expenses:			
Personnel services		62,055	63,078
Contractual services		58,976	54,552
Chemicals, supplies and small equipment		15,488	13,129
Utilities and rent		21,219	20,091
Depreciation and amortization		32,971	30,329
Water purchases		17,085	16,358
Payment in lieu of tax & right of way fee		15,026	9,177
Total operating expenses		222,820	206,714
Operating income		14,660	21,216
Nonoperating income (expense):			
Interest income		10,382	12,744
Other non operating income		278	—
Interest and fiscal charges		(15,486)	(18,616)
Federal grants contributions(net) (note 2b)		11,202	—
Net income		21,036	15,344
Add back of depreciation expense related to contributed capital		4,570	4,489
Increase in retained earnings		25,606	19,833
Retained earnings at beginning of year		300,816	280,983
Retained earnings at end of year	$	326,422	300,816

See accompanying notes to financial statements.

DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY

Statements of Cash Flows

Years ended September 30, 2001 and 2000

(In thousands)

		2001	2000
Cash flows from operating activities:			
Cash received from customers	$	225,335	238,288
Cash paid to suppliers for goods and services		(127,286)	(101,341)
Cash paid to employees for services		(55,635)	(62,794)
Net cash provided by operating activities		42,414	74,153
Cash flows from capital and related financing activities:			
Proceeds from notes payable to federal government		15,707	8,031
Proceeds from other jurisdictions		28,910	38,350
Repayments of bond principal and notes payable to federal and District government		(20,386)	(25,334)
Acquisition of utility plant and purchased capacity		(104,940)	(116,682)
Payments of interest and fiscal charges		(20,007)	(21,404)
Contributions of capital from federal government		4,580	9,562
Net cash used in capital and related financing activities		(96,136)	(107,477)
Cash flows from non-capital financing activities - cash repayments of loan to District		10,434	18,200
Cash flows from investing activities:			
Cash received for interest		11,558	12,565
Net sales (purchases) and maturities of investments		24,391	(448)
Net cash provided by investing activities		35,949	12,117
Net increase (decrease) in cash and cash equivalents		(7,339)	(3,007)
Cash and cash equivalents at beginning of year		164,278	167,285
Cash and cash equivalents at end of year	$	156,939	164,278
Operating income	$	14,660	21,216
Adjustments to reconcile operating income to net cash provided by operating activities:			
Depreciation and amortization		32,971	30,329
Change in operating assets and liabilities:			
(Increase) decrease in customer and other receivables		(8,631)	14,485
Decrease in inventory		1,221	975
Increase in payables and accrued liabilities		10,748	7,266
Increase (decrease) in deferred revenue		(8,555)	(118)
Net cash provided by operating activities	$	42,414	74,153

See accompanying notes to financial statements

(1) The Water and Sewer Authority

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 sewer 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 wastewater treatment plant (Plant) and an interceptor trunk line which carries wastewater primarily from Loudoun County and Dulles Airport to the Plant.

WASA's wastewater service territory includes approximately 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.

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 Dulles Airport Authority.

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% of the water produced by the Aqueduct, which is reported as water purchases.

WASA is an independent authority under its enabling legislation. WASA is also responsible for the payment of certain District long-term debt issued before WASA's creation to finance capital improvements for WASA's predecessor agency. Therefore, WASA is a component unit of the District.

(2) Summary of Significant Accounting Policies

The financial statements of WASA have been prepared in conformity with accounting principles generally accepted in the Unites 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) Basis of Accounting

These financial statements are prepared using the accrual basis of accounting, as required for a proprietary fund type activity.

WASA has elected not to apply the option allowed in paragraph 7 of GASB Statement No. 20, *Accounting and Financial Reporting for Proprietary Funds and Other Governmental Entities that use Proprietary Fund Accounting*. Therefore, WASA does not apply Financial Accounting Standards Board Statements and Interpretations issued after November 30, 1989.

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, 2001 and 2000, no regulatory assets or liabilities were required to be reported in accordance with SFAS 71.

(b) Revenue Recognition

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. Starting in FY 2001, the Authority adopted GASB Statement 33 *Accounting and Financial Reporting for Nonexchange Transactions.* This statement requires governments to recognize capital contributions as revenues not contributed capital. The statement does not allow governments to restate contributed capital from prior periods.

(c) Water and Sewer User Charges

Retail customer water and sewer rates are as 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.

(2) Summary of Significant Accounting Policies - Continued

(d) 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 amortized into charges for wholesale wastewater treatment revenue over the estimated useful lives of the related assets.

(e) Utility Plant

Utility plant is stated at original construction cost, which includes personal service and interest costs incurred during construction. Normal recurring maintenance and repair costs are charged to operations, whereas major repairs and improvements and replacements, which materially extend the useful lives of the assets, are capitalized. Plant in-service is depreciated on the straight-line basis over an estimated useful life of 60 years, except for personal property, which is depreciated over estimated useful lives ranging from five to eight years. Construction in progress is reclassified to in-service upon substantial completion or when placed in service, with related depreciation commencing at that time.

(f) 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 U.S. Government obligations, which generally have an original maturity of 90 days or less, and are readily convertible to known amounts of cash. For purposes of the accompanying statements of cash flows, cash and cash equivalents also include WASA's restricted cash.

(g) Investments

Investments consist of certain money market investments that mature in one year or less from the date of purchase that are recorded at amortized cost, and certain nonparticipating contracts that are recorded at cost. Recorded amounts approximate fair value.

(2) Summary of Significant Accounting Policies - Continued

(h) Restricted Assets

Restricted assets consist of invested 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 and other legal indentures.

(i) 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 the Aqueduct's capital improvement program directly by the federal government through borrowings. WASA is now 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 a 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.

(j) Inventory

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

(k) Debt Financing Costs

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

(2) Summary of Significant Accounting Policies - Continued

(l) Federal Grants

Beginning in FY 2001, grants received from the federal government for utility plant construction are recorded as revenue and not contributed capital as explained at (b) of this note. In prior years these grants were recorded as contributed capital. The depreciation related to the utility plant assets financed by federal government grants is charged to operations and subsequently deducted from contributed capital.

(m) Vacation and Sick Leave

Employees earn vacation and sick leave based on a prescribed formula, which allows employees to accumulate a maximum of 30 days in vacation pay and an unlimited amount of sick pay. The amount of vacation leave earned but unused by employees vests and is accrued as a liability. Sick pay does not vest; accordingly, it is recorded when used.

(n) Reclassifications

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

(3) Cash Deposits and Investments

(a) Cash Deposits

At September 30, 2001 and 2000, the carrying amounts of WASA's unrestricted bank deposits plus petty cash were $7,300 and $2,470 respectively. These bank deposits are entirely insured or collateralized with securities held by WASA's agent in its name.

(b) Cash Equivalents and Investments

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. 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.

At September 30, 2001 and 2000, the carrying amounts of WASA's unrestricted and restricted cash equivalents and investments were $142,193 and $178,610 respectively.

(In thousands)

(3) Cash Deposits and Investments - Continued

A schedule of cash, cash equivalents and investments as of September 30, 2001 and 2000 follows:

Description	2001	2000
Cash		
Unrestricted		
Demand Deposit	$ 7,300	2,470
Restricted		
Money market mutual fund	7,446	7,591
Total unrestricted and restricted cash	14,746	10,061
Cash equivalents		
Unrestricted		
Repurchase agreements	20,806	10,736
U.S. government notes and agency securities	23,709	—
Commercial paper	19,948	14,769
Total unrestricted cash equivalents	64,463	25,505
Restricted		
U.S. government notes and agency securities	24,529	—
Total restricted cash equivalents	24,529	—
Investments		
Unrestricted		
Repurchase agreements	30,000	64,999
U.S. government notes and agency securities	18,301	29,342
Commercial paper	4,900	34,371
Total unrestricted investments	53,201	128,712
Restricted		
U.S. government notes and agency securities	—	24,393
Total restricted investments	—	24,393
Total cash, cash equivalents and investments	$ 156,939	188,671

(In thousands)

(3) Cash Deposits and Investments - Continued

The above are reconciled to the balance sheet as follows:

Description		2001	2000
Cash and cash equivalents	$	124,964	156,687
Restricted assets		31,975	31,984
Total cash, cash equivalents and investments	$	156,939	188,671

(4) Utility Plant

The net utility plant, including capitalized interest of $4,221 and $2,970 for the years ended September 30, 2001 and 2000, respectively, consists of the following as of September 30:

		2001	2000
Real property:			
Blue Plains Regional Waste Water Treatment Plant	$	924,241	902,681
Waste water collection facilities		302,178	295,617
Water distribution system		266,441	258,574
Total real property		1,492,860	1,456,872
Personal property		68,555	61,740
Total utility plant		1,561,415	1,518,612
Less accumulated depreciation		(533,709)	(512,975)
Net utility plant in service		1,027,706	1,005,637
Construction in progress		193,132	151,930
Net utility plant	$	1,220,838	1,157,567

(In thousands)

(5) Due from the District of Columbia, net

Included in the short-term due from the District is an advance payment of $16,885 and $14,438 for WASA's share of fiscal year 2001 and 2000 debt service on general obligation bonds originally issued to finance WASA capital improvements.

(6) Due from Federal Government

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

	2001	2000
Federal grants receivable	$ 17,438	14,398
Washington Aqueduct advances	6,657	6,063
	$ 24,095	20,461

(7) Customer Receivables

Customer receivables include unbilled revenues of $14,697 and $16,700 at September 30, 2001 and 2000, respectively.

(8) Due From Other Jurisdictions

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

	2001	2000
Current:		
Loudoun County Sanitation Authority	$ 131	276
Northern Virginia (a)	1,379	1,417
Fairfax	293	620
WSSC	1,603	4,075
Potomac Interceptor	256	378
Subtotal	3,662	6,766
Noncurrent:		
Wholesale wastewater users	23,473	20,956
Northern Virginia (a)	10,947	12,326
Subtotal	34,420	33,282
Total due from other jurisdictions	$ 38,082	40,048

(In thousands)

(8) Due From Other Jurisdictions - Continued

(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.

(9) Purchased Capacity

Purchased capacity consists of the following as of September 30:

		2001	2000
Jennings Randolph Reservoir (Bloomington Dam)	$	19,863	19,863
Little Senca Lake		12,327	12,327
Washington Aqueduct		119,413	102,776
		151,603	134,966
Less accumulated amortization		(26,300)	(23,750)
Net purchased capacity	$	125,303	111,216

(10) Contributed Capital

Contributed capital originates from two sources. Federal government contributed capital represents the undepreciated balances of the utility plant constructed with proceeds from federal funding sources. District of Columbia contributed capital represents its original equity on September 30, 1979, the date the Enterprise Fund was organized, plus donated property and assets transferred from the District's General Fixed Assets Group of Accounts during subsequent years.

Starting in FY 2001, the Authority adopted GASB Statement 33 *Accounting and Financial Reporting for Nonexchange Transactions.* This statement requires governments to recognize capital contributions as revenues, not contributed capital. The statement does not allow governments to restate contributed capital from prior periods.

(In thousands)

(10) Contributed Capital - Continued

Changes in contributed capital for the years ended September 30, 2001 and 2000 are shown below:

	2001	2000
Federal government contributed capital:		
Balance, beginning of year	$ 225,590	224,160
Grant awards, net	-	5,919
Depreciation of assets financed with federal grant awards	(4,570)	(4,489)
Balance, end of year	221,020	225,590
District of Columbia contributed capital	173,593	173,593
Total contributed capital	$ 394,613	399,183

(In thousands)

(11) Long -Term Debt

WASA derives 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. Long-term debt consists of the following at September 30, 2001 and 2000, respectively:

	Final maturity	2001	2000
Notes payable to the federal government for Washington Aqueduct; interest is variable based on a three month taxable municipal index which, for 2001, was between 3.05% and 6.68%	2018	$ 15,708	8,031
Notes payable to the federal government for Jennings Randolph Reservoir (Bloomington Dam); interest at 3.25%	2041	17,383	17,615
Notes payable to WSSC for Little Seneca; interest ranges from 5.98% to 6.60%	2014	935	1,465
1998 public utility revenue bonds; interest ranges from 5.50% to 6.00%	2028	266,120	266,120
District of Columbia general obligation bonds:			
1988; interest at 7.25%	2001	—	75
1990; interest ranges from 7.2% to 7.25%	2001	—	10
1991; interest ranges from 6.3% to 6.75%	2008	525	580
1992; interest at 6.02%	2007	—	12,813
1993; interest ranges from 4.9% to 6.0%	2012	62,267	67,228
1994; interest ranges from 4.55% to 6.50%	2011	17,920	19,440
2001; interest at 6.02%	2008	10,492	—
		391,350	393,377
Less current installments		(28,498)	(17,691)
		$ 362,852	375,686

Long term debt outstanding as presented on the accompanying balance sheets include net unamortized bond premiums of $6,271 and $6,531 at September 30, 2001 and 2000, respectively.

(11) Long Term Debt - Continued

(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 the operating expenses. The 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, 2001 and 2000, the highest rate on these notes was 7.19 and 6.68 percent and the lowest rate was 5.88 and 3.05 percent, respectively.

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 the issuance proceeds were 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 $84,110 and $90,530 at September 30, 2001 and 2000, respectively.

(11) Long Term Debt - Continued

(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 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 by WSSC to construct the Little Seneca Dam and Lake for backup and peak day water supply for the Authority.

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, 2001 and 2000, WASA had reserved $1.707 million and $1.465 million, respectively, of its unrestricted cash in connection with the debt service reserve requirement described above in cash, and was in compliance with the other provisions of the memorandum of understanding.

(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, 2001 and 2000. The primary requirements of the Master Indenture are summarized below:

(In thousands)

(11) Long Term Debt - Continued

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. Net revenues are defined generally as all Authority revenues (excluding capital contributions from wholesale customers, Environmental Protection Agency (EPA) 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, 2001 and 2000 was $24,529 and $24,393, 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, 2001 are as follows:

Fiscal year	Principal	Interest	Total
2002	28,498	20,498	48,996
2003	13,844	19,834	33,678
2004	14,717	19,082	33,799
2005	16,134	18,274	34,408
2006	13,385	17,409	30,794
2007 - 2011	71,063	76,199	147,262
2012 - 2016	64,278	58,636	122,914
2017 - 2021	84,403	38,632	123,035
2022 - 2026	61,716	15,325	77,041
2027 - 2031	17,692	3,027	20,719
2032 - 2036	2,593	753	3,346
2037 - 2041	3,027	303	3,330
	$ 391,350	287,972	679,322

(12) Commitments and Contingencies

(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.

(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 three most recent years, settlement of claims has not exceeded insurance coverages.

WASA has purchased property coverage to protect its owned or leased facilities, buildings, equipment and self insures WASA's fleet vehicles. The deductible for each claim for buildings and contents is $250 and for equipment is $10.

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 up to $100 have been secured in excess of a deductible of $1,000 for each claim. Public officials liability insurance has been secured with limits up to $20,000 in excess of a deductible of $50.

WASA self-insures all workers' compensation claims for work-related injuries. In order to reduce the cost of medical expenses, rehabilitation and lost wages, WASA has contracted with a third party administrator to manage the workers' compensation program.

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 actuarially determined amounts. WASA has computed contingency amounts for grants disallowance, litigation and claims and are included in other liabilities on the accompanying balance sheet.

(In thousands)

(12) Commitments and Contingencies - Continued

Changes in the balances of workers' compensation claims liabilities during the years ended September 30, 2001 and 2000 were as follows:

		2001	2000
Balance, beginning of year	$	2,692	2,028
Current year claims and changes in estimates		3,059	1,485
Claim payments		(1,650)	(821)
Balance, end of year	$	4,101	2,692

(13) Related Party and Similar Transactions

The enabling legislation, described in Note 1, established that the District would pay for water and sewer services. WASA recorded revenue of $15,827 and $16,077 from the District for these services for years 2001 and 2000, respectively, which are included in water and wastewater user charges in the accompanying statements of revenues, expenses and changes in retained earnings.

WASA recorded expenses of $9,625 and $9,177, 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, 2001 and 2000, respectively. WASA also recorded an expense of $5,401 and $1,110 for years 2001 and 2000 respectively, which was for a new Right of Way fee charged by the District.

On October 18, 2000, District of Columbia City Council established legislation to create the Storm Water Compliance Amendment Act of 2000. The Act established the Authority as the Storm Water Administrator. The Administrator shall be 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 legislation also required the Authority to charge its customers a fee for Storm Water. During FY 2001, the Authority collected $619 from its customers and incurred $135 of administrative expenses. The amount shown on the balance sheet as Due to Storm Water Fund is a 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 2001, 2000 and 1999, WASA's contributions to the plans were $1,995, $1,914, and $2,353, respectively. Each of 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 for the employees were 7.0 percent for 2001, 7.40 percent for 2000 and 7.25 percent for 1999. The required percent of salaries to be contributed by WASA was 8.51 percent for the three fiscal years ending 2001.

(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 2001 and 2000, the Authority's contributions were seven percent and five percent of base pay toward the plan on behalf of each eligible employee. Employees do not contribute to the plan and become eligible participants after a one-year waiting period. Employees become 100 percent vested in their account balance after 5 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 2001 and 2000, the Authority's contributions to both defined contribution plans were $1,760 and $1,257 respectively.

(14) Employee Benefits - Continued

(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 Employees' Group Life Insurance Program.

Statistical Section

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EXHIBIT 1: OPERATING REVENUE BY SOURCE FY 1992 - 2001 ($000)

REVENUE SOURCE	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Residential/Commercial	$ 106,201	$ 101,477	$ 104,407	$ 101,696	$ 101,078	$ 115,294	$ 138,697	$ 138,328	$ 131,399	$ 139,429
Governmental										
Federal	29,696	27,610	23,192	22,966	21,946	24,024	25,068	26,859	24,092	26,199
DC Government (1)	-	-	-	-	-	12,268	21,883	11,168	10,883	9,543
DC Housing Authority	6,277	6,003	6,518	6,338	6,623	7,035	7,770	5,720	5,194	6,284
Subtotal Governmental	35,973	33,613	29,710	29,304	28,569	43,327	54,721	43,747	40,169	42,026
TOTAL RETAIL REVENUES	**$ 142,174**	**$ 135,090**	**$ 134,117**	**$ 131,000**	**$ 129,647**	**$ 158,621**	**$ 193,418**	**$ 182,075**	**$ 171,568**	**$ 181,455**
Charges for Sewer Treatment	45,196	45,559	51,526	40,080	35,989	52,333	50,566	56,107	50,284	50,515
Other Revenues	3,140	3,784	4,190	3,977	5,854	6,230	14,459	4,450	6,078	5,510
Wholesale Water Revenues (2)	5,939	6,739	7,770	2,522	9,546	4,310	-	-	-	-
Refunds to Customers	(743)	(246)	(269)	(259)	-	-	-	-	-	-
TOTAL REVENUES	**$ 195,706**	**$ 190,926**	**$ 197,334**	**$ 177,320**	**$ 181,036**	**$ 221,494**	**$ 258,443**	**$ 242,632**	**$ 227,930**	**$ 237,480**

(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.

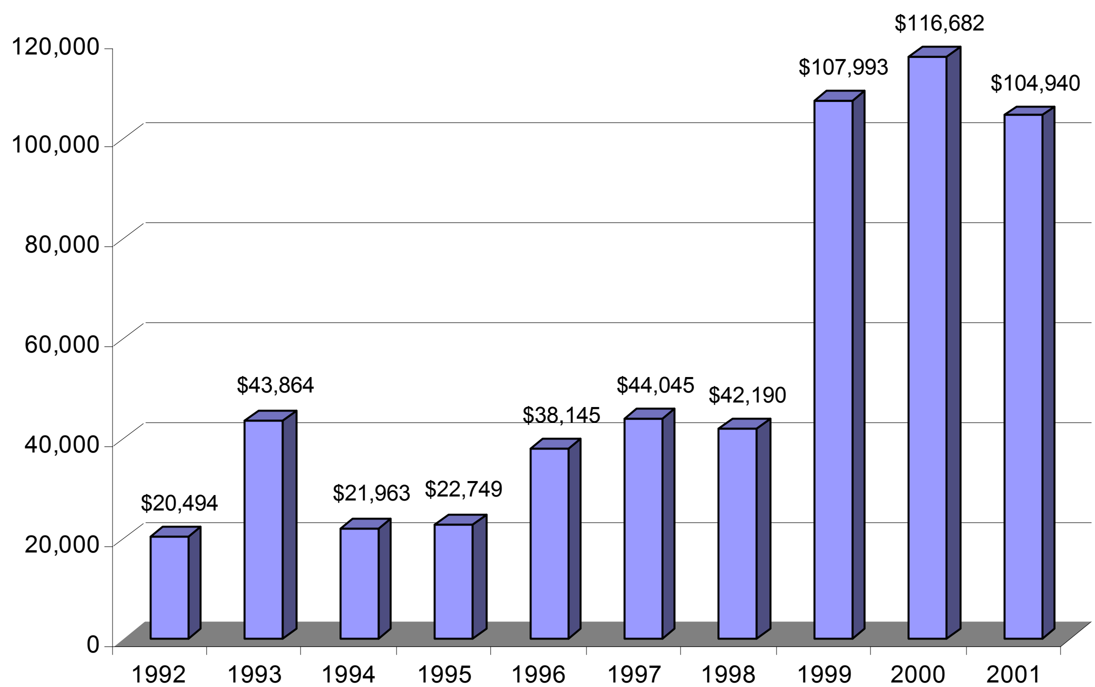
Source: FY 1992 - 2001 Audited Statements of Revenue, Expenses and Changes in Retained Earnings

EXHIBIT 2: OPERATING EXPENSES BY CATEGORY
FY 1992 - 2001
($000)

EXPENSE CATEGORY	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Personnel	$ 48,264	$ 46,530	$ 53,473	$ 49,669	$ 50,758	$ 51,197	$ 53,956	$ 60,674	$ 63,078	$ 62,055
Contractual	43,404	40,402	40,693	43,808	40,539	55,904	66,340	56,017	54,552	58,976
Supplies	19,902	16,516	21,899	15,855	14,686	14,057	17,722	11,431	13,129	15,488
Occupancy	13,632	20,623	15,839	15,337	15,392	16,668	21,173	21,225	20,091	21,219
Depreciation & Amortization	17,177	14,107	17,528	18,830	18,660	25,695	26,278	28,227	30,329	32,971
Water Purchases	16,164	17,348	15,807	18,077	16,760	21,620	23,313	18,922	16,358	17,085
PILOT/Right of Way Fee	-	-	-	-	-	-	-	-	9,177	15,026
Bad Debt	1,000	1,395	-	-	-	-	-	-	-	-
Miscellaneous	468	171	243	244	387	1,407	-	-	-	-
TOTAL OPERATING EXPENSES	**$ 160,011**	**$ 157,092**	**$ 165,482**	**$ 161,820**	**$ 157,182**	**$ 186,548**	**$ 208,782**	**$ 196,496**	**$ 206,714**	**$ 222,820**

Source: FY 1992 - 2001 Audited Statements of Revenue, Expenses and Changes in Retained Earnings

EXHIBIT 3: CAPITAL DISBURSEMENTS
FY 1992 - 2001
($000)



Note: These disbursements include the Authority's share of Washington Aqueduct's capital disbursements, which in FY 1997 – 2001 have been financed by U.S. Treasury notes.

Source: FY 1992 – 2001 Audited Statements of Cash Flows

EXHIBIT 4: DEBT SERVICE COVERAGE (1)
FY 2001
($000)

RETAIL REVENUES	$	166,270
WHOLESALE REVENUES	$	42,782
TOTAL OPERATING REVENUE	$	209,052
NON-OPERATING REVENUE	$	18,536
TOTAL REVENUE	$	227,588
OPERATING EXPENSES	$	174,377
NET REVENUES	$	53,211
SENIOR DEBT SERVICE	$	14,968
SUBORDINATE DEBT SERVICE (2)	$	17,645
NET REVENUES AVAILABLE FOR SENIOR DEBT SERVICE (3)	$	35,566
SENIOR DEBT SERVICE COVERAGE (4)		2.38x
NET REVS. AVAIL. FOR SUBORDINATE DEBT SERVICE (5)	$	35,249
SUBORDINATE DEBT SERVICE COVERAGE		2.0x
COMBINED DEBT SERVICE COVERAGE		1.63x

(1) Prepared in accordance with the Authority's Master Trust Indenture, which corresponds closely to cash basis accounting. The Authority's rate covenant contains two independent requirements: 1) Total revenues must be sufficient to pay actual operating expenses, senior and subordinate debt service, payments in lieu of taxes, and any required deposits to any reserve funds; and 2) Net revenues must be sufficient to pay the sum of (a) 120 percent of senior debt service and (b) 100 percent of subordinate debt service.

(2) Excluding PILOT (approximately $9.6 million in) FY 2001.

(3) Net revenues less subordinate debt service.

(4) While the Authority's indenture requires senior debt service coverage of 120 percent, the Authority's Board has adopted financial policies that require coverage of 140 percent.

(5) Net revenues less senior debt service and senior debt service coverage requirement of 120%.

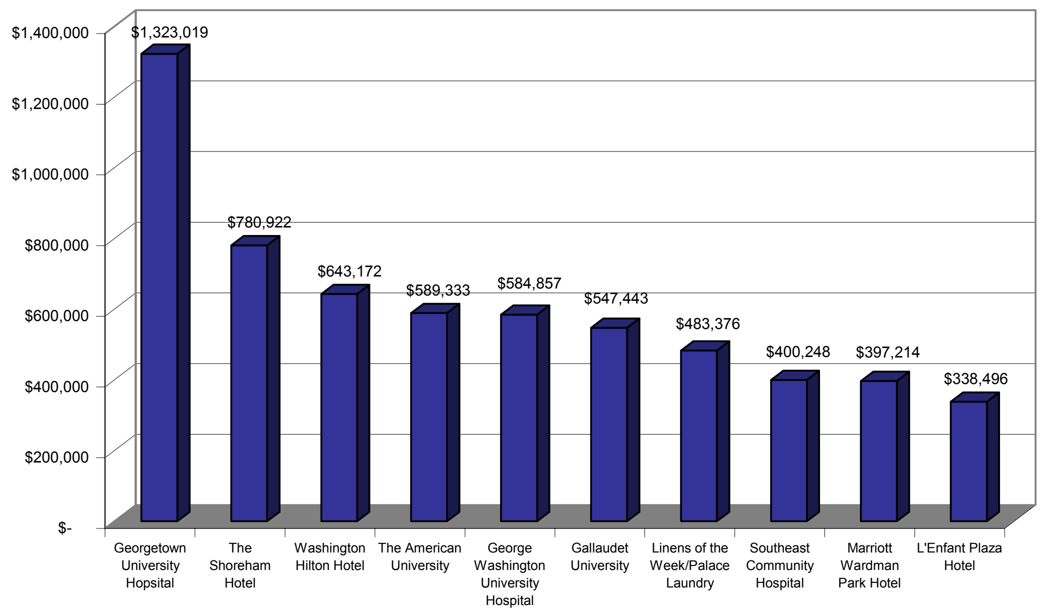
Source: Authority Department of Finance and Budget

EXHIBIT 5: NUMBER AND TYPE OF CUSTOMER ACCOUNTS AS OF SEPTEMBER 30, 2001

TYPE OF ACCOUNT		NUMBER OF ACCOUNTS
Residential		102,747
Commercial		19,279
Governmental		
Federal	540	
District of Columbia	565	
Howard University/Soldiers' Home	47	
DC Housing Authority	1,529	
Total Governmental		2,681
WASA		35
Wholesale		7
TOTAL NUMBER OF ACCOUNTS		124,749

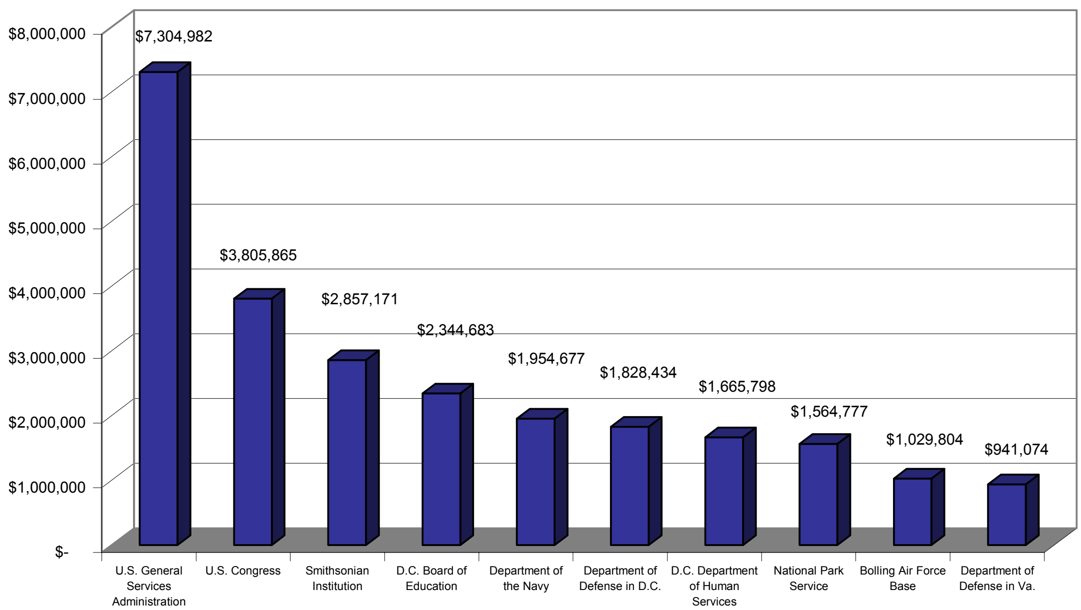
Source: D.C. Water and Sewer Authority Department of Customer Service

EXHIBIT 6: LARGEST COMMERCIAL CUSTOMER ACCOUNTS FY 2001



Source: Authority Department of Customer Service

EXHIBIT 7: LARGEST RETAIL CUSTOMER ACCOUNTS FY 2001



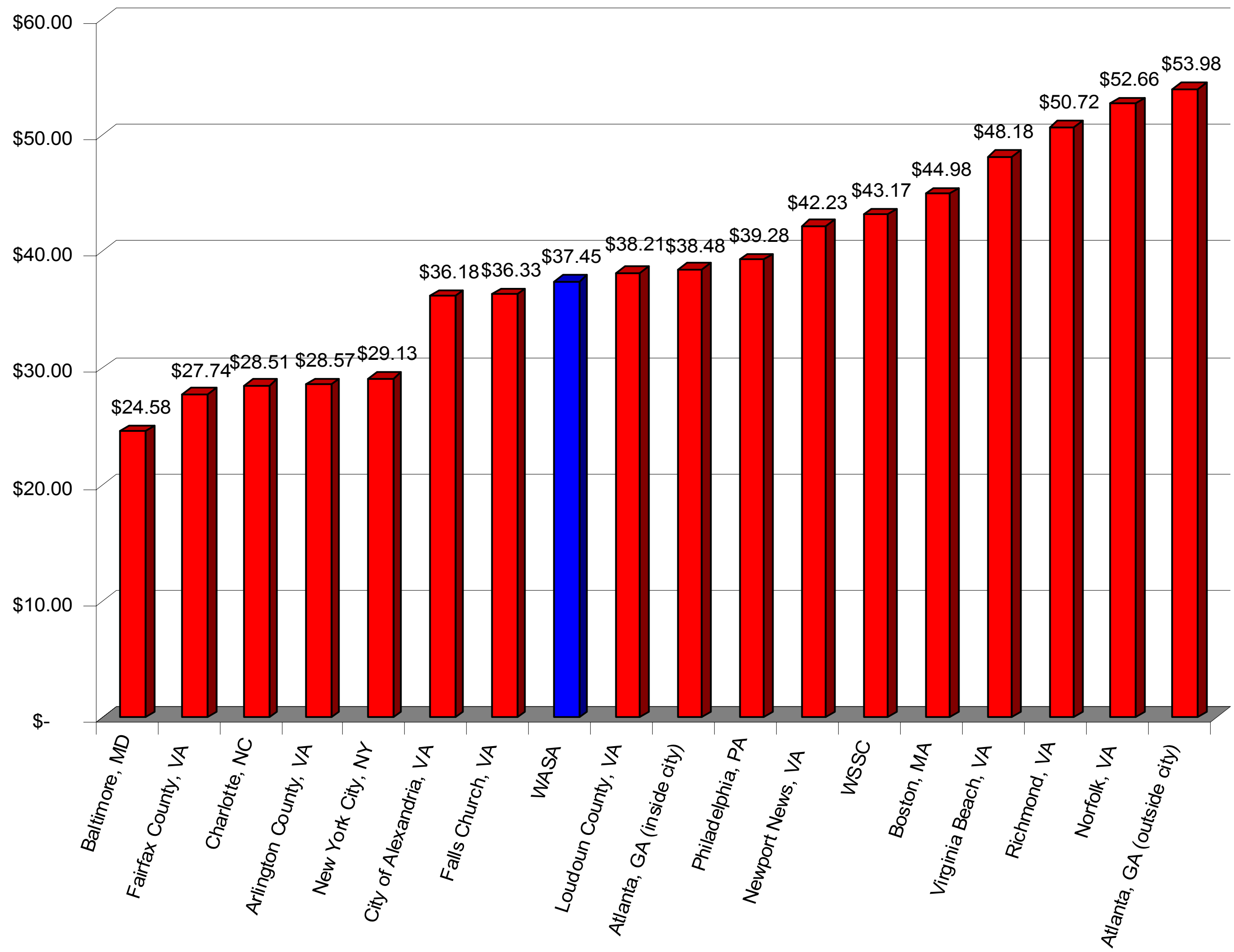
Source: Authority Department of Customer Service

EXHIBIT 8: HISTORY OF RETAIL WATER & SEWER RATES PER Ccf FY 1980 – 2001

FISCAL YEARS	WATER	SEWER	TOTAL
1980-1983	$ 0.460	$ 0.677	$ 1.137
1984	0.537	0.998	1.535
1985	0.698	1.297	1.995
1986	0.873	1.621	2.494
1987-1996	1.004	1.864	2.868
1997	1.380	2.710	4.090
1998	1.380	2.710	4.090
1999	1.380	2.710	4.090
2000	1.576	2.710	4.286
2001	1.786	2.710	4.496

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

EXHIBIT 9: RESIDENTIAL WATER & WASTEWATER BILL COMPARISONS
MONTHLY BASIS
AS OF SUMMER 2001 (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 10: SCHEDULE OF INSURANCE AS OF SEPTEMBER 30, 2001

TYPE OF COVERAGE	COMPANY	POLICY PERIOD	COVERAGE LIMITS
Commercial General Liability	Self-Funded		$1,000,000 each occurrence
Excess General Liability / Automotive Liability /Employers Liability	AEGIS Insurance	April 7, 2001– April 7, 2002	$35,000,000 in excess of $1,000,000
Excess General Liability	Energy Insurance Mutual	April 7, 2001 – April 7, 2002	$65,000,000 in excess of $35,000,000
Blanket Property	Factory Mutual Insurance Company	April 7, 2001 – April 7, 2002	$1,422,668,316 Blanket Building and Contents
			$250,000 Deductible Any Loss
			($500,000 Deductible Flood)
			$25,000,000 Earth Movement
			$10,000,000 Flood (Blue Plains)
			$25,000,000 Extra Expense
			$25,000,000 Transit Any One Shipment
			Increased Cost of Construction
Crime			$5,000,000 Blanket Employee Dishonesty
			$100,000 Deductible Per Occurrence
Equipment			$6,000,000 Per Occurrence
			$10,000 Deductible Per Occurrence
Boats			$25,000 Deductible for Skimmer Boats
Commercial Automobile	Self-Funded		$1,000,000 Self-Funded liability any one accident
			100% Self-Funded Physical Damage
Worker's Compensation	Self-Funded		Statutory
			Employer's Liability
			$1,000,000 Each Accident
			$1,000,000 Policy Limit
			$1,000,000 Disease Each Employee
Excess Worker's Compensation	Continental Casualty Company	April 7, 2001- April 7, 2002	Excess of Self-Funded $1,000,000 Statutory Benefits
Public Official Liability	AEGIS Insurance	April 7, 2001 – April 7, 2002	$20,000,000 Each Loss / Aggregate
			$50,000 Retention

EXHIBIT 11: WATER DEMAND FY 1996 - 2001

FISCAL YEAR	ANNUAL DELIVERIES TO SYSTEM (MG)	AVERAGE DAY (MG)	MAXIMUM MONTH AVERAGE (MGD)	MAXIMUM DAY (MGD)	TOTAL ANNUAL WATER SOLD (MGD)	AVERAGE DAY (MG)
1996	51,553	143.9	161.3	192.4	39,416	108.0
1997	49,172	136.9	158.3	207.2	37,405	102.5
1998	47,671	133.3	159.2	178.7	37,323	102.3
1999	50,140	139.5	167.0	201.3	34,428	94.3
2000	48,051	133.8	153.0	209.7	31,987	87.6
2001	48,144	131.5	148.3	180.4	32,008	87.7

Source: Authority Department of Water Services and Washington Aqueduct

EXHIBIT 12: WATER DELIVERED (PUMPED) AND BILLED (SOLD) IN CcF FY 1996 – 2001

FISCAL YEAR	TREATED WATER DELIVERED	WATER BILLED	SOLD/PUMPED RATIO
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%

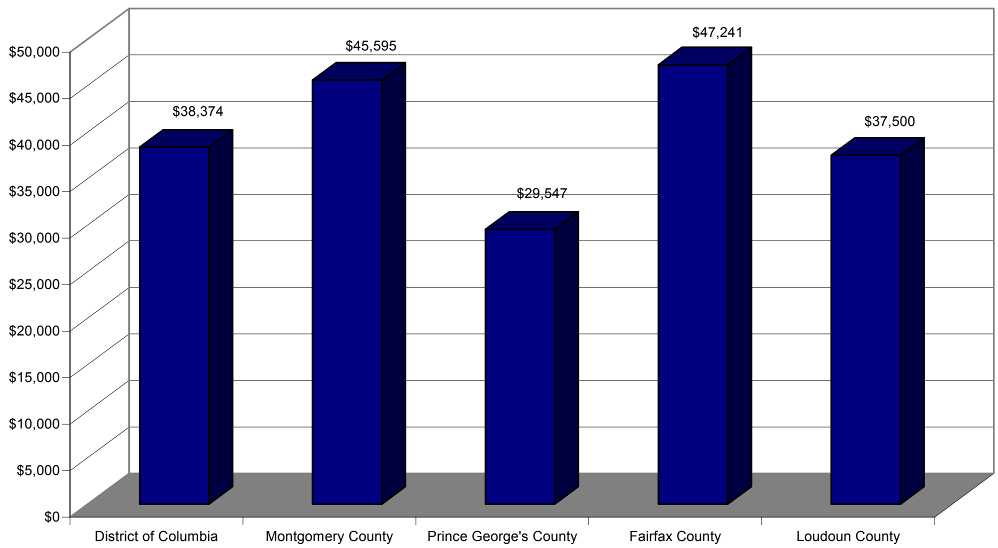
Source: Ccf Delivered, Washington Aqueduct; Ccf Billed, Authority Department of Customer Service

EXHIBIT 13: POPULATION OF SERVICE AREA JURISDICTIONS (1999) (D.C. POPULATION IS FOR 2000)

JURISDICTION	POPULATION
District of Columbia	572,059
Montgomery County	852,174
Prince George's County	781,781
Fairfax County	976,358
Loudoun County	156,284

Source: D.C. Office of Planning
United States Department of Commerce, Economics and Statistics Administration, Bureau of Economic Analysis

EXHIBIT 14: PER CAPITA PERSONAL INCOME (1999) (D.C. INCOME IS FOR 2000)



Source: U.S. Department of Commerce, Bureau of Economic Analysis (Jurisdictions data), D.C. Office of Planning (D.C. data)

EXHIBIT 15: UNEMPLOYMENT RATES (2000)

JURISDICTIONS	UNEMPLOYMENT RATE
District of Columbia	5.8%
Montgomery County	1.9%
Prince George's County	3.9%
Fairfax County	1.2%
Loudoun County	0.9%

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

EXHIBIT 16: EMPLOYMENT BY SECTOR (1999)

	DISTRICT OF COLUMBIA	MONTGOMERY COUNTY	PRINCE GEORGE'S COUNTY	FAIRFAX COUNTY	LOUDOUN COUNTY
Agriculture, Forestry, Mining, etc.	1.44%	1.25%	0.97%	**(D)**	4.11%
Construction	1.51%	5.47%	8.44%	5.54%	9.22%
Manufacturing	1.82%	3.49%	3.29%	**(D)**	4.59%
Transportation & Public Utilities	2.95%	3.00%	5.78%	5.52%	13.22%
Wholesale & Retail Trade	7.20%	16.94%	22.43%	17.80%	18.58%
Finance, Insurance & Real Estate	6.00%	10.28%	6.39%	9.40%	5.60%
Services	45.76%	44.70%	31.10%	45.38%	31.86%
Government (Federal, State & Local)	30.29%	13.63%	19.29%	11.89%	12.20%
Military	3.02%	1.24%	2.30%	0.96%	0.62%
TOTAL	100.00%	100.00%	100.00%	96.48%	100.00%

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

Note: Fairfax County data for agriculture, forestry, mining, and manufacturing are not shown to avoid disclosure of confidential information.

EXHIBIT 17: SUMMARY OF MAJOR PERMITS & ADMINISTRATIVE ORDERS FY 2001

WASTEWATER	DESCRIPTION	EXPIRATION DATE	CURRENT STATUS
National Pollutant Discharge Elimination System Permit # OCPO21199	Authorizes discharge of treated wastewater from Blue Plains into the Anacostia River	July 1, 1999	Permit on administrative extension while being negotiated
1995 Consent Decree	Requires the following actions:	N/A	In Compliance
Civil Action 90-1643-JGP and 84-2842-JGP	Review procurement practices & maintenance procedures Undertake Operational Capability Review Conduct a pilot project for biological nitrogen reduction		All items completed; awaiting action to terminate decree
1996 Stipulated Agreement & Order	Requires the following actions:	N/A	In Compliance
Civil Action 96-669-TFH	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		All items completed; awaiting action to terminate agreement and order
WATER			
1996 Administrative Order & Consent Agreement 111-96-001-DS	Requires compliance with the WASA-prepared and EPA-approved remediation plan: Public notification program Financial management program Water quality sampling program Storage facility rehabilitation program Cross connection control program Storage facility maintenance program Corrosion control treatment program	N/A	In Compliance

EXHIBIT 18: MISCELLANEOUS STATISTICS ABOUT AUTHORITY OPERATIONS

Utilities & Supplies Per Day (at Blue Plains)

Electrical Power	690,520 KWH
Natural Gas	20,000 CF
Chlorine	9.0 tons (transition to sodium hypochlorite occurred in late 2001
Sulfur Dioxide	2.1 tons (transition to sodium bisulfite occurred in late 2001
Polymer Solution	32,800 lbs.
City Water	700,000 gallons
Lime	55 tons (partial transition to sodium hydroxide occurred in late 2001)
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

EXHIBIT 18: MISCELLANEOUS STATISTICS ABOUT AUTHORITY OPERATIONS (Continues)

Wastewater Plant Permit Limitations

PARAMETER	MONTHLY	WEEKLY
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	1.0 mg/L (3,086 lbs./day)	1.5 mg/L (4,629 lbs./day)
Winter	6.5 mg/L (9,106 lbs./day)	9.8 mg/L (13,659 lbs./day)
Total Phosphorus	0.18 mg/L (556 lbs./day)	0.27 mg/L (832 lbs./day)
Dissolved Oxygen		
Minimum daily average	5.0 mg/L	
Not less than at any time	4.0 mg/L	
pH		
Minimum	6.0 s.u.	
Maximum	8.5 s.u.	
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 clarifers	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 18: MISCELLANEOUS STATISTICS ABOUT AUTHORITY OPERATIONS (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 $CaC0_3$

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 $CaC0_3$
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