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THE NEW YORK CITY MUNICIPAL WATER FINANCE AUTHORITY

THE NEW YORK CITY WATER AND SEWER SYSTEM

A Component Unit of the City of New York

Comprehensive Annual Financial Report for the Fiscal Year Ended June 30, 2001



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*The Manhattan  
Skyline,  
Hudson River*

## LETTER OF TRANSMITTAL

*December 31, 2001*

To: Members of the Board of the New York City Municipal Water Finance Authority,  
Members of the Board of the New York City Water Board,  
and the Commissioner of the New York City Department of Environmental Protection.





ANNUAL REPORT  
2001

We are pleased to submit to you this Comprehensive Annual Financial Report (“CAFR”) of the New York City Water and Sewer System (the “System”) for the year ended June 30, 2001. To the best of our knowledge, this report is accurate in all material respects and is reported in a manner designed to present fairly the financial condition of the System. All disclosures necessary to enable the reader to gain an understanding of the System’s financial activities have been included. The information contained in this report is the responsibility of management.

The CAFR is presented in three major sections: introductory, financial and statistical. The introductory section, which is unaudited, includes this letter of transmittal, an organizational chart and a list of the New York City Water and Sewer System’s principal officials. The financial section includes management’s discussion and analysis, the general purpose financial statements and the combining financial statements and schedules, as well as the independent auditor’s report on these financial statements and schedules. The statistical section, which is unaudited, includes selected financial and demographic information, generally presented on a multi-year basis.

The reporting entity, the New York City Water and Sewer System, consists of two separate and independent corporate bodies that are combined for reporting purposes: the New York City Municipal Water Finance Authority (the “Authority”) and the New York City Water Board (the “Board”). In addition, the New York City Department of Environmental Protection (“DEP”) operates the City’s water and sewer system. The passage of the New York City Municipal Water Finance Authority Act (the “Act”) of 1984 by the New York State Legislature authorized this operating and financing relationship. The System is a component unit of the City for financial reporting purposes.

The Authority is authorized to issue bonds and various debt instruments for the purpose of construction and improvement of the System. The Authority also has the power to refund its bonds and notes and general obligation bonds of the City issued for water or sewer purposes. The Authority is administered by a seven-member Board of Directors. Four members are designated as ex officio. Two members are appointed by the Mayor of New York City. One member is appointed by the Governor of the State of New York (the “State”). The appointed members have terms of two years. Pursuant to the Act, all members continue to hold office until their



*The Bow Bridge  
at Central Park*

successors are appointed. The staff of the Authority operates under the direction of an Executive Director.

The Board leases the operating system from the City, sets rates, and collects the System revenue. The Lease Agreement (the “Lease”) dated July 1, 1985 provides for a lease term until such time as all the bonds of the Authority are paid in full, or provision for payment has been made. The Lease requires the Board to make a payment to the City which is no more than the greater of: i) principal and interest for the fiscal year on City general obligation bonds issued for water and sewer purposes, or ii) fifteen percent of principal and interest payable on Authority debt for the fiscal year. The Board is obligated to allocate the revenues of the System in sequential order of importance to: interest and principal on Authority debt, DEP’s cost of operating and maintaining the system, and rental fees to the City for the use of the system. The Board consists of seven members who are appointed by the Mayor for terms of two years. The Act provides that at least one member will have experience in the science of water resource development and that no member of the Board will be a member of the Authority. The Chairman is appointed by the Mayor. Pursuant to the Act, all members continue to hold office until their successors are appointed. The

staff of the Board operates under the direction of an Executive Director.

The operation and maintenance of the system is performed by DEP. DEP is managed by a Commissioner who is appointed by the Mayor, and oversees a workforce of close to 5,700 people. DEP is divided into seven bureaus: Bureau of Customer Services, Bureau of Water and Sewer Operations, Bureau of Water Supply, Bureau of Environmental Engineering, Bureau of Wastewater Treatment, Management and Budget, and Executive. DEP protects the environmental welfare and health of the City’s residences and natural resources. DEP manages the City’s water supply system, including upstate collection and downstate distribution; and collects, treats, and disposes of waste and storm water. DEP manages over 2,000 square miles of watershed in upstate New York from which the City and several upstate counties draw their supply of drinking water. In addition to a system of dams, reservoirs, aqueducts, and water tunnels, DEP maintains over 6,100 miles of water mains which distribute water throughout the five boroughs, and over 6,400 miles of sewers which collect waste and storm water and transport it to 14 water pollution control plants.





#### ECONOMIC CONDITIONS AND OUTLOOK

The City of New York is a vital center for government, business, financial, communications, higher education, cultural, medical and public services. The City also serves as a key transportation hub with important facilities linking the rest of North America with cities and countries through the world. The transportation infrastructure includes multiple air, rail, trucking and shipping facilities.

Over the seven years ending after the first half of 2001, the City experienced its longest period of consecutive annual employment growth since the 1950s. Total employment increased by 37,600 between August 2000 and August 2001 and the City's population reached over 8 million in 2000.

On September 11, 2001, two hijacked commercial passenger jetliners flew into the World Trade Center, resulting in its destruction, damage to other buildings in the vicinity and a substantial loss of life. Trading on the major New York stock exchanges was suspended until September 17, 2001, and business in the financial district was interrupted. The disaster resulted in several water main breaks. However, water and sewer service was continuously provided to most of lower Manhattan and was restored to all buildings near the disaster as

they otherwise were able to be re-occupied. Recovery efforts are continuing in the City's financial district in lower Manhattan.

#### SYSTEM CAPACITY

The Water and Sewer System saw a steadily increasing demand through the early 1990s. Water Conservation programs and other measures reduced demand and average daily water consumption has decreased significantly over the past ten years. Demand in calendar year 2000 showed a marked decrease in usage from 1990 levels. The goal of such conservation programs is to operate the supply system within the dependable yield, which is the amount of water that can be safely drawn from the existing supply system during drought periods. Reduced demand also decreases the capital outlays needed for expansion of the system's water and wastewater treatment facilities

#### UNIVERSAL METERING

DEP's Bureau of Customer Services collects the data used to generate bills to customers. It is responsible for reading water meters and checking their accuracy as well as maintaining current information for those accounts remaining on the flat-rate system of billing. Meters are replacing the old system of flat-rate billing, which is based on numerous factors including the size



of the property and the number of water using fixtures installed. Approximately 723,000 accounts are billed based on metered water usage, while 105,000 accounts remained on the flat-rate system in 2001.

#### LONG-TERM WATERSHED PROTECTION

The System is subject to federal, state, interstate and municipal regulation. At the federal level, regulatory jurisdiction is vested in the United States Environmental Protection Agency (“USEPA”); at the State level in the New York State Department of Environmental Conservation (“NYSDEC”) and the New York State Department of Health (“NYSDOH”); at the interstate level in the Delaware River Basin Commission (“DRBC”) and in the Interstate Sanitation Commission (the “ISC”); and at the municipal level in DEP, the New York City Department of Health (“NYC-DOH”), the Department of Buildings (“DOB”), and, to a limited degree, in municipalities and districts located in eight watershed counties north of the City.

Pursuant to the Federal Safe Drinking Water Act (“SDWA”), the USEPA has promulgated nationwide drinking water regulations which specify the maximum level of harmful contaminants allowed in drinking water and which govern the construction, operation, and maintenance of the water system.

On May 6, 1997, USEPA issued a filtration avoidance determination waiving the requirement, as stated in the federal Surface Water Treatment Rule (“SWTR”), for the City to filter water from its Catskill and Delaware Systems until a further determination is made, or April 15, 2002, whichever is earlier. The May 6, 1997 determination was the third extension of a filtration avoidance determination first issued by USEPA in January 1993. The determination contains a number of conditions which the City is required to satisfy in order to ensure continued relief from the filtration requirements. Conditions include requirements for land purchases by the City in sensitive areas of the watershed, revised watershed regulations, and upgrading of both City-owned and non-City water pollution control plants in the watersheds.

On January 21, 1997, the City and the State executed a Memorandum of Agreement with the communities in the Catskill, Delaware and Croton watersheds, the USEPA and several environmental groups. Under the Memorandum of Agreement, the City has supplemented its existing watershed protection program with approximately \$400 million in additional funding. This funding, at least \$290 million of which is expected to be provided through the issuance of Authority bonds, consists of approximately \$350 million for an economic-environmental partnership program with upstate





*The Brooklyn  
and Manhattan  
Bridges,  
East River*

communities which includes a water quality investment program, a regional economic development fund and a regional advisory forum for water quality initiatives and watershed concerns.

The City has made considerable progress in acquiring land or conservation easements in the watersheds as required by the determination. The City has closed on the acquisition of approximately 16,000 acres of land in the watersheds with an aggregate value of approximately \$52 million and is a party to contracts or option agreements for the purchase of approximately 16,500 acres of additional land in the watersheds with an aggregate value of approximately \$37 million.

The May 1997 determination also required the City, among other things, to proceed with the final design of a filtration facility for the Catskill and Delaware Systems, should it ever be required. On July 23, 2001, the USEPA granted the City relief from proceeding with final design work for the filtration facility, subject to certain conditions, including conducting a feasibility evaluation of ultraviolet (“UV”) treatment and, if found to be feasible, design and construction of a UV disinfection treatment facility for the Catskill and Delaware water supply.

#### **CROTON FILTRATION PROJECT**

Because of the quality of the System’s water and the long periods of retention in the reservoirs, it has not been necessary to filter water to reduce bacterial content and turbidity. However, higher water quality standards led to a 1992 stipulation with NYSDOH which provided for the construction of a full-scale water treatment facility to filter Croton System water. The stipulation was superseded by a 1998 federal court Consent Decree which requires the City to design and construct such a facility and have it operational by March 1, 2007. Approximately \$790 million is included in the Capital Improvement Program to construct the Croton Filter Project.

In December 1998, after extensive study of several alternative sites, DEP identified the Mosholu Golf Course in the Bronx as the City’s preferred site for the full scale water treatment facility to filter Croton System water. Although the selected site lies within the Van Cortlandt Park, the City believed construction and operation of the water treatment facility at this site, followed by full restoration of park facilities, would not constitute alienation of parkland under New York State law. In September 1999 and November 1999, respectively, two actions were brought against the City



*The Japanese Garden  
at the Brooklyn  
Botanical Garden*

by community organizations opposed to building the facility at this site. The actions were predicated, in part, on the assertion that the siting at the Mosholu Golf Course would constitute alienation of parkland, requiring State legislative approval. On February 8, 2001, the New York Court of appeals ruled against the City on these actions and determined the proposed construction of the water treatment facility at the Mosholu Golf Course site constituted alienation of parkland, requiring approval by the state legislature.

In response to this ruling, the City submitted a bill to the State Legislature allowing the alienation of parkland, for construction of the plant under the Mosholu Golf Course. The City is also investigating other options to ensure compliance with the filtration requirement, including siting the facility at other locations in the Bronx or Westchester County, modifying the treatment process to reduce the facility size to allow consideration of additional sites and reducing or changing the use of the Croton Water supply system. The ruling could result in the construction of the facility being substantially delayed beyond the 2007 Croton Filter Consent Decree deadline. However on May 10, 2001, the District Court held the payment of penalties stipulated in the Consent Decree in abeyance and

referred the matter to a U.S. magistrate judge. USEPA, the State and the City are currently discussing potential modifications to the Consent Decree.

#### **WATER TUNNELS**

The City's water is transported from its Croton, Catskill and Delaware reservoirs through an extensive system of tunnels and aqueducts. The 18-mile Tunnel 1 delivers water from the City's Hillview Reservoir through the West Bronx into Manhattan and Brooklyn. The 20-mile Tunnel 2 also delivers water from the Hillview Reservoir through the Bronx, under the East River and through Queens and Brooklyn, connecting to Tunnel 1 in Brooklyn. From Tunnel 2 water is delivered to Staten Island through the Richmond Tunnel.

A new water tunnel, Tunnel 3, connecting the reservoir system to the City is presently under construction to increase capacity to meet a growing demand in the eastern and southern areas of the City, provide redundancy in the event of disruption in Tunnels 1 or 2 and permit inspection and rehabilitation of Tunnels 1 and 2. The 13-mile Stage I of Tunnel 3, which extends south from Hillview Reservoir to the Central Park Reservoir and east to Roosevelt Island and Long Island City in Queens, was put into operation in 1998. Stage II is currently





under construction, with completion expected in 2008. Upon completion, Stage II will enable the system to maintain full service even if Tunnels 1 or 2 were shut down.

#### CAPITAL PROGRAM GOALS

- To maintain the quality of the water in the City's watersheds and, where necessary, treat the supply to ensure that supplies continue to be of high quality.
- To maintain and improve the transmission and distribution capabilities of the City's water supply system;
- To improve the quality of the surrounding estuarine waters by upgrading the City's water pollution control plants;
- To remove sanitary sewage and prevent flooding by replacing failing sewers and extending service to underserved areas of the City.

#### CAPITAL IMPROVEMENT PROGRAM AND FINANCING PROGRAM

The System's Capital Improvement Program 2002-2011 ("CIP") provides for the rebuilding and extension of the System's infrastructure, including water and sewer facilities. The total projected expenditure for the CIP is \$9.7 billion.

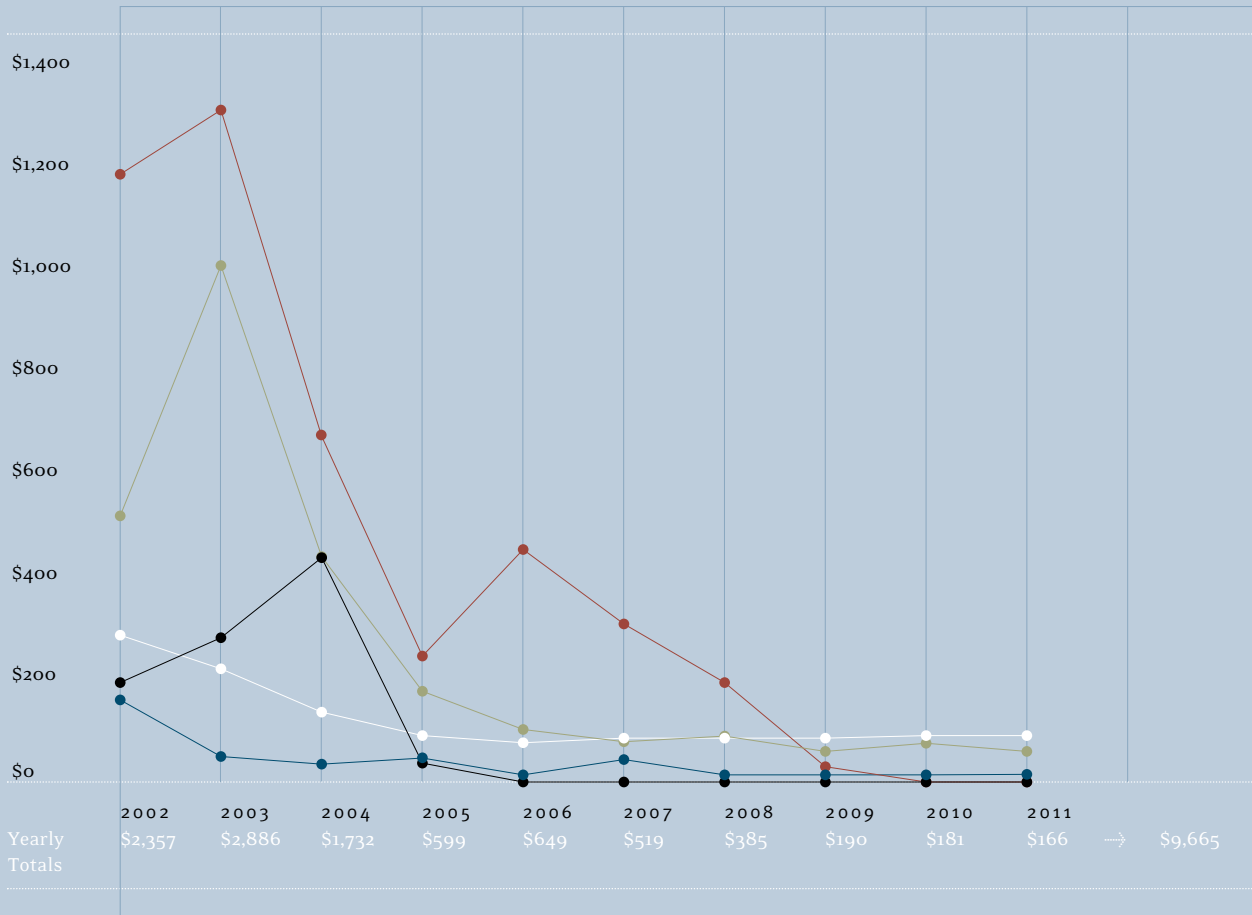
#### CAPITAL IMPROVEMENT PLAN

The CIP is based on a review of the present condition and long-term needs of the plant and equipment constituting the System. The CIP incorporates the requirements of legal mandates, the present replacement cycle for these facilities, extensions to the present service area, and programs to enhance and optimize the operation of the System. Allowances are included in the CIP for emergency repair and replacement. An annual allowance for escalation in cost due to inflation is also included.

The costs identified in the table below represent an aggregation of capital commitments for specific projects for Fiscal Years 2002-2005. This Current Capital Plan reflects the most recent September 2001 revision of expected expenditures and is the basis for the System's annual cash flow requirements. For a number of reasons, including unforeseen inflation and changes in plans, actual costs may vary from the estimates set forth below.



## CAPITAL IMPROVEMENT PLAN



### LEGEND

- Water Supply & Transmission
- Water Distribution
- Water Pollution Control
- Sewers
- Equipment

## CURRENT CAPITAL PLAN

SYSTEM FUNDS (IN THOUSANDS)	2002	2003	2004	2005	Total
Water Supply & Transmission	\$ 194,977	\$ 283,000	\$ 440,000	\$ 36,800	\$ 954,777
Water Distribution	521,826	1,012,653	441,543	177,586	2,153,608
Water Pollution Control	1,191,585	1,317,777	678,333	247,360	3,435,055
Sewers	288,412	221,718	136,951	90,547	737,628
Equipment	160,549	50,417	34,723	46,723	292,412
<b>Total</b>	<b>\$ 2,357,349</b>	<b>\$ 2,885,565</b>	<b>\$ 1,731,550</b>	<b>\$ 599,016</b>	<b>\$ 7,573,480</b>

The CIP is divided into five project types. Each is discussed below separately.

### WATER SUPPLY AND TRANSMISSION

This component of the CIP includes approximately \$950 million for Stages I and II of New York City's Water Tunnel 3, to augment transmission capacity from the watersheds into the City. Construction of Stage II of Tunnel 3 will continue towards its expected operational date of 2008. The remaining section of Stage II underground excavation is the Manhattan leg, which stretches for seven miles through lower Manhattan. After Stage II comes on line and it begins to deliver water, DEP will have achieved full redundancy of Tunnels 1 or 2. This will allow DEP to inspect and repair each of these tunnels for the first time since they were put into operation in 1917 and 1936, respectively.

### WATER DISTRIBUTION

The System's drinking water is rated among the best in the country. To ensure its continuing quality, and to comply with Federal standards, DEP is pursuing a comprehensive program to halt further environmental deterioration in the increasingly urbanized Croton watershed, and to prevent similar problems in the still relatively pristine Catskill and Delaware watersheds.

The CIP contains \$2.6 billion for the protection, expansion, and distribution of the City's water supply. This includes funding for the construction of a full-scale filtration plant for the Croton watershed system at a cost of \$790 million. The Program also calls for \$686 million to be committed to on-going water quality preservation programs to ensure the continued purity of the water supply. This includes the reconstruction of a City-owned upstate water pollution control plant located in the watershed to meet the new proposed watershed regulations (the reconstruction of seven other City-owned plants in the watershed already having been completed) and the acquisition of environmentally sensitive property in the upstate watershed.

### WATER POLLUTION CONTROL

To improve the water quality of the City's estuaries and to implement long-range land based solutions to sludge disposal, an end-product of the sewage treatment process, \$4.4 billion is allocated to water pollution control programs. Combined Sewer Overflow (CSO) is currently a source of pollution in the City's waters. CSO occurs during and after heavy rainstorms, when the flow of waste water and storm water in the sewers may exceed the treatment capacity of sewage treatment plants and therefore enters surrounding waterways.



DEP's Program includes approximately \$1.2 billion for the abatement of CSO's, using a combination of retention tanks and in-line storage.

DEP has renegotiated a consent decree governing the City's long term sludge disposal plan. DEP is no longer required to construct sludge processing facilities in the City, but will continue contracting with private firms to dispose of the City's sludge in a cost effective manner. The Water Pollution Control Program includes \$1.15 billion allocated to begin the upgrade of the Newtown Creek Water Pollution Control Plant to full secondary treatment, complete upgrades to treatment capacity at two plants and to address odor concerns at two other pollution control plants. Another significant program included in the CIP is \$466 million to be used for the reconstruction and modernization of ten water pollution control plants in order for these plants to continue to meet strict guidelines contained in State operating permits.

The CIP also includes approximately \$120 million for biological nutrient removal at its four Upper East River waste water treatment plants.

#### SEWERS

Approximately \$1.3 billion will be committed through 2011 to replace existing sewers in areas requiring increased capacity, to extend sewers to unserved or underserved areas, and to replace failing, flawed, or collapsed sewer mains.

#### EQUIPMENT

Programs in this category of the CIP include the installation of water meters, the procurement of vehicles and equipment, management information systems, and utility relocation for sewers and water mains. A total of \$408 million has been committed to these projects.

#### INTERNAL CONTROLS

Management of the Board and the Authority is responsible for establishing and maintaining an internal control structure designed to ensure that the assets of the System are protected from loss, theft or misuse, and to ensure that adequate accounting data are compiled to allow for the preparation of financial statements in conformity with generally accepted accounting principles.

The System is subject to the internal control directives and memoranda that originate from the New York City Comptroller's office. These directives establish internal controls and accountability which safeguard City





*The Manhattan  
Skyline,  
East River*

assets. In addition, the System is subject to the City's internal auditors who periodically check the City's agencies' and component units' adherence to internal control policies and procedures.

#### **BUDGETARY CONTROLS**

The Board and the Authority maintain separate control structures for their specific areas of responsibility. The Board and the Authority establish separate operating budgets approved by their respective Boards of Directors.

The capital budget of the Authority is appropriated through the City's Capital Budget, and the operation and maintenance budget of the System is appropriated through the City's annual Operating Budget. The City also maintains an encumbrance accounting system as another technique of accomplishing budgetary control.

#### **RISK MANAGEMENT**

In accordance with the Lease, the Board is required to reimburse the City for any judgment or settlement paid by the City arising out of a tort claim to the extent that the City's liability is related to capital improvements and the operation or maintenance of the System. However in no event shall the payment made to the City, in any fiscal year, exceed an amount equal to 5% of the aggregate revenues shown on the last year-end

audited financial statements of the System. In addition, the System is required to reimburse the City, to the extent requested by the City, for the payment of any judgment or settlement arising out of a contract claim with respect to the construction of capital improvements. In addition, the City has agreed, subject to certain conditions, to indemnify the Authority and the Board against any and all liability in connection with any act done or omitted in the exercise of their powers which is taken or omitted in good faith in pursuance of their purposes under the Act.

#### **CASH MANAGEMENT**

Both the Authority and the Board have funds which are invested. The Authority's investments must conform to the policies set forth in the Authority's Investment Guidelines. Specifically, the Authority may invest in any bonds or other obligations which constitute direct obligations of, or are guaranteed by, the United States of America, including obligations of any agency, corporation or instrumentality thereof; direct obligations of, or obligations guaranteed by the State of New York or direct obligations of any agency or public authority thereof, provided such obligations are rated in one of the two highest rating categories by a Rating Agency; bankers' acceptances or certificates of deposit issued by a commercial bank, with its principal place of



*The Reservoir  
at Central Park*

business within the State of New York and having capital or surplus in excess of \$100 million; corporate securities, including commercial paper and fixed income obligations, rated by a Rating Agency in its highest category for comparable types of obligations; or repurchase agreements collateralized by obligations of the Federal government.

The Authority employs various methods for the investment of its funds. The Authority's management is responsible for the investment of certain funds, and utilizes an investment manager for the active management of some funds; additionally, the Authority invests in forward purchase agreements and guaranteed investment contracts. The Board makes its own investments through the City Comptroller's investment group.

Funds are invested for periods of one day up to fifteen years based upon cash flow requirements and subject to the restrictions on investments set forth in the Authority's General Bond Resolution. Daily cash from user payments is received into a lock box by the Board and is transferred daily to the Authority for debt service payments and to the City Comptroller to pay for the operation and maintenance of the System. No cash is retained by the Board until all requirements for debt service, operation and maintenance, and rental pay-

ments are met. Any surplus cash over these requirements is retained by the Board for use in the following year to pay required deposits.

#### **INDEPENDENT AUDIT**

Section 6.11 (b) of the Financing Agreement by and among the City, the Authority and the Board dated as of July 1, 1985 requires that the Authority shall submit to the Mayor, the Comptroller and the Director of Management and Budget of the City audited annual financial statements of the Authority and the Board. The financial section of the 2001 Comprehensive Annual Financial Report begins with the report of the Authority's independent auditors, KPMG LLP. This report expresses an unqualified opinion as to the fairness of the presentation of the Authority's financial statements.



#### AWARDS

The Government Finance Officers Association of the United States and Canada (GFOA) awarded a Certificate of Achievement for Excellence in Financial Reporting to the New York City Water and Sewer System for its comprehensive annual financial report (CAFR) for the fiscal years ended June 30, 1995, 1996, 1997, 1998, 1999 and 2000.

A Certificate of Achievement is valid for a period of one year only. We believe our current report continues to conform to the Certificate of Achievement program requirements, and we are submitting it to GFOA.

#### ACKNOWLEDGEMENTS

The preparation of this Comprehensive Annual Financial Report has been accomplished by the staff of the New York City Municipal Water Finance Authority. We wish to acknowledge the dedicated effort of the staff of the Authority, especially Raymond J. Orlando, Manager of Investor Relations, Thomas Paolicelli, Deputy Treasurer, Philip Wasserman, Assistant Treasurer, Valerie Mehallow, Finance Manager, Bruce Goodman, of the NYC Comptroller's Office, William Kusterbeck and Carmelo Emilio of the NYC Water Board in bringing together information from numerous sources to produce this document. Their work ensures that this report presents fairly and accurately the financial position and the results of operations of the New York City Water and Sewer System.

Respectfully submitted,

Mark Page  
*Executive Director*

Lawrence R. Glantz  
*Comptroller*



## NEW YORK CITY WATER & SEWER SYSTEM ORGANIZATIONAL CHART



### WATER SYSTEM

Collection reservoirs .....	18
Storage capacity .....	547.5 billion gallons
Watershed area .....	2,000 square miles
Average daily water consumption (calendar 2000) .....	1.4 billion gallons
Average daily water consumption (calendar 1990) .....	1.5 billion gallons
Miles of water mains .....	6,100
Miles of water tunnels and aqueducts .....	359
Fire hydrants in New York City .....	98,812
Water samples taken each year .....	65,000
Laboratory tests performed each year on water samples .....	800,000

### SEWER SYSTEM

Water pollution control plants .....	14
Wastewater pump stations .....	89
Design capacity per day .....	1.8 billion gallons
Percent of dry-weather sewage processed through this system .....	100%
Dry-weather sewage treated per day (FY 1999) .....	1.2 billion gallons
Miles of sewage pipes .....	6,400
Biosolids produced each year .....	450,800 wet tons
Percent of biosolids used beneficially .....	100%

**NEW YORK CITY MUNICIPAL WATER FINANCE  
AUTHORITY**

**BOARD OF DIRECTORS**

Adam L. Barsky	ex officio Member
John P. Cahill	ex officio Member
Charles E. Dorkey III	Member
Andrew S. Eristoff	ex officio Member
Arthur B. Hill	Member
Joel A. Miele Sr., P.E.	ex officio Member
James P. Stuckey	Member

**STAFF**

Mark Page	Executive Director
Marjorie E. Henning	Secretary
Alan Anders	Treasurer
Lawrence R. Glantz	Comptroller

**NEW YORK CITY WATER BOARD**

**MEMBERS**

Susan Millington Campbell	Member
Leroy Carmichael	Member
Mark R. Hellerer	Chairman
Amaziah Howell	Member
Agustin Rivera	Member
David B. Rosenauer	Member
James T.B. Tripp	Member

**STAFF**

Diana Chapin, Ph.D.	Executive Director
William Kusterbeck	Treasurer
Albert F. Moncure, Jr.	Secretary

**NEW YORK CITY DEPARTMENT OF  
ENVIRONMENTAL PROTECTION**

**OFFICERS**

Joel A. Miele Sr., P.E.	Commissioner
Diana Chapin, Ph.D.	First Deputy Commissioner
Alfonso Lopez, P.E.	Deputy Commissioner, Bureau of Wastewater Treatment
Robert Gaffoglio, P.E.	Deputy Commissioner, Bureau of Environmental Engineering
Douglas F. Greeley, P.E.	Deputy Commissioner, Bureau of Water and Sewer Operations
Betsy Collins	Deputy Commissioner, Bureau of Customer Services
Michael A. Principe, Ph.D.	Deputy Commissioner, Bureau of Water Supply

## REPORT OF INDEPENDENT AUDITORS

Members of the Boards

New York City Municipal Water Finance

Authority and the New York City Water Board

We have audited the accompanying balance sheets of the New York City Water and Sewer System (the "System"), as of June 30, 2001 and 2000, and the related statements of revenues, expenses and changes in net assets, and cash flows for the years then ended. These financial statements are the responsibility of the System's management. Our responsibility is to express an opinion on these financial statements based on our audits.

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

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the New York City Water and Sewer System as of June 30, 2001 and 2000, and the results of its operations and changes in net assets and its cash flows for the years then ended in conformity with accounting principles generally accepted in the United States of America.

Our audits were made for the purpose of forming an opinion on the financial statements taken as a whole. The supplementary information included in schedules I through VI is presented for the purposes of additional analysis and is not a required part of the financial

statements. Such information has been subjected to the auditing procedures applied in the audits of the financial statements and, in our opinion, is fairly presented in all material respects in relation to the financial statements as a whole.

As described in Note 2 to the financial statements, in fiscal year 2001, the System adopted Governmental Accounting Standards Board ("GASB") Statement No. 34, *Basic Financial Statements - and Management's Discussion and Analysis - for State and Local Governments*, GASB Statement No. 37, *Basic Financial Statements - and Management's Discussion and Analysis - for State and Local Governments: Omnibus*, and GASB Statement No. 38, *Certain Financial Statement Note Disclosures*.

Management's Discussion and Analysis is not a required part of the financial statements, but is supplementary information required by GASB. We have applied certain limited procedures, which consisted principally of inquiries of management regarding the methods of measurement and presentation of the supplementary information. However, we did not audit the information and express no opinion on it.

The introductory and statistical information, as listed in the table of contents, is presented for additional analysis and is not a required part of the financial statements. Such information has not been subjected to the auditing procedures applied in the audits of the financial statements and, accordingly, we express no opinion on it.

**KPMG LLP**

October 30, 2001  
New York, New York



NEW YORK CITY WATER AND SEWER SYSTEM  
MANAGEMENT'S DISCUSSION AND ANALYSIS

OVERVIEW OF THE FINANCIAL STATEMENTS

The following is an overview of the financial activities of the New York City Water and Sewer System (the System) for the fiscal years ended June 30, 2001 and 2000.

The basic financial statements of the System, which include the balance sheets, the statements of revenues, expenses and changes in net assets and the cash flow statements, are presented to display information about the reporting entity as a whole, in accordance with GASB No. 34. The statements are prepared using the economic resources measurement focus and the accrual basis of accounting.

FINANCIAL ANALYSIS AND RESULTS OF OPERATIONS

The following summarizes the activities of the System for the years 2001, 2000 and 1999:

IN THOUSANDS	2001	2000	1999
Revenues:			
Water supply and distribution	\$ 626,364	610,949	594,794
Sewer collection and treatment	898,568	876,455	844,804
Other operating revenues	96,991	93,194	85,903
Total operating revenues	1,621,923	1,580,598	1,526,501
Investment income	84,534	70,478	81,465
Total revenues	1,706,457	1,651,076	1,607,966
Expenses:			
Operations and maintenance	842,401	801,255	777,652
Bad debt expense	122,785	89,062	103,960
Administration and general	11,215	10,092	10,879
Depreciation and amortization	318,709	347,055	380,023
Interest expense	527,914	492,747	476,675
Total expenses	1,823,024	1,740,211	1,749,189
Capital contributions	1,748	5,637	7,389
Change in net assets	(114,819)	(83,498)	(133,834)
Net Assets – beginning	4,786,702	4,870,200	5,004,034
Net Assets – ending	\$ 4,671,883	4,786,702	4,870,200

2001-2000

Total operating revenues increased by 2.6%, although water rates increased by 1% and water consumption decreased by 1.4%. The System imposed a surcharge on certain customers that did not allow the installation of

water meters. Surcharge collections of \$28 million were included in operating revenues in 2001. Investment income increased by \$14 million due to increased funds available for investment and the absence of an arbitrage rebate payment included in 2000 of \$3.7 million which is an offset against investment income.

Total operations and maintenance expenses increased by \$41.1 million or 5.1%. The System accrued a liability of \$7.5 million for possible Environmental Protection Agency penalties for failure to determine a site for a filtration plant for the Croton reservoir. The System has also incurred additional expenses for taxes on upstate properties acquired by the System to protect the watershed. Other increases in operations and maintenance expenses included additional costs for heat, light and power throughout the system, and costs for the purchase of chemicals for the treatment of nitrogen in sewage disposal. Also the rental payment to New York City by the New York City Water Board increased by nearly \$7 million due to increased debt service payments by the City.

Due to a decline in the cash collections from current billings, bad debt expense increased by \$33 million or 38%. Depreciation and amortization decreased by \$29 million due to the inclusion of multiple years' catch-up depreciation in 2000 for certain utility plant. Interest expense increased by \$35 million or 7%. The timing of the closing of the 2000 series B issue in late 2000, plus the early year closing (July 2000) of 2001 Series A, resulted in additional interest expense for those issues alone of \$25 million.

2000-1999

Water rates were increased in fiscal year 2000 by 4%, and water consumption increased by 1.3%, however, operating revenues increased by 3.5%. Changes in water consumption are generally reflected in income in a subsequent year, since meters are read and billed quarterly. Investment income declined by 13.5% due primarily to a decrease in construction funds available for investment and a decline in short-term interest rates.

## NEW YORK CITY WATER AND SEWER SYSTEM

MANAGEMENT'S DISCUSSION AND ANALYSIS CONTINUED

Total operations and maintenance expenses increased by \$23 million or 3%. The largest component of the increase was salary expense, which increased by nearly 8% or \$17 million due to a 4% increase in base wages, and additional employees in billing and collection. The bad debt expense decreased from \$104 million to \$89 million. Depreciation and amortization expense declined by \$33 million due to the inclusion of multiple years' catch-up depreciation of the third water tunnel in 1999. Interest expense increased by \$13 million, which is the interest expense on the \$1 billion in new issues in 2000.

On the balance sheet the changes in assets, liabilities and net assets are summarized as follows:

IN THOUSANDS	2001	2000	1999
Current unrestricted assets	\$ 621,182	586,342	603,982
Capital assets	13,375,790	12,823,646	12,405,538
Current restricted assets	1,017,852	974,660	1,010,876
<b>Total assets</b>	<b>15,014,824</b>	<b>14,384,648</b>	<b>14,020,396</b>
Long-term liabilities	9,345,805	8,875,569	8,049,095
Current liabilities	997,136	722,377	1,101,101
<b>Total liabilities</b>	<b>10,342,941</b>	<b>9,597,946</b>	<b>9,150,196</b>
Net assets:			
Invested in capital assets, net of related debt	3,453,709	3,692,419	3,711,928
Restricted for debt service	1,057,852	974,660	1,010,876
Unrestricted	160,322	119,623	147,396
<b>Total net assets</b>	<b>4,671,883</b>	<b>4,786,702</b>	<b>4,870,200</b>
<b>Total liabilities and net assets</b>	<b>\$ 15,014,824</b>	<b>14,384,648</b>	<b>14,020,396</b>

## 2001-2000

The increase in current liabilities is due to the issuance of \$300 million of commercial paper at the end of fiscal 2001. The New York City Municipal Water Finance Authority has a total commercial paper program of \$600 million. The commercial paper is issued, and periodically paid down out of the proceeds from the sale of long-term debt and is then reissued as needed. The decrease in net assets invested in capital assets, net of related debt, is also due to the increase in commercial paper outstanding at year end as well as an increase in long-term debt.

Net assets restricted for debt service in 2001 included \$24.8 million additional debt service reserve funds and an \$82.3 million escrow fund for the crossover refunding of 2001 Series E. Net assets restricted for capital is variable depending upon the timing of the issuance of new debt and of expenditures of debt proceeds for capital projects.

## 2000-1999

Current liabilities: At June 30, 1999 the total commercial paper program of \$600 million was outstanding, as compared with June 30, 2000, when only \$200 million was outstanding. Net assets restricted for debt service increased \$40 million from additions to debt service reserve funds and by \$92 million from System surplus in 1999. Net assets restricted for capital decreased due to the timing of the issuance of commercial paper and of expenditures of proceeds for capital projects.

## CAPITAL ASSETS

The System's capital assets include buildings, equipment, water treatment systems and water collections systems. Such amounts are detailed as follows:

IN THOUSANDS	2001	2000	1999
Utility plant construction	\$ 3,580,396	3,196,302	2,855,474
Buildings	5,677	5,677	5,677
Equipment	211,944	129,253	129,253
Water supply and waste water treatment systems	7,786,471	6,840,021	6,643,497
Water distribution and sewage collection systems	6,349,065	6,955,100	6,758,577
<b>Total</b>	<b>17,949,491</b>	<b>17,126,353</b>	<b>16,392,478</b>
Less accumulated depreciation	4,573,701	4,302,707	3,986,941
<b>Total, net</b>	<b>\$ 13,375,790</b>	<b>12,823,646</b>	<b>12,405,537</b>

The net increase in the System's capital assets during fiscal year 2001 was \$439 million or 3.1%. The net increase in 2000 was \$393 million or 2.9%. Capital asset additions for 2001 were \$1,265 million and in 2000 \$1,115 million.

NEW YORK CITY WATER AND SEWER SYSTEM  
 MANAGEMENT'S DISCUSSION AND ANALYSIS CONTINUED

**DEBT ADMINISTRATION**

The New York City Municipal Water Finance Authority issues debt to cover the capital improvements of the System. The debt program of the Authority includes commercial paper and long-term debt of the Authority and subsidized bonds issued through the New York State Environmental Facilities Corporation (EFC).

The commercial paper program is the main source of financing to reimburse the City for payments made for water and sewer projects. The Authority then issues long-term debt of its own or through EFC to retire outstanding commercial paper. The Authority also issues refunding bonds to refinance higher coupon debt.

At June 30, 2001, the total outstanding debt of the system was \$10.6 billion, of which \$500 million was commercial paper. The remaining \$10.1 billion consisted of variable and fixed rate bonds and notes maturing in varying installments through 2033. The total outstanding long-term debt at June 30, 2001 was as follows:

ISSUE DATE	IN THOUSANDS
2001	\$ 1,174,976
2000	807,830
1999	810,866
1998	1,913,271
1997 and prior	5,414,905
<b>Total long-term debt</b>	<b>\$ 10,121,848</b>

In fiscal year 2001, the Authority issued \$1,084,260,000 of water and sewer revenue bonds directly to the public, including \$643,995,000 of advance and crossover refundings and \$440,265,000 in long-term financing. The Authority also received \$99,546,254 million in a Clean Water State Revolving Fund (SRF) direct loan from EFC. These proceeds financed capital improvements to New York City's water and sewer system.

Highlights of the financing program in 2001 included historically low interest costs on fixed-rate borrowing, the first Authority bond issue using a crossover refunding structure and an upgrade in the credit rating by Moody's Investor Service to Aa2, bringing the Authority's credit rating by all three major credit rating agencies in line.

The Authority's first debt issuance in Fiscal 2001 was the November 20, 2000 issuance of \$328,225,000 of Series A fixed-rated uninsured, tax-exempt bonds. The true interest cost on the financing was approximately 5.7% with a transaction structure that included a single-term bond maturing in 2033.

The November issuance was followed shortly thereafter on December 8, 2000 with an advance refunding of \$60 million. The \$68,675,000 2001 Series B refunding bonds included serial bonds from 2002 through 2020 and a single term bond maturing in 2031. The true interest cost was approximately 5.4% with the term bond maturing in 2031.

On December 14, 2000, the Authority received a Clean Water State Revolving Fund (SRF) 20-year direct loan from EFC for \$99,546,254 at a subsidized interest rate of 2.741%. EFC offered this bridge loan in anticipation of the eventual restructuring of the loan with bonds using the newly authorized 30 year amortization structure which was approved in 2001, rather than the 20 year amortization structure previously required for SRF bonds.

In May, the Authority sold \$112,040,000 of fiscal 2001 Series C new money, fixed-rate, tax exempt bonds, concurrently with \$305,085,000 of fiscal 2001 Series D fixed-rate advance refunding bonds, \$86,105,000 of fiscal 2001 Series E crossover refunding bonds and \$184,130,000 of fiscal 2001 Series F adjustable rate current refunding bonds. The advance refunding bonds (Series D and E) defeased a portion of the fiscal 1994 Series B, fiscal 1996 Series A, fiscal 1996 Series B and fiscal 2000 Series B bonds. The current refunding (Series F) defeased a portion of the fixed-rate fiscal 1992 Series A bonds with adjustable rate bonds.

The adjustable rate fiscal 2001 Series F bonds are initially being remarketed in two modes: \$100,000,000 (Series F-1) in daily mode and \$84,130,000 (Series F-2) in weekly mode.

In February 2001, the Authority's General Resolution bonds were upgraded to Aa2 from Aa3 by Moody's Investors Service, who recognized the Authority's legal



## NEW YORK CITY WATER AND SEWER SYSTEM

MANAGEMENT'S DISCUSSION AND ANALYSIS CONTINUED

protections, similar to operating company securitizations, and the capital program. The rating upgrade on the Authority's outstanding debt reflects strong bondholder protections and the ongoing recognition of the credit as an asset-backed security. This rating upgrade also brings the view of the three major rating agencies closely in line. The Authority is rated AA by Standard and Poor's and Fitch, Inc.

Additionally, in June 2001, Moody's Investor's Service and Fitch, Inc. raised the rating on the EFC bonds issued for eligible Authority State Revolving Fund projects, to Aaa and AAA, respectively, the highest rating category. Standard and Poor's subsequently upgraded the EFC rating to AAA in October 2001. The bonds which the Authority places with EFC are an element of the security for the EFC bonds issued to investors, but are unrated Second Resolution bonds of the Authority.

The total bonds and notes payable by the Authority are detailed in footnote number 9 of the notes to the financial statements.

**ECONOMIC FACTORS, NEXT YEAR'S RATES AND WORLD TRADE CENTER ATTACK**

On September 11, 2001, two hijacked commercial passenger jetliners flew into the World Trade Center, resulting in its destruction, damage to other buildings in the vicinity and a substantial loss of life. The disaster resulted in several water main breaks. However, water and sewer service was continuously provided to most of lower Manhattan and was restored to all buildings near the disaster as they otherwise were able to be reoccupied.

It is estimated that \$5 million in damage has been sustained by the System although the exact amount of damage can only be ascertained once debris has been removed and access to certain water and sewer mains is secured. In response to the attacks on the World Trade Center, the System has implemented additional security measures to protect the water supply structures and facilities. The operation and maintenance costs of the System may increase as a result. The expected increase should be less than 2% of annual System expenses.

The revenues of the System from user payments will be impacted by the loss of payments from the World Trade Center. In addition, other buildings in the downtown area have been temporarily vacant for a period of time. Businesses which have relocated to facilities outside of the City may not elect to return to their former locations. It is also expected that hotels, restaurants and other travel and tourism customers will utilize less water over the short-term. At the present time, the estimated reduction in System revenues from the above conditions is expected to be less than 1% of annual System revenues.

The potential increases in cost and declines in revenues can be accommodated by the System in fiscal year 2002 without adjustment to current rates and charges.

**REQUEST FOR INFORMATION**

This financial report is provided as an overview of the System's finances. Questions concerning any of the information in this report or requests for additional information should be directed to Raymond J. Orlando, Manager of Public Relations, New York City Municipal Water Finance Authority, 59 Maiden Lane, New York, NY 10038.

NEW YORK CITY WATER AND SEWER SYSTEM

BALANCE SHEETS

JUNE 30, 2001 AND 2000

IN THOUSANDS

	2001	2000
<b>ASSETS</b>		
Utility plant in service, less accumulated depreciation of \$4,573,701 in 2001 and \$4,302,707 in 2000 (notes 2, 5 and 7)	\$ 9,795,394	9,627,344
Utility plant construction	3,580,396	3,196,302
	13,375,790	12,823,646
Current assets:		
Unrestricted cash and cash equivalents (note 6)	7,419	8,734
Accounts receivable:		
Billed, less allowance for uncollectible water and sewer receivables of \$313,318 in 2001 and \$293,888 in 2000	341,417	316,800
Unbilled	106,600	105,000
Receivable from the City (note 8)	23,458	47,140
Prepaid construction	40,000	—
Accrued interest receivable	4	—
Other	4,071	5,751
Total current unrestricted assets	522,969	483,425
Restricted assets (notes 6 and 10):		
Cash and cash equivalents	894,143	874,851
Investments	123,377	98,333
Accrued interest receivable	332	1,476
Total current restricted assets	1,017,852	974,660
Total current assets	1,540,821	1,458,085
Long-term deferred bond and financing expenses	98,213	102,917
<b>Total assets</b>	<b>\$ 15,014,824</b>	<b>14,384,648</b>
<b>LIABILITIES AND NET ASSETS</b>		
Long-term liabilities:		
Bonds and notes payable, less current portion (note 9)	\$ 9,947,359	9,417,797
Net discount on bonds and notes payable	(372,409)	(331,840)
Deferred bond refunding costs (note 2)	(229,145)	(210,388)
Total long-term liabilities	9,345,805	8,875,569
Current liabilities:		
Accounts payable and accrued expenses	24,216	27,718
Revenues received in advance	76,562	67,798
Current portion of bonds and notes payable (note 9)	674,489	358,575
Payable to the City (note 8)	205,456	252,911
Refunds payable to customers	16,413	15,375
Total current liabilities	997,136	722,377
Total liabilities	10,342,941	9,597,946
Net Assets:		
Invested in capital assets, net of related debt	3,493,709	3,692,419
Restricted for debt service	1,017,852	974,660
Unrestricted	160,322	119,623
Total net assets	4,671,883	4,786,702
<b>Total liabilities and net assets</b>	<b>\$ 15,014,824</b>	<b>14,384,648</b>

See accompanying notes to financial statements.

## NEW YORK CITY WATER AND SEWER SYSTEM

## STATEMENTS OF REVENUES, EXPENSES AND CHANGES IN NET ASSETS

YEARS ENDED JUNE 30, 2001 AND 2000

IN THOUSANDS

	2001	2000
Operating revenues:		
Water supply and distribution	\$ 626,364	610,949
Sewer collection and treatment	898,568	876,455
Other operating revenues	96,991	93,194
Total operating revenues	1,621,923	1,580,598
Operating expenses:		
Operation and maintenance (notes 3 and 7)	842,401	801,255
Bad debt expense	122,785	89,062
Administration and general	11,215	10,092
Total operating expenses	976,401	900,409
Excess of operating revenues over operating expenses before depreciation and amortization	645,522	680,189
Depreciation and amortization	318,709	347,055
Operating income	326,813	333,134
Nonoperating revenues (expenses):		
Interest expense	(527,914)	(492,747)
Investment income	84,534	70,478
Net loss before contributed capital	(116,567)	(89,135)
Contributed capital	1,748	5,637
Change in net assets	(114,819)	(83,498)
Net assets at beginning of year	4,786,702	4,870,200
Net assets at end of year	\$ 4,671,883	4,786,702

See accompanying notes to financial statements.



NEW YORK CITY WATER AND SEWER SYSTEM

STATEMENTS OF CASH FLOWS

YEARS ENDED JUNE 30, 2001 AND 2000

IN THOUSANDS

	2001	2000	
Cash flows from operating activities:			
Receipts from customers	\$ 1,483,020	1,447,504	
Payments for operations & maintenance	(819,015)	(777,025)	
Payments for administration	(14,764)	(10,018)	
Net cash provided by operating activities	649,241	660,461	
Cash flows from capital and related financing activities:			
Proceeds from issuing bonds, notes and other borrowings, net of issuance costs	1,909,079	1,515,293	
Acquisition and construction of capital assets	(930,623)	(726,941)	
Repayments of bonds, notes and other borrowings	(1,167,056)	(1,112,623)	
Interest paid on bonds, notes and other borrowings	(503,344)	(477,120)	
Net cash used by capital and related financing activities	(691,944)	(801,391)	
Cash flows from investing activities:			
Proceeds from sales and maturities of investments	98,333	503,019	
Purchases of investments	(123,377)	(98,333)	
Interest on investments	85,724	74,468	
Net cash provided by investing activities	60,680	479,154	
Net increase in cash and cash equivalents	17,977	338,224	
Cash and cash equivalents, beginning of year	883,585	545,361	
<b>Cash and cash equivalents, end of year</b>	<b>\$ 901,562</b>	<b>883,585</b>	
<b>RECONCILIATION OF OPERATING INCOME TO NET CASH PROVIDED BY OPERATING ACTIVITIES:</b>			
Operating income	\$ 326,813	333,134	
Adjustments to reconcile operating income to net cash provided by operating activities:			
Depreciation and amortization	318,709	347,055	
Bad debt expense	122,785	89,062	
Changes in net assets and liabilities:			
Receivables, net	(149,002)	(119,807)	
Accounts payable	(3,548)	73	
Receivable from the City	23,682	22,533	
Refunds payable	1,038	875	
Revenues received in advance	8,764	(12,464)	
<b>Net cash provided by operating activities</b>	<b>\$ 649,241</b>	<b>660,461</b>	
	UNRESTRICTED	ASSETS RESTRICTED	TOTAL
Cash and cash equivalents - beginning	\$ 8,734	874,851	883,585
Net increase	(1,315)	19,292	17,977
Cash and cash equivalents - ending	\$ 7,419	894,143	901,562

The following are the noncash capital and related financing activities:

Interest expense includes the amortization of premium and discount in the amount of \$12,672 in 2001 and \$7,429 in 2000.

Capital expenditures in the amount of \$205,456 and \$252,922 had been incurred but not paid at June 30, 2001 and 2000.

The Board received capital assets of \$1,748 in 2001 and \$5,637 in 2000 which represent capital contributed by the City.

See accompanying notes to financial statements.

## NEW YORK CITY WATER AND SEWER SYSTEM

## NOTES TO FINANCIAL STATEMENTS

JUNE 30, 2001 AND 2000

**(1) ORGANIZATION**

The New York City Water and Sewer System (the “System”) provides water supply and distribution, and sewage collection, treatment, and disposal for The City of New York (the “City”). The System, as presented in the accompanying financial statements, began operations on July 1, 1985 and is a joint operation consisting of two legally separate and independent entities, the New York City Municipal Water Finance Authority (the “Authority”) and the New York City Water Board (the “Board”). The Authority is a public benefit corporation created in accordance with the New York City Municipal Water Finance Act (the “Act”), duly enacted into law as Chapter 513 of the laws of 1984 of the State of New York, as amended by Chapter 514 of the laws of 1984 of the State of New York. The Board was created by Chapter 515 of the laws of 1984 of the State of New York. The Act empowers the Authority to issue bonds or notes to finance the cost of capital improvements to the System, and to refund any and all outstanding bonds and general obligation bonds of the City issued for water and sewer purposes. The Act empowers the Board to lease the System from the City and to fix and collect rates, fees, rents and other charges for the use of, or for services furnished, rendered, or made available by the System, to produce cash sufficient to pay debt service on the Authority’s bonds and to place the System on a self-sustaining basis.

The physical operation and capital improvements of the System are performed by the City’s Department of Environmental Protection subject to contractual agreements with the Authority and Board.

In accordance with Statement 14 of the Governmental Accounting Standards Board (GASB), the Board and the Authority are combined for general purpose external reporting purposes since the Board and the Authority are fiscally interdependent. The System, in turn, is included for reporting purposes as a discretely presented component unit in the City’s financial statements.

**(2) SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES**

During the year ended June 30, 2001, the System elected to adopt the provisions of GASB Statement No. 34, *Basic Financial Statements - and Management’s Discussion and Analysis - for State and Local Governments* as amended by GASB Statement No. 37, *Basic Financial Statements - and Management’s Discussion and Analysis - for State and Local Governments: Omnibus* and GASB Statement No. 38, *Certain Financial Statement Disclosures*.

Statement No. 34 requires as supplementary information Management’s Discussion and Analysis, which includes an analytical overview of the System’s financial activities.

Statement No. 38 requires certain disclosures to be made in the notes to the financial statements concurrent with the implementation of Statement No. 34. While this Statement did not affect amounts reported in the financial statements of the System, certain note disclosures have been added or amended including future debt service and lease obligations in five year increments, short-term obligations, and interest rates.

The accompanying financial statements of the System have been prepared on the accrual basis of accounting. Revenues are recognized when earned and expenses recognized when incurred. GASB Statement No. 20, *Accounting and Financial Reporting for Proprietary Funds and Other Government Entities that Use Proprietary Funds*, provides proprietary activities with a choice of authoritative guidance issued after November 30, 1989. The System has elected to follow GASB pronouncements exclusively after that date. Other significant accounting policies are:

**(a) Investments and Cash Equivalents**

Investments and cash equivalents consist principally of securities of the United States and its agencies, certificates of deposit, and repurchase agreements with maturity periods of one year or less, and are carried at amortized cost, which approximates fair value. For purposes of the combined statements of cash flows,

NEW YORK CITY WATER AND SEWER SYSTEM  
 NOTES TO FINANCIAL STATEMENTS CONTINUED

the System generally considers all highly liquid debt instruments purchased with a maturity of three months or less to be cash equivalents.

**(b) Restricted Assets**

Proceeds from the issuance of debt and monies set aside for the operation and maintenance of the System are classified as restricted by applicable bond indentures.

**(c) Bond Discount and Bond Issuance Costs**

Bond discount and bond issuance costs are amortized over the life of the related bond issue, using the effective yield method of amortization for bond discount and the straight-line method for bond issuance costs.

**(d) Utility Plant in Service**

Utility plant in service acquired through purchase or internal construction is recorded at cost, net of retirements. Contributed utility plant in service is recorded at its estimated historical cost based on appraisals or other methods when historical cost information is not available, net of depreciation. Depreciation is computed using the straight-line method based upon estimated useful lives, as follows:

YEARS	
Buildings	40-50
Water supply and waste water treatment systems	15-50
Water distribution and sewage collection systems	15-75
Equipment	5-35

Maintenance and repairs of property are charged to maintenance expense. Replacements and betterments are recorded as utility plant in service.

**(e) Operating Revenues and Operating Expenses**

Operating revenues consist of customer payments for services of the System. Revenues are based on billing rates imposed by the Board based upon customers' water and sewer usage. The System records estimated unbilled revenue at its year end. Operating expenses consist of administration maintenance, repair and operations of the System, administration costs of the

Board and The authority, rental payments to the City, and bad debt expenses.

**(f) Deferred Revenues**

Revenues received in advance of the period to which they relate are deferred and recorded as revenue when earned.

**(g) Deferred Bond Refunding Costs**

Deferred bond refunding costs represent the accounting loss incurred in advance refundings of outstanding bonds. In accordance with the provisions of GASB Statement No. 23, *Accounting and Financial Reporting of Debt Reported by Proprietary Activities*, gains or losses arising from debt refundings are deferred and amortized over the lesser of the remaining life of the old debt or the life of the new debt.

**(h) Reclassifications**

Certain reclassifications to the 2000 figures have been made in order to conform to the 2001 financial statement presentation.

**(i) Use of Estimates**

The preparation of financial statements requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual amounts could differ from those estimates.

**(3) Financing Agreement**

The Financing Agreement (the "Agreement") provides that the Authority will issue bonds to finance the cost of capital investment in the water and sewer system serving the City. It also sets forth the funding priority for the debt service costs of the Authority, operating costs of the water and sewer system, and the rental payment to the City.



## NEW YORK CITY WATER AND SEWER SYSTEM

## NOTES TO FINANCIAL STATEMENTS CONTINUED

## (4) UTILITY PLANT

The following is a summary of utility plant activity for the fiscal years ended June 30, 2001 and 2000:

IN THOUSANDS	BALANCE JUNE 30, 1999	ADDITIONS	DELETIONS	BALANCE JUNE 30, 2000	ADDITIONS	DELETIONS	BALANCE JUNE 30, 2001
Utility plant construction	\$ 2,855,474	1,037,535	696,707	3,196,302	1,097,827	713,733	3,580,396
Buildings	5,677	—	—	5,677	15,938	—	21,615
Equipment	129,257	54,882	392	183,747	36,880	8,683	211,944
Water supply and wastewater treatment systems	7,364,539	238,204	1,084	7,601,659	186,122	1,310	7,786,471
Water distribution and sewage collection systems	6,037,531	111,189	9,752	6,138,968	221,882	11,785	6,349,065
Total	16,392,478	1,441,810	707,935	17,126,353	1,558,649	735,511	17,949,491
Less accumulated depreciation	3,986,941	326,601	10,835	4,302,707	292,772	21,778	4,573,701
Total, net	\$ 12,405,537	1,115,209	697,100	12,823,646	1,265,877	713,733	13,375,790

## (5) NET ASSETS

At June 30, 2001 and 2000, the Authority had a net asset deficit of \$3,806 million and \$3,369 million, respectively, which amount is less than the \$8,478 million and \$8,155 million total net assets of the Board at June 30, 2001 and 2000, respectively.

## (6) INVESTMENTS, CASH EQUIVALENTS AND CASH DEPOSITS

The Water and Sewer General Revenue Bond Resolution (the "Resolution") authorizes the investment of bond proceeds. The guidelines issued by the Office of the New York State Comptroller and the Resolution establish the criteria for permissible investments of the System. In addition, the Board and the Authority have investment guidelines approved by their respective Boards of Directors. The System may invest in obligations of the Federal government or any subdivision or instrumentality thereof, obligations of the State of New York or any subdivision or instrumentality thereof provided that they are in the two highest rating categories of a rating agency, bankers' acceptances or certificates of deposit (CDs) issued by a New York State commercial bank with capital or surplus in excess of \$100 million, corporate securities or commercial paper rated highest by a rating agency when compared to similar-type securities, or repurchase agreements that are collateralized by obligations of the Federal government.

Investments and deposits held by the System at June 30, 2001 and 2000 comprised:

IN THOUSANDS	2001	2000
Unrestricted cash, cash equivalents (plus accrued interest)	\$ 7,423	8,734
Restricted cash, cash equivalents and investments (plus accrued interest)	1,017,852	974,660
	\$ 1,025,275	983,394
This amount is comprised of:		
Carrying amount of deposits (including CDs)	\$ 6,255	4,803
Investments (plus accrued interest)	1,019,020	978,591
	\$ 1,025,275	983,394

## CASH DEPOSITS

The System follows the New York City Banking Commission designations for the System's bank depositories. The Commission consists of the Comptroller, the Mayor, and the Finance Commissioner of the City and uses independent bank rating agencies in part to assess the financial soundness of each bank, and the banking relationships are under constant operational and credit reviews. Each bank in which the System's cash is deposited is required to have its principal office in New York State and have capital stock, surplus, and undivided earnings aggregating at least \$100 million. The System had \$200 thousand and \$35.6 thousand on deposit at June 30, 2001 and 2000, respectively, which were covered by Federal depository insurance.

NEW YORK CITY WATER AND SEWER SYSTEM  
 NOTES TO FINANCIAL STATEMENTS CONTINUED

INVESTMENTS

The System's investments, which are evidenced by securities that exist in physical or book entry form, are categorized to give an indication of the level of risk assumed by the System at year end. Category 1, the lowest risk, includes investments that are insured or registered, or for which the securities are held by the System or its agent in the System's name.

Category 2 includes uninsured and unregistered investments for which the securities are held by the counterparty's trust department or agent in the System's name. Category 3, the highest risk, includes uninsured and unregistered investments for which the securities are held by the counterparty, or by its trust department or agent but not in the System's name.

Investments (inclusive of certain investments reported as cash equivalents) held by the System at June 30, 2001 and 2000 were classified as Category 1 investments and Non-categorized investments, and are comprised of:

IN THOUSANDS	2001*		2000*	
	COST	FAIR VALUE	COST	FAIR VALUE
Categorized:				
U.S. Treasury securities	\$ 49,318	49,360	—	—
Federal agency issues	722,793	722,998	813,710	814,965
Repurchase agreements	123,559	123,598	122,602	122,822
	<b>895,670</b>	<b>895,956</b>	<b>936,312</b>	<b>937,787</b>
Non-categorized:**				
Guaranteed investment contracts	123,013	123,064	40,803	40,803
	<b>\$ 1,018,683</b>	<b>1,019,020</b>	<b>977,115</b>	<b>978,590</b>

\* Includes \$895,307 at cost and \$895,579 at market (2001) and \$878,783 at cost and \$879,345 at market (2000) of investments reported as cash equivalents.

\*\* These investments are not categorized because they are not evidenced by securities that exist in physical or book entry form.

(7) LEASE AGREEMENT

The Board is party to a long-term lease (the "Lease") with the City, which transfers all the water and sewer related real and personal property to the Board for the term of the lease. The Lease term commenced on July 1, 1985, and continues until the later of the fortieth anniversary of the commencement of the lease, or the date on which all bonds, notes or other obligations of the Authority are paid in full, or provisions for such payment have been made pursuant to the applicable debt instrument. The Lease provides for payments to the City to cover the following:

(a) an amount sufficient to pay the cost of administration, maintenance, repair and operation of the leased property, which includes overhead costs incurred by the City attributable to the leased property, net of the amount of any Federal, State, or other operating grants received by the City;

(b) an amount sufficient to reimburse the City for capital costs incurred by the City for the construction of capital improvements to the leased property which are not paid or reimbursed from any other source.

In addition to the payments described above, the Board pays rent to the City in each fiscal year in an amount not to exceed the greater of (a) the principal and interest payable on general obligation bonds issued by the City for water and sewer purposes certified by the City to be paid within such fiscal year or (b) 15% of principal and interest payable on the bonds of the Authority to be paid within such fiscal year.

## NEW YORK CITY WATER AND SEWER SYSTEM

## NOTES TO FINANCIAL STATEMENTS CONTINUED

A summary of operation and maintenance expenses at June 30, 2001 and 2000 is as follows:

IN THOUSANDS	2001	2000
Water transmission and distribution	\$ 260,478	237,847
Sewer collection systems	318,502	307,199
City agency support cost	33,508	32,967
Fringe benefits	65,048	64,923
Judgments and claims	7,687	7,844
	685,223	650,780
Rental payments to the City	157,178	150,475
	\$ 842,401	801,255

**(8) PAYABLE TO AND RECEIVABLE FROM THE CITY**

As of June 30, 2001 and 2000, all construction work in progress recorded by the System, which has not been reimbursed to the City, has been recorded as a payable to the City, net of the amount of any State or Federal capital grants received by the City.

As of June 30, 2001 and 2000, the System had a receivable from the City for overpayment of operations and maintenance expenses.

**(9) BONDS AND NOTES PAYABLE**

The Authority issues revenue bonds to finance a portion of the costs of the capital renovation and improvements program to the System, to fund certain reserves, to pay costs of issuance and to advance refund certain outstanding principal amounts of bonds.

Bonds, notes payable, and commercial paper comprise the following for the year ended June 30, 2001:

IN THOUSANDS	BALANCE AT JUNE 30, 2000	ISSUED	RETIRED	BALANCE AT JUNE 30, 2001
1987 Fiscal Series A - 5.00% Serial and Term Bonds maturing in varying installments through 2017	\$ 69,690	-	-	69,690
1987 Fiscal Series B - 5.00% Serial Bonds maturing in 2017	13,255	20	-	13,275
1989 Fiscal Series B - 5.75% to 7.50% Serial and Term Bonds maturing in 2001	1,955	-	1,955	-
1990 Fiscal Series B - 7.30% to 7.50% Serial and Term Bonds maturing in varying installments through 2012	125,680	-	6,855	118,825
1991 Fiscal Series B - 6.00% to 7.25% Serial and Term Bonds maturing in varying installments through 2012	38,950	-	13,035	25,915
1992 Fiscal Series A - 5.30% to 7.10% Serial and Term Bonds maturing in varying installments through 2021	180,240	-	180,240	-
1992 Fiscal Series B - 6.66% to 6.86% Serial and Term Bonds maturing in varying installments through 2014	43,423	-	13,766	29,657
1993 Fiscal Series A - 5.70% to 6.15% Serial, Term, and Capital Appreciation Bonds maturing in varying installments through 2020	1,038,100	-	15,880	1,022,220
1993 Fiscal Series C - Adjustable Rate Term Bonds maturing in 2022	100,000	-	-	100,000
1994 Fiscal Series 1 - 3.00% to 6.00% Serial and Term Bonds maturing in varying installments through 2015	498,724	-	24,837	473,887
1994 Fiscal Series B - 4.875% to 5.625% Fixed Rate Bonds maturing in varying installments through 2019	604,650	-	31,645	573,005
1994 Fiscal Series C - Adjustable Rate Term Bonds maturing in 2023	200,000	-	-	200,000
1994 Fiscal Series D - Auction Rate Bonds maturing in varying Installments through 2013	83,500	-	-	83,500
1994 Fiscal Series E - Inverse Rate Bonds maturing in varying installments through 2013	83,500	-	-	83,500

Continued on next page



NEW YORK CITY WATER AND SEWER SYSTEM

NOTES TO FINANCIAL STATEMENTS CONTINUED

IN THOUSANDS	BALANCE AT JUNE 30, 2000	ISSUED	RETIRED	BALANCE AT JUNE 30, 2001
1994 Fiscal Series F - 5.20% to 5.75% Serial Bonds maturing in varying installments through 2023	212,275	-	710	211,565
1994 Fiscal Series G - Adjustable, Auction and Leveraged Reverse Rate Bonds maturing in varying installments through 2024	205,000	-	-	205,000
1995 Fiscal Series A - Adjustable Rate Term Bonds maturing in varying installments through 2025	216,700	-	-	216,700
1995 Fiscal Series 1 - 5.25% to 6.875% Serial and Term Bonds maturing in varying installments through 2016	50,924	-	4,479	46,445
1996 Fiscal Series 1 - 4.3% to 6.00% Serial Bonds maturing in varying installments through 2017	97,675	-	4,295	93,380
1996 Fiscal Series 2 - 2.95% to 5.20% Serial Bonds maturing in varying installments through 2017	24,750	-	1,170	23,580
1996 Fiscal Series 3 - 3.60% to 5.85% Serial Bonds maturing in varying installments through 2017	38,740	-	1,535	37,205
1996 Fiscal Series A - 4.90% to 5.75% Serial Bonds maturing in varying installments through 2023	229,330	-	75,225	154,105
1996 Fiscal Series B - 5.75% to 5.875% Serial Bonds maturing in varying installments through 2026	520,100	-	29,075	491,025
1996 Fiscal Series C - 4.70% to 5.75% Serial Bonds maturing in varying installments through 2017	77,605	-	305	77,300
1997 Fiscal Series A - 4.85% to 5.75% Serial Bonds maturing in varying installments through 2026	365,125	-	-	365,125
1997 Fiscal Series B - 5.50% to 5.80% Serial Bonds maturing in varying installments through 2029	700,000	-	-	700,000
1998 Fiscal Series 1 - 4.00% to 5.35% Serial Bonds maturing in varying installments through 2017	40,985	-	1,550	39,435
1998 Fiscal Series 2 - 4.00% to 6.00% Serial Bonds maturing in varying installments through 2019	105,031	-	3,843	101,188
1998 Fiscal Series 3 - 4.30% to 6.00% Serial Bonds maturing in varying installments through 2016	450,035	-	-	450,035
1998 Fiscal Series 4 - 3.60% to 5.20% Serial Bonds maturing in varying installments through 2018	14,535	-	655	13,880
1998 Fiscal Series 5 - 4.61% to 5.10% Serial Bonds maturing in varying installments through 2019	82,505	-	3,120	79,385
1998 Fiscal Series 6 - 4.827% to 5.125% Serial Bonds maturing in varying installments through 2019	18,022	-	659	17,363
1998 Fiscal Series A - 4.80% to 5.125% Serial Bonds maturing in varying installments through 2022	283,850	-	-	283,850
1998 Fiscal Series B - 5.125% to 5.25% Serial Bonds maturing in varying installments through 2030	449,525	-	-	449,525
1998 Fiscal Series C - 4.10% to 5.125% Serial Bonds in varying installments through 2021	87,835	-	250	87,585
1998 Fiscal Series D - 4.25% to 5.00% Serial Bonds maturing in varying installments through 2025	394,135	-	3,110	391,025
1999 Fiscal Series 1 - 4.00% to 5.25% Serial Bonds maturing in varying installments through 2020	115,121	38,000	5,652	147,469
1999 Fiscal Series 2 - 4.00% to 5.25% Serial Bonds maturing in varying installments through 2020	157,831	-	41,770	116,061
1999 Fiscal Series A - 4.75% to 5.00% Serial Bonds maturing in varying installments through 2031	301,470	-	-	301,470

Continued on next page

## NEW YORK CITY WATER AND SEWER SYSTEM

## NOTES TO FINANCIAL STATEMENTS CONTINUED

IN THOUSANDS	BALANCE AT JUNE 30, 2000	ISSUED	RETIRED	BALANCE AT JUNE 30, 2001
1999 Fiscal Series B - 3.80% to 5.25% Serial and Capital Appreciation Bonds maturing in varying installments through 2020	245,865	-	-	245,865
1999 Fiscal Series C - 5.00% to 5.75% Serial Bonds maturing in varying installments through 2001	4,625	-	4,625	-
2000 Fiscal Series A - 5.50% to 5.75% Serial Bonds maturing in varying installments through 2032	275,735	-	-	275,735
2000 Fiscal Series B - 6.00% to 6.10% Serial Bonds maturing in varying installments through 2033	323,730	-	191,865	131,865
2000 Fiscal Series C - Adjustable Rate Term Bonds maturing in 2033	107,500	-	-	107,500
2000 Fiscal Series 1 - 2.56% Direct Loan maturing in 2023	285,856	-	5,010	280,846
2000 Fiscal Series 2 - 3.80% to 5.96% Serial Bonds maturing in varying installments through 2032	12,289	-	405	11,884
2001 Fiscal Series A - 5.50% Term Bonds maturing in varying Installments through 2033	-	328,225	-	328,225
2001 Fiscal Series B - 4.5% to 5.125% Serial and Term Bonds maturing in varying installments through 2031	-	68,675	-	68,675
2001 Fiscal Series C - 5.125% Term Bonds maturing in varying installments through 2033	-	112,040	-	112,040
2001 Fiscal Series D - 4.0% to 5.5% Serial, Term and Capital Appreciation Bonds maturing in varying installments through 2025	-	305,085	7,895	297,190
2001 Fiscal Series E - 4.5% to 5.25% Serial and Term Bonds maturing in varying installments through 2031	-	86,105	-	86,105
2001 Fiscal Series F - Adjustable Rate Bonds maturing in varying Installments through 2033	-	184,130	-	184,130
2001 Fiscal Series 1 - 2.74% Serial and Term Bonds maturing in varying installments through 2022	-	99,546	935	98,611
Commercial Paper Series 1 - Variable Rate, Short-term Rolling Maturity Backed by L.O.C	-	400,000	300,000	100,000
Commercial Paper Series 3 - Variable Rate, Short-term Rolling Maturity Backed by L.O.C.	75,000	-	-	75,000
Commercial Paper Series 4 - Variable Rate, Short-term Rolling Maturity Backed by L.O.C.	125,000	98,300	98,300	125,000
Commercial Paper Series 5 - Variable Rate, Short-term Rolling Maturity Backed by L.O.C.	-	300,000	100,000	200,000
Total debt payable	9,776,372	2,020,126	1,174,650	10,621,848
Current portion of bonds and notes payable	358,575	1,016,480	(700,566)	674,489
Bonds and notes payable, less current portion	\$ 9,417,797	1,003,646	474,084	9,947,359

NEW YORK CITY WATER AND SEWER SYSTEM  
 NOTES TO FINANCIAL STATEMENTS CONTINUED

With respect to all series, the Board has agreed to maintain rates and charges to provide revenues at levels sufficient to pay principal and interest requirements as well as to meet certain debt service coverage and operating cost funding requirements. All series are specific obligations of the Authority payable solely from and secured by a pledge of and lien on the gross revenue of the System, as defined.

Certain bonds issued by the Authority involve the concurrent issuance of long-term variable rate securities that are matched with other long-term variable rate securities. These obligations, taken together as a whole, yield a fixed rate of interest at all times. These securities have been issued to achieve a lower prevailing fixed rate of interest in relation to traditional fixed-rate bonds.

During 2001, the Authority issued \$550 million of bonds to advance refund \$474.1 million of outstanding bonds. During 2000, the Authority defeased \$41.8 million of outstanding bonds with \$40 million of current revenue. The advance refundings resulted in an accounting loss of \$37.2 million and a gain of \$720 thousand for the years ended June 30, 2001, and June 30, 2000, respectively. The Authority in effect reduced its aggregate debt service by approximately \$13.3 million and \$56.6 million in 2001 and 2000, respectively, and obtained an economic gain of \$28.4 million and \$1.8 million, respectively.

During 2001 the Authority issued \$86.1 million of bonds that will refund outstanding bonds at a future call date. The Authority will reduce debt service by \$36.4 million and obtain an economic benefit of \$7.2 million on June 15, 2010.

The Authority has defeased cumulatively \$4.603 billion and \$4.129 billion of outstanding bonds as of June 30, 2001 and 2000, respectively, by placing proceeds of refunding bonds issued in an irrevocable escrow account to provide for all future debt service payments on defeased bonds. Proceeds were used to purchase U.S. Government securities that were placed in the irrevocable escrow account. Accordingly, the escrow account assets and liability for the defeased bonds are not included in the Authority's financial statements.

As of June 30, 2001 and 2000, \$3.615 billion and \$2.702 billion of the defeased bonds respectively had been retired from the assets of the escrow accounts.

Debt service requirements to maturity at June 30, 2001 are as follows:

YEAR ENDING JUNE 30 IN THOUSANDS	PRINCIPAL	INTEREST	TOTAL
2002	\$ 674,489	464,397	1,138,886
2003	186,348	454,864	641,212
2004	196,369	452,716	649,085
2005	219,033	445,389	664,422
2006	219,764	436,573	656,337
Thereafter until 2033	9,125,845	6,637,644	15,763,489
<b>Total</b>	<b>\$ 10,621,848</b>	<b>8,891,583</b>	<b>19,513,430</b>

In fiscal year 2001 the changes in short-term liabilities were as follows:

IN THOUSANDS	BALANCE JUNE 30, 2000	ADDITIONS	DELETIONS	BALANCE JUNE 30, 2001
Current portion of bonds and notes payable	\$ 158,575	218,180	202,266	174,489
Commercial paper	200,000	798,300	498,300	500,000
<b>Total short-term debt payable</b>	<b>\$ 358,575</b>	<b>1,016,480</b>	<b>700,566</b>	<b>674,489</b>

## NEW YORK CITY WATER AND SEWER SYSTEM

## NOTES TO FINANCIAL STATEMENTS CONTINUED

**(10) RESTRICTED ASSETS**

Certain cash and investments, plus accrued interest, of the System are restricted as follows:

IN THOUSANDS	2001	2000
The Board		
Operation and maintenance reserve account	\$ 120,074	118,196
Operation and maintenance reserve general account	10	10
	120,084	118,206
The Authority		
Revenue fund	158,829	124,712
Debt service reserve fund	607,360	580,775
Construction fund	49,018	144,466
Arbitrage rebate fund	300	6,501
Escrow fund	82,261	—
	897,768	856,454
	\$ 1,017,852	974,660

The operation and maintenance reserve account is established as a depository to hold the operations and maintenance reserve fund as required by the Resolution. It is required to hold one-sixth of the operating expenses as set forth in the annual budget. It is funded through the cash receipts of the Board. The operation and maintenance reserve general account is established as a depository to hold all excess funds of the Board after all legally mandated transfers have been made. It is available to meet any deficiencies in the flow of funds including debt service and alternatively can be used as a financing source for capital expenditures.

The revenue fund is established as a depository to fund the debt service, Authority expense, debt service reserve and arbitrage funds. It is funded through cash transfers from the Board. The debt service reserve fund is established as a depository to hold the maximum annual debt service requirement for the next current or any future fiscal year. It is funded through revenue bond proceeds and the revenue fund. The debt service fund is established as a depository to pay all principal and interest payments on the Authority's debt for the current fiscal year. It is funded through the revenue fund.

The construction fund is established as a depository to pay all capital construction costs incurred by the City and reimbursed by the Authority. It is funded through the proceeds of bond and note sales. The arbitrage rebate fund is established to provide for arbitrage rebate payments to the U.S. Department of the Treasury. It is funded through the revenue fund.

**(11) COMMITMENTS AND CONTINGENCIES***Construction*

The System has contractual commitments of approximately \$3,365 and \$2,389 million at June 30, 2001 and June 30, 2000, respectively, for water and sewer projects.

*Contingencies**Claims and Litigation*

In accordance with the Lease, the Board is required to reimburse the City for any judgment or settlement paid by the City arising out of a tort claim to the extent that the City's liability is related to capital improvements and the operation or maintenance of the System. However, in no event shall the payment made to the City, in any fiscal year, exceed an amount equal to 5% of the aggregate revenues shown on the last year-end audited financial statements of the System. In addition, the System is required to reimburse the City, to the extent requested by the City, for the payment of any judgment or settlement arising out of a contract claim with respect to the construction of capital improvements. In addition, the City has agreed, subject to certain conditions, to indemnify the Authority, the Board and their staffs against any and all liability in connection with any act done or omitted in the exercise of their powers which is taken or omitted in good faith in pursuance of their purposes under the Act. Currently, the City is a defendant in a significant number of lawsuits pertaining to the System. The litigation includes, but is not limited to, actions commenced and claims asserted against the City arising out of alleged torts, alleged breaches of contract, condemnation proceedings and other alleged violations of law. As of June 30, 2001, the potential future liability attributable to the System for claims



outstanding against the City was estimated to be \$94.4 million. This amount is included in the estimated liability for unsettled claims, which is reported in the City's statement of net assets. The potential future liability is the City's best estimate based on available information. The estimate may be revised as further information is obtained and as pending cases are litigated.

#### *Arbitrage Rebate*

To maintain the exemption from Federal income tax of interest on bonds issued subsequent to January 1, 1986, the System will fund amounts required to be rebated to the Federal Government pursuant to Section 148 of the Internal Revenue Code of 1986, as amended ("the Code"). The Code requires the payment to the United States Treasury of the excess of the amount earned on all non-purpose obligations over the amount that would have been earned if the gross proceeds of the issue were invested at a rate equal to the yield on the issue, together with any earnings attributable to such excess. Construction funds, debt service funds or any other funds or accounts funded with proceeds of such bonds, including earnings, or pledged to or expected to be used to pay interest on such bonds are subject to this requirement. Issues with respect to which all gross proceeds are expended for the governmental purpose of the issue within six months after the date of issue and debt service funds with annual gross earnings of less than \$100,000 are exempt from this requirement. Payment is to be made after the end of the fifth bond year and after every fifth bond year thereafter, and within 60 days after retirement of the bonds. At June 30, 2001 and 2000, the System has accrued \$143 thousand and \$3.7 million respectively, for such liability.

#### **(12) SUBSEQUENT EVENTS**

On September 11, 2001, two hijacked commercial passenger jets flew into the World Trade Center, resulting in its destruction, damage to other buildings in the vicinity and a substantial loss of life.

The disaster resulted in several water main breaks. However, water and sewer service was continuously

provided to most of lower Manhattan and was restored to all buildings near the disaster as they were able to be reoccupied. Full repair of the System is estimated to cost approximately \$5 million. The revenues of the System from user payments will be impacted by the loss of payments from the World Trade Center. The estimated reduction in System revenues is expected to be less than 1% of annual System revenues.

On July 2, 2001, the Authority issued Fiscal 2002 Series A Water and Sewer First Resolution Bonds in the aggregate principal amount of \$216.3 million to reimburse outstanding commercial paper notes, and to pay certain costs of issuance.

On July 12, 2001, the Authority issued Fiscal 2002 Series 1 Water and Sewer Second Resolution Bonds in the aggregate principal amount of \$204.1 million to reimburse outstanding commercial paper notes, and to pay certain costs of issuance.

On August 15, 2001, the Authority issued Fiscal 2002 Series B and C First Resolution Bonds in the aggregate principal amount of \$171.5 million and \$46.6 million, respectively, to fund an escrow account that will refund outstanding bonds at future call dates.

On September 11, 2001 the Water Authority issued Fiscal 2002 Series D, E, and F First Resolution Bonds in the aggregate amounts of \$41.7, \$213.8, and \$105.6 million, respectively, to fund an escrow account that will refund outstanding bonds at future call dates.

On October 17, 2001, the Authority issued Fiscal 2002 Series G Water and Sewer First Resolution Bonds in the aggregate principal amount of \$216.4 to reimburse outstanding commercial paper notes, and to pay certain costs of issuance.

On October 18, 2002, the Authority issued Fiscal 2002 Series 2 Water and Sewer Second Resolution Bonds in the aggregate principal amount of \$72.1 million to reimburse outstanding commercial paper notes, and to pay certain costs of issuance.

## NEW YORK CITY WATER AND SEWER SYSTEM

## SCHEDULE I

## COMBINING BALANCE SHEET

JUNE 30, 2001

IN THOUSANDS

	NEW YORK CITY WATER BOARD	NEW YORK CITY MUNICIPAL WATER FINANCE AUTHORITY	ELIMINATIONS	TOTAL
<b>ASSETS</b>				
Utility plant in service, less accumulated depreciation of \$4,573,701	\$ 9,795,394	—	—	9,795,394
Utility plant construction	3,580,396	—	—	3,580,396
	13,375,790	—	—	13,375,790
Current assets:				
Unrestricted cash and cash equivalents	7,416	3	—	7,419
Accounts receivable:	—	—	—	—
Billed, less allowance for uncollectible water and sewer receivables of \$313,318	341,417	—	—	341,417
Unbilled	106,600	—	—	106,600
Receivable from the City	23,458	—	—	23,458
Prepaid construction	40,000	—	—	40,000
Accrued interest receivable	4	—	—	4
Other	—	4,071	—	4,071
Total current unrestricted assets	518,895	4,074	—	522,969
Restricted assets:				
Cash and cash equivalents	120,048	774,095	—	894,143
Investments	—	123,377	—	123,377
Accrued interest receivable	36	296	—	332
Total current restricted assets	120,084	897,768	—	1,017,852
Total current assets	638,979	901,842	—	1,540,821
Revenue requirement to be billed by and received from the Board	—	5,443,374	(5,443,374)	—
Long-term Deferred bond and financing expenses	—	98,213	—	98,213
<b>Total assets</b>	<b>\$ 14,014,769</b>	<b>6,443,429</b>	<b>(5,443,374)</b>	<b>15,014,824</b>
<b>LIABILITIES AND NET ASSETS</b>				
Long-term liabilities:				
Bonds and notes payable, less current portion	\$ —	9,947,359	—	9,947,359
Net discount on bonds and notes payable	—	(372,409)	—	(372,409)
Deferred bond refunding costs	—	(229,145)	—	(229,145)
Revenue requirements payable to the Authority	5,443,374	—	(5,443,374)	—
Total long-term liabilities	5,443,374	9,345,805	(5,443,374)	9,345,805
Current liabilities:				
Accounts payable and accrued expenses	267	23,949	—	24,216
Revenues received in advance	76,562	—	—	76,562
Current portion of bonds and notes payable	—	674,489	—	674,489
Payable to the City	—	205,456	—	205,456
Refunds payable to customers	16,413	—	—	16,413
Total current liabilities	93,242	903,894	—	997,136
Total liabilities	5,536,616	10,249,699	(5,443,374)	10,342,941
Net Assets:				
Invested in capital assets, net of related debt	13,415,790	(9,922,081)	—	3,493,709
Restricted for debt service	120,084	897,768	—	1,017,852
Unrestricted (deficit)	(5,057,721)	5,218,043	—	160,322
Total net assets	8,478,153	(3,806,270)	—	4,671,883
<b>Total liabilities and net assets</b>	<b>\$ 14,014,769</b>	<b>6,443,429</b>	<b>(5,443,374)</b>	<b>15,014,824</b>

See accompanying independent auditors' report.

## COMBINING BALANCE SHEET

JUNE 30, 2000

IN THOUSANDS

	NEW YORK CITY WATER BOARD	NEW YORK CITY MUNICIPAL WATER FINANCE AUTHORITY	ELIMINATIONS	TOTAL
<b>ASSETS</b>				
Utility plant in service, less accumulated depreciation of \$4,302,707	\$ 9,627,344	—	—	9,627,344
Utility plant construction	3,196,302	—	—	3,196,302
	<u>12,823,646</u>	<u>—</u>	<u>—</u>	<u>12,823,646</u>
Current assets:				
Unrestricted cash and cash equivalents	8,730	4	—	8,734
Accounts receivable:				
Billed, less allowance for uncollectible water and sewer receivables of \$293,888	316,800	—	—	316,800
Unbilled	105,000	—	—	105,000
Receivable from the City	47,140	—	—	47,140
Other	—	5,751	—	5,751
Total current unrestricted assets	<u>477,670</u>	<u>5,755</u>	<u>—</u>	<u>483,425</u>
Restricted assets:				
Cash and cash equivalents	117,985	756,866	—	874,851
Investments	—	98,333	—	98,333
Accrued interest receivable	221	1,255	—	1,476
Total current unrestricted assets	<u>118,206</u>	<u>856,454</u>	<u>—</u>	<u>974,660</u>
Total current assets	<u>595,876</u>	<u>862,209</u>	<u>—</u>	<u>1,458,085</u>
Revenue requirement to be billed by and received from the Board	—	5,180,710	(5,180,710)	—
Long-term Deferred bond and financing expenses	—	102,917	—	102,917
<b>Total assets</b>	<b>\$ 13,419,522</b>	<b>6,145,836</b>	<b>(5,180,710)</b>	<b>14,384,648</b>
<b>LIABILITIES AND NET ASSETS</b>				
Long-term liabilities:				
Bonds and notes payable, less current portion	\$ —	9,417,797	—	9,417,797
Net discount on bonds and notes payable	—	(331,840)	—	(331,840)
Deferred bond refunding costs	—	(210,388)	—	(210,388)
Revenue requirements payable to the Authority	5,180,710	—	(5,180,710)	—
Total long-term liabilities	<u>5,180,710</u>	<u>8,875,569</u>	<u>(5,180,710)</u>	<u>8,875,569</u>
Current liabilities:				
Accounts payable and accrued expenses	238	27,480	—	27,718
Revenues received in advance	67,798	—	—	67,798
Current portion of bonds and notes payable	—	358,575	—	358,575
Payable to the City	—	252,911	—	252,911
Refunds payable to customers	15,375	—	—	15,375
Total current liabilities	<u>83,411</u>	<u>638,966</u>	<u>—</u>	<u>722,377</u>
Total liabilities	<u>5,264,121</u>	<u>9,514,535</u>	<u>(5,180,710)</u>	<u>9,597,946</u>
Net Assets:				
Invested in capital assets, net of related debt	12,823,646	(9,131,227)	—	3,692,419
Restricted for debt service	118,206	856,454	—	974,660
Unrestricted	(4,786,451)	4,906,074	—	119,623
Total net assets	<u>8,155,401</u>	<u>(3,368,699)</u>	<u>—</u>	<u>4,786,702</u>
<b>Total liabilities and net assets</b>	<b>\$ 13,419,522</b>	<b>6,145,836</b>	<b>(5,180,710)</b>	<b>14,384,648</b>

See accompanying independent auditors' report.

## NEW YORK CITY WATER AND SEWER SYSTEM

## SCHEDULE III

COMBINING STATEMENT OF REVENUES, EXPENSES  
AND CHANGES IN NET ASSETS

YEAR ENDED JUNE 30, 2001

IN THOUSANDS

	NEW YORK CITY WATER BOARD	NEW YORK CITY MUNICIPAL WATER FINANCE AUTHORITY	ELIMINATIONS	TOTAL
Operating revenues:				
Water supply and distribution	\$ 626,364	—	—	626,364
Sewer collection and treatment	898,568	—	—	898,568
Other operating revenues	51,952	45,039	—	96,991
Total operating revenues	1,576,884	45,039	—	1,621,923
Operating expenses:				
Operation and maintenance	842,401	—	—	842,401
Bad debt expense	122,785	—	—	122,785
Administration and general	1,831	9,384	—	11,215
Total operating expenses	967,017	9,384	—	976,401
Excess of operating revenues over operating expenses before depreciation and amortization	609,867	35,655	—	645,522
Depreciation and amortization	292,772	25,937	—	318,709
Operating income	317,095	9,718	—	326,813
Nonoperating revenue (expenses):				
Interest expense	—	(527,914)	—	(527,914)
Investment income	3,909	80,625	—	84,534
Net income (loss) before capital contributions	321,004	(437,571)	—	(116,567)
Contributed capital	1,748	—	—	1,748
Change in net assets	322,752	(437,571)	—	(114,819)
Net assets at beginning of year	8,155,401	(3,368,699)	—	4,786,702
Net assets at end of year	\$ 8,478,153	(3,806,270)	—	4,671,883

See accompanying independent auditors' report.



**COMBINING STATEMENT OF REVENUES, EXPENSES  
AND CHANGES IN NET ASSETS**

YEAR ENDED JUNE 30, 2000

IN THOUSANDS

	NEW YORK CITY WATER BOARD	NEW YORK CITY MUNICIPAL WATER FINANCE AUTHORITY	ELIMINATIONS	TOTAL
Operating revenues:				
Water supply and distribution	\$ 610,949	—	—	610,949
Sewer collection and treatment	876,455	—	—	876,455
Other operating revenues	47,458	45,736	—	93,194
Total operating revenues	1,534,862	45,736	—	1,580,598
Operating expenses:				
Operation and maintenance	801,255	—	—	801,255
Bad debt expense	89,062	—	—	89,062
Administration and general	1,578	8,514	—	10,092
Total operating expenses	891,895	8,514	—	900,409
Excess of operating revenues over operating expenses before depreciation and amortization	642,967	37,222	—	680,189
Depreciation and amortization	326,601	20,454	—	347,055
Operating income	316,366	16,768	—	333,134
Nonoperating revenue (expense):				
Interest expense	—	(492,747)	—	(492,747)
Investment income	3,939	66,539	—	70,478
Net income (loss) before capital contributions	320,305	(409,440)	—	(89,135)
Contributed capital	5,637	—	—	5,637
Change in net assets	325,942	(409,440)	—	(83,498)
Net assets at beginning of year	7,829,459	(2,959,259)	—	4,870,200
Net assets at end of year	\$ 8,155,401	(3,368,699)	—	4,786,702

See accompanying independent auditors' report.

## NEW YORK CITY WATER AND SEWER SYSTEM

## SCHEDULE V

## COMBINING STATEMENTS OF CASH FLOWS

YEAR ENDED JUNE 30, 2001

IN THOUSANDS

	NEW YORK CITY WATER BOARD	NEW YORK CITY MUNICIPAL WATER FINANCE AUTHORITY	TOTAL
<b>Cash flows from operating activities:</b>			
Receipts from customers	\$ 1,437,981	45,039	1,483,020
Payments for operations & maintenance	(819,015)	—	(819,015)
Payments for administration	(1,803)	(12,961)	(14,764)
Net cash provided by operating activities	617,163	32,078	649,241
<b>Cash flows from capital and related financing activities:</b>			
Proceeds from issuing bonds, notes and other borrowings, net of issuance costs	—	1,909,079	1,909,079
Acquisition and construction of capital assets	(40,000)	(890,623)	(930,623)
Payments by the Board to the Authority (net)	(580,504)	580,504	—
Repayments of bonds, notes and other borrowings	—	(1,167,056)	(1,167,056)
Interest paid on bonds, notes and other borrowings	—	(503,344)	(503,344)
Net cash used by capital and related financing activities	(620,504)	(71,440)	(691,944)
<b>Cash flows from investing activities:</b>			
Proceeds from sales and maturities of investments	—	98,333	98,333
Purchases of investments	—	(123,377)	(123,377)
Interest on investments	4,090	81,634	85,724
Net cash provided by investing activities	4,090	56,590	60,680
Net increase in cash and cash equivalents	749	17,228	17,977
Cash and cash equivalents, beginning of year	126,715	756,870	883,585
<b>Cash and cash equivalents, end of year</b>	<b>\$ 127,464</b>	<b>774,098</b>	<b>901,562</b>

## RECONCILIATION OF OPERATING INCOME TO NET CASH PROVIDED BY OPERATING ACTIVITIES:

Operating income	\$ 317,095	9,718	326,813
Adjustments to reconcile operating income to net cash provided by operating activities:			
Depreciation and amortization	292,772	25,937	318,709
Bad debt expense	122,785	—	122,785
Changes in net assets and liabilities:			
Receivables, net	(149,002)	—	(149,002)
Accounts payable	29	(3,577)	(3,548)
Receivable from the City	23,682	—	23,682
Refunds payable	1,038	—	1,038
Revenues received in advance	8,764	—	8,764
<b>Net cash provided by operating activities</b>	<b>\$ 617,163</b>	<b>32,078</b>	<b>649,241</b>

	UNRESTRICTED	ASSETS RESTRICTED	TOTAL
Cash and cash equivalents—beginning	\$ 8,734	874,851	883,585
Net increase	(1,315)	19,292	17,977
<b>Cash and cash equivalents—ending</b>	<b>\$ 7,419</b>	<b>894,143</b>	<b>901,562</b>

The following are the noncash capital and related financing activities:

Interest expense includes the amortization of premium and discount in the amount of \$12,672.

Capital expenditures in the amount of \$205,456 had been incurred but not paid at June 30, 2001.

The Board received capital assets of \$1,748 in 2001, which represent capital contributed by the City.

See accompanying independent auditors' report.

## COMBINING STATEMENTS OF CASH FLOWS

YEAR ENDED JUNE 30, 2000

IN THOUSANDS

	NEW YORK CITY WATER BOARD	NEW YORK CITY MUNICIPAL WATER FINANCE AUTHORITY	TOTAL
<b>Cash flows from operating activities:</b>			
Receipts from customers	\$1,401,768	45,736	1,447,504
Payments for operations & maintenance	(777,025)	—	(777,025)
Payments for administration	(1,636)	(8,382)	(10,018)
Net cash provided by operating activities	623,107	37,354	660,461
<b>Cash flows from capital and related financing activities:</b>			
Proceeds from issuing bonds, notes and other borrowings, net of issuance costs	—	1,515,293	1,515,293
Acquisition and construction of capital assets	—	(726,941)	(726,941)
Payments by the Board to the Authority (net)	(655,639)	655,639	—
Repayments of bonds, notes and other borrowings	—	(1,112,623)	(1,112,623)
Interest paid on bonds, notes and other borrowings	—	(477,120)	(477,120)
Net cash used by capital and related financing activities	(655,639)	(145,752)	(801,391)
<b>Cash flows from investing activities:</b>			
Proceeds from sales and maturities of investments	3,425	499,594	503,019
Purchases of investments	—	(98,333)	(98,333)
Interest on investments	3,860	70,608	74,468
Net cash provided by investing activities	7,285	471,869	479,154
Net (decrease) increase in cash and cash equivalents	(25,247)	363,471	338,224
Cash and cash equivalents, beginning of year	151,962	393,399	545,361
<b>Cash and cash equivalents, end of year</b>	<b>\$ 126,715</b>	<b>756,870</b>	<b>883,585</b>

## RECONCILIATION OF OPERATING INCOME TO NET CASH PROVIDED BY OPERATING ACTIVITIES:

Operating income	\$ 316,366	16,768	333,134
Adjustments to reconcile operating income to net cash provided by operating activities:			
Depreciation and amortization	326,601	20,454	347,055
Bad debt expense	89,062	—	89,062
Changes in net assets and liabilities:			
Receivables, net	(119,807)	—	(119,807)
Accounts payable	(59)	132	73
Receivable from the City	22,533	—	22,533
Refunds payable	875	—	875
Revenues received in advance	(12,464)	—	(12,464)
<b>Net cash provided by operating activities</b>	<b>\$ 623,107</b>	<b>37,354</b>	<b>660,461</b>

	ASSETS		TOTAL
	UNRESTRICTED	RESTRICTED	
Cash and cash equivalents—beginning	\$ 35,854	509,507	545,361
Net increase	(27,120)	365,344	338,224
<b>Cash and cash equivalents—ending</b>	<b>\$ 8,734</b>	<b>874,851</b>	<b>883,585</b>

The following are the noncash capital and related financing activities:

Interest expense includes the amortization of premium and discount in the amount of \$7,429.

Capital expenditures in the amount of \$252,911 had been incurred but not paid at June 30, 2000.

The Board received capital assets of \$5,637 in 2000, which represent capital contributed by the City.

See accompanying independent auditors' report.

NEW YORK CITY WATER AND SEWER SYSTEM  
STATISTICS

REVENUES LAST TEN FISCAL YEARS  
YEARS ENDED JUNE 30, 2000-2001 (IN THOUSANDS)

YEAR	WATER SUPPLY AND DISTRIBUTION	SEWER COLLECTION AND TREATMENT	OTHER OPERATING REVENUES	INVESTMENT INCOME	TOTAL
1992	455,554	583,696	42,816	53,711	1,135,777
1993	444,764	591,978	50,627	45,433	1,132,802
1994	468,957	676,924	58,542	32,955	1,237,378
1995	504,596	717,533	78,326	57,511	1,357,966
1996	532,171	765,808	72,251	67,646	1,437,876
1997	543,928	789,516	93,243	68,192	1,494,879
1998	560,956	819,662	102,540	93,883	1,577,041
1999	583,394	857,204	85,903	81,465	1,607,966
2000	610,949	876,455	93,194	70,478	1,651,076
2001	626,364	898,568	96,991	84,534	1,706,457

EXPENSES LAST TEN FISCAL YEARS  
YEARS ENDED JUNE 30, 2000-2001 (IN THOUSANDS)

YEAR	OPERATION AND MAINTENANCE	BAD DEBT EXPENSE	ADMINISTRATION AND GENERAL	DEPRECIATION AND AMORTIZATION	INTEREST EXPENSE	LOSS FROM EARLY EXTINGUISHMENT OF DEBT	TOTAL
1992	644,265	67,662	4,444	153,674	256,735	26,034	1,152,818
1993	709,360	(28,580)	9,811	166,080	281,226	109,423	1,247,320
1994	718,650	51,586	17,290	208,078	296,083	—	1,291,687
1995	738,561	95,989	15,047	293,052	328,364	—	1,471,013
1996	730,963	317,051	14,490	240,949	368,422	—	1,671,875
1997	775,318	189,775	13,374	287,546	407,997	—	1,674,010
1998	777,652	149,748	11,217	281,943	465,819	—	1,731,518
1999	777,652	103,960	10,879	380,023	476,675	—	1,749,189
2000	801,255	89,062	10,092	347,055	492,747	—	1,740,211
2001	842,401	122,785	11,215	318,709	527,914	—	1,823,024



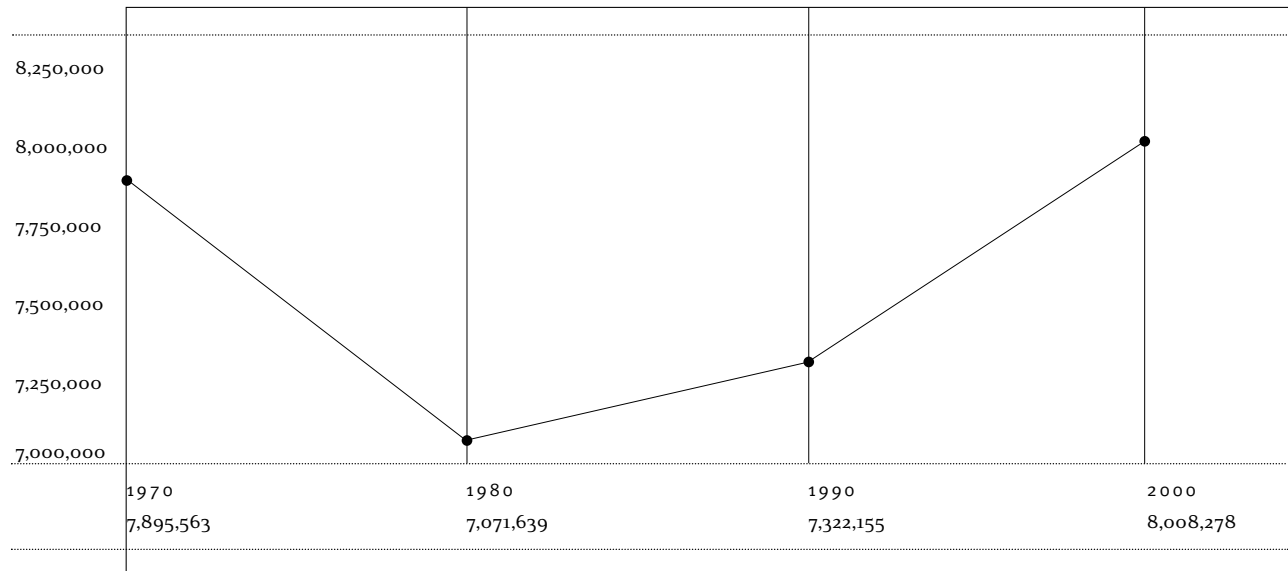
REVENUE BOND COVERAGE LAST TEN FISCAL YEARS  
YEARS ENDED JUNE 30, 2000-2001 (IN THOUSANDS)

FISCAL YEAR	CASH <sup>(1)</sup> RECEIPTS	DEBT SERVICE REQUIREMENTS <sup>(2)</sup>		TOTAL	FIRST RESOLUTION DEBT SERVICE COVERAGE	DEBT SERVICE COVERAGE
		PRINCIPAL	INTEREST			
1992	1,007,377	45,730	249,171	294,901	3.41	—
1993	1,009,044	79,699	251,932	331,631	3.09	—
1994	1,137,886	77,018	234,297	311,315	3.66	—
1995	1,069,725	74,770	256,196	330,966	3.23	—
1996	1,167,038	71,217	275,217	346,434	3.37	—
1997	1,216,503	73,866	339,498	413,364	3.13	2.96
1998	1,411,070	128,555	357,133	485,288	3.37	2.91
1999	1,460,602	136,767	345,397	482,164	3.42	3.03
2000	1,481,532	201,133	317,799	518,932	3.35	2.85
2001	1,526,843	164,843	333,910	498,753	3.13	3.06

<sup>(1)</sup>Until 1998, cash receipts as defined in the Bond Resolution excludes interest received on debt service and revenue funds and subsidy payments.

<sup>(2)</sup>Debt service requirements include First Resolution debt service and a portion of Second Resolution debt service. Until 1997 all Second Resolution debt service was paid from carry forward amounts and subsidy payments from the New York State Environmental Facilities Corporation.

POPULATION OF NEW YORK CITY



## NEW YORK CITY WATER AND SEWER SYSTEM

STATISTICS CONTINUED

## WATER AND SEWER RATE INCREASES LAST TEN FISCAL YEARS

EFFECTIVE DATE	CHANGES IN FLAT-RATE WATER	CHANGE IN METERED WATER	METERED WATER RATE	CHANGE IN SEWER
July 1, 1992	No change	No change	\$1.01 per ccf	Increased to 159% of water charge
July 1, 1993	No change	No change	\$1.01 per ccf	No change
July 1, 1994	No change	No change	\$1.01 per ccf	No change
July 1, 1995	Increased 5%	Increased 5%	\$1.06 per ccf	No change
July 1, 1996	Increased 6.5%	Increased 6.5%	\$1.13 per ccf	No change
July 1, 1997	Increased 6.5%	Increased 6.5%	\$1.20 per ccf	No change
July 1, 1998	Increased 4%	Increased 4%	\$1.25 per ccf	No change
July 1, 1999	Increased 4%	Increased 4%	\$1.30 per ccf	No change
July 1, 2000	Increased 1%	Increased 1%	\$1.31 per ccf	No change
July 1, 2001	Increased 3%	Increased 4%	\$1.35 per ccf	No change

<sup>(1)</sup> ccf, one hundred cubic feet, approximately 748 gallons.

## AVERAGE DAILY WATER CONSUMPTION LAST TEN FISCAL YEARS

FISCAL YEAR	TOTAL (MGD)	UPSTATE COUNTIES (MGD)	CITY (MGD)	PER CAPITA (GALS/DAY)
1991	1,546	124	1,422	195
1992	1,530	121	1,409	193
1993	1,457	115	1,342	183
1994	1,476	119	1,357	185
1995	1,426	121	1,305	178
1996	1,445	123	1,322	183
1997	1,334	121	1,213	164
1998	1,294	122	1,172	160
1999	1,342	129	1,213	163
2000	1,359	127	1,231	166
<b>2001</b>	<b>1,340</b>	<b>126</b>	<b>1,214</b>	<b>166</b>

<sup>(1)</sup> mgd=millions of gallons per day

<sup>(2)</sup> Population source: U.S. Department of Commerce, Bureau of the Census.

## WATER SYSTEM TUNNELS AND AQUEDUCTS

TUNNELS AND AQUEDUCTS	CONNECTIONS	LENGTH (MILES)	DIAMETER (FEET)	TRANSMISSION CAPACITY (MGD)	IN SERVICE DATE
<b>TUNNELS UPSTATE</b>					
Shandaken	Schoharie to Ashokan	18.1	11.5 x 10.25 <sup>(1)</sup>	650	1924
West Delaware	Cannonsville to Rondout	44.0	11.33	500	1964
East Delaware	Pepacton to Rondout	25.0	11.33	700	1955
Neversink	Neversink to Rondout	6.0	10	500	1954
<b>AQUEDUCTS</b>					
New Croton	New Croton to Jerome Park	24.0	13.5 x 13.6 <sup>(1)</sup>	300	1893
	Jerome Park to 135 St. Gatehouse	9.0	12.25-10.5 <sup>(2)</sup>	250	1893
Catskill	Ashokan to Kensico	75.0	17 x 17.5 <sup>(1)</sup>	610	1915
	Kensico to Hillview	17.0	17.5 x 18 <sup>(1)</sup>	800	1915
Delaware	Rondout to West Branch	44.2	13.5	890	1944
	West Branch to Kensico	27.2	15	1,045	1943
	Kensico to Hillview	13.6	19.5	1,450	1942
<b>TUNNELS DOWNSTATE</b>					
Tunnel 1	Hillview to distribution system	18.0	15-11 <sup>(1)</sup>	1,000	1917
Tunnel 2	Hillview to distribution system	20.0	17-15 <sup>(2)</sup>	1,000	1936
Richmond Tunnel	Tunnel 2 to Staten Isl. Uptake Shaft	5.0	10	350	1970

<sup>(1)</sup>Tunnels are not round.

<sup>(2)</sup>Variable diameter tunnels

## NEW YORK CITY WATER AND SEWER SYSTEM

STATISTICS CONTINUED

## WATER POLLUTION CONTROL PLANTS DAILY FLOW

PLANT	DESIGN FLOW (MGD)	12 MONTH AVG. JULY 2000-JUNE 01	12 MONTH AVG. JULY 1999-JUNE 00
Wards Island	250	184	190
North River	170	125	132
Hunts Point	200	111	114
26th Ward	85	57	59
Coney Island	100	94	94
Owls Head	120	101	103
Newtown Creek	310	230	224
Red Hook	60	30	31
Jamaica	100	79	77
Tallmans Island	80	54	51
Bowery Bay	150	105	109
Rockaway	45	20	20
Oakwood Beach	40	27	25
Port Richmond	60	32	31
<b>Total</b>	<b>1,770</b>	<b>1,249</b>	<b>1,260</b>

<sup>0</sup>mgd=millions of gallons per day