

**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, 2003



**NYW**

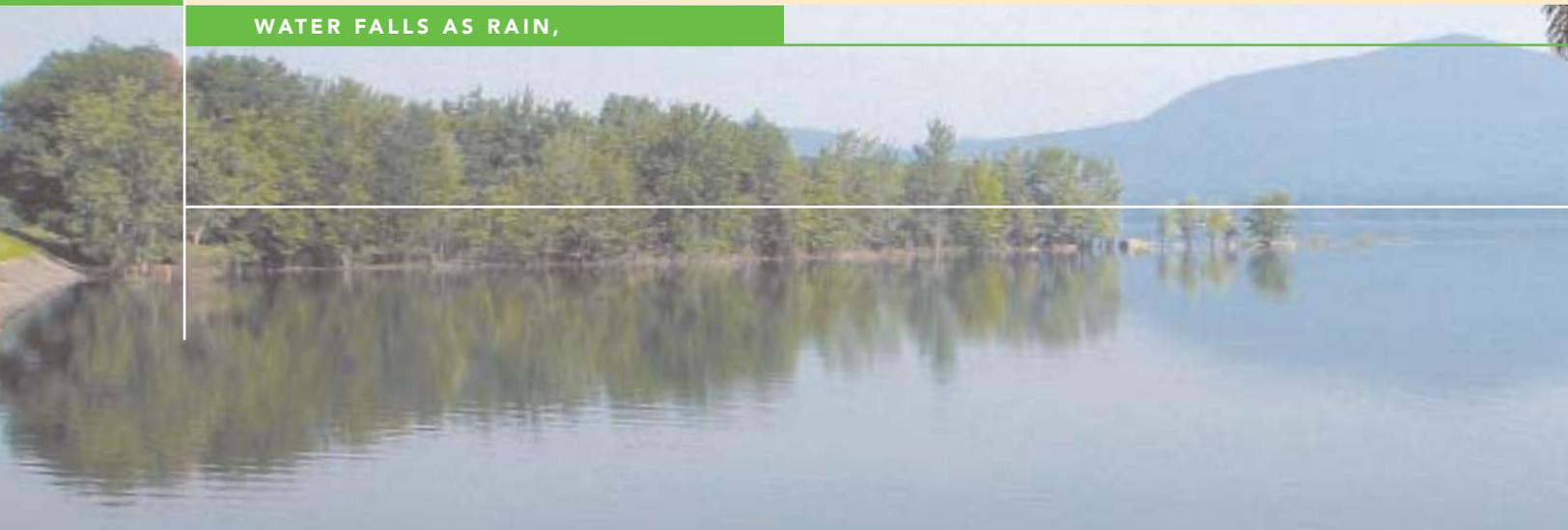
The New York City Municipal Water Finance Authority



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**WATER FALLS AS RAIN,**



NEW YORK WATER AND SEWER SYSTEM ORGANIZATIONAL CHART

**New York City Municipal  
Water Finance Authority**

Board of Directors

**MARK PAGE**  
ex officio Member

**ERIN M. CROTTY**  
ex officio Member

**CHARLES E. DORKEY III**  
Member

**ARTHUR B. HILL**  
Member

**MARTHA E. STARK**  
ex officio Member

**CHRISTOPHER O. WARD**  
ex officio Member

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Executive Director

**MARJORIE E. HENNING**  
Secretary

**THOMAS G. PAOLICELLI**  
Treasurer

**LAWRENCE R. GLANTZ**  
Comptroller

**PRESCOTT D. ULREY**  
Assistant Secretary

**PHILIP WASSERMAN**  
Deputy Treasurer

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Water Board**

Members

**MARK R. HELLERER**  
Chairman

**LEROY CARMICHAEL**  
Member

**AMAZIAH HOWELL**  
Member

**AGUSTIN RIVERA**  
Member

**JAMES T.B. TRIPP**  
Member

Staff

**DAVID TWEEDY**  
Executive Director

**WILLIAM KUSTERBECK**  
Treasurer

**CARMELO EMILIO**  
Deputy Treasurer

**ALBERT F. MONCURE, JR.**  
Secretary

**New York City Department of  
Environmental Protection**

Officers

**CHRISTOPHER O. WARD**  
Commissioner

**DAVID TWEEDY**  
First Deputy Commissioner

**Bureau of  
Water and Sewer Operations**

**DOUGLAS F. GREELEY, P.E.**  
Deputy Commissioner

**Bureau of  
Environmental Engineering**

**WARREN KURTZ, P.E.**  
Deputy Commissioner

**Bureau of  
Wastewater Treatment**

**ALFONSO LOPEZ, P.E.**  
Deputy Commissioner

**Bureau of  
Water Supply**

**MICHAEL A. PRINCIPE, Ph.D.**  
Deputy Commissioner

**Bureau of  
Customer Services**

**DENISE RICHARDSON**  
Deputy Commissioner

**NYW**

DECEMBER 9, 2003

**LETTER OF TRANSMITTAL 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
- THE COMMISSIONER OF THE NEW YORK CITY DEPARTMENT OF ENVIRONMENTAL PROTECTION

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, 2003.

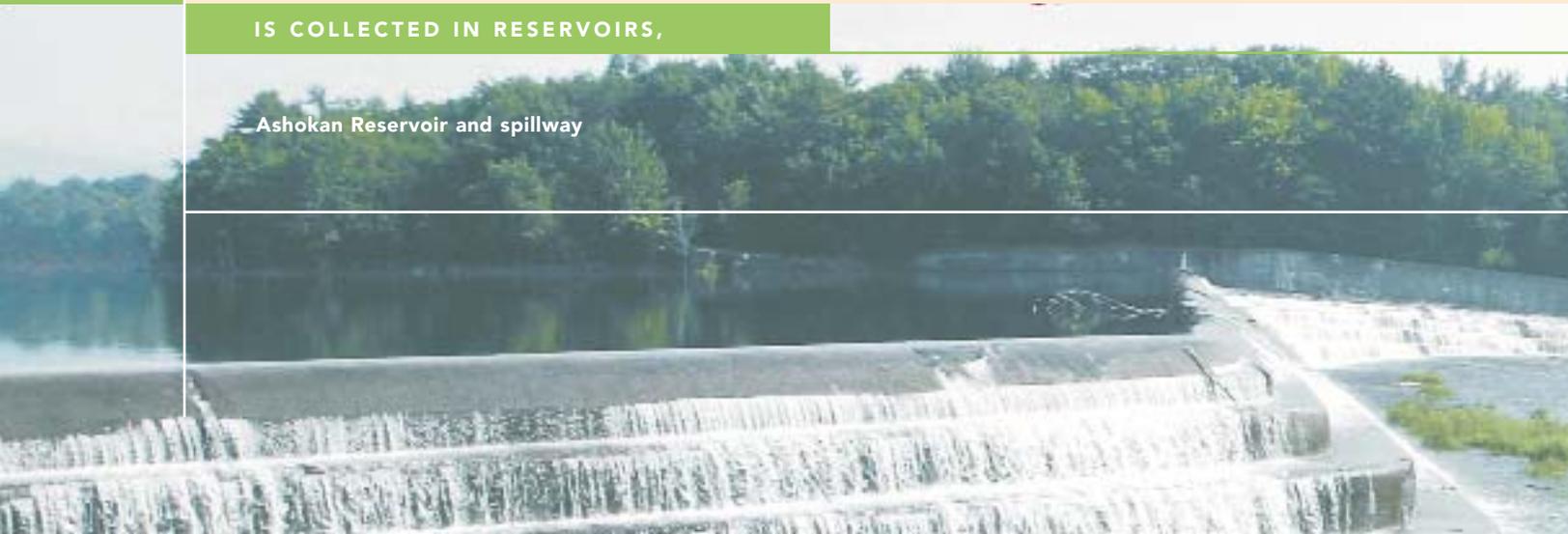
The CAFR is presented in three major sections: introductory, financial and statistical. The introductory section, which is not audited, includes this letter of transmittal, an organizational chart and a list of the System's principal officials. The financial section includes management's discussion and 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 not audited, includes selected financial, System and demographic information, presented on a multi-year basis.

The reporting entity, the 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 "Water Board"). In addition, the New York City Department of Environmental Protection ("DEP") operates the System. The passage of the New York City Municipal 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 of New York (the "City") for financial reporting purposes.



IS COLLECTED IN RESERVOIRS,

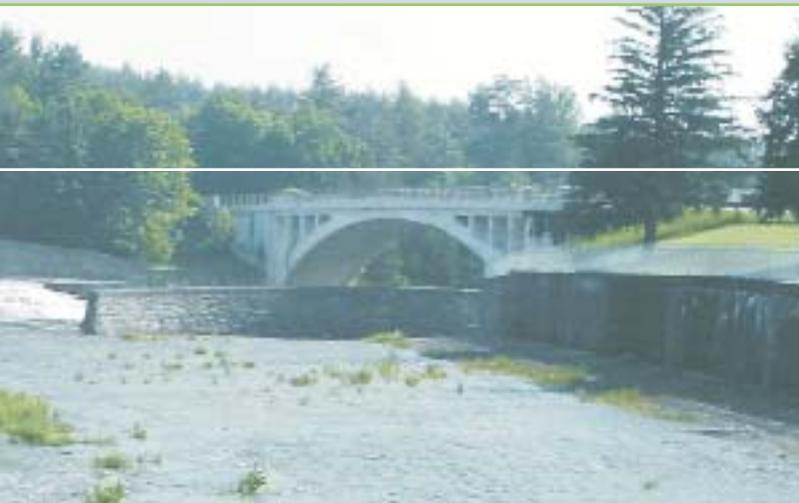
Ashokan Reservoir and spillway



The Authority is authorized to issue bonds and other debt instruments for construction and improvement of the System and the acquisition of the System by the Board. The Authority also has the power to refund its bonds and notes and the general obligation bonds of the City issued for water or sewer purposes. The Authority is administered by a Board of Directors composed of seven members, four of whom serve *ex officio*, two of whom are appointed by the Mayor of the City and one of whom is appointed by the Governor of the State of New York (the "State"). One seat on the Board of Directors is currently vacant. The staff of the Authority operates under the direction of an Executive Director.

The Water Board leases the operating system from the City, sets rates, and collects 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 Water 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 on Authority debt for the fiscal year. The Water Board is obligated to allocate the revenues of the System in sequential order of importance to debt service on Authority bonds, DEP's cost of operating and maintaining the System, and rental fees to the City for the use of the System.

The Water Board consists of seven members who are appointed by the Mayor. The Act requires that at least one member have experience in the science of water resource development. Members of the Water Board cannot be members of the Authority. The Chairman is appointed by the Mayor. Two seats on the Board of Directors are currently vacant. The staff of the Water Board operates under the direction of an Executive Director.



The three upstate water collection systems, the Croton, Catskill and Delaware Systems, include 18 reservoirs and three controlled lakes with a total storage capacity of approximately 550 billion gallons.



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 over 5,700 people. DEP works to protect the environmental welfare and health of the City's residents and natural resources, manages the City's water supply, transmission and distribution system, and collects, treats, and disposes of waste and storm water. DEP supplies water and sewer service to the Boroughs of the Bronx, Brooklyn, Manhattan, Queens and Staten Island, an area of over 300 square miles, and serves over eight million people. The City is also required by State law to sell water in counties where its water supply facilities are located and where it currently provides water to an additional approximately one million people.

The System provides an average of approximately 1,300 million gallons per day of water. In addition to a system of dams, reservoirs, aqueducts, and water tunnels, DEP maintains approximately 6,200 miles of water mains which distribute water throughout the five boroughs. DEP also maintains approximately 6,600 miles of sewers which collect and transport waste and storm water for treatment at the City's 14 water pollution control plants. The System collects and treats an average of approximately 1,200 million gallons per day of sewage during dry weather. Sewer service is provided to virtually the entire City, except for significant parts of the Borough of Staten Island, the Borough of Queens communities of Breezy Point and Douglaston, and the Borough of Brooklyn community of Seagate. Sewer service is also provided to certain upstate communities in System watershed areas.

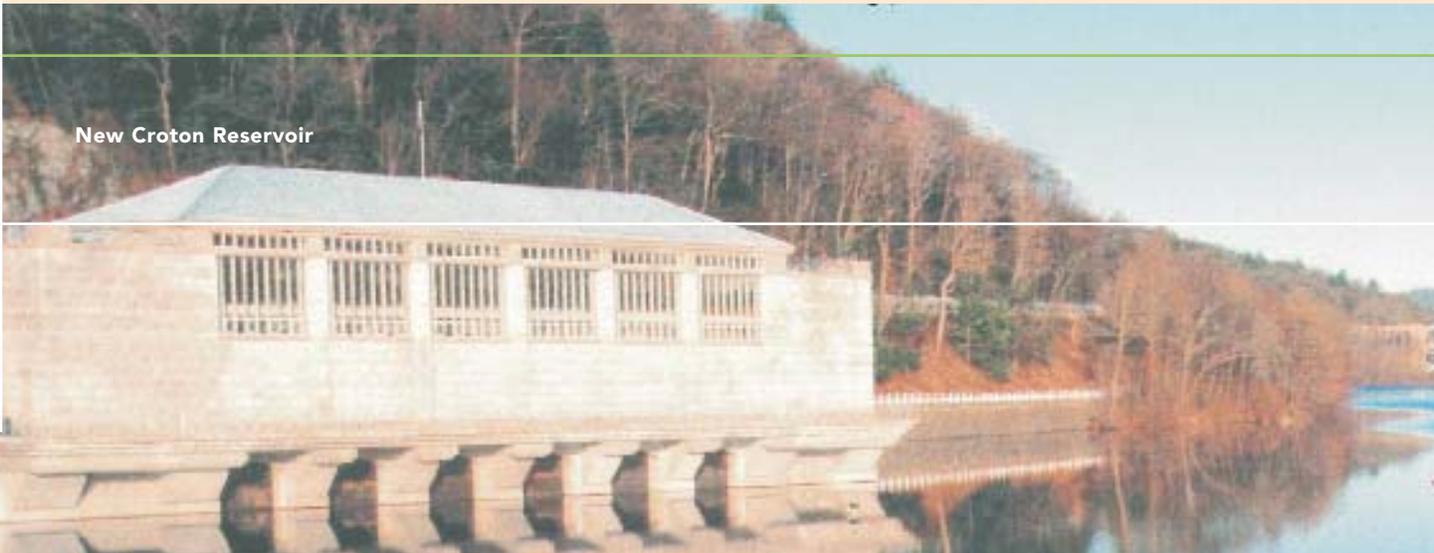
## NEW YORK CITY

The System provides water and sewer service primarily to the City, which has a population of approximately eight million. The City has a highly diversified economic base, with a substantial volume of business activity in the service, wholesale and retail trade and manufacturing industries, and is the location of many major securities, banking, law, accounting, new media and advertising firms.

The City is a major seaport and focal point for international business. Many of the major corporations headquartered in the City are multinational in scope and have extensive foreign operations. Numerous foreign-owned companies in the United States are also headquartered in the City. These firms, which have increased substantially in number over the past decade, are found in all sectors of the City's economy, but are concentrated in trade, manufacturing sales offices, tourism and finance. The City is the location of the headquarters of the United Nations, and several affiliated organizations maintain their principal offices in the City. A large diplomatic community exists in the City to staff the missions to the United Nations and foreign consulates.



New Croton Reservoir



## SECURITY

In recent years DEP has taken a number of steps to enhance and augment its security arrangements to protect the water system, including the structures, facilities and reservoirs. These steps include, among others, increasing the size of the DEP police force to a total of approximately 150 officers; obtaining legislation authorizing the DEP police force to function as police officers within the City as well as in the upstate watersheds; purchasing additional police vehicles and surveillance equipment, and further securing facilities through additional locks, fencing and other physical barriers to prevent access by unauthorized persons.

In addition, DEP consults other governmental agencies, including the Federal Bureau of Investigation and the US Army Corps of Engineers on longer-term plans to modernize and improve security systems. In response to the terrorist attack on September 11, 2001, DEP, in concert with law enforcement authorities, immediately implemented certain further security measures to protect the System. These include, among others, increasing the frequency of patrols, restricting vehicular access to certain facilities and more frequent monitoring of the water supply for contaminants.

## LONG-TERM WATERSHED PROTECTION

DEP manages over 2000 square miles of land in the Croton, Catskill and Delaware watersheds in upstate New York. In order to ensure the quality of water from the watersheds, DEP has implemented an economic-environmental partnership program with upstate 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. In addition DEP, through its land acquisition program, has made considerable progress in acquiring land or conservation easements in the watersheds as required by the determination. DEP, along with its partners in the land acquisition program, either closed on the acquisition of or has contract or option agreements to acquire title to or conservation easements on approximately 58,000 acres of land in the watersheds with an aggregate value of approximately \$134 million. These lands and conservation easements provide a buffer that protects the water in the upstate reservoirs.

The United States Environmental Protection Agency ("USEPA") has determined that all surface waters used for drinking must be filtered. As an exception to this rule, USEPA has issued filtration avoidance determinations ("FADs") for surface water supplies that are pristine and well protected. Since 1993, USEPA has issued filtration avoidance determinations allowing the City to avoid filtering water from the Catskill and Delaware Systems. On November 26, 2002 the USEPA issued a new FAD which will remain in effect until further determinations are made, currently scheduled for April 2007.

The water system provides high-quality drinking water to more than eight million City residents and another one million users in nine upstate counties bordering on the water collection system.



Water in the reservoirs is checked for purity on a regular basis.



### **CROTON FILTRATION PROJECT**

In December 1998, after extensive study of several alternative sites, DEP identified the area near the Mosholu Golf Course in the Bronx as its preferred site for the full scale water treatment facility to filter Croton System water. DEP proposed building the plant underground, below a driving range within Van Cortlandt Park, a mapped public park. Actions brought against the City resulted in a February 2001 New York Court of Appeals decision that the construction of a water treatment facility at the Mosholu Golf Course site would constitute alienation of parkland by the City, requiring approval by the State legislature.

In June 2003, State legislation was enacted which would allow for the construction of a filtration plant for Croton System water beneath a driving range at the Mosholu Golf Course in Van Cortlandt Park in the Bronx, which is DEP's preferred site for such a plant. Construction of the plant at the Mosholu site is subject to certain conditions including completion by the City of a supplemental environmental impact statement on the proposed facility at the Mosholu Golf Course site along with the two other potential sites, one located in Westchester County and the other located on the Harlem River.

### **CREDIT RATINGS**

The Authority's ratings continue to be stable, with the views of all three major rating agencies closely in line. The Authority is rated AA by Standard and Poor's and Fitch Ratings and Aa2 by Moody's Investors Service.

New York State Environmental Facilities Corporation ("EFC") bonds issued for eligible Authority State Revolving Fund projects are rated AAA from all three rating agencies. Bonds which the Authority places with EFC are an element of security for the EFC bonds issued to investors, but are unrated Second Resolution bonds of the Authority.



## **TRAVELS BY GRAVITY THROUGH TUNNELS,**

**New Tunnel Construction**

### **INTERNAL CONTROLS**

The management of the Water 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 accounting policies are complied with and to allow for the preparation of financial statements in conformity with accounting principles generally accepted in the United States of America.

The System is subject to the internal control directives and memorandums that originate from the New York City Comptroller's office. These directives establish internal controls and accountability which safeguard City assets. In addition, the System is also 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 Water Board and the Authority maintain separate control structures for their specific areas of responsibility. The Water Board and the Authority establish separate operating budgets approved by their respective Boards of Directors.

### **CAPITAL PROGRAM GOALS**

- To maintain the sufficiency, quality and security of the water in the City's watersheds and, where necessary, treat the supply to ensure drinking water continues to be of high quality;
- To maintain and improve the transmission and distribution capabilities of the City's water supply system;
- To maintain and improve the quality of the surrounding 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.

The capital budget of the Authority is appropriated through the City's capital budget. 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.



The water distribution system consists of a grid network of over 6,200 miles of pipe.



## CAPITAL IMPROVEMENT PROGRAM AND FINANCING PROGRAM

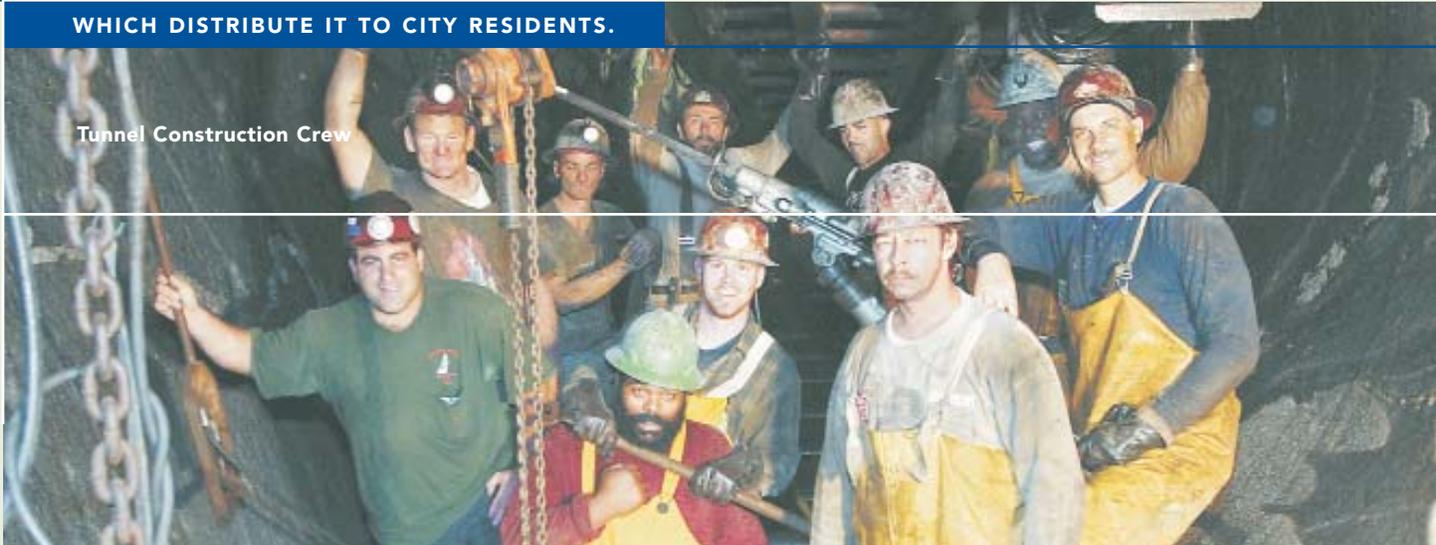
The System's Capital Improvement Program for fiscal years 2004–2013 ("CIP"), the first four years of which comprise the current capital plan released in September 2003, provides for the rebuilding of the System's infrastructure, including water and sewer facilities. The CIP, which establishes long range programmatic goals for the System, reflects 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 cost escalation due to inflation is also included. The total capital commitments projected to be provided from System funds, most of which will come from the proceeds of notes and bonds of the Authority, is \$16.9 billion. The table below reflects the CIP as of September 2003, 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. The CIP is divided into five project types, each discussed below. The capital commitments shown in each year represent capital contracts authorized to be entered into in each year. Actual expenditures from such capital contracts and the issuance of Authority bonds to fund such expenditures occur in the current and subsequent years.

System Funds (in thousands)	2004	2005	2006	2007
• Water Supply and Transmission	101,795	181,100	333,000	108,000
• Water Distribution	732,396	649,855	618,181	983,986
• Water Pollution Control	1,234,360	1,116,747	660,925	72,800
• Sewers	228,017	167,871	110,576	102,976
• Equipment	125,230	105,633	31,203	54,725
TOTAL	\$2,421,798	\$2,221,206	\$1,753,885	\$1,322,487
Projected Authority bond issuance	\$1,223,000	\$1,721,000	\$1,942,000	\$1,778,000

### WHICH DISTRIBUTE IT TO CITY RESIDENTS.

Tunnel Construction Crew



• **Water Supply and Transmission**

This component of the CIP includes approximately \$1 billion for Stages I and II of the City's Water Tunnel No. 3. Water Tunnel No. 3 will augment the transmission capacity from the watersheds into the City, permit the inspection and rehabilitation of Tunnels 1 and 2, and provide delivery alternatives to the City in the event of disruption in Tunnel 1 or 2. Stage I of Tunnel No. 3 commenced operation in July 1998. Construction of Stage II continues towards its expected operational date of 2012. The remaining section of the Stage II underground excavation includes the Manhattan leg, which will stretch across Manhattan from the valve chamber at Central Park. When Stage II comes on line, DEP will have achieved full redundancy of Tunnels No. 1 and 2. This will allow DEP to inspect and repair these tunnels for the first time since they were put into operation in 1917 and 1936, respectively.

DEP is also planning to construct the Kensico-City Tunnel, a 16 mile tunnel from Kensico Reservoir to the Van Cortland Park Valve Chamber, bypassing the Hillview reservoir and providing redundancy for the sections of the Catskill and Delaware Aqueducts that run from the Kensico reservoir to the City. The CIP includes \$1.7 billion for the new Kensico-City tunnel. DEP is also researching and developing other alternate conveyance conduits and water supplies for the City, to provide more dependability within the water system. The alternate water supplies could be used during drought situations to augment the City's daily water supply or during repairs and inspections of existing aqueducts and tunnels. The CIP includes \$1.2 billion for these projects.

2008	2009	2010	2011	2012	2013	Total
455,000	500,000	725,000	500,000	567,800	500,000	\$3,971,695
871,400	127,609	134,927	127,255	129,333	163,845	\$4,538,787
286,725	870,300	489,957	638,500	469,500	618,500	\$6,458,314
114,000	134,000	119,000	139,000	121,639	144,542	\$1,381,621
40,973	66,716	28,598	28,628	28,780	28,990	\$539,476
\$1,768,098	\$1,698,625	\$1,497,482	\$1,433,383	\$1,317,052	\$1,455,877	\$16,889,893
\$1,631,000	\$1,709,000	\$1,794,000	\$1,814,000	\$1,573,000	\$1,563,000	\$16,748,000

In comparison to other public water systems, the Water System is both economical and flexible. Only about 5% of the water is regularly

pumped by DEP to maintain the desired pressure. As a result, operating costs are relatively insensitive to fluctuations in the cost of power.



- **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 projects \$4.5 billion for the protection, expansion, and distribution of the City's water supply. This includes approximately \$1.4 billion for the construction of a full-scale filtration plant for the treatment of water from the Croton watershed, which reflects full funding based on current estimates for the plant. The program also calls for \$1.4 billion to be committed to on-going water quality preservation programs to ensure the continued purity of the water supply. This includes ultraviolet disinfection of water from the Catskill and Delaware systems, the acquisition of environmentally sensitive property in the upstate watershed, and the ongoing projects associated with the FAD.

- **Water Pollution Control**

To improve the quality of the City's estuaries and surrounding waterways and to implement long-range land based solutions to sludge disposal, an end-product of the sewage treatment process, \$6.5 billion is allocated to water pollution control programs in the CIP.

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 wastewater and storm water in the sewers exceeds the treatment capacity of a sewage treatment plant and therefore enters surrounding waterways. DEP's CIP includes approximately \$625 million for the abatement of CSOs. A part of the funds allocated to the abatement of CSOs is being used to explore various alternatives to the construction of retention tanks. Results from this and other projects and studies will drive future abatement efforts.



**WASTEWATER IS CLEANED,**

**Sewage Treatment Plant**

DEP has renegotiated a consent decree governing the City's long term sludge disposal plan. DEP does not have to construct sludge processing facilities, but will continue contracting with private firms to dispose of the City's sludge in a cost effective manner.

Approximately \$1.5 billion has been allocated in the CIP for the upgrade of the Newtown Creek Water Pollution Control Plant to full secondary treatment. Newtown Creek is the last of the City's 14 in-City water pollution control plants to be upgraded to meet the full secondary treatment requirements of the Clean Water Act. Another significant program included in the CIP is over \$1.1 billion 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 \$2.4 billion for the upgrade of five wastewater treatments plants discharging into the Long Island Sound or Jamaica Bay, and includes projected funds for biological nutrient removal at these plants.

- **Sewers**

Approximately \$1.4 billion is projected in the CIP to be committed 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 \$539 million is projected in the CIP for these projects.



Boat transporting sludge to dewatering facility.

## RISK MANAGEMENT

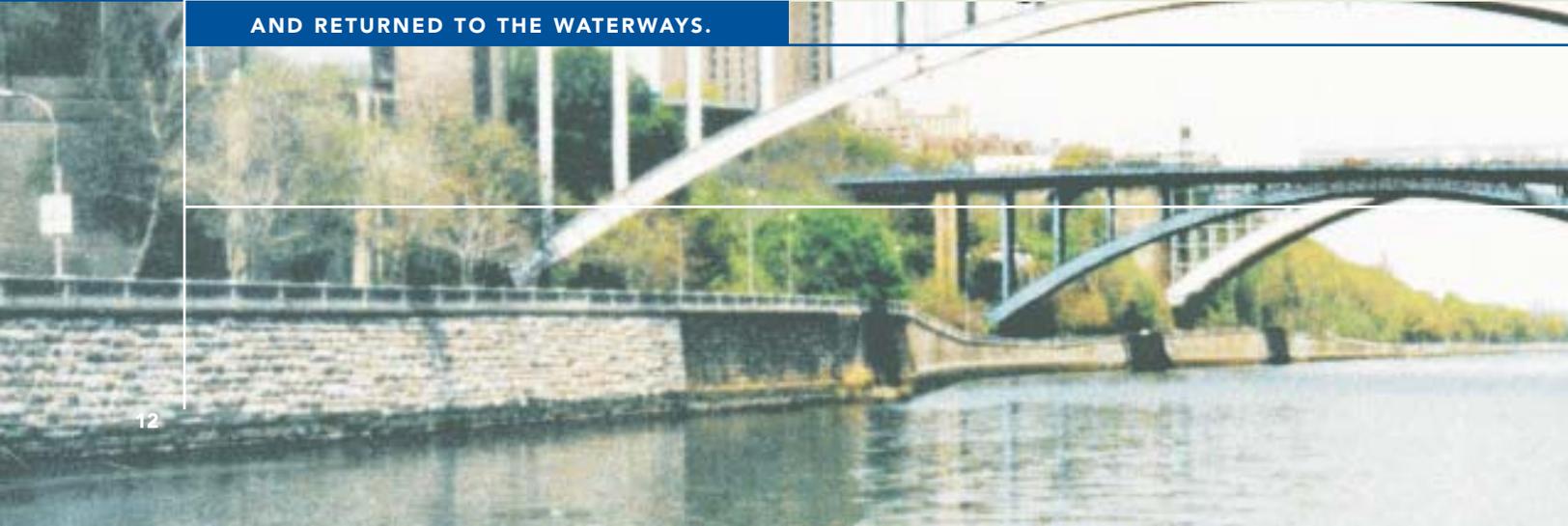
In accordance with the Lease, the Water Board is required to reimburse the City for any judgment or settlement paid by the City arising out of a tort claim to the extent that the City's liability is related to capital improvements and the operation or maintenance of the System. However the yearly payment made to the City, is limited 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. The City has agreed, subject to certain conditions, to indemnify the Authority and the Water Board against any and all liability in connection with any act done or omitted in good faith.

## CASH MANAGEMENT

Both the Authority and the Water Board have funds which are invested. The Authority's investments must conform to the policies set forth in the Authority's Investment Guidelines, dated April 17, 1998. Specifically, the Authority may invest in any bonds or other obligations which constitute direct obligations of, or are guaranteed by, the federal government, including obligations of any agency, corporation or instrumentality thereof; direct obligations of, or obligations guaranteed by the State 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 business within the State 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.



AND RETURNED TO THE WATERWAYS.



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 Water Board makes its own investments through the City Comptroller's investment group.

Funds are invested for periods of one day up to twenty 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 Water 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 Water Board until all requirements for debt service, operation and maintenance, and rental payments are met. Any surplus cash over these requirements is retained by the Water 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 Water 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 Water Board. The financial section of the 2003 Comprehensive Annual Financial Report begins with the report of our independent auditors, KPMG LLP. This report expresses an unqualified opinion as to the fairness of the presentation of our financial statements.

Respectfully submitted,



Alan Anders  
Executive Director

Lawrence R. Glantz  
Comptroller



300 year old hollowed out tree trunk pipe removed from Wall Street area.



Peregrine falcon, found on building ledge, gets health check-up courtesy of the DEP.



## INDEPENDENT AUDITORS' REPORT

The 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), a component unit of The City of New York, as of and for the years ended June 30, 2003 and 2002, and the related statements of revenues, expenses, and changes in net assets, and cash flows for the years then ended. These financial statements are the responsibility of the System's management. Our responsibility is to express an opinion on these basic 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 of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the basic 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, 2003 and 2002, and its results of operations, changes in its net assets, and its cash flows for the years then ended in conformity with accounting principles generally accepted in the United States of America.

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

Our audits were conducted for the purpose of forming an opinion on the basic financial statements of the System. The supplementary information included in schedules I through VI is presented for purposes of additional analysis and is not a required part of the basic financial statements. Such information has been subjected to the auditing procedures applied in the audits of the basic financial statements and, in our opinion, is fairly stated in all material respects in relation to the basic financial statements taken as a whole.

We did not audit the data presented in the introductory and statistical sections as listed in the accompanying table of contents, which are not a required part of the combined financial statements and, therefore, express no opinion thereon.

The logo for KPMG LLP, featuring the letters 'KPMG' in a large, bold, stylized font, with 'LLP' in a smaller, simpler font to the right.

October 23, 2003  
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, 2003 and 2002.

The basic financial statements of the System, which include the balance sheets, the statements of revenues, expenses and changes in net assets and the statements of cash flows, are presented to display information about the reporting

entity as a whole, in accordance with Governmental Accounting Standards Board (GASB) Statement No. 34, *Basic Financial Statements and Managements 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*. 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 2003, 2002 and 2001:

(in thousands)	2003	2002	2001
Revenues:			
Water supply and distribution	\$ 690,093	648,319	626,364
Sewer collection and treatment	952,985	907,324	898,568
Other operating revenues	134,658	116,512	96,991
Total operating revenues	1,777,736	1,672,155	1,621,923
Investment income	96,236	97,543	84,534
Total revenues	1,873,972	1,769,698	1,706,457
Expenses:			
Operations and maintenance	849,821	857,907	842,401
Bad debt expense	89,400	92,481	122,785
Administration and general	15,181	14,171	11,215
Depreciation and amortization	364,337	320,382	318,709
Interest expense	584,347	556,784	527,914
Total expenses	1,903,086	1,841,725	1,823,024
Net loss before capital contributions	(29,114)	(72,027)	(116,567)
Capital contributions	7,233	12,303	1,748
Change in net assets	(21,881)	(59,724)	(114,819)
Net assets - beginning	4,612,159	4,671,883	4,786,702
Net assets - ending	\$ 4,590,278	4,612,159	4,671,883

**2003 – 2002**

Total operating revenues increased by 6.3% on a rate increase of 6.5%. Water consumption declined by 3.8% over the year. The following summarizes other operating revenues:

(in thousands)	2003	2002
Interest subsidies	\$ 65,816	53,582
Upstate water fees	22,790	21,100
Late payment fees	38,235	24,930
Connection fees and permits	7,817	16,900
Total other revenues	\$ 134,658	116,512

Investment income decreased by 1.3%. Lower interest rates offset an increase in investments of \$412 million.

**NEW YORK CITY WATER AND SEWER SYSTEM**  
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Total operations and maintenance expense decreased by \$8 million or 1%. Expenses for operations of the system increased by \$17 million and the rental payment to The City of New York (the "City") for debt service decreased by \$25 million. The two major components of the increase in operations and maintenance were increased costs related to sludge disposal, \$6 million, and increased costs for chemicals used in sewage treatment, \$5 million. The rental payment decreased due to lower debt service payments by the City on bonds issued prior to the inception of the System.

Bad debt expense decreased by \$3 million. This reflects continued improvement in cash collections on receivables.

Interest expense increased by \$27 million or nearly 5%. The total debt of the System has increased by \$1.3 billion or 11%. Interest expense has increased by a lesser percentage due to lower interest rates on new issues and low interest rates on variable rate issues and commercial paper.

**2002 – 2001**

Total operating revenues increased by 3.1% compared with a rate increase of 3%. The surcharge on customers that did not allow the installation of water meters of about \$10 million offset a 5% decline in water consumption. The loss of revenue from the destruction of the World Trade Center complex was approximately \$1.2 million or less than 1% of total revenues. Investment income increased by \$13 million or over 15%. The System had \$570 million of additional investments in escrow from crossover refunding bonds issued during fiscal 2002, which was partially offset by decreases in interest rates.

Total operations and maintenance expense increased by \$15 million or 1.8%. The expenses for operations of the system increased by \$45 million and the rental payment to the City for debt service decreased by \$30 million. Additional expenses relating to drought conditions were nearly \$12 million of the increase in operations. The largest component of expenses relating to the drought was electricity for pumping water from low-level reservoirs. An additional \$10 million was incurred for payment of claims resulting from water main breaks. There were additional expenses for security as a result of the World Trade Center attacks; however, these costs were not large in relation to the total operations and maintenance expense and are difficult to identify. The rental payment represents actual debt service paid by the City for debt incurred prior to the inception of the System in 1985 and those payments were \$30 million less in 2002.

Bad debt expense decreased by \$30 million to reflect the effects of an increase in cash collections of receivables. The increase in collections on these receivables was the result of a lien sale of water and sewer system receivables. The lien sale was the first to sell water receivables separately from the City's property tax liens.

Interest expense increased by nearly \$28 million or 5%. The total debt of the System has increased by over \$1.5 billion from 2001 to 2002, or nearly 14%. The increase in interest expense has been offset by declining interest rates on new issues and existing variable rate issues.

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

(in thousands)	2003	2002	2001
Current unrestricted assets	\$ 506,598	461,810	522,969
Current restricted assets	2,272,548	1,865,530	1,017,852
Capital assets	14,999,643	14,119,680	13,375,790
Total assets	17,890,583	16,557,735	15,014,824
Long-term liabilities	11,894,966	10,748,833	9,345,805
Current liabilities	1,405,339	1,196,743	997,136
Total liabilities	13,300,305	11,945,576	10,342,941
Net assets:			
Invested in capital assets, net of related debt	4,107,253	4,171,982	4,232,648
Restricted for debt service	203,695	245,072	158,829
Restricted for operations and maintenance	132,107	118,848	120,084
Unrestricted	147,223	76,257	160,322
Total net assets	4,590,278	4,612,159	4,671,883
Total liabilities and net assets	\$ 17,890,583	16,557,735	15,014,824

**NEW YORK CITY WATER AND SEWER SYSTEM**  
Management's Discussion and Analysis

**2003 – 2002**

Current unrestricted assets increased by \$45 million or 10%. Net receivables and unbilled revenues increased by \$34 million and the System had a \$13 million receivable from the City for overpayment of operations and maintenance expense. In 2002, the System had a payable to the City for operations and maintenance expense.

Current restricted assets increased \$407 million or 22%. The major increase in restricted assets was \$347 million in the construction fund. The balances in this fund are available to pay for capital projects and vary due to the timing of the reissuance of commercial paper following the issue of long-term bonds. Another \$50 million increase was in the escrow funds where proceeds from a bond sale were set aside for principal payment of the fiscal 2003 bonds in fiscal year 2004.

Capital assets are described in a separate section of this discussion.

In 2003, the System authorized an additional \$200 million of commercial paper and terminated \$75 million, which brought the total program amount to \$825 million. The total increase in commercial paper outstanding was \$197 million and the increase in current liabilities was \$208 million.

Long-term liabilities increased by \$1.1 billion or 11%. A detailed discussion of the debt issued by the System follows in the Debt Administration section of this discussion.

**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)	2003	2002	2001
Utility plant construction	\$ 4,339,080	3,843,866	3,549,203
Land	69,477	51,281	31,193
Buildings	22,071	21,615	21,615
Equipment	288,250	275,701	211,944
Water supply and wastewater treatment systems	8,735,576	8,344,136	7,786,471
Water distribution and sewage collection systems	6,676,855	6,443,819	6,349,065
Total utility plant in service	15,792,229	15,136,552	14,400,288
Less accumulated depreciation	5,131,666	4,860,738	4,573,701
Total, net utility plant in service	\$ 10,660,563	10,275,814	9,826,587

**2002 – 2001**

Current unrestricted assets decreased by \$61 million or 11%. In 2001, the System had prepaid construction of \$40 million and no prepaid construction in 2002. In addition, accounts receivable decreased by \$11 million or 3% due to increases in collections from customers.

Current restricted assets increased by \$847 million or 83%. Escrow deposits for 2002 crossover refunding issues comprised \$570 million of the increase. Other increases were in the proceeds held for construction, \$150 million, and the revenue fund, \$87 million. Construction proceeds available vary due to the timing of new issues. The revenue fund increase was a result of increased cash collections from customers.

In 2002, the System issued an additional \$200 million of commercial paper, which brought the total program to \$800 million and resulted in an increase in commercial paper outstanding and current liabilities of \$128 million.

Long-term liabilities increased by \$1.4 billion or 15%.

**NEW YORK CITY WATER AND SEWER SYSTEM**  
Management's Discussion and Analysis

The net increase in the System's capital assets during fiscal year 2003 was \$880 million or 6.2%. The net increase in 2002 was \$744 million or 5.5%. Net capital asset additions for 2003 were \$1,151 million and, in 2002, \$1,039 million.

The capital assets of the System are detailed in footnote numbers 2(d) and 4 of the notes to the financial statements.

**Debt Administration**

The New York City Municipal Water Finance Authority (the Authority) issues debt to pay for the capital improvements to 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 the EFC to retire outstanding commercial paper. The Authority also issues refunding bonds to refinance higher coupon debt.

At June 30, 2003, the total outstanding debt of the system was \$13.5 billion, of which \$825 million was commercial paper. The remaining \$12.7 billion consisted of variable and fixed-rate bonds and notes maturing in varying installments through 2034. The total outstanding long-term debt at June 30, 2003 was as follows:

Issue Date	(in thousands)
2003	\$ 3,075,393
2002	2,285,934
2001	1,067,275
2000	526,125
1999 and prior	5,703,424
<b>Total long-term debt</b>	<b>\$ 12,658,151</b>

In the above, bonds retired through refundings in 2003 are removed from the year in which the refunded bonds were issued.

In fiscal year 2003, the Authority issued \$2,010,310,000 of water and sewer revenue bonds directly to the public, including \$1,014,531,746 of refunding bonds and \$995,778,254 in new money long-term financing. The Authority also issued \$1,110,102,090 in Clean and Drinking Water State Revolving Fund (SRF) bonds through the EFC, which included \$443,477,370 of new money bonds and \$666,624,720 of refunding bonds. The new money bond proceeds provided long-term financing of commercial paper notes which had previously financed capital improvements to New York City's water and sewer system.

Highlights of the financing program in 2003 included historically low interest costs on both fixed- and variable-rate borrowing and the largest number of bonds issued in the Authority's history. The sizable issuance in fiscal 2003 was largely the result of refunding opportunities, which accounted for more than half of the Authority's bond issuance, created by the continuing low interest rate environment. In fiscal

2003, the Authority also maximized its debt issued through EFC, which provides benefits to the Authority from an interest rate subsidy for qualifying projects, helping to minimize the overall costs of the Authority's long term debt.

The Authority also terminated its \$75 million commercial paper (CP) Series 3, while authorizing an additional \$200 million of a new series, CP Series 7, to its tax-exempt commercial paper program. Series 7 includes extendible municipal commercial paper (EMCP) notes, which do not require credit enhancement.

The Authority's first debt issuance in fiscal 2003 closed on July 9, 2002, and included the fiscal 2003 Series A, B and C bonds delivered in par amounts of \$741,090,000 for the Series A bonds, \$150,000,000 for the Series B bonds and \$300,300,000 for the Series C bonds. Proceeds from the combined sale of the Series A, B and C bonds were used to defease all of the Authority's Series One, Series Five and a portion of its Series 6 commercial paper notes, fund the debt service reserve, pay certain costs of issuance and refund a portion of its fiscal 1993 Series A bonds.

The Authority also sold \$20 million of muni-CPI bonds in the 2013 maturity of the Series A issue. The muni-CPI bonds are a derivative product which swapped a floating rate tied to the consumer price index to a fixed interest rate, resulting in a lower yield than traditional fixed-rate debt.

The Series B bonds were sold as refundable principal installment bonds, maturing in 2004, 2005 and 2006, allowing the Authority to take advantage of the relatively low rates at the short end of the interest rate curve. Principal in each maturity will be advance refunded prior to the principal payment date and extended up to 40 years.

The Series C bonds were sold as variable-rate demand bonds, with \$100,100,000 offered in the weekly reset mode and \$200,200,000 sold in the daily reset mode. Three different remarketing agents were chosen to remarket these bonds.

On October 10, 2002, \$250,000,000 of fiscal 2003 Series D bonds were delivered in a common plan of finance with \$148,040,809 of 2003 Series 1 bonds, issued through the EFC. Proceeds from the Series D bonds were used to refund all of the Authority's outstanding Fiscal 1987 Series A and 1987 Series B bonds and a portion of its 1994 Series B, 1996 Series A and 1994 Series F bonds. These bonds were second advance refundings allowed under the Liberty Zone provisions.

The proceeds of the 2003 Series 1 bonds were used to defease all of the Authority's Series 3 and a portion of its Series 4 commercial paper and funded the costs of issuance. The 2003 Series 1 bonds were offered through a competitive sale using an Internet-based bidding platform with seven bidders responding.

**NEW YORK CITY WATER AND SEWER SYSTEM**  
Management's Discussion and Analysis

On November 14, 2002, \$608,654,720 of 2003 Series 2 bonds issued through the EFC were delivered, one of the largest offerings made by the Authority through the EFC. The transaction partially refunded the Authority's Fiscal 1994 Series 1 bonds and fully refunded its Fiscal 1996 Series 1, Fiscal 1998 Series 2, Fiscal 1998 Series 5 and Fiscal 1999 Series 1 bonds, extended the maturity date to 30 years from the original issuance date of the refunded bonds and paid certain costs of issuance.

On March 20, 2003, the Authority closed two small refunding transactions through the EFC. The transactions included \$22,365,000 of Fiscal 2003 Series 3 and \$35,605,000 of Fiscal 2003 Series 4 bonds, which refunded Fiscal 1996 Series 2 and 1996 Series 3 bonds, respectively. Both the refunding and refunded bonds made up a part of larger transactions, which the EFC undertook on behalf of a pool of issuers using the SRF program. The bonds extended the maturity date to 30 years from the original issuance date of the refunded bonds and paid certain costs of issuance.

On April 23, 2003, the Authority closed two transactions, the Fiscal 2003 Series E bonds and the Fiscal 2003 Series 5 bonds. The Series E bonds were sold for a par amount of \$367,265,000. Proceeds from the sale were used to defease all of the Authority's Series 5 A and Series 6 commercial paper notes. The issue included term bonds that mature in years 2034 and 2038 – the first issuance by the Authority of a bond with a 35-year maturity.

The \$295,436,561 of Series 5 bonds were issued through the EFC to secure bonds issued by the EFC for the Authority. Proceeds of the bonds were used to defease all of its Commercial Paper Series 4 and 5 B notes and a portion of its Series 7 notes.

The Series F bonds, the Authority's last transaction for fiscal year 2003, were sold as variable-rate demand bonds, with \$100,000,000 offered in the weekly reset mode and \$201,655,000 sold in the daily reset mode. One remarketing agent was chosen to remarket these bonds.

In December 2002, the Authority terminated \$75,000,000 of Commercial Paper Series 3 notes because of expiring credit enhancement. In May of 2003, the Authority increased its commercial paper program to \$925,000,000 from \$725,000,000, with the addition of the authorized \$200,000,000 of Commercial Paper Series 7 notes. The commercial paper program, the Authority's primary source of short-term financing, is used to reimburse the City for spending on water- and sewer-related projects. Throughout the year, the Authority issues long-term debt to retire the outstanding commercial paper.

The total of bonds and notes payable are detailed in footnote numbers 9 and 10 of the notes.

**Economic Factors and Next Year's Rates**

Rates are adopted each year by the Board in May, for the following fiscal year. A rate increase of 5.5% for fiscal 2004 became effective July 1, 2003 based on projected revenues and costs. The 2003 rate increase reflected expected reduced consumption due to the drought.

**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 Orlando, Manager of Public Relations, New York City Municipal Water Finance Authority, 75 Park Place, New York, NY 10007. His phone number is (212) 788-5875 and his fax number is (212) 788-9721.





**NEW YORK CITY WATER AND SEWER SYSTEM**  
Financial Statements

**BALANCE SHEETS**

June 30, 2003 and 2002

(in thousands)	2003	2002
<b>ASSETS</b>		
Utility plant in service, less accumulated depreciation of \$5,131,666 in 2003 and \$4,860,738 in 2002 (notes 2, 4 and 7)	\$ 10,660,563	10,275,814
Utility plant construction	4,339,080	3,843,866
	<u>14,999,643</u>	<u>14,119,680</u>
Current assets:		
Unrestricted cash and cash equivalents (note 6)	8,567	5,274
Accounts receivable:		
Billed, less allowance for uncollectible water and sewer receivables of \$268,235 in 2003 and \$298,878 in 2002	336,943	330,482
Unbilled	137,500	110,000
Receivable from the City (note 8)	13,213	243
Accrued interest receivable	1	1
Other	10,374	15,810
Total current unrestricted assets	<u>506,598</u>	<u>461,810</u>
Restricted assets (notes 6 and 11):		
Cash and cash equivalents	1,531,401	1,177,379
Investments	738,789	684,530
Accrued interest receivable	2,358	2,383
Other receivable	-	1,238
Total current restricted assets	<u>2,272,548</u>	<u>1,865,530</u>
Total current assets	<u>2,779,146</u>	<u>2,327,340</u>
Long-term deferred bond and financing expenses	111,794	110,715
Total assets	<u>\$ 17,890,583</u>	<u>16,557,735</u>
<b>LIABILITIES AND NET ASSETS</b>		
Long-term liabilities:		
Bonds and notes payable, less current portion (note 10)	\$ 12,425,832	11,329,246
Net discount on bonds and notes payable	(296,637)	(371,892)
Deferred bond refunding costs (note 2)	(234,229)	(208,521)
Total long-term liabilities	<u>11,894,966</u>	<u>10,748,833</u>
Current liabilities:		
Accounts payable and accrued expenses	27,102	26,851
Revenues received in advance	69,156	76,031
Current portion of bonds and notes payable (notes 9 and 10)	1,057,318	817,758
Payable to the City (note 8)	231,390	262,702
Refunds payable to customers	20,373	13,401
Total current liabilities	<u>1,405,339</u>	<u>1,196,743</u>
Total liabilities	<u>13,300,305</u>	<u>11,945,576</u>
Net assets:		
Invested in capital assets, net of related debt	4,107,253	4,171,982
Restricted for debt service	203,695	245,072
Restricted for operations & maintenance	132,107	118,848
Unrestricted	147,223	76,257
Total net assets	<u>4,590,278</u>	<u>4,612,159</u>
Total liabilities and net assets	<u>\$ 17,890,583</u>	<u>16,557,735</u>

See accompanying notes to financial statements.

**NEW YORK CITY WATER AND SEWER SYSTEM**  
Financial Statements

**STATEMENTS OF REVENUES, EXPENSES AND CHANGES IN NET ASSETS**  
Years ended June 30, 2003 and 2002

(in thousands)	2003	2002
Operating revenues:		
Water supply and distribution	\$ 690,093	648,319
Sewer collection and treatment	952,985	907,324
Other operating revenues	134,658	116,512
Total operating revenues	<u>1,777,736</u>	<u>1,672,155</u>
Operating expenses:		
Operation and maintenance (notes 3 and 7)	849,821	857,907
Bad debt expense	89,400	92,481
Administration and general	15,181	14,171
Total operating expenses	<u>954,402</u>	<u>964,559</u>
Depreciation and amortization	364,337	320,382
Operating income	<u>458,997</u>	<u>387,214</u>
Nonoperating revenues (expenses):		
Interest expense	(584,347)	(556,784)
Investment income	96,236	97,543
Net loss before capital contributions	<u>(29,114)</u>	<u>(72,027)</u>
Capital contributions	7,233	12,303
Decrease in net assets	<u>(21,881)</u>	<u>(59,724)</u>
Net assets – beginning of the period	4,612,159	4,671,883
Net assets – end of the period	<u>\$ 4,590,278</u>	<u>4,612,159</u>

See accompanying notes to financial statements.

**NEW YORK CITY WATER AND SEWER SYSTEM**  
Financial Statements

**STATEMENTS OF CASH FLOWS**

Years ended June 30, 2003 and 2002

(in thousands)	2003	2002
Cash flows from operating activities:		
Receipts from customers	\$ 1,654,714	1,584,081
Payments for operations & maintenance	(868,811)	(825,859)
Payments for administration	(14,616)	(13,026)
Net cash provided by operating activities	<u>771,287</u>	<u>745,196</u>
Cash flows from capital and related financing activities:		
Proceeds from issuing bonds, notes and other borrowings, net of issuance costs	4,679,212	3,423,787
Acquisition and construction of capital assets	(1,217,895)	(938,218)
Repayments of bonds, notes and other borrowings	(3,343,065)	(1,914,695)
Interest paid on bonds, notes and other borrowings	(576,516)	(540,753)
Net cash (used in) provided by capital and related financing activities	<u>(458,264)</u>	<u>30,121</u>
Cash flows from investing activities:		
Proceeds from sales and maturities of investments	61,240	41,166
Purchases of investments	(114,299)	(630,593)
Interest on investments	97,351	95,201
Net cash provided by (used in) investing activities	<u>44,292</u>	<u>(494,226)</u>
Net increase in cash and cash equivalents	<u>357,315</u>	<u>281,091</u>
Cash and cash equivalents, beginning of year	1,182,653	901,562
Cash and cash equivalents, end of year	<u>\$ 1,539,968</u>	<u>1,182,653</u>

**Reconciliation of Operating Income to Net Cash**

Provided by Operating Activities:		
Operating income	\$ 458,997	387,214
Adjustments to reconcile operating income to net cash provided by operating activities:		
Depreciation and amortization	364,337	320,382
Bad debt expense	89,400	92,481
Changes in net assets and liabilities:		
Receivables, net	(119,893)	(84,946)
Accounts payable	565	1,144
Receivable from the City	(22,216)	32,464
Refunds payable	6,972	(3,012)
Revenues received in advance	(6,875)	(531)
Net cash provided by operating activities	<u>\$ 771,287</u>	<u>745,196</u>

	Assets Unrestricted	Assets Restricted	Total
Cash and cash equivalents – beginning	\$ 5,274	1,177,379	1,182,653
Net increase	3,293	354,022	357,315
Cash and cash equivalents – ending	<u>\$ 8,567</u>	<u>1,531,401</u>	<u>1,539,968</u>

The following are the noncash capital and related financing activities:

- Interest expense includes the amortization of premium and discount in the amount of \$7,372 in 2003 and \$14,170 in 2002.
- Capital expenditures in the amount of \$231,390 and \$253,456 had been incurred but not paid at June 30, 2003 and 2002.
- The Board received capital assets of \$7,233 in 2003 and \$12,303 in 2002, which represent capital contributed by the City.

See accompanying notes to financial statements.

**(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**

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, the System generally considers all highly liquid debt instruments purchased with maturities 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**

Utility plant acquired through purchase or internal construction is recorded at cost, net of retirements. Contributed utility plant 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 wastewater 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.

**(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 and 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 expense.

**(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 2002 figures have been made in order to conform to the 2003 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.

**NEW YORK CITY WATER AND SEWER SYSTEM**  
Notes to Financial Statements, June 30, 2003 and 2002

**(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.

**(4) UTILITY PLANT**

The following is a summary of utility plant activity for the fiscal years ended June 30, 2003 and 2002:

(in thousands)	Balance at June 30, 2001	Additions	Deletions	Balance at June 30, 2002	Additions	Deletions	Balance at June 30, 2003
Utility construction	\$ 3,549,203	1,018,432	723,769	3,843,866	1,181,399	686,185	4,339,080
Land	31,193	20,088	–	51,281	18,196	–	69,477
Buildings	21,615	–	–	21,615	456	–	22,071
Equipment	211,944	63,757	–	275,701	12,549	–	288,250
Water supply and wastewater treatment systems	7,786,471	558,122	457	8,344,136	391,440	–	8,735,576
Water distribution and sewage collection systems	6,349,065	101,890	7,136	6,443,819	281,740	48,704	6,676,855
Total	17,949,491	1,762,289	731,362	18,980,418	1,885,780	734,889	20,131,309
Less accumulated depreciation	4,573,701	294,630	7,593	4,860,738	319,632	48,704	5,131,666
Total	\$ 13,375,790	1,467,659	723,769	14,119,680	1,566,148	686,185	14,999,643

**(5) NET ASSETS**

At June 30, 2003 and 2002, the Authority had a net asset deficit of \$4,731 million and \$4,250 million, respectively, which amount is less than the \$9,322 million and \$8,862 million total net assets of the Board at June 30, 2003 and 2002, respectively.

Investments and deposits held by the system at June 30, 2003 and 2002 comprised:

(in thousands)	2003	2002
Unrestricted cash, cash equivalents (plus accrued interest)	\$ 8,567	5,274
Restricted cash, cash equivalents and investments (plus accrued interest)	2,272,548	1,864,292
	2,281,115	1,869,566

**(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.

This amount is comprised of:

Carrying amount of deposits (including CDs)	7,146	44,837
Investments (plus accrued interest)	2,273,969	1,824,729
	\$ 2,281,115	1,869,566

**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 on deposit at both June 30, 2003 and 2002, which was covered by Federal depository insurance.

**Investments**

The System's investment of cash is limited to U.S. Government guaranteed securities and U.S. Government agency securities purchased directly and through repurchase agreements as well as New York State securities, mutual funds and guaranteed investment contracts. The repurchase agreements must be collateralized by U.S. Government guaranteed securities in a range of 100% to 300% for the Board and 102% for the Authority. The fair value of investments is determined based on quoted market prices.

**NEW YORK CITY WATER AND SEWER SYSTEM**  
Notes to Financial Statements, June 30, 2003 and 2002

**(6) (CONTINUED)**

As of June 30, 2003, the System had the following investments and maturities:

Investment Type (in thousands)	Cost	Fair Value	Investment Maturity
<b>Unrestricted</b>			
Mutual funds	\$ 1,005	1,005	Less than one year
Repurchase agreements	850	850	Less than one year
	<u>1,855</u>	<u>1,855</u>	
<b>Restricted</b>			
U.S. Government securities	\$ 1,577,965	1,578,479	Less than one year
New York State securities	5,756	5,901	Greater than one year
Repurchase agreements	67,000	67,099	Less than one year
Guaranteed investment contracts	619,084	620,685	Less than one year
	<u>\$ 2,269,805</u>	<u>2,272,164</u>	

As of June 30, 2002, the System had the following investments and maturities:

Investment Type (in thousands)	Cost	Fair Value	Investment Maturity
<b>Unrestricted</b>			
Repurchase agreements	\$ 1,310	1,311	Less than one year
<b>Restricted</b>			
U.S. Government securities	\$ 1,127,954	1,128,585	Less than one year
New York State securities	5,756	5,900	Greater than one year
Repurchase agreements	66,408	66,419	Less than one year
Guaranteed investment contracts	618,588	620,184	Less than one year
Mutual funds	2,330	2,330	Less than one year
	<u>\$ 1,821,036</u>	<u>1,823,418</u>	

**(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.

A summary of operation and maintenance expenses at June 30, 2003 and 2002 is as follows:

(in thousands)	2003	2002
Water transmission and distribution	\$ 285,929	279,321
Sewer collection systems	336,391	325,595
City agency support cost	36,557	35,195
Fringe benefits	73,740	72,484
Judgments and claims	15,056	18,166
	<u>747,673</u>	<u>730,757</u>
Rental payments to the City	102,148	127,150
	<u>\$ 849,821</u>	<u>857,907</u>

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

As of June 30, 2003 and 2002, all utility construction 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, 2003, the System had a receivable from the City for overpayment of operations and maintenance expense. As of June 30, 2002, the System had a payable to the City for underpayment of operations and maintenance expense.

**NEW YORK CITY WATER AND SEWER SYSTEM**  
Notes to Financial Statements, June 30, 2003 and 2002

**(9) SHORT-TERM LIABILITIES**

In fiscal years 2002 and 2003, the changes in short-term liabilities were as follows:

(in thousands)	Balance at June 30, 2001	Additions	Deletions	Balance at June 30, 2002	Additions	Deletions	Balance at June 30, 2003
Commercial paper <sup>(1)</sup>	\$ 500,000	1,098,000	970,000	628,000	1,558,800	1,361,800	825,000

<sup>(1)</sup>Commercial paper is used to pay construction costs to the City in advance of long term bond financing

Commercial paper activity comprises the following for the year ended June 30, 2003:

(in thousands)	Balance at June 30, 2002	Issued	Retired	Balance at June 30, 2003
Commercial Paper Series 1 – Variable Rate, Short-term Rolling Maturity Backed by Letter of Credit	\$ 200,000	391,000	391,000	200,000
Commercial Paper Series 3 – Variable Rate, Short-term Rolling Maturity Backed by Letter of Credit	–	75,000	75,000	–
Commercial Paper Series 4 – Variable Rate, Short-term Rolling Maturity Backed by Letter of Credit	28,000	287,800	190,800	125,000
Commercial Paper Series 5 – Variable Rate, Short-term Rolling Maturity Backed by Line of Credit	200,000	400,000	400,000	200,000
Commercial Paper Series 6 – Variable Rate, Short-term Rolling Maturity Backed by Line of Credit	200,000	250,000	250,000	200,000
Commercial Paper Series 7 – Variable Rate, Short-term Rolling Maturity	–	155,000	55,000	100,000
Total commercial paper payable	\$ 628,000	1,558,800	1,361,800	825,000

**(10) LONG-TERM LIABILITIES**

In fiscal years 2002 and 2003, the changes in long-term liabilities were as follows:

Bonds payable: (in thousands)	Balance at June 30, 2001	Additions	Deletions	Balance at June 30, 2002	Additions	Deletions	Balance at June 30, 2003	Due Within One Year
First resolution	\$ 8,091,192	1,011,945	247,123	8,856,014	2,010,310	1,232,234	9,634,090	141,783
Second resolution	2,030,656	1,329,905	697,571	2,662,990	1,110,102	749,031	3,024,061	90,535
Total bonds payable	10,121,848	2,341,850	944,694	11,519,004	3,120,412	1,981,265	12,658,151	232,318
Less discounts (net)	372,409	14,622	15,139	371,892	(49,341)	25,914	296,637	–
Less deferred refunding costs	229,145	1,241	21,865	208,521	50,889	25,181	234,229	–
Total long-term liabilities	\$ 9,520,294	2,325,987	907,690	10,938,591	3,118,864	1,930,170	12,127,285	232,318

**NEW YORK CITY WATER AND SEWER SYSTEM**  
Notes to Financial Statements, June 30, 2003 and 2002

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 long-term floating-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 2003, the Authority issued \$1,000 million of bonds to advance refund \$973.5 million of outstanding bonds. The advance refundings resulted in an accounting loss of \$50.9 million. The Authority, in effect, reduced its aggregate debt service by \$123 million and obtained an economic benefit of \$102 million.

During 2003 and 2002, the Authority defeased \$145.1 million and \$37.6 million, respectively, of outstanding bonds with \$158.1 million and \$40 million, respectively, of current revenue, which resulted in an accounting loss of \$15.7 million and \$3.4 million, respectively.

During 2002, the Authority issued \$579.3 million of bonds that will refund outstanding bonds at a future call date. The Authority will reduce debt service by \$63.5 million and obtain an economic benefit of \$30.5 million.

During 2003 and 2002, the Authority renegotiated the terms of \$666.6 million and \$614.5 million, respectively, of its notes with the New York State Environmental Facilities Corporation. The Authority in effect increased its aggregate debt service by \$173.7 million and \$43.1 million, respectively, and obtained an economic benefit of \$52.3 million and \$38.6 million, respectively.

During 2003, the Authority issued \$50 million of bonds that will refund \$50 million of principal of the 2003 B issue in June 2004.

The Authority has defeased cumulatively \$5.759 billion and \$4.640 billion of outstanding bonds as of June 30, 2003 and 2002, 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 liabilities for the defeased bonds are not included in the Authority's financial statements.

As of June 30, 2003 and 2002, \$4.663 billion and \$3.841 billion of the defeased bonds, respectively, had been retired from the assets of the escrow accounts.

Debt service requirements to maturity including amounts relating to commercial paper at June 30, 2003 are as follows:

Year ending June 30 (in thousands)	Principal	Interest <sup>(1)</sup>	Total
2004	\$ 1,057,318	501,560	1,558,878
2005	200,667	494,246	694,913
2006	210,917	485,917	696,834
2007	161,295	498,066	659,361
2008	241,361	501,625	742,986
2009–2013	1,412,964	2,393,488	3,806,452
2014–2018	1,806,540	2,086,009	3,892,549
2019–2023	2,251,823	1,678,482	3,930,305
2024–2028	2,628,285	1,211,499	3,839,784
2029–2033	2,778,960	563,056	3,342,016
2034–2038	733,021	63,793	796,814
Total	\$ 13,483,151	10,477,741	23,960,892

<sup>(1)</sup> Includes interest for variable rate bonds estimated at .09%, which is the rate at the end of the fiscal year. Variable-rate bonds are sold daily or weekly and interest rates are determined by the market on the day sold.

**NEW YORK CITY WATER AND SEWER SYSTEM**  
Notes to Financial Statements, June 30, 2003 and 2002

Bonds, notes payable, and commercial paper comprise the following for the year ended June 30, 2003:

(in thousands)	Balance at June 30, 2002	Issued	Retired	Balance at June 30, 2003
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 Bond maturing in 2017	13,275	–	13,275	–
1991 Fiscal Series B – 6.00% to 7.25% Serial and Term Bonds maturing in varying installments through 2012	22,535	–	3,285	19,250
1992 Fiscal Series B – 6.66% to 6.86% Serial and Term Bonds maturing in varying installments through 2014	25,609	–	3,999	21,610
1993 Fiscal Series A – 5.875% to 6.0% Serial, Term, and Capital Appreciation Bonds maturing in varying installments through 2013	999,870	–	770,490	229,380
1993 Fiscal Series C – Adjustable Rate Term Bonds maturing 2022	100,000	–	–	100,000
1994 Fiscal Series 1 – 3.00% to 6.00% Serial Bonds maturing in varying installments through 2015	236,850	–	205,045	31,805
1994 Fiscal Series B – 4.875% to 5.125% Fixed Rate Bonds maturing in varying installments through 2019	493,235	–	207,295	285,940
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
1994 Fiscal Series F – 5.40% to 5.75% Serial Bonds maturing in varying installments through 2023	210,820	–	92,920	117,900
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 Bonds maturing in varying installments through 2016	41,667	–	5,065	36,602
1996 Fiscal Series 1 – 4.3% to 6.00% Serial Bonds maturing in varying installments through 2017	88,830	–	88,830	–
1996 Fiscal Series 2 – 2.95% to 5.20% Serial Bonds maturing in varying installments through 2017	22,365	–	22,365	–
1996 Fiscal Series 3 – 3.60% to 5.85% Serial Bonds maturing in varying installments through 2017	35,605	–	35,605	–
1996 Fiscal Series A – 5.10% to 5.15% Serial Bonds maturing in varying installments through 2023	150,740	–	28,590	122,150
1996 Fiscal Series B – 5.75% to 5.875% Serial Bonds maturing in varying installments through 2026	491,025	–	–	491,025
1996 Fiscal Series C – 4.90% to 5.75% Serial Bonds maturing in varying installments through 2017	76,980	–	335	76,645
1997 Fiscal Series A – 4.85% to 5.75% Serial Bonds maturing in varying installments through 2026	365,125	–	–	365,125

**NEW YORK CITY WATER AND SEWER SYSTEM**  
Notes to Financial Statements, June 30, 2003 and 2002

Bonds, notes payable, and commercial paper comprise the following for the year ended June 30, 2003: (continued)

(in thousands)	Balance at June 30, 2002	Issued	Retired	Balance at June 30, 2003
1997 Fiscal Series B – 5.75% 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	37,810	–	1,705	36,105
1998 Fiscal Series 2 – 4.00% to 6.00% Serial Bonds maturing in varying installments through 2019	97,160	–	97,160	–
1998 Fiscal Series 3 – 4.30% to 6.00% Serial Bonds maturing in varying installments through 2016	428,851	–	23,271	405,580
1998 Fiscal Series 4 – 3.60% to 5.20% Serial Bonds maturing in varying installments through 2018	13,210	–	685	12,525
1998 Fiscal Series 5 – 4.61% to 5.10% Serial Bonds maturing in varying installments through 2019	76,155	–	76,155	–
1998 Fiscal Series 6 – 4.827% to 5.125% Serial Bonds maturing in varying installments through 2019	16,679	–	714	15,965
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 – 4.30% to 5.125% Serial Bonds maturing in varying installments through 2021	87,325	–	275	87,050
1998 Fiscal Series D – 4.25% to 5.00% Serial and Capital Appreciation Bonds maturing in varying installments through 2025	387,780	–	3,380	384,400
1999 Fiscal Series 1 – 4.00% to 5.25% Serial Bonds maturing in varying installments through 2020	141,465	–	141,465	–
1999 Fiscal Series 2 – 4.00% to 5.25% Serial Bonds maturing in varying installments through 2020	112,121	–	4,104	108,017
1999 Fiscal Series A – 4.75% to 5.00% Serial Bonds maturing in varying installments through 2031	301,470	–	–	301,470
1999 Fiscal Series B – 4.0% to 5.25% Serial and Capital Appreciation Bonds maturing in varying installments through 2020	239,500	–	6,695	232,805
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	131,865	–	–	131,865
2000 Fiscal Series C – Adjustable Rate Term Bonds maturing in 2033	107,500	–	–	107,500
2000 Fiscal Series 2 – 3.80% to 5.96% Serial Bonds maturing in varying installments through 2019	11,465	–	440	11,025
2001 Fiscal Series A – 5.50% Term Bonds maturing in varying installments through 2033 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	68,540	–	140	68,400
2001 Fiscal Series C – 5.125% Term Bonds maturing in varying installments through 2033	112,040	–	–	112,040

**NEW YORK CITY WATER AND SEWER SYSTEM**  
Notes to Financial Statements, June 30, 2003 and 2002

Bonds, notes payable, and commercial paper comprise the following for the year ended June 30, 2003: (continued)

(in thousands)	Balance at June 30, 2002	Issued	Retired	Balance at June 30, 2003
2001 Fiscal Series D – 4.5% to 5.5% Serial and Capital Appreciation Bonds maturing in varying installments through 2025	\$ 292,875	–	4,500	288,375
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 through 2033	184,130	–	–	184,130
2002 Fiscal Series A – 5.00% to 5.75% Serial and Term Bonds maturing in varying installments through 2033	216,305	–	–	216,305
2002 Fiscal Series B – 3.625% to 5.00% Serial and Term Bonds maturing in varying installments through 2026	171,455	–	–	171,455
2002 Fiscal Series C – 4.1% to 5.125% Serial and Term Bonds maturing in varying installments through 2032	46,580	–	–	46,580
2002 Fiscal Series D – 3.0% to 4.90% Serial and Term Bonds maturing in varying installments through 2020	41,745	–	–	41,745
2002 Fiscal Series E – 3.4% to 5.0% Serial and Term Bonds maturing in varying installments through 2026	213,850	–	–	213,850
2002 Fiscal Series F – 3.6% to 5.0% Serial and Term Bonds maturing in varying installments through 2029	105,635	–	–	105,635
2002 Fiscal Series G – 5.00% to 5.125% Term Bonds maturing in varying installments through 2034	216,375	–	–	216,375
2002 Fiscal Series 1 – 4.82% to 5.25% Serial Bonds maturing in varying installments through 2031	200,846	–	4,030	196,816
2002 Fiscal Series 2 – 4.22% to 5.00% Serial Bonds maturing in varying installments through 2031	70,895	–	1,967	68,928
2002 Fiscal Series 3 – 4.65% to 5.00% Serial Bonds maturing in varying installments through 2031	511,997	–	10,484	501,513
2002 Fiscal Series 4 – 5.13% to 6.74% Serial Bonds maturing in varying installments through 2023	227,328	–	3,830	223,498
2002 Fiscal Series 5 – 3.82% to 5.21% Serial Bonds maturing in varying installments through 2031	180,222	–	2,806	177,416
2002 Fiscal Series 6 – 3.82% to 5.21% Serial Bonds maturing in varying installments through 2019	98,565	–	3,796	94,769
2002 Fiscal Series 7 – 7.4% to 7.5% Serial Bonds maturing in varying installments through 2012	12,905	–	1,855	11,050
2003 Fiscal Series A – 4.0% to 6.0% Serial, Term and muni CPI Bonds maturing in varying installments through 2034	–	741,090	21,910	719,180
2003 Fiscal Series B – 4.0% to 5.25% Refundable Principal Installment Bonds maturing in varying installments through 2006	–	150,000	–	150,000
2003 Fiscal Series C Adjustable Rate Bonds maturing in 2018	–	300,300	–	300,300
2003 Fiscal Series D – 2.0% to 5.25% Serial and Term Bonds maturing in varying installments through 2017	–	250,000	5,455	244,545
2003 Fiscal Series E – 5% Term Bonds maturing in 2034 and 2038	–	367,265	–	367,265

**NEW YORK CITY WATER AND SEWER SYSTEM**  
Notes to Financial Statements, June 30, 2003 and 2002

Bonds, notes payable, and commercial paper comprise the following for the year ended June 30, 2003: (continued)

(in thousands)	Balance at June 30, 2002	Issued	Retired	Balance at June 30, 2003
2003 Fiscal Series F – Adjustable Rate Bonds maturing in 2035	\$ –	201,655	–	201,655
2003 Fiscal Series 1 – 4.23% to 4.375% Serial Bonds maturing in varying installments through 2028	–	148,040	782	147,258
2003 Fiscal Series 2 – 5.27 Serial Bonds maturing in varying installments through 2028	–	608,655	15,017	593,638
2003 Fiscal Series 3 – 5.15% Serial Bonds maturing in varying installments through 2025	–	22,365	610	21,755
2003 Fiscal Series 4 – 5.18% Serial Bonds maturing in varying installments through 2025	–	35,605	965	34,640
2003 Fiscal Series 5 – 4.23% to 4.45% Serial Bonds maturing in varying installments through 2032	–	295,437	280	295,157
<b>Total debt payable</b>	<b>11,519,004</b>	<b>3,120,412</b>	<b>1,981,266</b>	<b>12,658,151</b>
Current portion of bonds and notes payable	189,758	93,000	50,440	232,319
<b>Bonds and notes payable, less current portion</b>	<b>\$ 11,329,246</b>	<b>3,027,412</b>	<b>1,930,826</b>	<b>12,425,832</b>

**Derivatives**

In 2003, the Authority sold \$20 million of muni-CPI bonds in the 2013 maturity of its Fiscal 2003 Series A issue. In connection with the muni-CPI bonds, the Authority entered into an interest rate exchange swap under which the Authority receives a floating rate tied to the consumer price index ("CPI"), which matches the rate on the bonds, and pays a fixed interest rate. This allowed the Authority to achieve a yield ten basis points lower than traditional fixed-rate debt with a 2013 maturity. The terms of this transaction require the counter-party to pay the Authority the muni-CPI rate, which is set at 1.53% plus a floating rate CPI, with the CPI being equal to the change in the consumer price index for a given period. In keeping with market standards, the Authority or the counter-party may terminate the swap agreement if the other party fails to perform under its terms

as defined in the agreement. The Authority views termination risk to be remote at this time. Depending on the fair value at the time of termination, the Authority may have a liability to the counter-party.

Through the swap agreement the Authority is exposed to credit risk i.e., the risk that the counter-party fails to perform its contractual obligations. The appropriate measurement of this risk at the reporting date is the fair value of the swap. The fair value of the swap at June 30, 2003 was approximately \$1 million in favor of the counter-party. To mitigate credit risk, the agreement requires the counter-party to post collateral for the Authority's benefit if it is downgraded below a designated threshold, as defined in the agreement.

**(11) RESTRICTED ASSETS**

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

(in thousands)	2003	2002
<b>The Board</b>		
Operation and maintenance reserve account	\$ 132,096	128,084
Operation and maintenance reserve general account	10	10
	<b>132,106</b>	<b>128,094</b>
<b>The Authority</b>		
Revenue fund	203,695	245,072
Debt service reserve fund	678,115	631,248
Construction fund	556,314	208,822
Escrow fund	702,318	652,294
	<b>2,140,442</b>	<b>1,737,436</b>
	<b>\$ 2,272,548</b>	<b>1,865,530</b>

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.

## **(12) COMMITMENTS AND CONTINGENCIES**

### **Construction**

The System has contractual commitments of approximately \$4,197 and \$4,230 million at June 30, 2003 and June 30, 2002, respectively, for water and sewer projects.

### **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, 2003, the potential future

liability attributable to the System for claims outstanding against the City was estimated to be \$148 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. 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. During 2003, the System paid \$477 thousand in rebates and had no liability at June 30, 2003. At June 30, 2002, the System had accrued \$406 thousand for such liability.

## **(13) POST-EMPLOYMENT BENEFITS AND PENSION PLANS**

The employees of the System are covered under the pension plans of the City. The employer's cost for these plans has been allocated to the System under operations and maintenance expense.

## **(14) SUBSEQUENT EVENTS**

On September 10, 2003, the Authority issued fiscal 2004 Series A First Resolution Bonds in the aggregate amount of \$217 million to reimburse outstanding commercial paper notes, to pay certain costs of issuance, and to fund certain reserves.

On October 16, 2003, the Authority issued Fiscal 2004 Series 1 Second Resolution Bonds in the aggregate amount of \$300 million to reimburse outstanding commercial paper notes, to refund outstanding bonds, and to pay certain costs of issuance.

On August 5, 2003, a fire at a sewage treatment plant in Brooklyn damaged the system designed to control odors in the plant. The cost to repair the plant is estimated to be between \$10 and \$15 million.

**NEW YORK CITY WATER AND SEWER SYSTEM**  
Financial Statements

**COMBINING BALANCE SHEET**  
June 30, 2003

**Schedule I**

(in thousands)	New York City Water Board	New York City Municipal Water Finance Authority	Elimi- nations	Total
<b>Assets</b>				
Utility plant in service, less accumulated depreciation of \$5,131,666	\$ 10,660,563	-	-	10,660,563
Utility plant construction	4,339,080	-	-	4,339,080
	<u>14,999,643</u>	<u>-</u>	<u>-</u>	<u>14,999,643</u>
<b>Current assets:</b>				
Unrestricted cash and cash equivalents	7,587	980	-	8,567
Accounts receivable:				
Billed, less allowance for uncollectible water and sewer receivables of \$268,235	336,943	-	-	336,943
Unbilled	137,500	-	-	137,500
Receivable from the City	13,213	-	-	13,213
Accrued interest receivable	1	-	-	1
Other	-	10,374	-	10,374
Total current unrestricted assets	<u>495,244</u>	<u>11,354</u>	<u>-</u>	<u>506,598</u>
<b>Restricted assets:</b>				
Cash and cash equivalents	67,297	1,464,104	-	1,531,401
Investments	64,422	674,367	-	738,789
Accrued interest receivable	388	1,970	-	2,358
Total current restricted assets	<u>132,107</u>	<u>2,140,441</u>	<u>-</u>	<u>2,272,548</u>
Total current assets	<u>627,351</u>	<u>2,151,795</u>	<u>-</u>	<u>2,779,146</u>
Revenue requirement to be billed by and received from the Board	-	6,214,918	(6,214,918)	-
Long-term deferred bond and financing expenses	-	111,794	-	111,794
Total assets	<u>\$ 15,626,994</u>	<u>8,478,507</u>	<u>(6,214,918)</u>	<u>17,890,583</u>
<b>Liabilities and Net Assets</b>				
<b>Long-term liabilities:</b>				
Bonds and notes payable, less current portion	\$ -	12,425,832	-	12,425,832
Net discount on bonds and notes payable	-	(296,637)	-	(296,637)
Deferred bond refunding cost	-	(234,229)	-	(234,229)
Revenue requirements payable to the Authority	6,214,918	-	(6,214,918)	-
Total long-term liabilities	<u>6,214,918</u>	<u>11,894,966</u>	<u>(6,214,918)</u>	<u>11,894,966</u>
<b>Current liabilities:</b>				
Accounts payable and accrued expenses	807	26,295	-	27,102
Revenues received in advance	69,156	-	-	69,156
Current portion of bonds and notes payable	-	1,057,318	-	1,057,318
Payable to the City	-	231,390	-	231,390
Refunds payable to customers	20,373	-	-	20,373
Total current liabilities	<u>90,336</u>	<u>1,315,003</u>	<u>-</u>	<u>1,405,339</u>
Total liabilities	<u>6,305,254</u>	<u>13,209,969</u>	<u>(6,214,918)</u>	<u>13,300,305</u>
<b>Net assets:</b>				
Invested in capital assets, net of related debt	14,999,643	(10,892,390)	-	4,107,253
Restricted for debt service	-	203,695	-	203,695
Restricted for operations & maintenance	132,107	-	-	132,107
Unrestricted (deficit)	(5,810,010)	5,957,233	-	147,223
Total net assets (deficit)	<u>9,321,740</u>	<u>(4,731,462)</u>	<u>-</u>	<u>4,590,278</u>
Total liabilities and net assets (deficit)	<u>\$ 15,626,994</u>	<u>8,478,507</u>	<u>(6,214,918)</u>	<u>17,890,583</u>

See accompanying independent auditors' report.

**NEW YORK CITY WATER AND SEWER SYSTEM**  
Financial Statements

**COMBINING BALANCE SHEET**  
June 30, 2002

**Schedule II**

(in thousands)	New York City Water Board	New York City Municipal Water Finance Authority	Elimi- nations	Total
<b>Assets</b>				
Utility plant in service, less accumulated depreciation of \$4,860,738	\$ 10,275,814	–	–	10,275,814
Utility plant construction	3,843,866	–	–	3,843,866
	14,119,680	–	–	14,119,680
<b>Current assets:</b>				
Unrestricted cash and cash equivalents	5,270	4	–	5,274
Accounts receivable:				
Billed, less allowance for uncollectible water and sewer receivables of \$298,878	330,482	–	–	330,482
Unbilled	110,000	–	–	110,000
Receivable from the City	243	–	–	243
Accrued interest receivable	1	–	–	1
Other	–	15,810	–	15,810
Total current unrestricted assets	445,996	15,814	–	461,810
<b>Restricted assets:</b>				
Cash and cash equivalents	66,465	1,110,914	–	1,177,379
Investments	60,003	624,527	–	684,530
Accrued interest receivable	388	1,995	–	2,383
Other receivable	1,238	–	–	1,238
Total current restricted assets	128,094	1,737,436	–	1,865,530
Total current assets	574,090	1,753,250	–	2,327,340
Revenue requirement to be billed by and received from the Board	–	5,732,433	(5,732,433)	–
Long-term deferred bond and financing expenses	–	110,715	–	110,715
Total assets	\$ 14,693,770	7,596,398	(5,732,433)	16,557,735
<b>Liabilities and Net Assets</b>				
<b>Long-term liabilities:</b>				
Bonds and notes payable, less current portion	\$ –	11,329,246	–	11,329,246
Net discount on bonds and notes payable	–	(371,892)	–	(371,892)
Deferred bond refunding costs	–	(208,521)	–	(208,521)
Revenue requirements payable to the Authority	5,732,433	–	(5,732,433)	–
Total long-term liabilities	5,732,433	10,748,833	(5,732,433)	10,748,833
<b>Current liabilities:</b>				
Accounts payable and accrued expenses	323	26,528	–	26,851
Revenues received in advance	76,031	–	–	76,031
Current portion of bonds and notes payable	–	817,758	–	817,758
Payable to the City	9,246	253,456	–	262,702
Refunds payable to customers	13,401	–	–	13,401
Total current liabilities	99,001	1,097,742	–	1,196,743
Total liabilities	5,831,434	11,846,575	(5,732,433)	11,945,576
<b>Net assets:</b>				
Invested in capital assets, net of related debt	14,119,680	(9,947,698)	–	4,171,982
Restricted for debt service	–	245,072	–	245,072
Restricted for operations & maintenance	118,848	–	–	118,848
Unrestricted (deficit)	(5,376,192)	5,452,449	–	76,257
Total net assets (deficit)	8,862,336	(4,250,177)	–	4,612,159
Total liabilities and net assets (deficit)	\$ 14,693,770	7,596,398	(5,732,433)	16,557,735

See accompanying independent auditors' report.

**NEW YORK CITY WATER AND SEWER SYSTEM**  
Financial Statements

**COMBINING STATEMENT OF REVENUES, EXPENSES AND CHANGES IN NET ASSETS**  
Year ended June 30, 2003

Schedule III

(in thousands)	New York City Water Board	New York City Municipal Water Finance Authority	Elimi- nations	Total
<b>Assets</b>				
<b>Operating revenues:</b>				
Water supply and distribution	\$ 690,093	-	-	690,093
Sewer collection and treatment	952,985	-	-	952,985
Other operating revenues	68,842	65,816	-	134,658
Total operating revenues	<u>1,711,920</u>	<u>65,816</u>	<u>-</u>	<u>1,777,736</u>
<b>Operating expenses:</b>				
Operation and maintenance	849,821	-	-	849,821
Bad debt expense	89,400	-	-	89,400
Administration and general	2,502	12,679	-	15,181
Total operating expenses	<u>941,723</u>	<u>12,679</u>	<u>-</u>	<u>954,402</u>
Depreciation and amortization	319,632	44,705	-	364,337
Operating income	<u>450,565</u>	<u>8,432</u>	<u>-</u>	<u>458,997</u>
<b>Nonoperating revenue (expenses):</b>				
Interest expense	-	(584,347)	-	(584,347)
Investment income	1,606	94,630	-	96,236
Net income (loss) before capital contributions	<u>452,171</u>	<u>(481,285)</u>	<u>-</u>	<u>(29,114)</u>
Capital contributions	7,233	-	-	7,233
Increase (decrease) in net assets	<u>459,404</u>	<u>(481,285)</u>	<u>-</u>	<u>(21,881)</u>
Net assets (deficit) – beginning of the period	8,862,336	(4,250,177)	-	4,612,159
Net assets (deficit) – end of the period	<u>\$ 9,321,740</u>	<u>(4,731,462)</u>	<u>-</u>	<u>4,590,278</u>

See accompanying independent auditors' report.

**NEW YORK CITY WATER AND SEWER SYSTEM**  
Financial Statements

**COMBINING STATEMENT OF REVENUES, EXPENSES AND CHANGES IN NET ASSETS**  
Year ended June 30, 2002

**Schedule IV**

(in thousands)	New York City Water Board	New York City Municipal Water Finance Authority	Elimi- nations	Total
Operating revenues:				
Water supply and distribution	\$ 648,319	–	–	648,319
Sewer collection and treatment	907,324	–	–	907,324
Other operating revenues	62,930	53,582	–	116,512
Total operating revenues	<u>1,618,573</u>	<u>53,582</u>	–	<u>1,672,155</u>
Operating expenses:				
Operation and maintenance	857,907	–	–	857,907
Bad debt expense	92,481	–	–	92,481
Administration and general	3,343	10,828	–	14,171
Total operating expenses	<u>953,731</u>	<u>10,828</u>	–	<u>964,559</u>
Depreciation and amortization	294,630	25,752	–	320,382
Operating income	<u>370,212</u>	<u>17,002</u>	–	<u>387,214</u>
Nonoperating revenue (expense):				
Interest expense	–	(556,784)	–	(556,784)
Investment income	1,668	95,875	–	97,543
Net income (loss) before capital contributions	<u>371,880</u>	<u>(443,907)</u>	–	<u>(72,027)</u>
Capital contributions	12,303	–	–	12,303
Increase (decrease) in net assets	<u>384,183</u>	<u>(443,907)</u>	–	<u>(59,724)</u>
Net assets (deficit) – beginning of the period	8,478,153	(3,806,270)	–	4,671,883
Net assets (deficit) – end of the period	<u>\$ 8,862,336</u>	<u>(4,250,177)</u>	–	<u>4,612,159</u>

See accompanying independent auditors' report.

**NEW YORK CITY WATER AND SEWER SYSTEM**  
Financial Statements

**COMBINING STATEMENT OF CASH FLOWS**  
Year ended June 30, 2003

**Schedule V**

(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	\$ 1,588,898	65,816	1,654,714
Payments for operations & maintenance	(868,811)	-	(868,811)
Payments for administration	(2,018)	(12,598)	(14,616)
Net cash provided by operating activities	<u>718,069</u>	<u>53,218</u>	<u>771,287</u>
<b>Cash flows from capital and related financing activities:</b>			
Proceeds from issuing bonds, notes and other borrowings, net of issuance costs	-	4,679,212	4,679,212
Acquisition and construction of capital assets	-	(1,217,895)	(1,217,895)
Payments by the Board to the Authority (net)	(713,343)	713,343	-
Repayments of bonds, notes and other borrowings	-	(3,343,065)	(3,343,065)
Interest paid on bonds, notes and other borrowings	-	(576,516)	(576,516)
Net cash (used in) provided by capital and related financing activities	<u>(713,343)</u>	<u>255,079</u>	<u>(458,264)</u>
<b>Cash flows from investing activities:</b>			
Proceeds from sales and maturities of investments	61,240	-	61,240
Purchases of investments	(64,422)	(49,877)	(114,299)
Interest on investments	1,605	95,746	97,351
Net cash (used in) provided by investing activities	<u>(1,577)</u>	<u>45,869</u>	<u>44,292</u>
Net increase in cash and cash equivalents	3,149	354,166	357,315
Cash and cash equivalents, beginning of year	71,735	1,110,918	1,182,653
Cash and cash equivalents, end of year	<u>\$ 74,884</u>	<u>1,465,084</u>	<u>1,539,968</u>
<b>Reconciliation of Operating Income to Net Cash Provided by Operating Activities:</b>			
Operating income	\$ 450,565	8,432	458,997
Adjustments to reconcile operating income to net cash provided by operating activities:			
Depreciation and amortization	319,632	44,705	364,337
Bad debt expense	89,400	-	89,400
Changes in net assets and liabilities:			
Receivables, net	(119,893)	-	(119,893)
Accounts payable	484	81	565
Receivable from the City	(22,216)	-	(22,216)
Refunds payable	6,972	-	6,972
Revenues received in advance	(6,875)	-	(6,875)
Net cash provided by operating activities	<u>\$ 718,069</u>	<u>53,218</u>	<u>771,287</u>
	Assets Unrestricted	Assets Restricted	Total
Cash and cash equivalents – beginning	\$ 5,274	1,177,379	1,182,653
Net increase	3,293	354,022	357,315
Cash and cash equivalents – ending	<u>\$ 8,567</u>	<u>1,531,401</u>	<u>1,539,968</u>

The following are the noncash capital and related financing activities:

- Interest expense includes the amortization of premium and discount in the amount of \$7,372.
- Capital expenditures in the amount of \$231,390 had been incurred but not paid at June 30, 2003.
- The Board received capital assets of \$7,233, which represent capital contributed by the City.

See accompanying independent auditors' report.

NEW YORK CITY WATER AND SEWER SYSTEM  
Financial Statements

COMBINING STATEMENT OF CASH FLOWS  
Year ended June 30, 2002

Schedule VI

(in thousands)	New York City Water Board	New York City Municipal Water Finance Authority	Total
Cash flows from operating activities:			
Receipts from customers	\$ 1,530,499	53,582	1,584,081
Payments for operations & maintenance	(825,859)	-	(825,859)
Payments for administration	(3,286)	(9,740)	(13,026)
Net cash provided by operating activities	701,354	43,842	745,196
Cash flows from capital and related financing activities:			
Proceeds from issuing bonds, notes and other borrowings, net of issuance costs	-	3,423,787	3,423,787
Acquisition and construction of capital assets	-	(938,218)	(938,218)
Payments by the Board to the Authority (net)	(697,159)	697,159	-
Repayments of bonds, notes and other borrowings	-	(1,914,695)	(1,914,695)
Interest paid on bonds, notes and other borrowings	-	(540,753)	(540,753)
Net cash (used in) provided by capital and related financing activities	(697,159)	727,280	30,121
Cash flows from investing activities:			
Proceeds from sales and maturities of investments	-	41,166	41,166
Purchases of investments	(61,243)	(569,350)	(630,593)
Interest on investments	1,319	93,882	95,201
Net cash used in investing activities	(59,924)	(434,302)	(494,226)
Net (decrease) increase in cash and cash equivalents	(55,729)	336,820	281,091
Cash and cash equivalents, beginning of year	127,464	774,098	901,562
Cash and cash equivalents, end of year	\$ 71,735	1,110,918	1,182,653
Reconciliation of Operating Income to Net Cash Provided by Operating Activities:			
Operating income	\$ 370,212	17,002	387,214
Adjustments to reconcile operating income to net cash provided by operating activities:			
Depreciation and amortization	294,630	25,752	320,382
Bad debt expense	92,481	-	92,481
Changes in net assets and liabilities:			
Receivables, net	(84,946)	-	(84,946)
Accounts payable	56	1,088	1,144
Receivable from the City	32,464	-	32,464
Refunds payable	(3,012)	-	(3,012)
Revenues received in advance	(531)	-	(531)
Net cash provided by operating activities	\$ 701,354	43,842	745,196
	Assets	Assets	Total
	Unrestricted	Restricted	
Cash and cash equivalents – beginning	\$ 7,419	894,143	901,562
Net (decrease) increase	(2,145)	283,236	281,091
Cash and cash equivalents – ending	\$ 5,274	1,177,379	1,182,653

The following are the noncash capital and related financing activities:

- Interest expense includes the amortization of premium and discount in the amount of \$14,170.
- Capital expenditures in the amount of \$253,456 had been incurred but not paid at June 30, 2002.
- The Board received capital assets of \$12,303, 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, 1994 – 2003 (in thousands)

Year	Water Supply and Distribution	Sewer Collection and Treatment	Other Operating Revenues	Investment Income	Total
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
2002	648,319	907,324	116,512	97,543	1,769,698
2003	690,093	952,985	134,658	96,236	1,873,972

**EXPENSES LAST TEN FISCAL YEARS**

Years Ended June 30, 1994–2003 (in thousands)

Year	Maintenance	Operation And Uncollectibles	Provision for General	Administration and Amortization	Depreciation and Expense	Interest Total
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
2002	857,907	92,481	14,171	320,382	556,784	1,841,725
2003	849,821	89,400	15,181	364,337	584,347	1,903,086

**NEW YORK CITY WATER AND SEWER SYSTEM**  
Statistics

**REVENUE BOND COVERAGE LAST TEN FISCAL YEARS**

Years Ended June 30, 1994–2003 (in thousands)

Fiscal Year	Cash <sup>(1)</sup> Receipts	Debt Service Requirements <sup>(2)</sup>			First Resolution Debt Service Coverage	Debt Service Coverage
		Principal	Interest	Total		
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	1,527,009	164,843	331,309	496,152	3.13	3.06
2002	1,592,393	90,648	405,745	496,393	3.20	3.20
2003	1,653,733	196,036	300,688	496,724	3.33	3.33

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

(2) 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.

**NEW YORK CITY WATER AND SEWER SYSTEM**  
Statistics

**WATER AND SEWER RATE INCREASES**

Last Ten Fiscal Years

Effective Date	Changes in Flat-Rate Water	Change in Metered Water	Metered Water Rate (per ccf) <sup>(1)</sup>	Change in Sewer
July 1, 1994	No change	No change	\$1.01	No change (159% of water charge)
July 1, 1995	Increased 5%	Increased 5%	\$1.06	No change
July 1, 1996	Increased 6.5%	Increased 6.5%	\$1.13	No change
July 1, 1997	Increased 6.5%	Increased 6.5%	\$1.20	No change
July 1, 1998	Increased 4%	Increased 4%	\$1.25	No change
July 1, 1999	Increased 4%	Increased 4%	\$1.30	No change
July 1, 2000	Increased 1%	Increased 1%	\$1.31	No change
July 1, 2001	Increased 3%	Increased 3%	\$1.35	No change
July 1, 2002	Increased 6.5%	Increased 6.5%	\$1.44	No change
July 1, 2003	Increased 5.5%	Increased 5.5%	\$1.53	No change

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

**AVERAGE DAILY WATER CONSUMPTION**

Last Ten Fiscal Years

Fiscal Year	Total (mgd) <sup>(1)</sup>	Upstate Counties (mgd) <sup>(2)</sup>	City (mgd) <sup>(2)</sup>	Per Capita (gals/day) <sup>(2)</sup>
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
2001	1,340	126	1,201	166
2002	1,281	124	1,157	144
2003	1,232	119	1,113	139

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

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

**NEW YORK CITY WATER AND SEWER SYSTEM**  
Statistics

**WATER SYSTEM 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	3.5 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>(2)</sup>	1,000	1917
Tunnel 2	Hillview to distribution system	20.0	17-15 <sup>(2)</sup>	1,000	1936
Tunnel 3, Stage 1	Hillview to distribution system	13.0	24-20 <sup>(2)</sup>	1,500	1998
Richmond Tunnel	Tunnel 2 to Staten Island Uptake Shaft	5.0	10	350	1970

(1) Tunnels are not round.

(2) Variable diameter tunnels

**WATER POLLUTION CONTROL PLANTS DAILY FLOW**

Plant	Design Flow (mgd) <sup>(1)</sup>	12 month avg. July 01–June 02	12 month avg. July 02–June 03
Wards Island	275	182	193
North River	170	128	133
Hunts Point	200	107	114
26th Ward	85	59	65
Coney Island	110	92	97
Owls Head	120	102	104
Newtown Creek	310	229	238
Red Hook	60	31	32
Jamaica	100	71	85
Tallmans Island	80	51	58
Bowery Bay	150	106	112
Rockaway	45	19	20
Oakwood Beach	40	26	31
Port Richmond	60	32	39
<b>Total</b>	<b>1,805</b>	<b>1,235</b>	<b>1,321</b>

(1) mgd=millions of gallons per day

**NEW YORK CITY WATER AND SEWER SYSTEM**  
Statistics

**WATER SYSTEM**

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Collection reservoirs	18
Storage capacity	547.5 billion gallons
Watershed area	2,000 square miles
Average daily water consumption (calendar 2002)	1.26 billion gallons
Average daily water consumption (calendar 1992)	1.46 billion gallons
Miles of water mains	6,200
Miles of water tunnels and aqueducts	359
Fire hydrants in New York City	107,100
Water samples taken each year	65,000
Laboratory tests performed year on water samples	800,000

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**SEWER SYSTEM**

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Water pollution control plants	14
Wastewater pump stations	78
Stormwater pump stations	15
Design capacity per day	1.8 billion gallons
Percent of dry-weather sewage processed through this system	100%
Dry-weather sewage treated per day (calendar 2002)	1.17 billion gallons
Miles of sewage pipes	6,600
Biosolids produced each year	433,100 wet tons
Percent of biosolids used beneficially	100%

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President

Executive Director

Prepared by the staff of The New York City Municipal Water Finance Authority.



**NYW**

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