

NEW YORK CITY WATER BOARD

***PUBLIC INFORMATION REGARDING
WATER AND WASTEWATER RATES***

APRIL 2002

NEW YORK CITY WATER BOARD

Information Booklet

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Introductory Statement

This information booklet has been prepared by the New York City Water Board ("the Board") to acquaint the public with its rate and billing policy and regulatory proposals for Fiscal Year 2003 ("FY2003"), as well as the financial condition of the water and wastewater system and its budget for the upcoming year.

Public hearings concerning these proposals will be held in each borough of the City. The schedule of the dates, times and locations for these hearings, the purpose of which is to present and explain the Board's proposals and provide an opportunity for public comment, is included in this information booklet.

The Board's FY2003 rate proposal is to increase water rates by 6.5% percent. The FY2003 increase is consistent with and continues the Board's policy of promoting the lowest possible annual rate change that is consistent with a stable and predictable pattern for future years. This approach seeks to avoid large fluctuations in year to year rate changes and the current proposal supports this objective. The proposed 6.5% increase is commensurate with increases imposed over the last several years and is 2% less than the 8.5% increase that was projected last year to be necessary for FY2003.

Several extraordinary factors have impacted this year's projection for water and sewer rates, constraining the Board's ability to further reduce the proposed increase. These factors include the following.

- **Drought**

Reduced precipitation over the watershed beginning last summer and continuing through the present has reduced reservoir levels to the point where Mayor Bloomberg was compelled to declare a drought emergency for NYC effective April 1. Water shortage emergencies cause both higher costs to be incurred in delivering water to the City and lower revenues resulting from reduced consumption by businesses and residents responding to the City's appeal for conservation. Recognition of the drought emergency has required that adjustments be made to the previously existing financial assumptions for the System in FY2003. These adjustments include a \$13 million increase in the budgeted operating expenses of the system and the assumption of a baseline reduction in revenues amounting to 3% of metered revenues or \$27 million.

Had the drought emergency not existed, the FY2003 financial profile of the system would have been stronger and the proposed rate increase could have been 2% to 3% lower. The public should also be aware that the Board did consider levying an additional across-the-board drought surcharge to encourage water conservation and stabilize system revenues during the emergency. This drought rate would be an additional rate increase to all customers which would remain in effect as long as the emergency persists. While the Board is holding this proposal in abeyance for now, if the drought becomes severe and continues for a prolonged period, this strategy will have to be reconsidered and a drought rate may have to be implemented.

- **World Trade Center Impacts**

The events of September 11th have generated new short and long term requirements for expenditures to protect the water supply system. System security has been reconsidered and reevaluated, and plans have been made to enhance water system security. Additional personnel resources have been budgeted to patrol, guard and protect critical facilities and the U.S. Army Corps of Engineers has been engaged to procure and construct additional security facilities in the watershed. We are also working to create new monitoring systems to protect the supply system from chemical or biological intrusion.

- **Federal and State Mandates**

Federal and State environmental mandates continue to grow and continue to drive system costs. Mandated capital infrastructure investments under the Clean Water and Safe Drinking Water Acts and negotiated consent decrees account for about 75% of the system's capital budget. The resulting debt service incurred on bonds issued to finance these investments continues to be the single most important factor driving the need for rate increases. In addition to capital mandates, FY2003 is affected by newly mandated environmental health and safety programs which increase the system's operations and maintenance expense budget.

- **Lease Payment Restructuring**

Under the terms of the Board's Lease Agreement with the City, it is required to make an annual lease payment to the City which in accordance with the Agreement has been set at a level equal to the debt service the City incurs on older outstanding general obligation bonds issued by the City for water/sewer purposes in the period prior to 1986. Last year, discussions were initiated to examine whether the lease payment could be restructured to lessen the impact on future year water/sewer rates of a transition provided for in the existing Lease which could require an additional payment to the City. The result of these discussions is that the City has advanced a proposal consisting of a number of elements including the refinancing of older City general obligation bonds and Water Finance Authority revenue bonds, the net effect of which would be to provide approximately \$30 million of rate relief to water/sewer rate payers in FY2003. This Lease restructuring proposal on the part of the City would result in permanently lower water/sewer rates for the City's businesses and property owners than would otherwise have been anticipated.

Despite the substantial financial impacts imposed on the system by drought, the World Trade Center attack, and Federal and State environmental mandates, City residents and businesses should be aware that their charges for water and sewer services are lower than in most other municipalities. The information presented herein demonstrates that the City's charges for residential customers are competitive with other jurisdictions. In absolute dollars and as a percentage of median income, NYC charges rank in the lower half of twenty-four cities surveyed and are below the average of all these cities. A typical single family homeowner in the City pays a little more than \$40 per month for water and sewer services. This amount is likely to be less than his/her average monthly charges for electric service and heating, and probably less than most telephone and cable TV services as well.

In addition to the rate proposal, the Board is also considering certain billing policy and

regulatory program changes. A description of these can be found in the program summary. Two of these, modification of the termination of service eligibility criteria and the denial of access regulation, relate to the Board's ability to properly assess and validate charges and to enforce payment for services provided. The backbilling limitation change to 4 years is proposed so as to maintain consistency with a new State law which permits owners to grieve alleged overbilling for 4 years. The granting of more flexibility to DEP in negotiating payment agreements is beneficial to the customer, DEP and the Board in that it allows more agreements to be executed. The suspension of the Leak Forgiveness Program is under consideration solely as a drought emergency measure.

While the cost of water and sewer services remains at competitive and affordable levels, it is important to note that infrastructure investments are improving services to homes and businesses and are having beneficial impacts on the City's environmental resources. Consider the following.

Wastewater Management

Water quality in New York Harbor is better than it has been in decades. The level of dissolved oxygen, an almost universal measure of improved water quality, continues to increase in the waters surrounding New York City. Signs of improved conditions in the Harbor include the following.

- Better water quality at the City's beaches. Seagate Beach on Coney Island was re-opened in 1988 for the first time in 40 years and South Beach and Midland Beach on Staten Island were re-opened in 1992 for the first time in 20 years. The Department of Health's "wet weather advisory" (no swimming for 48 hours after a heavy rain) was lifted at seven of the City's ten beaches and at the other three it was reduced to a 12-hour advisory. Thus, there are fewer water quality related beach closings in New York and New Jersey and closures due to floatables have been virtually eliminated.
- Re-emergence of healthy fish populations, including game fish such as stripers and blues, and other commonly sought after fish such as summer and winter flounder, tautog, porgy, tom cod and American eel.
- Upgrading of shellfish beds in the estuary, including the removal of restrictions on 30,000 acres of the Rockaways for direct harvest.
- Support of one of the Northeast's largest summer populations of waterfowl with counts of long-legged waders that may exceed 4,000.
- Re-establishment of breeding populations of peregrine falcons and cormorants in several areas of the Harbor, and large colonies of herons, egrets and other wading birds in the Arthur Kill and Kill Van Kull, and ospreys in Jamaica Bay.

Harbor water quality improvements can be attributed in large part to the upgrading and construction of New York City's wastewater treatment plants and the implementation of a wide range of aggressive pollution prevention programs including the abatement of illegal discharges, improved sewer maintenance and increased capture of wet weather flows. About 1.4 billion gallons of wastewater from homes, businesses, schools and streets in the five boroughs are treated every day by DEP facilities and purified effluent water is discharged back into the harbor.

In addition to the basic wastewater treatment systems, DEP has initiated an Urban Watershed

Planning Program to address a variety of water quality related issues within the City and to further enhance and protect waterbody and shoreline uses. For example:

- In 1999, DEP reactivated the Gowanus Flushing Tunnel to circulate Buttermilk Channel Water through the Gowanus Canal and improve water quality. Canal biology has improved enhancing both the number and diversity of organisms that live and feed on Canal sediment. Large numbers of blue crabs, small fish and shore birds that feed on small fish have been observed in the Canal. These water quality benefits support the potential for future development along the Canal. In addition, DEP is working with the U.S. Army Corps of Engineers which is conducting a study to evaluate dredging the canal and other potential measures that could further improve water quality.
- DEP and the NYC Department of Parks and Recreation have converted into parkland approximately 90 acres of wetland on both sides of the Paerdegat Basin, a tributary of Jamaica Bay located in Canarsie, Brooklyn. DEP also proposes to build a combined sewage overflow facility at the head of Paerdegat Basin to improve water quality in the Basin and in Jamaica Bay. This will enhance recreational fishing and boating opportunities in the area.
- DEP has undertaken a program, which includes the construction of a combined sewer overflow facility, to improve water quality in Flushing Bay and Creek which will render a cleaner and odor-free waterfront environment and facilitate shoreline access for the public.
- The Staten Island Bluebelt program provides environmentally and economically prudent stormwater management for the borough's South Richmond area. The benefits of the program include improved drainage and flood control, enhancement of the natural environment, wetlands restoration and improved stream quality. A similar program is being evaluated for the Jefferson Creek - "New Creek" - area of Staten Island.
- The Alley Creek Combined Sewer Overflow Project in the Bayside section of Queens is a multi-faceted project that will address a number of important public and environmental concerns. The project will eliminate street flooding in the area during rainstorms, improve the water quality of Alley Creek and Little Neck Bay, and create a natural park setting in an urbanized area.

Drinking Water Supply

The design of the water supply system ensures the highest quality of drinking water for the people of New York City. Drinking water quality is evidenced by the following.

- All water delivered to the City continues to meet or exceed all Federal and State health related drinking water standards.
- Under DEP's watershed protection program a variety of measures have been implemented which will ensure the highest water quality well into the future. These measures include: the purchase of buffer lands surrounding the City's reservoirs and their tributary streams; the promulgation of regulations governing the types of activities that could lead to water quality degradation; upgrading of the wastewater treatment facilities serving the various upstate municipalities, towns and villages.
- A water fowl program has resulted in reduced levels of coliform and E-coli bacteria in Kensico and Hillview reservoirs with the result that there has not been a boil water alert in the City in the last 8 years.
- DEP has awarded contracts to the U.S. Army Corps of Engineers to evaluate, design and construct security enhancements to the system so as to safeguard water quality; the Corps will also evaluate distribution system security within the City.

- A contract was awarded to the Civil Air Patrol to provide increased surveillance of the watershed and as a further water quality security measure, DEP is developing a robotic monitoring system to detect potential pollution of the water system.
- Improved instrumentation and monitoring, and the use of certain chemicals have resulted in reduced levels of lead and copper in drinking water achieving compliance with the lead and copper rule.

Water Delivery and Wastewater Collection

Reinforcement of the trunk and distribution main system has improved water circulation, water pressure and system reliability. All areas of the City experience better water pressure now than 20 years ago and there are fewer water pressure emergencies now than in the past.

- The 3rd Water Tunnel provides supply redundancy for a large part of the City increasing system reliability and safety. Tunnel #3 will also deliver additional supplies of water to the Bronx and Queens.
- The City's water main break rate per mile of pipe is lower than in most other large cities in the country; DEP recently commissioned the U.S. Army Corps of Engineers to update their 1980 water main break survey to help prioritize the capital replacement criteria.
- Improvements in Staten Island have made its distribution network better and more reliable than it was 10 years ago; fire protection on Staten Island has been enhanced.
- Projects to replace cast iron trunk mains with steel mains in Atlantic Avenue and Clinton Street in Brooklyn have improved reliability in this area and will form the skeleton for interconnections with Tunnel #3 in the next few years.
- The new City Island sewer force main provides the Island with more reliability and redundancy, and provides superior protection for the Long Island Sound bathing beaches.
- Extension of the sanitary sewer system on Staten Island continues to progress each year connecting more homes and businesses to the City's public wastewater system and eliminating septic systems.
- Storm sewer construction in Springfield Gardens in Queens has begun to relieve a long standing stormwater drainage and flooding problem in this area. While there is still more work to be done, substantial relief has already been accomplished.
- In May 1996, the City acquired the part of the former Jamaica Water Supply Company that had served southeast Queens. This acquisition has reduced water rates for homeowners and businesses in this area and has resulted in the delivery of better quality water to the residents of this area. The acquisition of the Queens wells represents the first new water supply source for the City since the 1960's.

Schedule for Water Board Rate Adoption

March 27, 2002 Water Board Meeting to Approve Public Notice of 6.5%

Rate Hearing Dates and Locations

Borough	Location	Date/Time
Staten Island	College of Staten Island Center for the Arts, Recital Hall 2800 Victory Boulevard Staten Island, NY 10314	Wednesday April 17, 2002 10:00 A.M.
Brooklyn	NYC Technical College Atrium Amphitheater 300 Jay Street Brooklyn, NY 11201	Wednesday April 17, 2002 3:00 P.M.
Bronx	Herbert H. Lehman College Carman Hall, Rm. B-08 250 Bedford Park Boulevard West Bronx, NY 10468	Thursday April 18, 2002 9:30 A.M.
Manhattan	St. John's University - Manhattan 2nd Floor Auditorium 101 Murray Street New York, New York 10007	Thursday April 18, 2002 5:00 P.M.
Queens	Department of Environmental Protection Lecture Room, 6th Floor 59-17 Junction Boulevard Flushing, NY 11373	Friday April 19, 2002 9:30 A.M.

**May 3, 2002 Water Board Meeting to Adopt Rates for
Fiscal Year 2003
St. John's University - Manhattan
Room 118
101 Murray Street
New York, NY 10007**

**May 2002 Flat-Rate Bills are Mailed Over the Several Weeks Following
Rate Adoption**

July 1, 2002 Fiscal Year 2003 Rates Become Effective

Program Summary

Fiscal Year 2003 Rate Proposals

- Increase in-City water rates by 6.5% for all customers, flat-rate and metered, and for billing programs
- Maintain in-City wastewater rates at 159% of water charges
- Increase wholesale water rate to upstate municipalities and water districts to \$486.34 per million gallons

Fiscal Year 2003 Billing Policy and Regulatory Proposals

Shut-Off Regulation - Expand Criteria for Shut-Off Candidates

Current provisions of the Board's "Regulation Governing the Discontinuance of Water Supply and/or Sewer Service Because of Nonpayment" specify criteria that delinquent charges must meet before service can be terminated or noticed. These are:

- in the case of non-residential accounts, there must exist at least one delinquent charge open and unpaid for at least 2 years;
- in the case of one to five unit residential accounts, there must exist at least one delinquent charge open and unpaid for at least 3 years;
- in the case of six or more unit residential accounts, there must exist at least one delinquent charge open and unpaid for at least 2 years.

It has been observed that these criteria allow some owners to unfairly avoid payment for services provided for too long a period, and that in some cases, the occupancy of the premises has changed from the time the delinquency originally occurred until termination of service can be noticed and payment enforced. Accordingly, it is proposed to reduce these criteria to allow more timely collection enforcement action to be taken and to provide an effective means to address properties with large delinquent charges accruing within a short period of time.

The staff proposal is to respecify the termination of service eligibility criteria to be more consistent, at least partly, with the City's lien sale eligibility criteria. It is proposed that the regulation be modified to state two alternate criteria. Termination of service will be authorized if there exists: i) at least one delinquent charge open and unpaid for at least one year and amounting to at least \$1,000, or ii) accumulated delinquent charges totaling at least \$10,000.

Denial of Access Regulation

The purpose of this regulatory initiative is to assist DEP in gaining access where water and sewer customers regularly fail to facilitate access to premises either to read meters or to inspect, test, repair or replace meters. Such denial of access impedes DEP efforts to properly assess and validate water and sewer charges.

This new regulation is proposed to consist of two parts: i) the imposition of a denial of access fee amounting to \$50 when an owner fails to facilitate access to the premises after DEP has issued an appropriate demand for access notice and the owner has failed to provide or facilitate access; and, ii) after the imposition of the fee and the issuance by DEP of a second demand for access notice, DEP may commence termination of service pursuant to a proposed new regulation authorizing the discontinuance of water supply or sewer service for denial of access, if the owner continues to not provide or facilitate access to the premises.

Backbilling Limitation - Increase to Four Years

Under previously existing Board regulations, there was a uniform 2-year limitation which applied both to DEP upwardly adjusting previously unbilled or underbilled accounts and for customers to file a complaint relative to a suspected overbilling. A recently enacted State law, however, mandates the Board to provide a 4-year complaint filing period relative to a suspected overbilling event.

It is proposed that the Board modify its backbilling limitation to provide a 4-year limitation with respect to upwardly adjusting previously unbilled or underbilled charges. Staff recommends this modification so as to provide consistency in bill adjustments and avoid inequitable outcomes that will arise when differing time limitations apply to a universe of transactions examined during a comprehensive billing review of an account or a series of accounts.

Payment Agreements - Provide Increased Flexibility

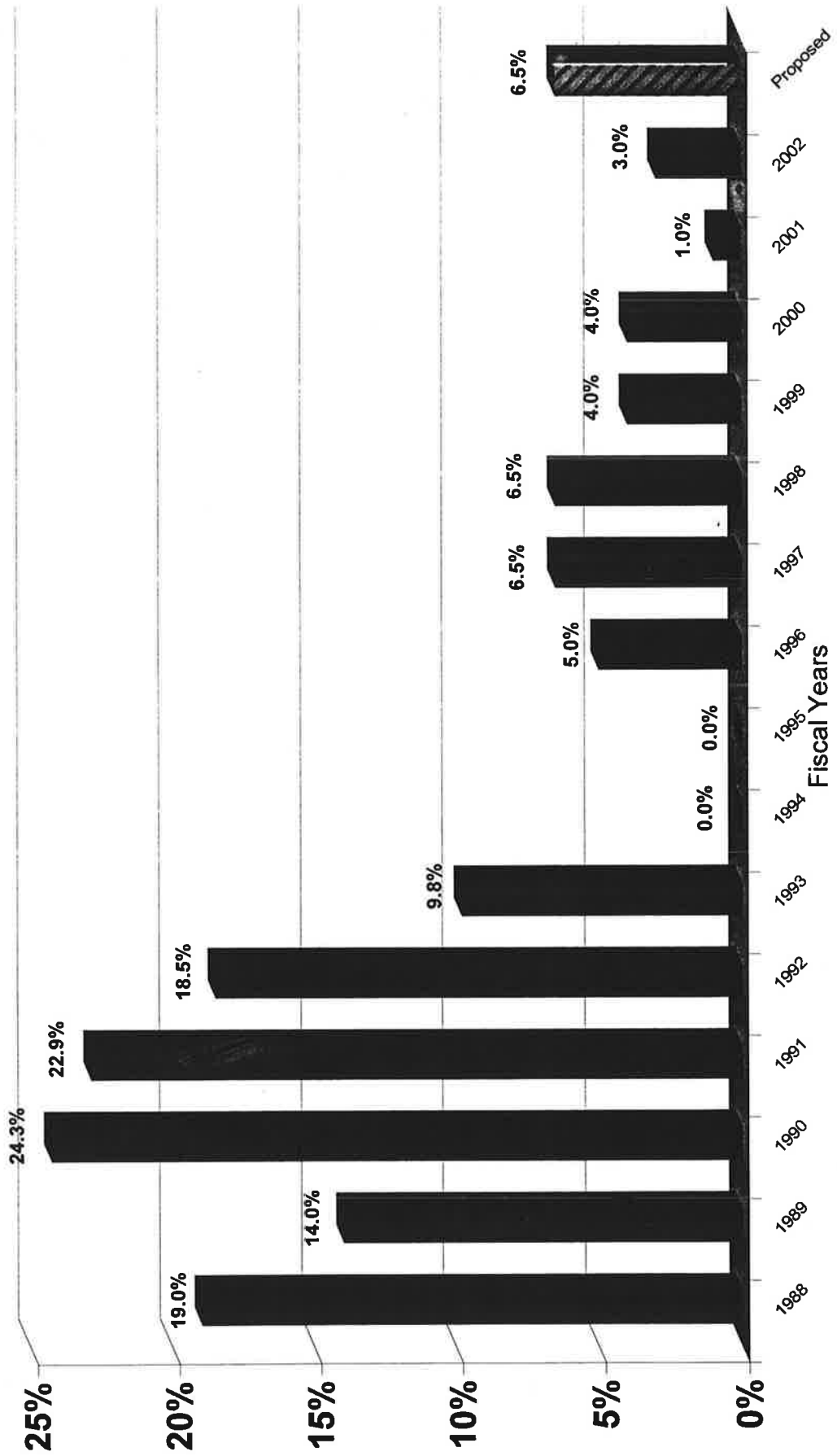
The Rate Schedule currently provides that all payment agreements must include at least a 25% down payment and be amortized over a term not to exceed 3 years. DEP has suggested the need for increased flexibility with respect to these minimum terms so that more customers may be enrolled in appropriate payment agreements. It is proposed that DEP management be permitted to enter into any payment agreement with a delinquent customer deemed by the Commissioner and Executive Director to be reasonable and appropriate.

Suspension of the Board's Leak Forgiveness Program during Drought Emergencies

Under existing rules, the Board has authorized the downward adjustment of certain bills

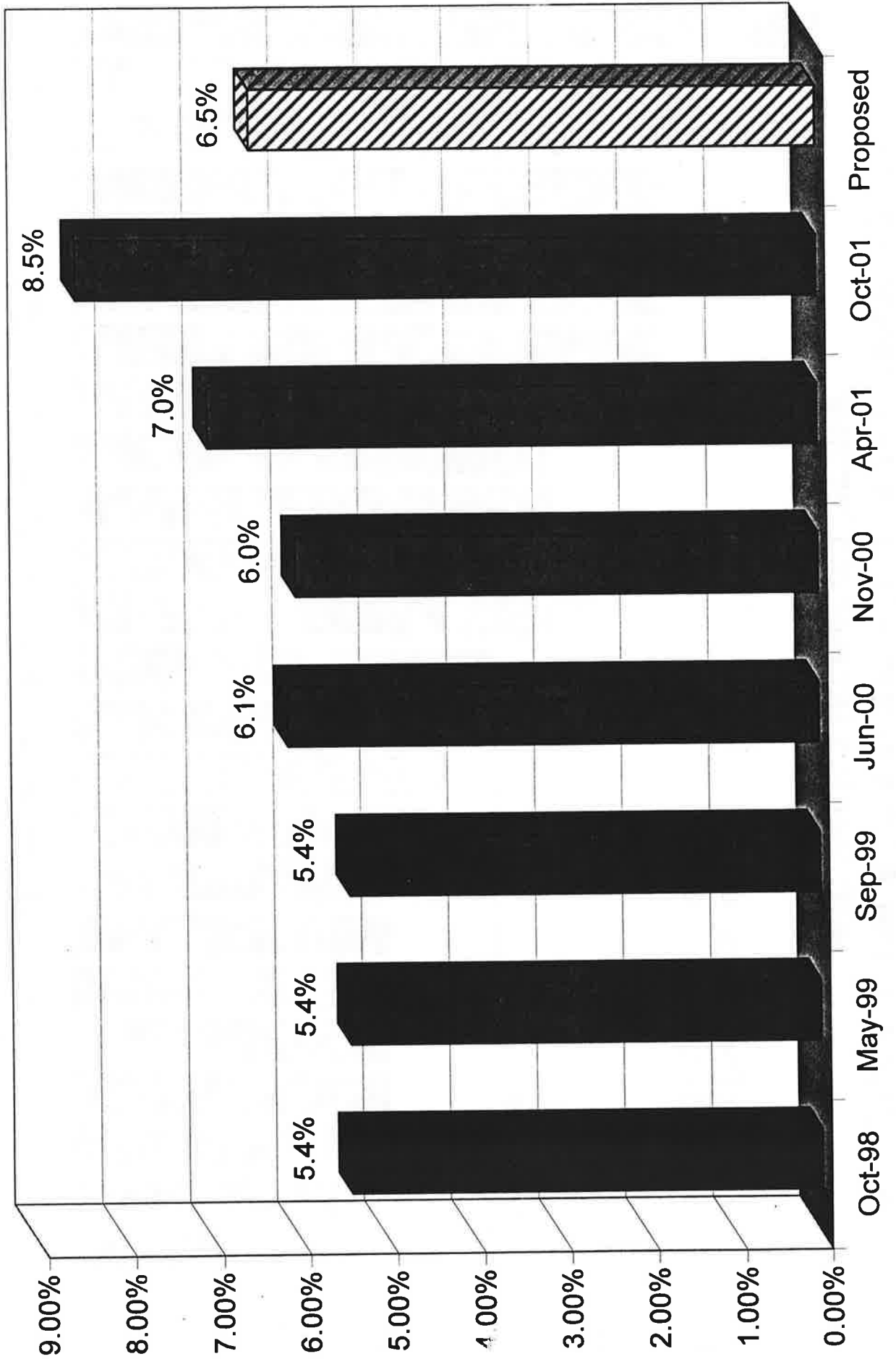
which are elevated because they have been affected by a water leak. In order to enhance the importance of water conservation and increase incentives to repair leaks during water shortage emergencies, it is proposed that the Leak Forgiveness Program be suspended during declared drought emergencies. It is proposed that no leak forgiveness will be provided for any property affected by a leak which occurs during or extends into a time period during which a drought emergency is or was in effect.

Water and Wastewater Rate History

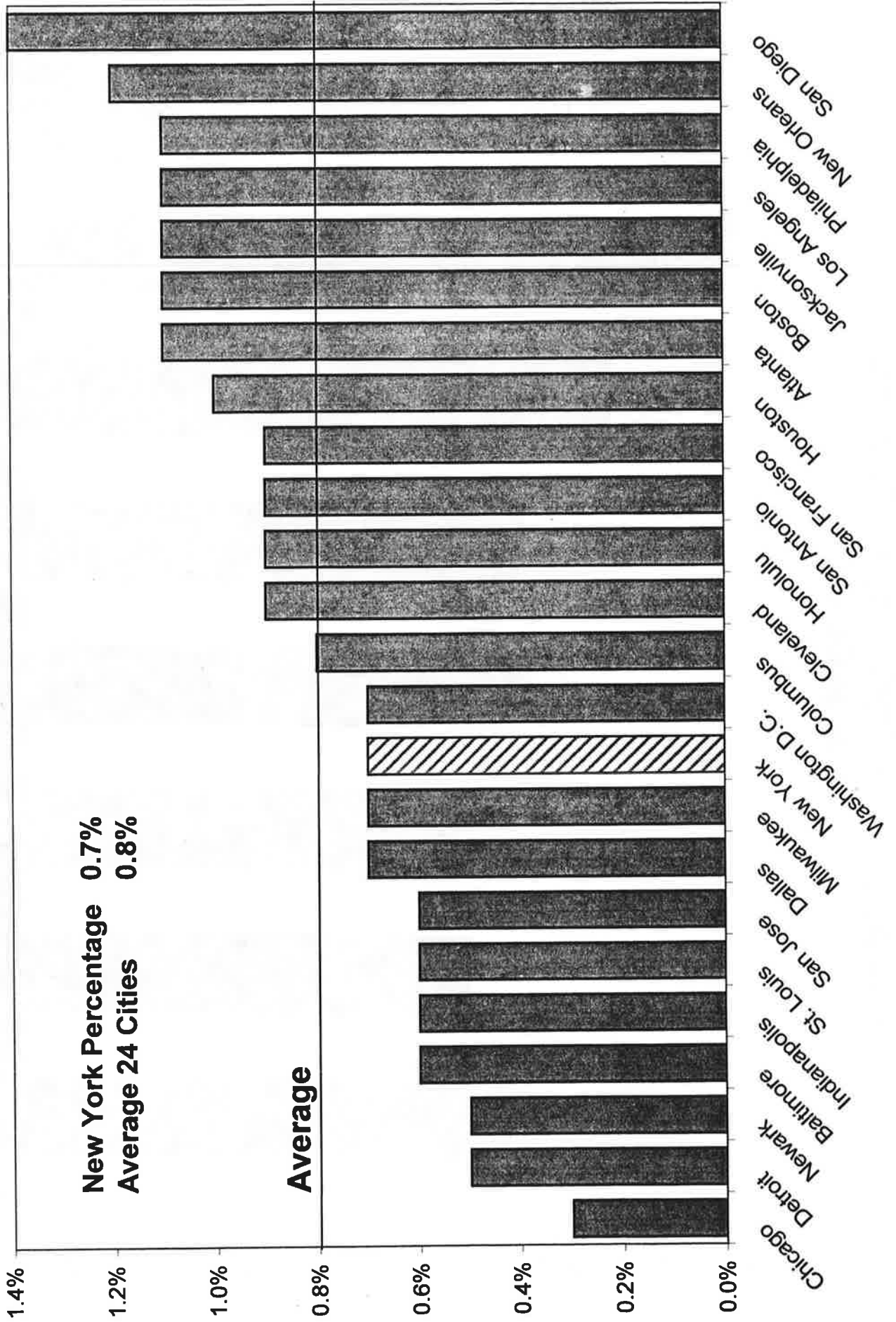


Projected FY 2003 Rate Forecast

Change Over Time

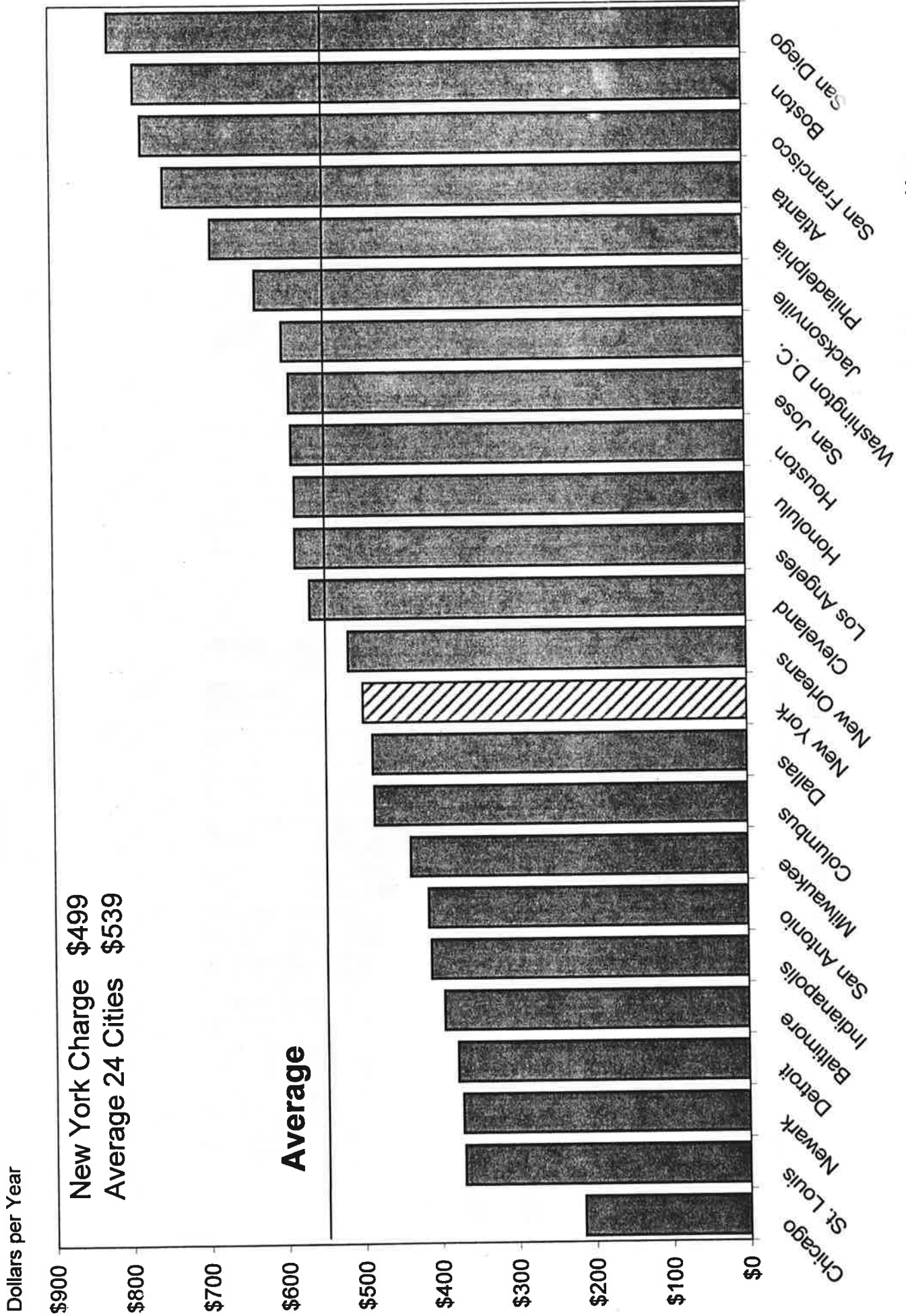


Residential Water & Wastewater Charges as a Percentage of HUD Median Household Income



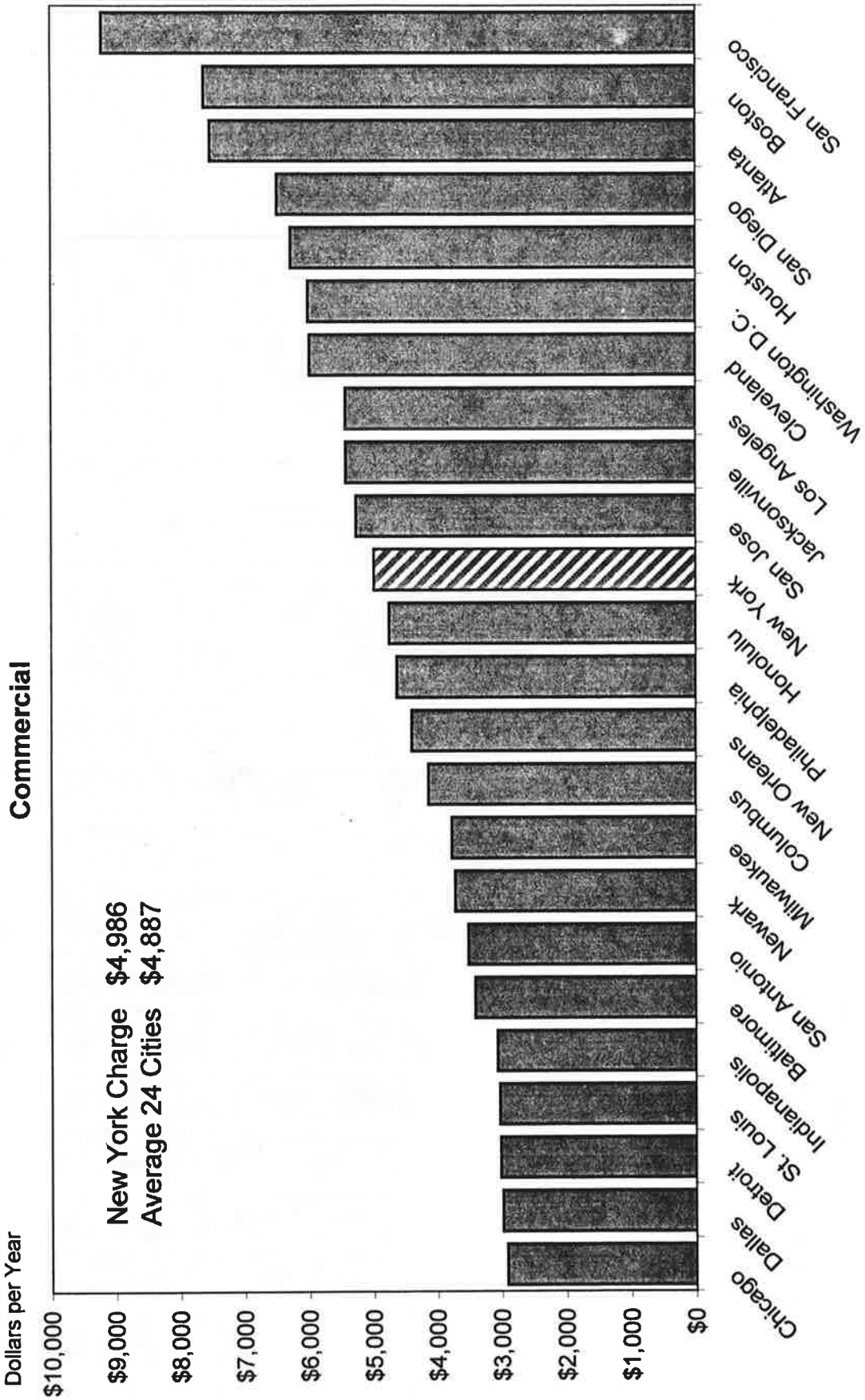
Annual Water & Wastewater Charges

Residential - Fiscal Year 2003



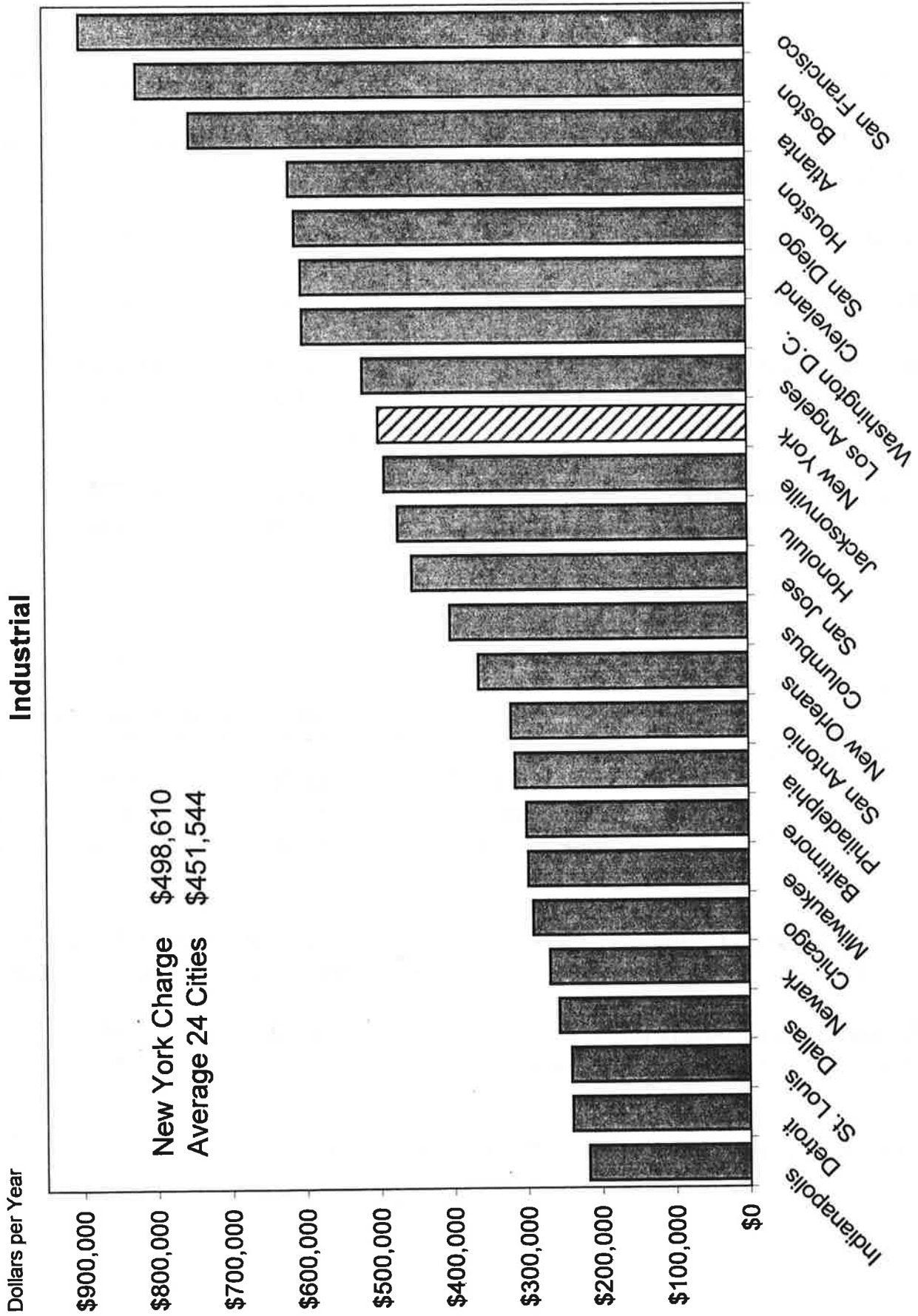
Annual Charges for all Cities Based on Consumption of 100,000 Gallons per Year.

Annual Water & Wastewater Charges - Fiscal Year 2003



Annual Charges for All Cities Based on Assumed Consumption of 1 Million Gallons per Year.

Annual Water & Wastewater Charges - Fiscal Year 2003



Annual Charges for All Cities Based on Assumed Consumption of 100 Million Gallons per Year.

Typical NYC Water/Wastewater Charges

(Combined water/wastewater charge)

Average Annual Customer Charges

	FY02 Average	FY03 Average	Change
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Flat-Rate Customers

Single-Family Residential	\$528	\$562	\$34
Two-Family Residential	\$819	\$872	\$53
Walk-Up Apartments	\$2,509	\$2,672	\$163
Charge/Dwelling Unit	\$377	\$402	\$25
Elevator Apartments	\$28,232	\$30,067	\$1,835
Charge/Dwelling Unit	\$428	\$456	\$28

Metered Customers

Rate per 100 Cubic Feet

Residential & Commercial			
Water	\$1.35	\$1.44	\$0.09
Wastewater	\$2.15	\$2.29	\$0.14
Combined	\$3.50	\$3.73	\$0.23

Typical Metered Charges

Average Annual Charges

	FY02	FY03	Change
Single Family (100,000 gallons)	\$467	\$499	\$31
Per Multifamily Unit (85,000 gallons)	\$397	\$424	\$26

Note: Rounding may affect some of the additions and subtractions

Water and Wastewater System Capital Program

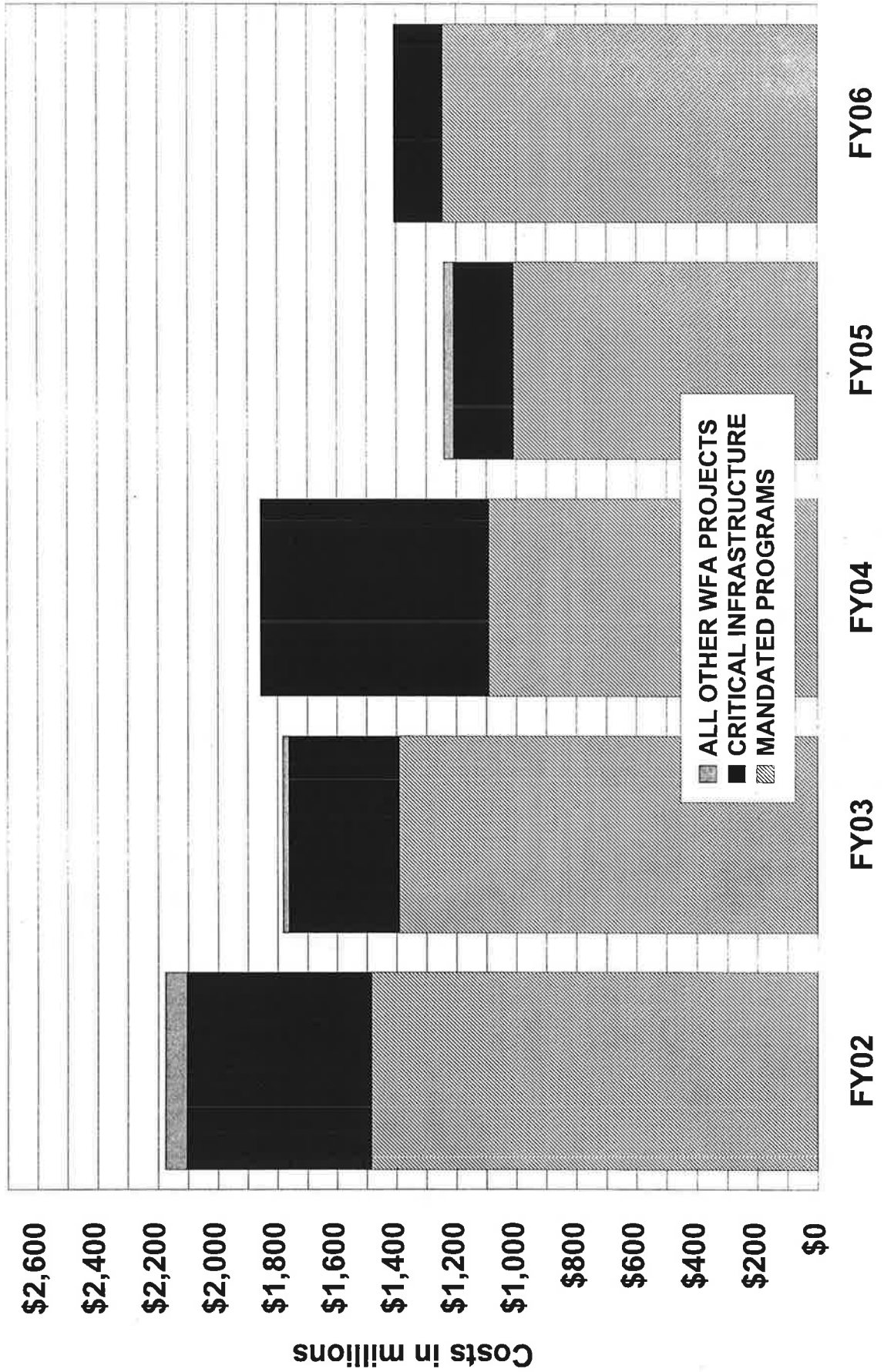
(Per January 2002 Commitment Plan)

Program \$(000)'s

	FY02	FY03	FY04	FY05	FY06	5-Year Total
Combined Sewer Overflow	332,068	193,098	86,681	119,026	75,413	806,286
Watershed Investments	365,045	165,602	144,018	132,095	265,572	1,072,332
Hillview Reservoir	22,175	128,500	65,000	10,500	140,000	366,175
Newtown Creek	131,232	456,219	320,000	210,000	120,000	1,237,451
Croton Filtration	8,921	0	4,312	222,000	408,000	643,233
Meter Installations	35,632	18,000	22,223	4,223	4,223	84,301
Water Pollution Control Plants	556,421	418,134	439,019	300,674	220,130	1,934,378
Utility Relocation Costs	32,609	10,600	10,000	10,000	10,000	73,209
MANDATED PROGRAMS	1,484,103	1,390,153	1,091,253	1,008,518	1,243,338	6,217,365
	68.2%	78.0%	58.7%	81.3%	88.4%	73.4%
Sewer Construction	293,302	195,197	151,373	78,859	76,278	795,009
In-City WaterMain Construction	168,579	124,984	135,527	121,067	87,222	637,379
Third Water Tunnel	158,879	52,500	367,000	0	0	578,379
Delaware Aqueduct Project	0	0	110,000			110,000
CRITICAL INFRASTRUCTURE	620,760	372,681	763,900	199,926	163,500	2,120,767
	28.5%	20.9%	41.1%	16.1%	11.6%	25.1%
ALL OTHER WFA PROJECTS	72,041	20,327	2,500	32,500	0	127,368
	3.3%	1.1%	0.1%	2.6%	0.0%	1.5%
TOTAL CAPITAL PROGRAM	2,176,904	1,783,161	1,857,653	1,240,944	1,406,838	8,465,500
	100%	100%	100%	100%	100%	100%

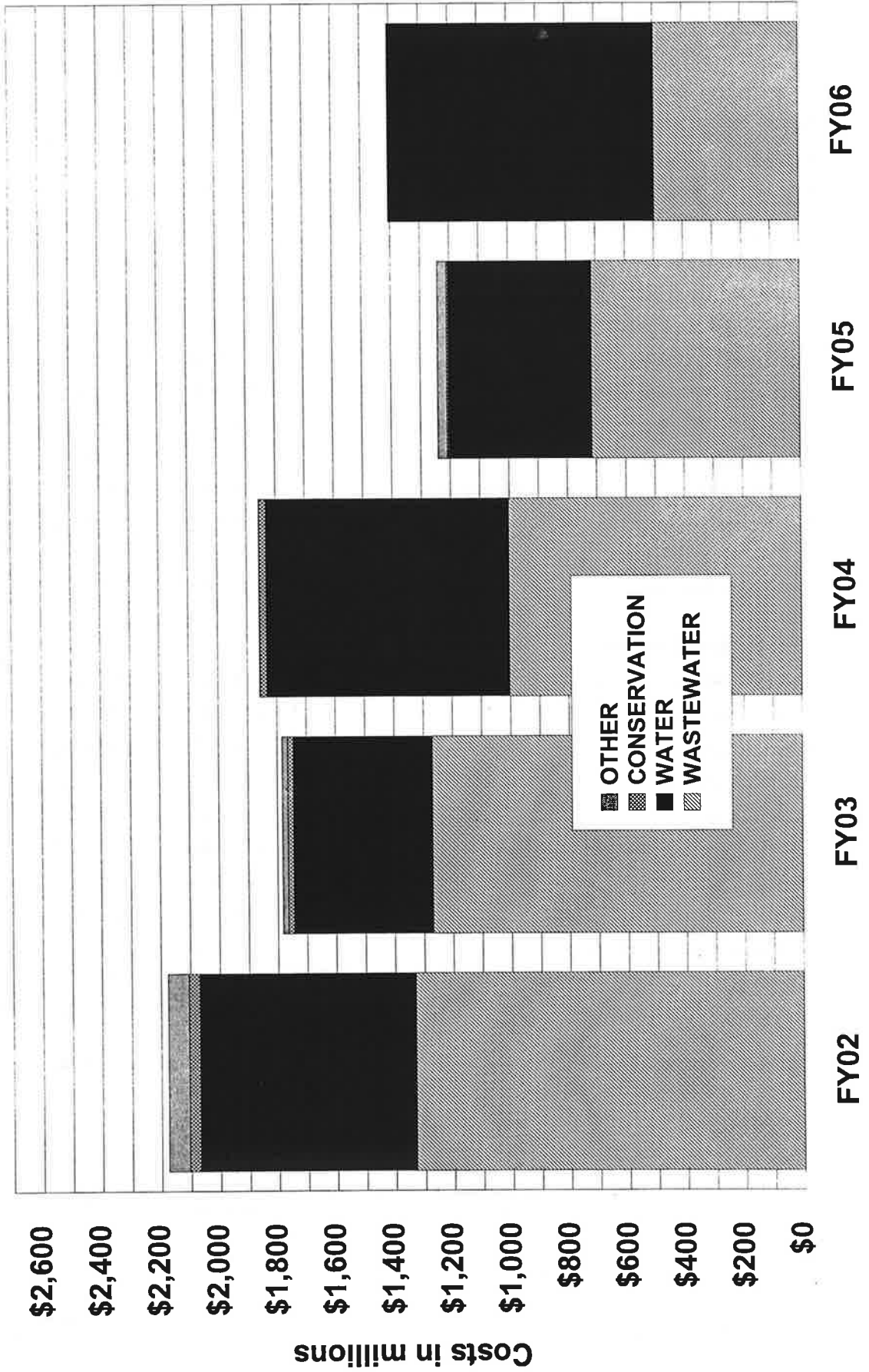
Capital Program Components

Mandated vs. Critical Infrastructure



Capital Program Components

Water vs. Wastewater



Anticipated Water and Wastewater System Expenditures

(in 000's)

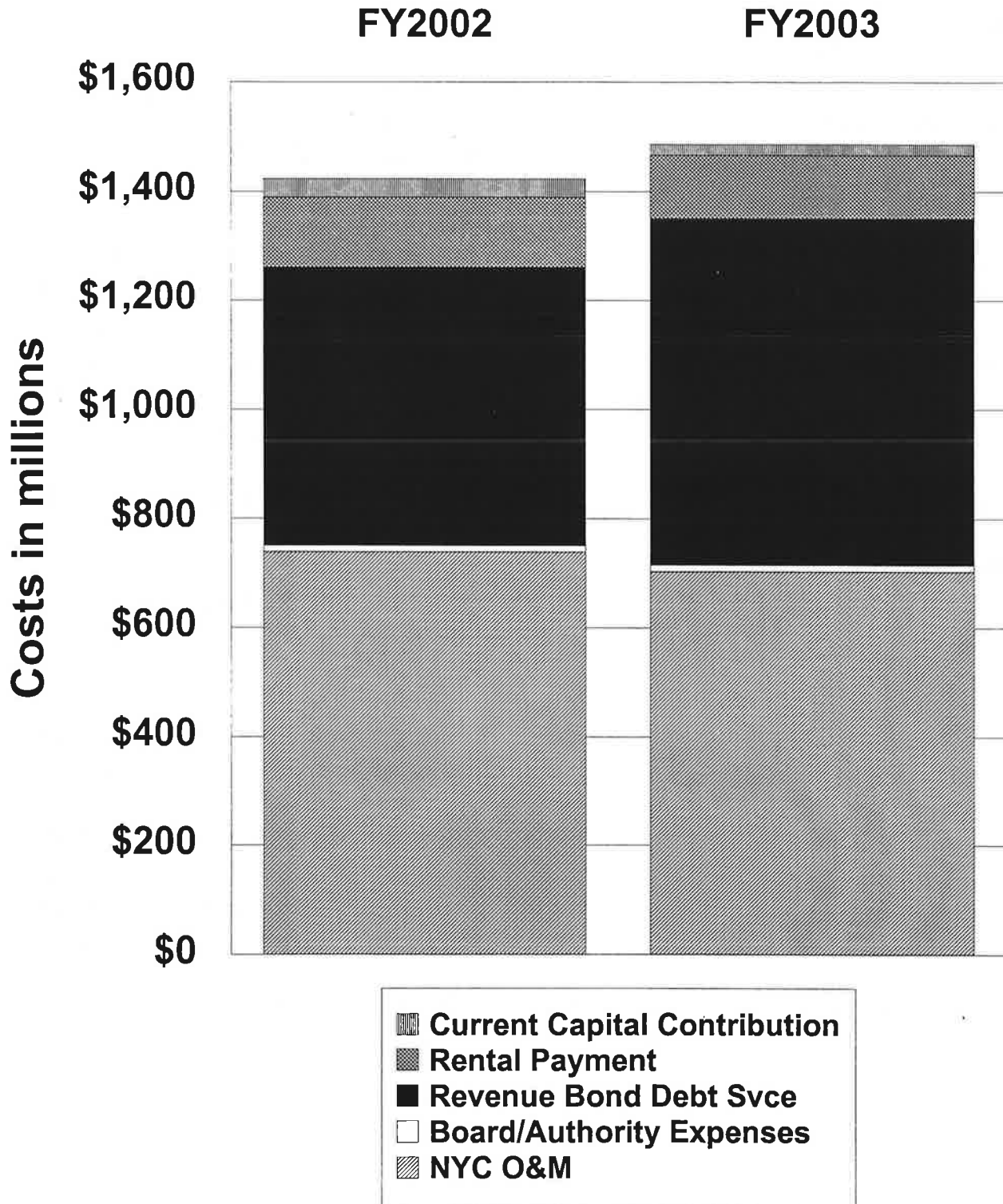
	FY02	FY03	Change
<u>WFA Debt Service</u>			
First Resolution Bonds:			
Outstanding Bonds	\$498,400	\$513,800	\$15,400
Anticipated Future Bonds	900	63,800	\$62,900
Total First Resolution DS	499,300	577,600	\$78,300
Subordinate Obligations:			
Short-Term Obligations	22,000	27,000	5,000
Outstanding Bonds	211,100	201,600	(9,500)
Anticipated Future Bonds	2,300	22,700	20,400
Less: EFC Subsidy and capitalized interest	(63,600)	(73,800)	(10,200)
Actual Subordinate DS	171,800	177,500	5,700
Less: Carryforward and Other Revenues	(160,800)	(119,400)	41,400
Net Subordinate DS	11,000	58,100	47,100
Net Debt Service	510,300	635,700	125,400
<u>Operating Expenses</u>			
Authority/Board Operations	11,600	12,100	500
Water System	324,600	348,900	24,300
Wastewater System	414,500	398,600	(15,900)
Indirect Expenses	14,600	14,600	0
Judgments/Claims	8,000	8,000	0
Total Operations and Maintenance	773,300	782,200	8,900
Rental Payment	128,400	115,600	(12,800)
Current Capital Contribution	34,100	20,000	(14,100)
Trust Account Withdrawals	0	(20,000)	(20,000)
Credit For Prior Year Expenses	(22,800)	(47,000)	(24,200)
Net Operating Expenses	\$913,000	\$850,800	(\$62,200)
Total Expenditures	\$1,423,300	\$1,486,500	\$63,200
<u>Revenues</u>			
User Payments	1,429,500	1,459,100	29,600
Upstate Revenues	19,200	20,300	1,100
Miscellaneous Revenue (Permits, etc.)	5,000	5,300	300
Miscellaneous Interest Income	25,000	25,000	0
Interest Income on System Funds	58,500	68,000	9,500
EFC Subsidy on Outstanding Bonds	4,500	4,200	(300)
Gross System Revenues	\$1,541,700	\$1,581,900	\$40,200
Carryforward	\$118,400	\$95,400	(\$23,000)

Water vs. Wastewater System Costs

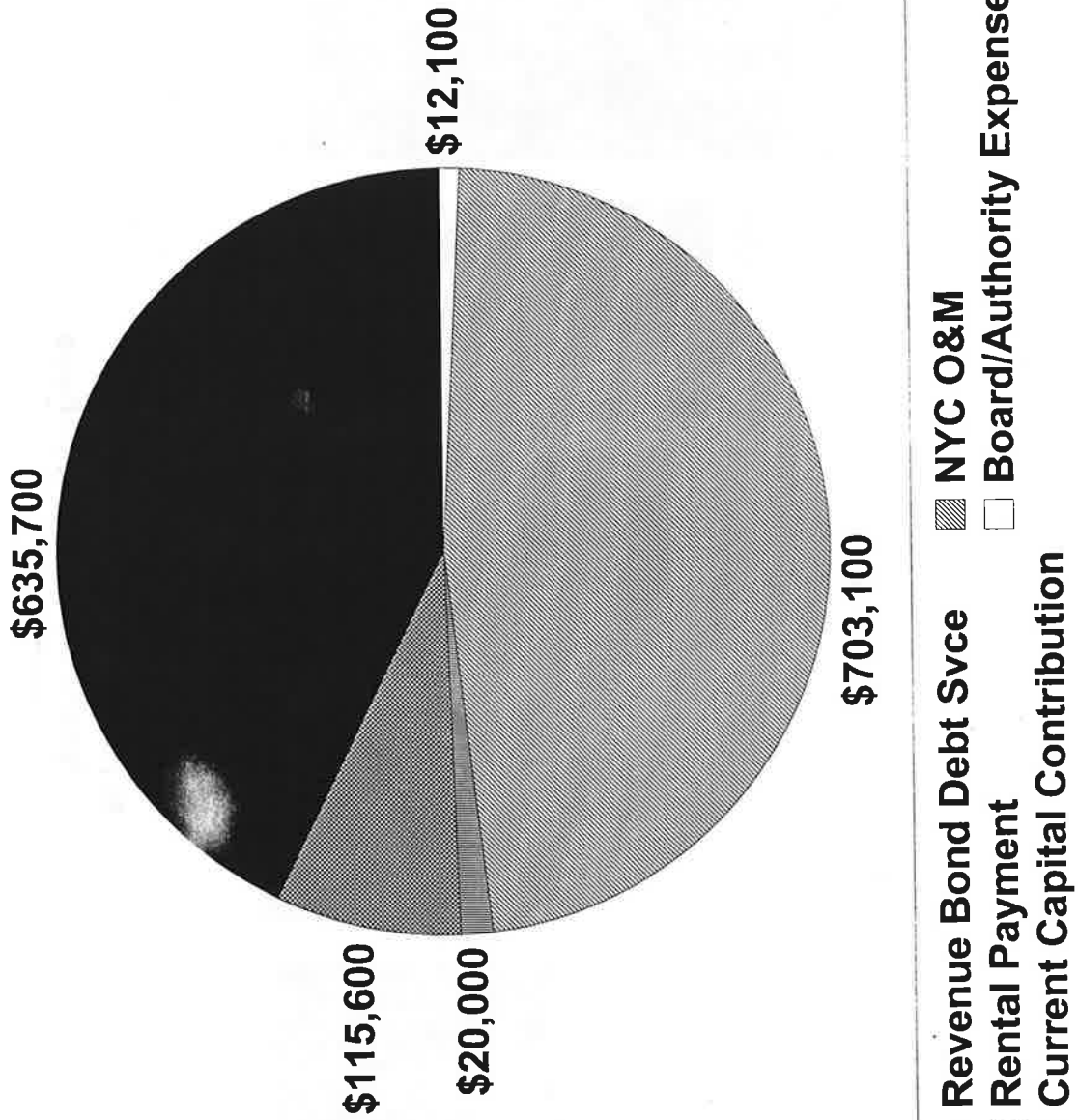
(in 000's)

	FY2003 Total Costs	Water Costs	Wastewater Costs
<u>WFA Debt Service</u>			
First Resolution Bonds:			
Outstanding Bonds	513,784	256,892	256,892
Anticipated Future Bonds	63,788	22,836	40,952
Total First Resolution DS	577,572	279,728	297,844
Subordinate Obligations:			
Short-Term Obligations	27,000	9,666	17,334
Outstanding Bonds	201,664	20,166	181,498
Anticipated Future Bonds	22,661	2,266	20,395
Less: EFC Subsidy and capitalized interest	(73,781)	(7,378)	(66,403)
Actual Subordinate DS	177,544	24,720	152,824
Less: Carryforward and Other Revenues	(119,400)	(46,100)	(73,300)
Net Subordinate DS	58,144	(21,380)	79,524
 Net Debt Service	 \$635,716	 \$258,349	 \$377,367
<u>Operating Expenses</u>			
Authority/Board Operations	12,100	5,533	6,567
Water System	348,889	348,889	
Wastewater System	398,650		398,650
Indirect Expenses	14,600	6,676	7,924
Judgments/Claims	8,000	3,658	4,342
Total Operations and Maintenance	782,239	364,757	417,482
Rental Payment	115,600	46,608	68,992
Current Capital Contribution	20,000	8,064	11,936
Trust Account Withdrawals	(20,000)	(7,722)	(12,278)
Credit For Prior Year Expenses	(47,000)	(23,500)	(23,500)
Net Operating Expenses	\$850,839	\$388,206	\$462,633
 Total Expenditures	 <u>\$1,486,555</u>	 <u>\$646,554</u>	 <u>\$840,001</u>

Water/Wastewater System Costs



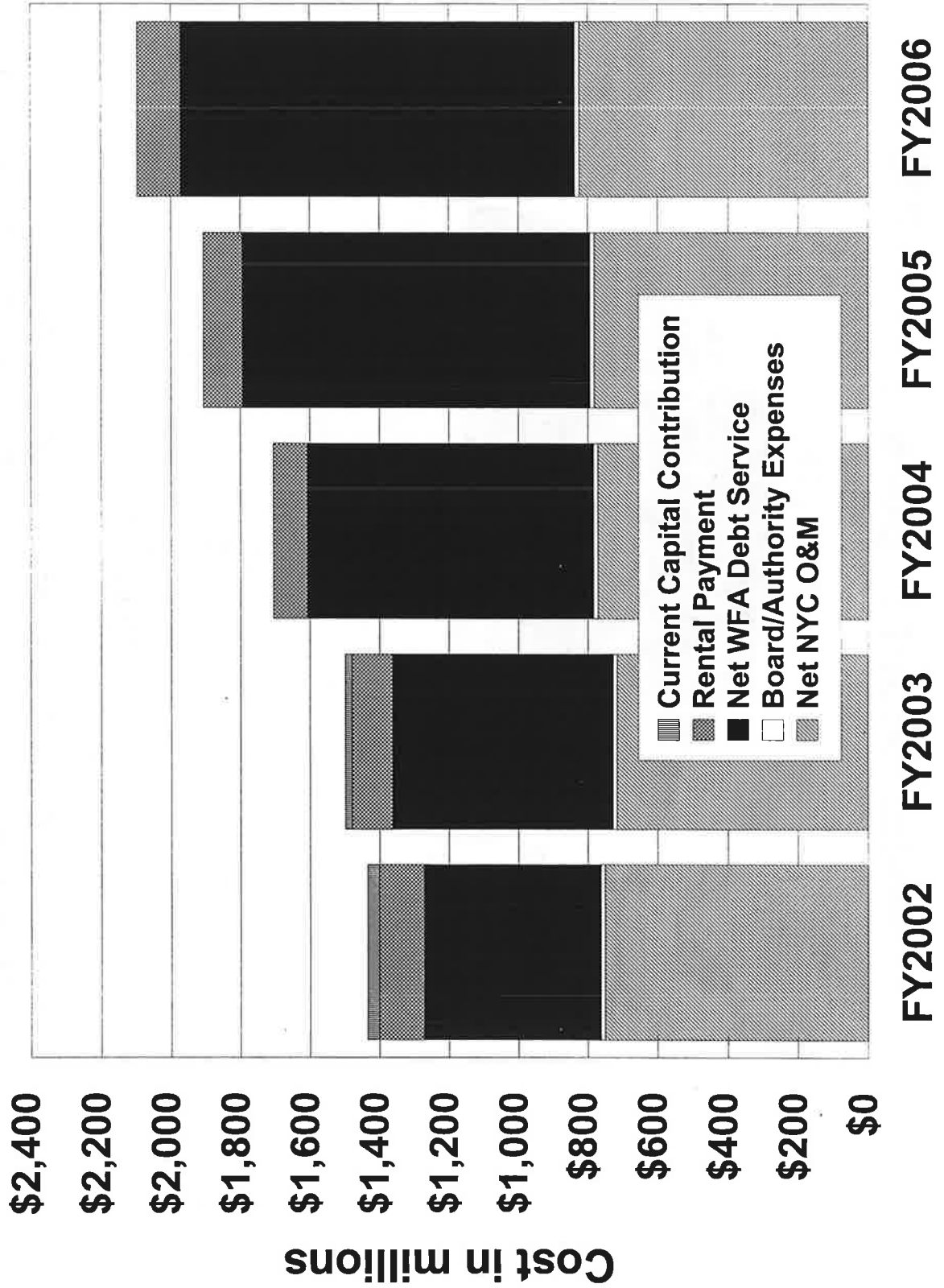
Water Board Expenses - FY2003



- Revenue Bond Debt Svce
- NYC O&M
- Rental Payment
- Board/Authority Expenses
- Current Capital Contribution

in '000's

Projected System Costs FY2002-FY2006



Rate Advisor's Conclusions

- The 6.5% increase in water rates and charges proposed by the Board will yield anticipated revenues for Fiscal Year 2003 that are sufficient to cover the expected costs of providing water service and wastewater service.
- While the ratio of wastewater system costs to water system costs has declined somewhat in recent years due to ongoing water system investments to protect the quality of the City's water supply, scheduled investments in the capital improvement program for rehabilitation and construction of wastewater treatment facilities and combined sewer overflow projects will cause the ratio of wastewater system costs to increase in the future. Accordingly, the long term ratio of wastewater system costs to water system costs will approximate the current ratio of wastewater charges to water charges.
- The Rate Advisor has reviewed the Billing Policy and Regulatory Proposals advanced by the Board and concluded that they are reasonable and likely to have a positive impact on system revenues.

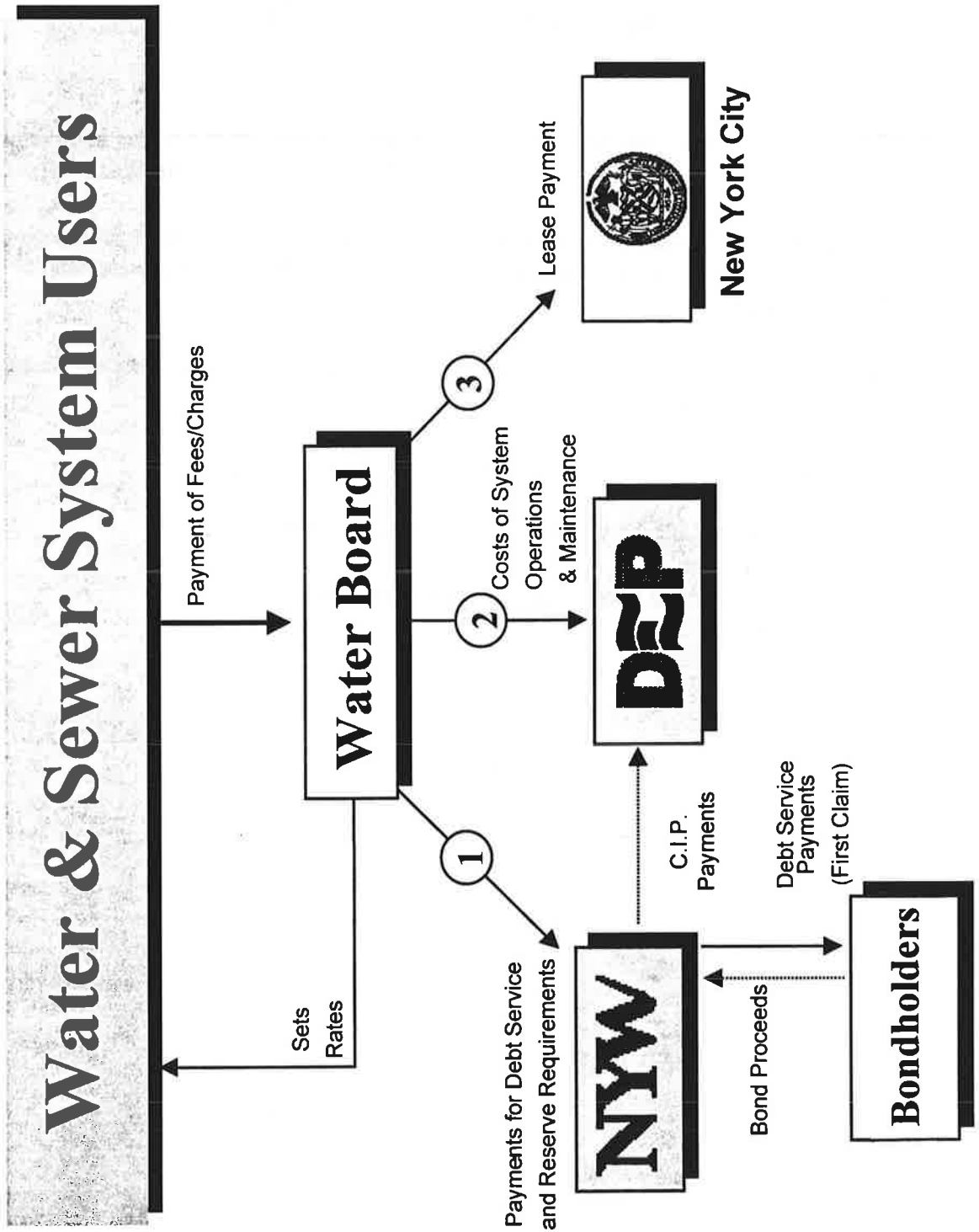
Process for Water Board Rate Adoption

- The Board must adopt rates which will satisfy the revenue requirements of the System
- The Water Finance Authority projects revenue bond debt service on bonds issued after 1988 to finance water and wastewater capital projects and certifies the FY 2003 amount to the Water Board
- The City Office of Management and Budget projects DEP's operating and maintenance expenses and certifies the FY 2003 amount to the Water Board based on the Mayor's Executive Budget
- The City projects debt service on general obligation bonds to finance water and wastewater capital projects based on information received from the Office of the Comptroller and certifies the FY 2003 amount to the Water Board
- The system's consulting engineer must certify that expenses are reasonable and appropriate
- The Board must hold public hearing in each borough of New York City
- At its annual meeting in May, the Board adopts an annual budget based on the system expenses that have been certified to it, and adopts a rate which will produce sufficient revenues to meet those expenses

Important Objectives Of The Water Board In Establishing Rates And Charges

- Sufficient revenues must be raised by rates and charges and other sources of revenue in order to satisfy the revenue requirements of the Water System and the Wastewater System
- Rates and charges should be equitable and fair, in the sense that charges levied on different users reflect, as closely as practicable, the costs incurred in providing water and wastewater services
- The rate structure, both present and long term, should provide a reasonably stable and predictable flow of revenue
- The rate structure should be relatively simple and easy to administer
- The rate structure should be understandable to the customer
- The rate structure should encourage water conservation

Operating Relationships



Description of the Water System **And** **The Wastewater System**

The Water System

Water for the System is impounded at three upstate reservoir systems: the Croton, Catskill and Delaware watersheds. There are 18 reservoirs and three controlled lakes with a storage capacity of 550 billion gallons. The Water System provides an average of 1,400 million gallons per day from its upstate surface water systems and an average of 33 million gallons per day from wells located in southeast Queens. The Water System provides an average of 1,374 million gallons per day to customers within the City and in upstate reservoirs. Water is conveyed to the City through large aqueducts and balancing reservoirs. Within the City, water is distributed through two major tunnels. A third tunnel is now under construction and will supplement the two City tunnels currently in use. The water distribution system covers approximately 300 square miles in the City and consists of 6,794 miles of pipe, 94,358 mainline valves and 106,312 fire hydrants.

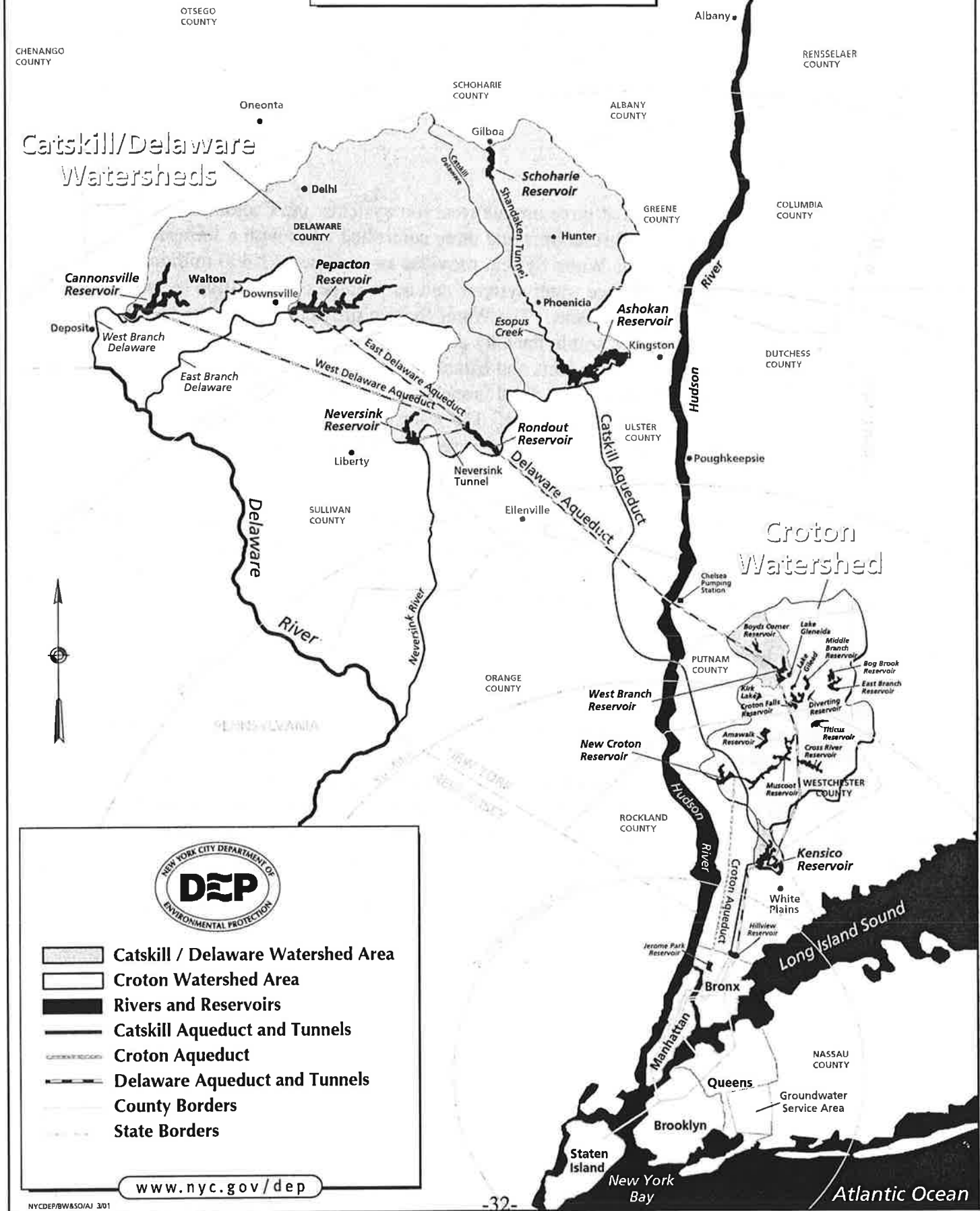
In comparison to other public water systems, the City's Water System is both economical and flexible. Approximately 95% of the total daily water supply is delivered to the consumer by gravity. Only about 5% of the water is regularly pumped to maintain the desired pressure. As a result operating costs are relatively insensitive to the cost of power.

The Wastewater System

The Wastewater System is primarily a combined system designed to carry both stormwater and sanitary wastewater. It consists of an extensive network of facilities including approximately 6,400 miles of wastewater lines, 131,243 catch basins and 5,000 seepage basins. The wastewater treatment facilities include 14 operating wastewater treatment plants, one storm-overflow retention plant, 89 pumping stations, nine wastewater laboratories, three inner-harbor vessels and eight sludge dewatering facilities. The wastewater treatment facilities treat approximately 1,200 million gallons per day of dry-weather wastewater.

Maps of the Water Supply System and the Plant Drainage Areas are included in the following two pages.

New York City's Water Supply System



- Catskill / Delaware Watershed Area
- Croton Watershed Area
- Rivers and Reservoirs
- Catskill Aqueduct and Tunnels
- Croton Aqueduct
- Delaware Aqueduct and Tunnels
- County Borders
- State Borders

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New York City Drainage Areas and Wastewater Treatment Plants

Plant Location	Capacity (MGD)
Manhattan	
Wards Island	250
North River	170
Bronx	
Hunts Point	200
Brooklyn	
Newtown Creek	310
26th Ward	85
Coney Island	100
Red Hook	60
Owls Head	120
Queens	
Tallmans Island	80
Jamaica	100
Bowery Bay	150
Rockaway	45
Staten Island	
Port Richmond	60
Oakwood Beach	40

● Water Pollution Control Plants



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Water & Sewer Systems Entering And Leaving Your Home

