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**NEW YORK CITY WATER BOARD**

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

***APRIL 1997***

# 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 to acquaint the public with its rate and billing policy proposals for Fiscal Year ("FY") 1998 as well as the financial condition of the water and wastewater system and its budget for FY 1998.**

**A public hearing concerning these proposals will be held on:**

**Monday, April 28, 1997  
at 4:00 P.M.  
2nd Floor Auditorium  
The College of Insurance  
101 Murray Street  
New York, New York 10007**

**The purpose of the public hearing is to present and explain the Board's proposals and to provide an opportunity for public comment.**

**After a long and difficult period of significant annual rate increases under prior mayoral administrations, the system's rate outlook has been stabilized. This year's proposal is to increase water rates by 6.5%. This is dramatically lower than the trend of a few years ago when, during the period from FY 1987 to FY 1994, rates increased by 196%, an average increase of 14.8% per year.**

**The relatively modest increase of 6.5% which has been proposed represents a meaningful achievement over other possible outcomes. It is important to note that the rate increases implemented during the Giuliani mayoralty have been significantly lower than the increases imposed during the previous two administrations. The contrast, in fact, is quite dramatic. During this Mayor's term, from FY 1995 through the upcoming FY 1998, the annual increase has averaged about 4.5%. This is only slightly more than the annual cost of living increase, and compares favorably with average annual increases of 11.4% during the previous 12 years.**

**This stabilizing trend has been achieved despite an increasing need to make significant capital investments in the water and wastewater system infrastructure in response to regulatory mandates under the federal Clean Water and Safe Drinking Water Acts. This same period has also seen the virtual elimination of Federal and State construction and operating grants which had assisted in financing these mandated programs. While we agree with the objective of managing and preserving**

**important environmental resources for future generations, such costs continue to be a major influence on the capital program of the Department of Environmental Protection (“DEP”), and will continue to be the single most important factor precipitating the need for rate increases.**

**As will be seen in the pages that follow, about 67% of the system’s capital program over the next five years is allocated for mandated projects in watershed protection and water quality preservation, wastewater treatment and disposal, and combined sewer overflow abatement. These capital investments are required to satisfy obligations under existing laws, and are necessary to preserve the environmental integrity of both the City’s watershed and the New York harbor estuary.**

**The system’s capital program also requires resources for conservation, for the upgrading of aging components of the water main and sewer collection networks and for continued work on the Third Water tunnel so as to ensure continued system reliability, adequate performance, safety and service delivery.**

**City residents and businesses should be aware that their charges for water and sewer services are lower than in most other municipalities. As indicated by the materials presented in this booklet the City’s charges are lower -- both in absolute terms and as a percentage of per capita income -- than in most cities in this country.**

**To ensure that the need for future rate increases will be kept to a minimum, several initiatives are being pursued, the most important of which is the completion of a landmark watershed protection agreement. The negotiation of this agreement unites the City, New York State, the watershed communities, the United States Environmental Protection Agency (“EPA”) and key environmental groups in support of an enhanced protection program for the City’s drinking water supply. Implementation of the program will provide the system with a long-term waiver from EPA of the need to filter the system’s Catskill/Delaware water supply and will ensure that New Yorkers will enjoy high quality water into the 21st Century. This ambitious and historic initiative substitutes watershed management for the construction of a filtration plant. Protecting the water supply will cost a fraction of the estimated annual cost of filtration and represents a substantial real saving to the City, the system and its rate payers.**

**Additional cost saving initiatives include ongoing scrutiny of mandated programs to ensure that the assumptions on which such programs are based continue to be valid and the investment continues to be justified. Where we believe that either the objective of the program, the investment, or the timing of the investment no longer makes sense, DEP will attempt to renegotiate and restructure the commitment to place it on a more prudent and appropriate basis.**

**DEP has controlled the management of its non-capital operating budgets so as to ensure that only necessary increases are provided. As shown in the financial section of this report, only moderate increases are anticipated for system operating expenses.**

**DEP is also implementing several revenue management initiatives so as to ensure that the rate burden is shared fairly among all customers.**

## **Schedule For Water Board Rate Adoption**

- April 4, 1997**                      **Water Board Meeting To Approve Public Notice of 6.5% Increase**
- April 28, 1997**                      **Water Board Rate Hearing**  
**4:00 P.M., College of Insurance, 2nd floor auditorium,**  
**101 Murray Street, New York, New York 10007**
- May 6, 1997**                      **Water Board Meeting To Adopt Rates For Fiscal Year 1998**  
**9:00 A.M., 8th Floor Conference Room,**  
**75 Park Place, New York, New York 10007**
- May 1997**                      **Flat-Rate Bills Are Mailed Over Several Weeks Following Rate Adoption**
- July 1, 1997**                      **Fiscal Year 1998 Rates Become Effective**

# PROGRAM SUMMARY

## Fiscal Year 1998 Rate Proposals

- Increase of 6.5% in in-City water rates for all customers, flat-rate and metered
- Maintain in-city wastewater rates at 159% of water charges
- Increase wholesale water rate to upstate municipalities and water districts to ~~\$282.00~~ per million gallons  
274.97

## Fiscal Year 1998 Billing Policy Proposals

- Extend the Metering Transition Program to authorize the continuation of unmetered billing for residential premises with large service lines to June 30, 1998.
- Modify the Window of Opportunity Program, which provides reimbursement to owners of premises with large service lines who independently contract with licensed plumbers for their meter installation, to expand eligibility to include owners of residential premises with small service lines less than 1½" in diameter, and to any premise requiring a pit meter.
- Discontinue accepting new applications for new entries into the Retroactive Transition program after June 30, 1997. All properties currently enrolled in the program, or enrolled before the specified deadline, will continue to be eligible to receive this alternative billing.
- Eliminate the availability of adjustments to bills based on estimated consumption where the water and wastewater lien based on such estimated consumption has previously been sold.
- Permit the assessment of wastewater charges on any premises required to be connected to the wastewater system, regardless of whether such connection has actually been made.
- Authorize the Commissioner to accept an owner self-read and an affidavit from the buyer and seller affirming the read in lieu of special meter reading fee.

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(SEE 6/11/97  
EXHIBIT)

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## Revenue Enhancement/Sharing The Rate Burden Fairly

DEP has implemented several programs designed to improve the efficiency of billing operations and increase the collection of revenues from customers so that the rate burden will be shared fairly.

### Major Account Unit

Large customers can have a significant impact on system revenues. A higher level of customer service for those accounts that are relatively few in number but significant in terms of the proportion of revenue generated is a common practice in most business enterprises. This fact has been recognized by the formation of a specialized unit within DEP's Bureau of Customer Services dedicated to the efficient administration of billing and collection services for these customers. The unit focuses on identifying major customers with substantial service demands and financial impact, initiating early problem resolution and regularizing the billing routine so that revenues are collected more promptly and effectively.

### Testing Program To Search For Unbilled Customers

Large data bases are often infused with small error rates. With over 800,000 water and sewer accounts an error rate of 1% could mean 8,000 accounts underbilled or not billed at all. This initiative consists of matching the water and sewer customer account data file with the Department of Finance's real estate tax property file to ensure that all properties receiving water and sewer services are being billed.

### Testing Program To Search For Customers Not Billed For Sewer Services

This initiative consists of searching for accounts which are connected to the sewer system but not billed for the service. It is believed that over the years as the City extended sewer service to areas formerly served by septic systems, a certain percentage of owners connected to the system without going through the permit process.

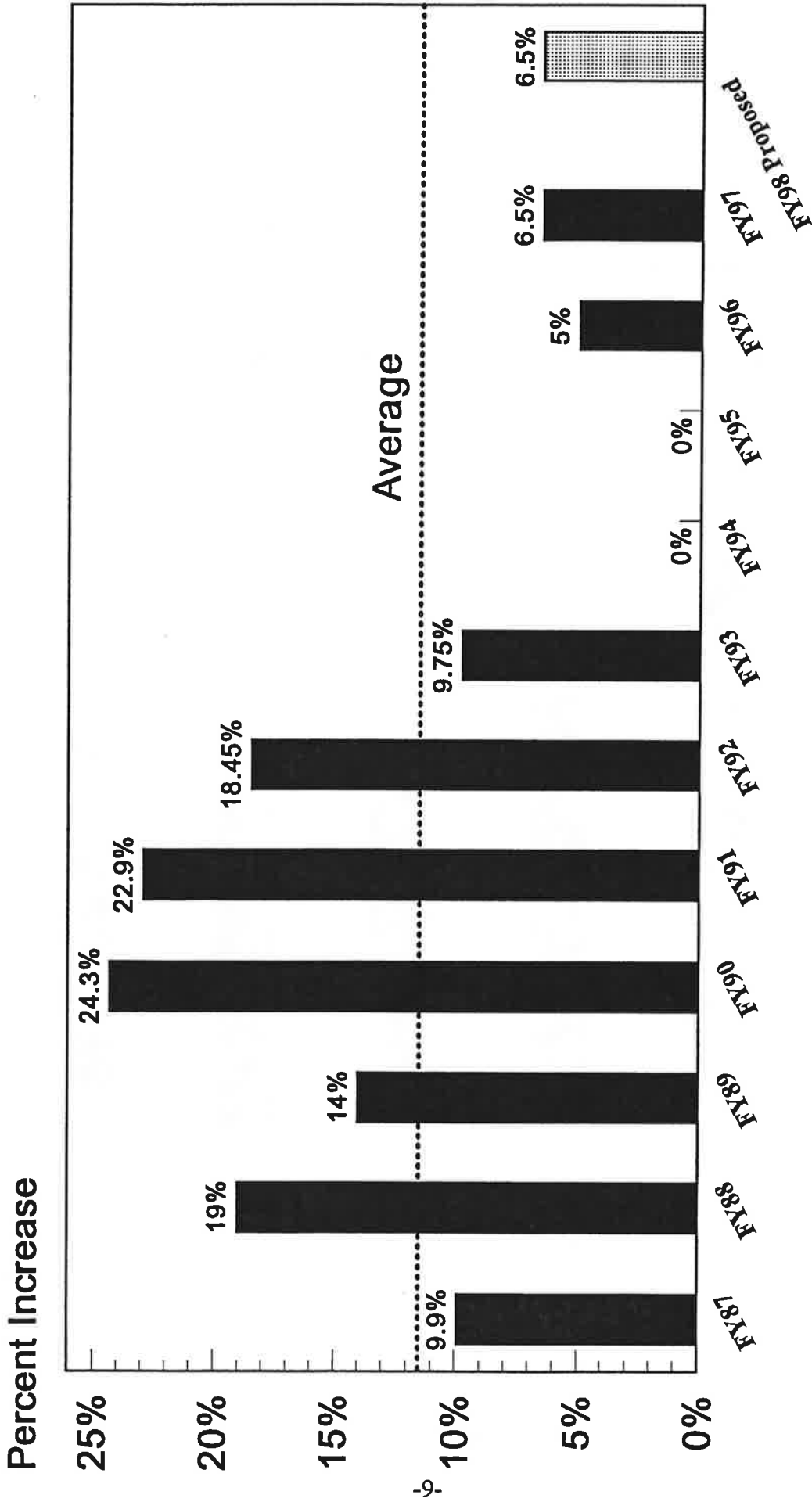
### Outreach Programs

This program, coordinated by the Mayor's Community Assistance Unit in cooperation with local community boards, brings customer service representatives to convenient locations in each community to resolve billing problems.

### Lien Sales

In FY 96, the Department of Finance ("DOF") initiated a program to sell the City's portfolio of tax liens created by unpaid real estate taxes. DOF's lien sale program included the criteria that the unpaid taxes be at least one year delinquent and that the total delinquency exceed a specified threshold. Any property lien which was sold was subject to having all unpaid and lienable charges of the City, including unpaid water and wastewater charges sold. As a consequence, the Water Board realized \$25.3 million from DOF's FY96 tax lien sale. A value comparable to last year's is anticipated to be realized from DOF's FY97 lien sale program.

# NYC Water and Wastewater Rate History



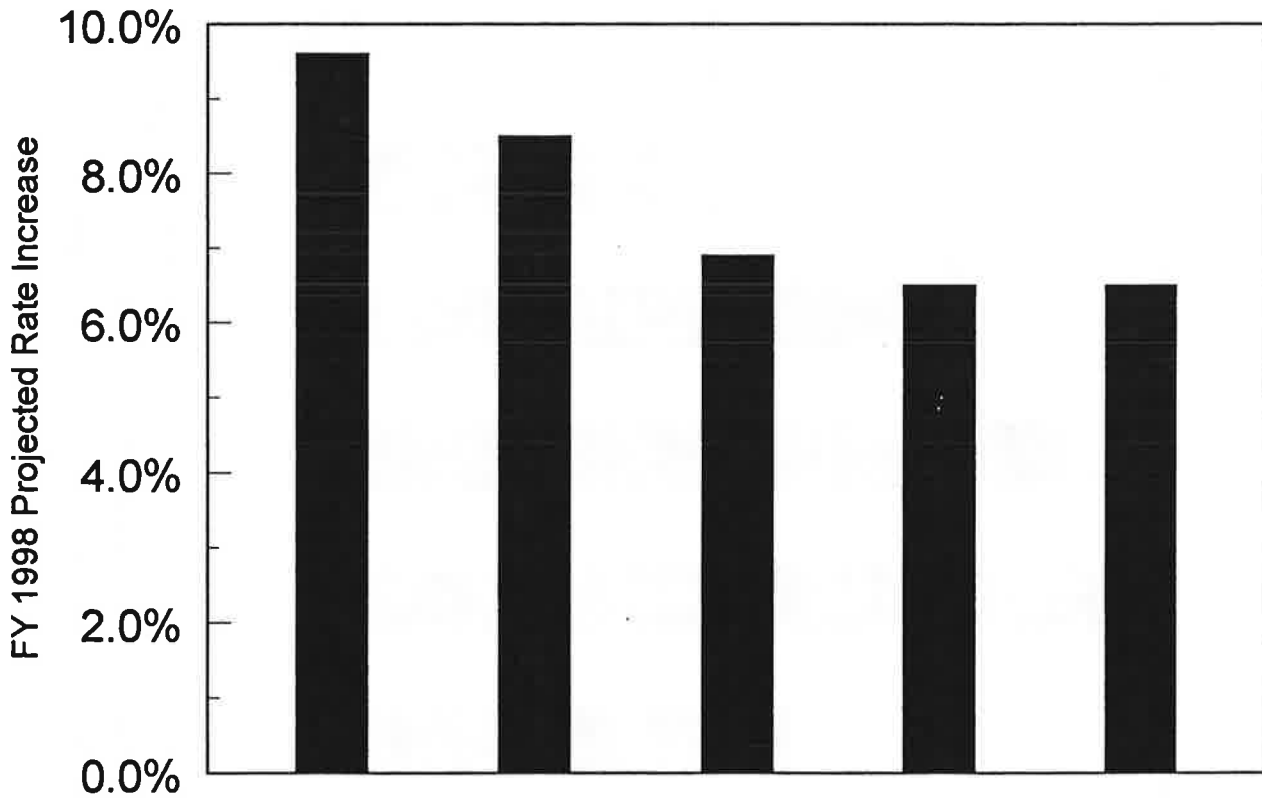
## Fiscal Year

- No increases in FY94/95 resulted from overestimating cost of land disposal of sludge and the resulting accumulation of surpluses
- Average annual increase over the period is 11.4%

# Declining Rate Trend

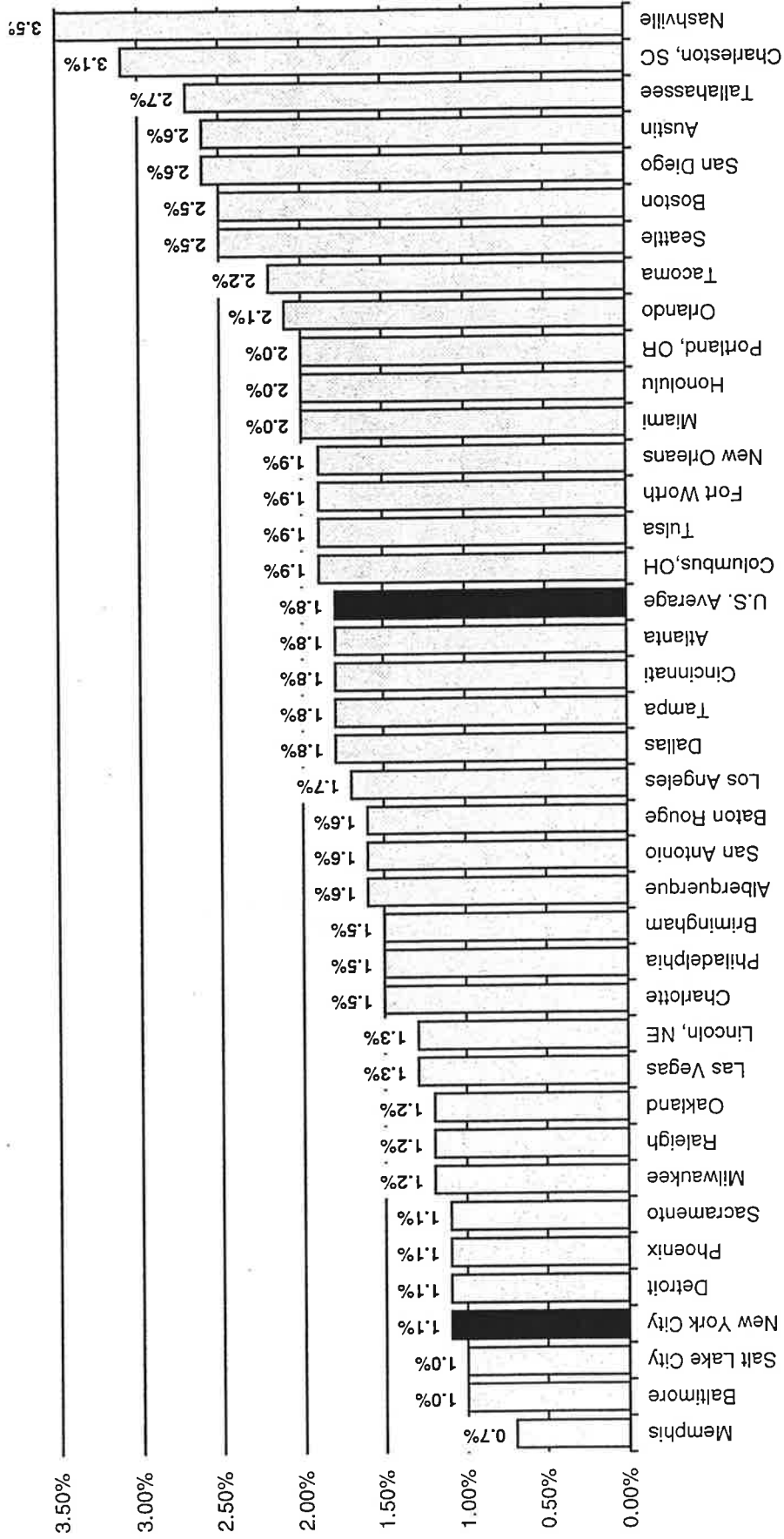
Chart and data illustrate the trend in rate projections for FY 1998 during the term of the Giuliani Administration.

Source : Water Finance Authority Official Statements.



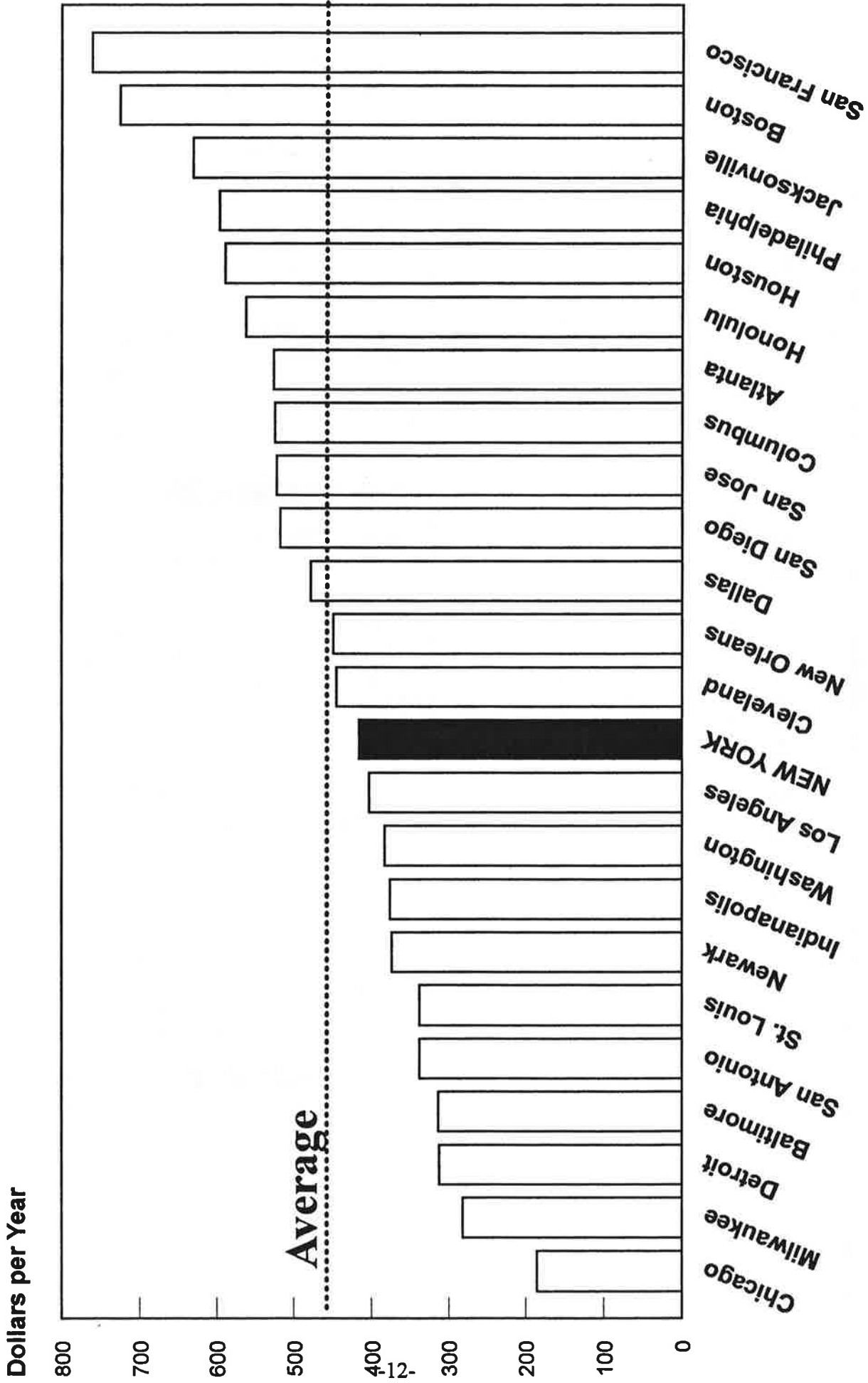
Nov 1993	Dec 1994	May 1995	May 1996	Current
9.6%	8.5%	6.9%	6.5%	6.5%

## Residential Water and Sewer Bills as a Percentage of Per Capita Income



Source: Rattelis Environmental Consulting Group Inc., Rattelis Environmental Consulting Group 1996 Water and Wastewater Rate Survey. Charlotte, NC.; Rattelis Environmental Consulting Group Inc. 1996; Department of Commerce Survey of Current Business.

# Annual Water & Wastewater Charges Residential - Fiscal Year 1998

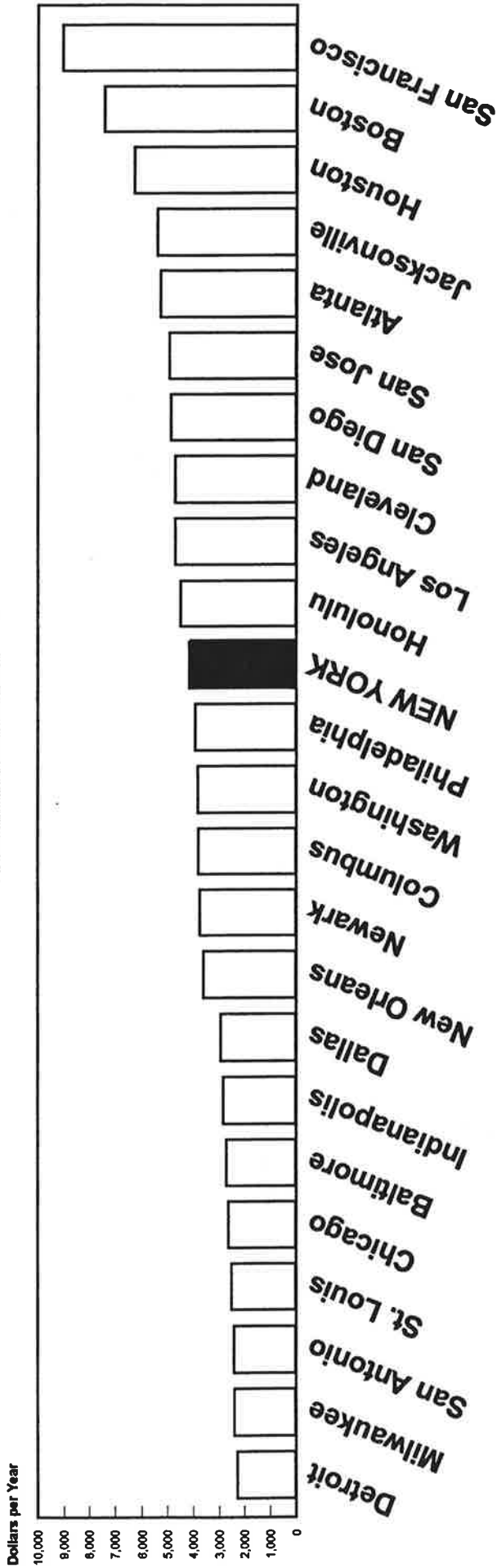


Annual Charges for All Cities Based on  
Consumption of 100,000 Gallons per Year

New York Charges = \$416  
Average 24 Cities = \$460

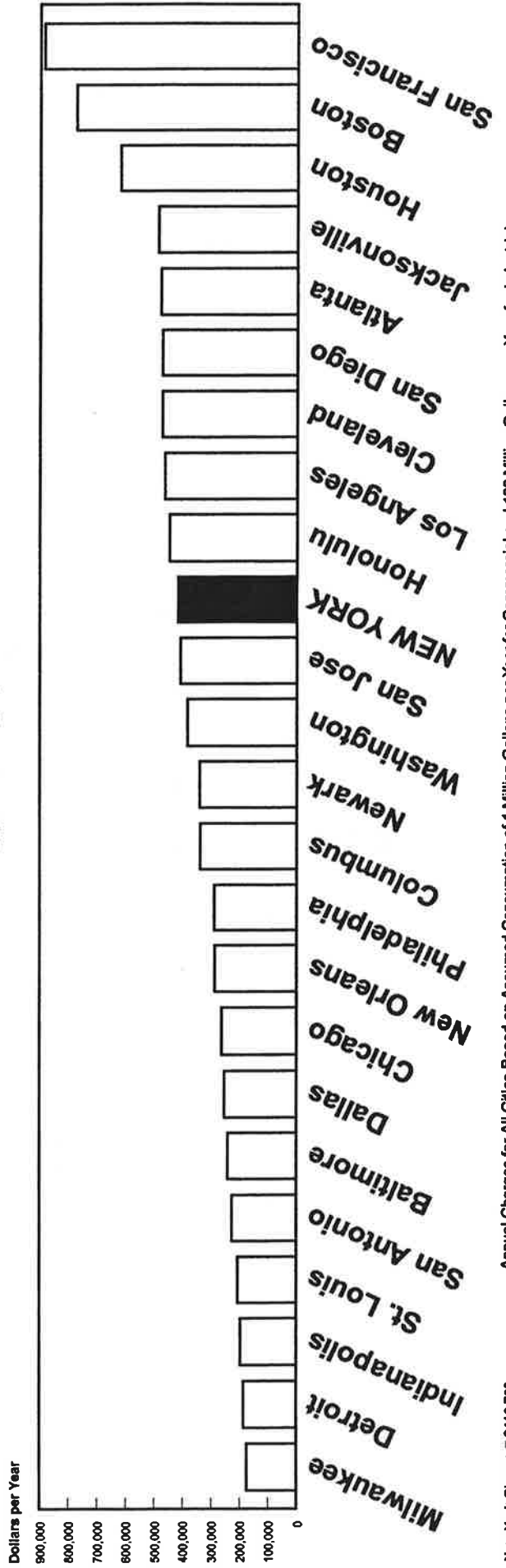
# Annual Water & Wastewater Charges - Fiscal 1998

## Commercial



New York Charge = \$4,167  
Average 24 Cities = \$4,199

## Industrial



New York Charge = \$416,703  
Average 24 Cities = \$397,810

Annual Charges for All Cities Based on Assumed Consumption of 1 Million Gallons per Year for Commercial and 100 Million Gallons per Year for Industrial

## Average Annual Customer Charges

(Combined water/wastewater charge)

<u>Flat-Rate Customers</u>	<u>FY97 Average</u>	<u>FY98 Average</u>	<u>Change</u>
Single-Family Residential	\$440	\$469	\$29
Two-Family Residential	\$684	\$728	\$44
Walk-Up Apartments	\$2,094	\$2,230	\$136
Charge/Dwelling Unit	\$315	\$335	\$20
Elevator Apartments	\$23,560	\$25,091	\$1,531
Charge/Dwelling Unit	\$357	\$380	\$23

### Metered Customers: Charges per 100 cubic feet

#### Residential & Commercial

Water	\$1.13	\$1.20	\$0.07
Wastewater	\$1.80	\$1.91	\$0.12
Combined	\$2.93	<del>\$3.12</del> 3.11	\$0.19

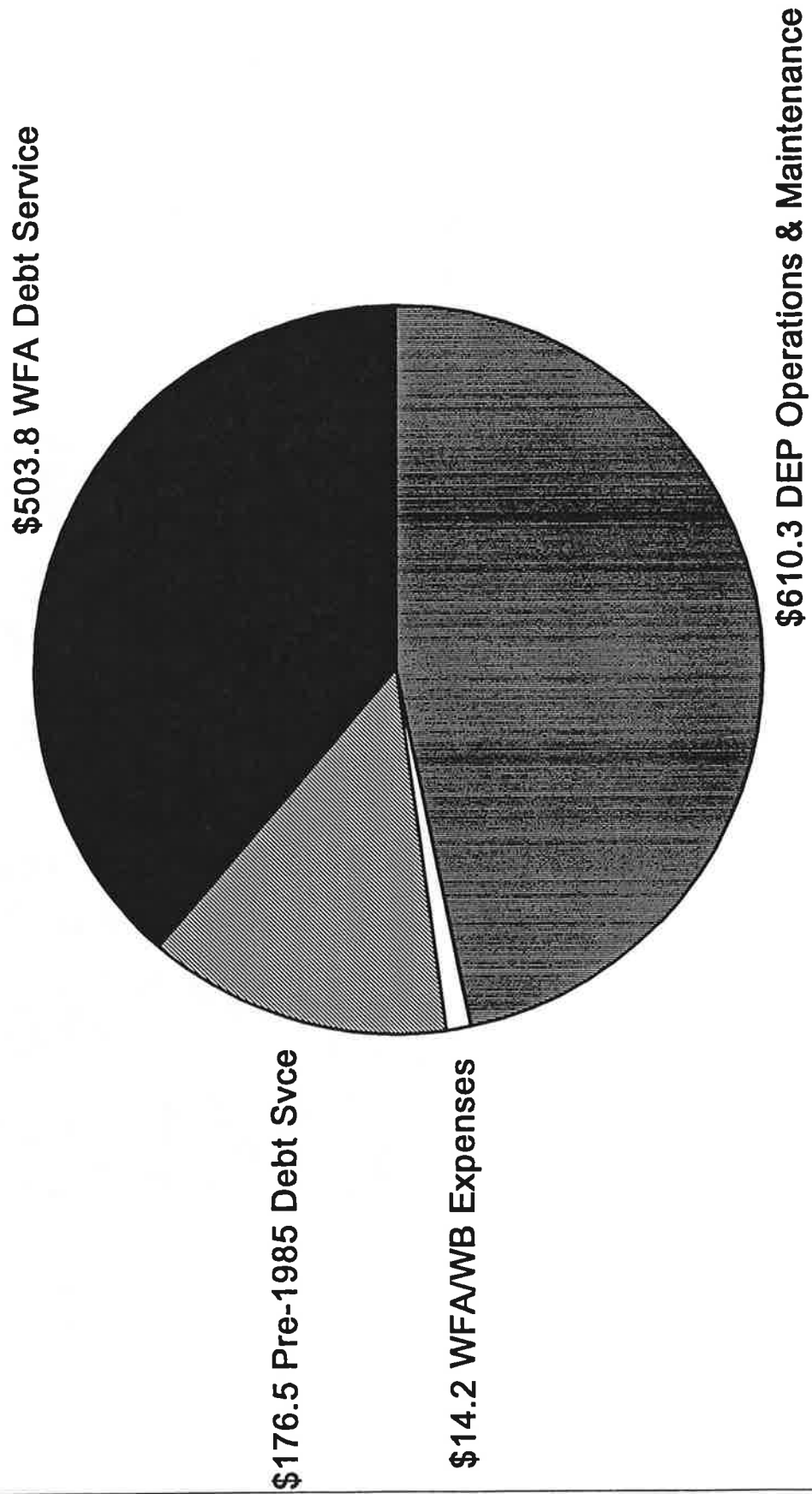
### Typical Metered Charges per Dwelling Unit

Single Family (100,000 gallons)	\$391	\$417	\$26
Multifamily (85,000 gallons)	\$333	\$354	\$21

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(see old exhibit) w/...*

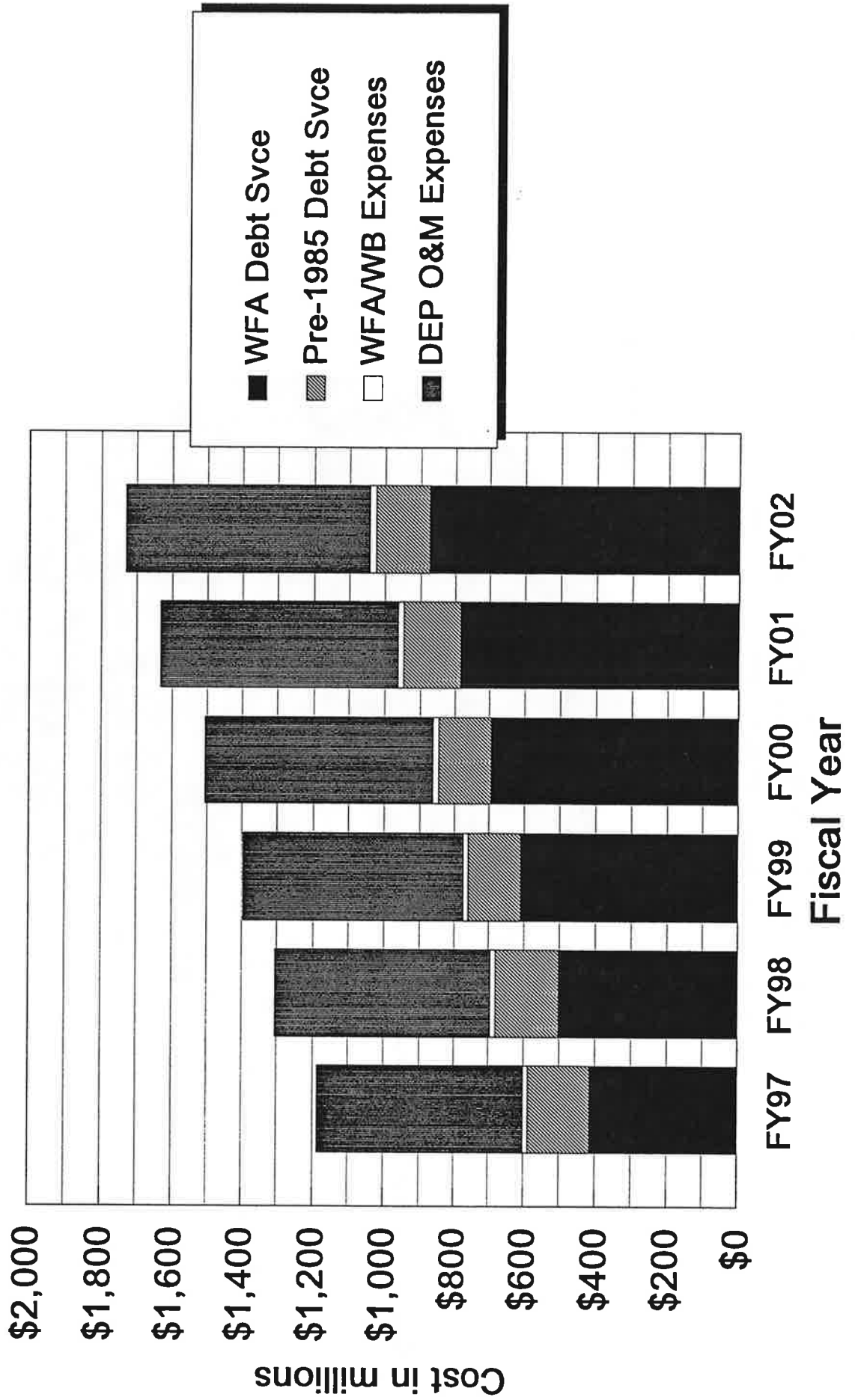
# Water Board Expenses - FY98



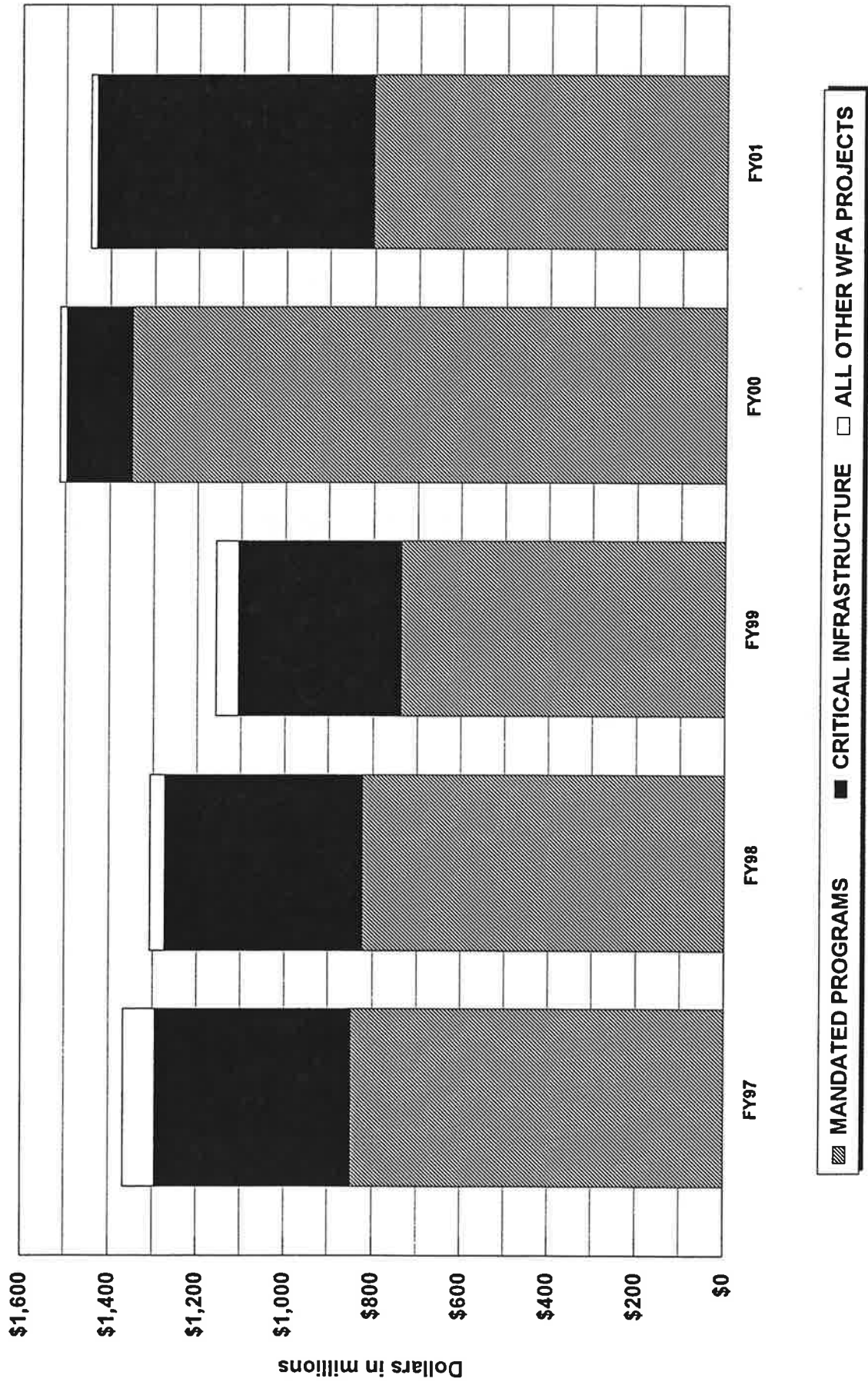
in millions



# Cost of Service Components/Projected



## Capital Program Components Mandated vs. Critical Infrastructure



# Water and Wastewater System Capital Program

## Water Finance Authority Funded Projects

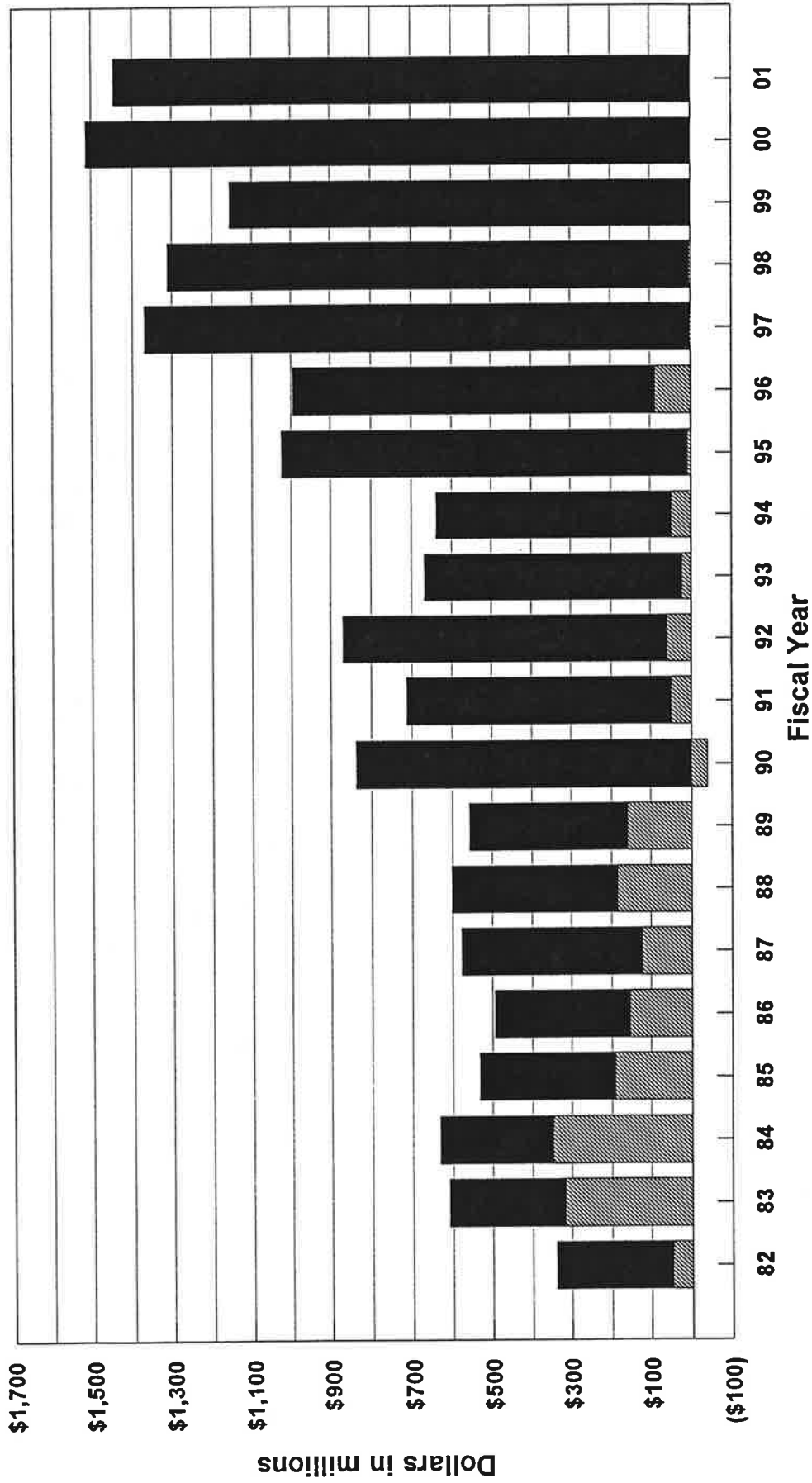
Program \$(000)'S

	FY97	FY98	FY99	FY00	FY01	5-Year Total
<b>Combined Sewer Overflow</b>	145,817	146,642	227,184	338,900	183,500	1,042,043
<b>Watershed Investments</b>	459,727	151,401	139,199	60,600	157,975	968,902
<b>Hillview Reservoir</b>	9,748	28,100	0	117,000	0	154,848
<b>Newtown Creek</b>	19,209	34,150	114,700	257,000	311,000	736,059
<b>Croton Filtration</b>	0	0	89,000	459,900	0	548,900
<b>Water Pollution Control Plants</b>	212,964	461,912	166,990	114,230	149,980	1,106,076
<b>MANDATED PROGRAMS</b>	<b>847,465</b>	<b>822,205</b>	<b>737,073</b>	<b>1,347,630</b>	<b>802,455</b>	<b>4,556,828</b>
	<b>62.02%</b>	<b>62.95%</b>	<b>63.78%</b>	<b>89.08%</b>	<b>55.53%</b>	<b>67.15%</b>
<b>Sewer Construction</b>	185,385	197,785	103,702	65,422	66,834	619,128
<b>In-City WaterMain Construction</b>	87,235	128,596	83,787	48,730	122,246	470,594
<b>Toilet Rebates</b>	124,000	0	0	0	0	124,000
<b>Meter Installations</b>	46,085	27,607	8,447	8,447	8,447	99,033
<b>Third Water Tunnel</b>	5,705	97,236	174,060	27,300	432,000	736,301
<b>CRITICAL INFRASTRUCTURE</b>	<b>448,410</b>	<b>451,224</b>	<b>369,996</b>	<b>149,899</b>	<b>629,527</b>	<b>2,049,056</b>
	<b>32.82%</b>	<b>34.54%</b>	<b>32.01%</b>	<b>9.91%</b>	<b>43.56%</b>	<b>30.19%</b>
<b>ALL OTHER WFA PROJECTS</b>	<b>70,458</b>	<b>32,767</b>	<b>48,657</b>	<b>15,238</b>	<b>13,139</b>	<b>180,259</b>
	<b>5.16%</b>	<b>2.51%</b>	<b>4.21%</b>	<b>1.01%</b>	<b>0.91%</b>	<b>2.66%</b>
<b>TOTAL WFA FUNDED PROJECTS</b>	<b>1,366,333</b>	<b>1,306,196</b>	<b>1,155,726</b>	<b>1,512,767</b>	<b>1,445,121</b>	<b>6,786,143</b>
	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

Amounts reflect January 1997 preliminary 10-year plan

# Construction Grant Assistance

Historical and Projected



Grants City Funds

Amounts reflect capital contract commitments and grant registrations

**Anticipated Water and Wastewater System Expenditures**  
(in 000's)

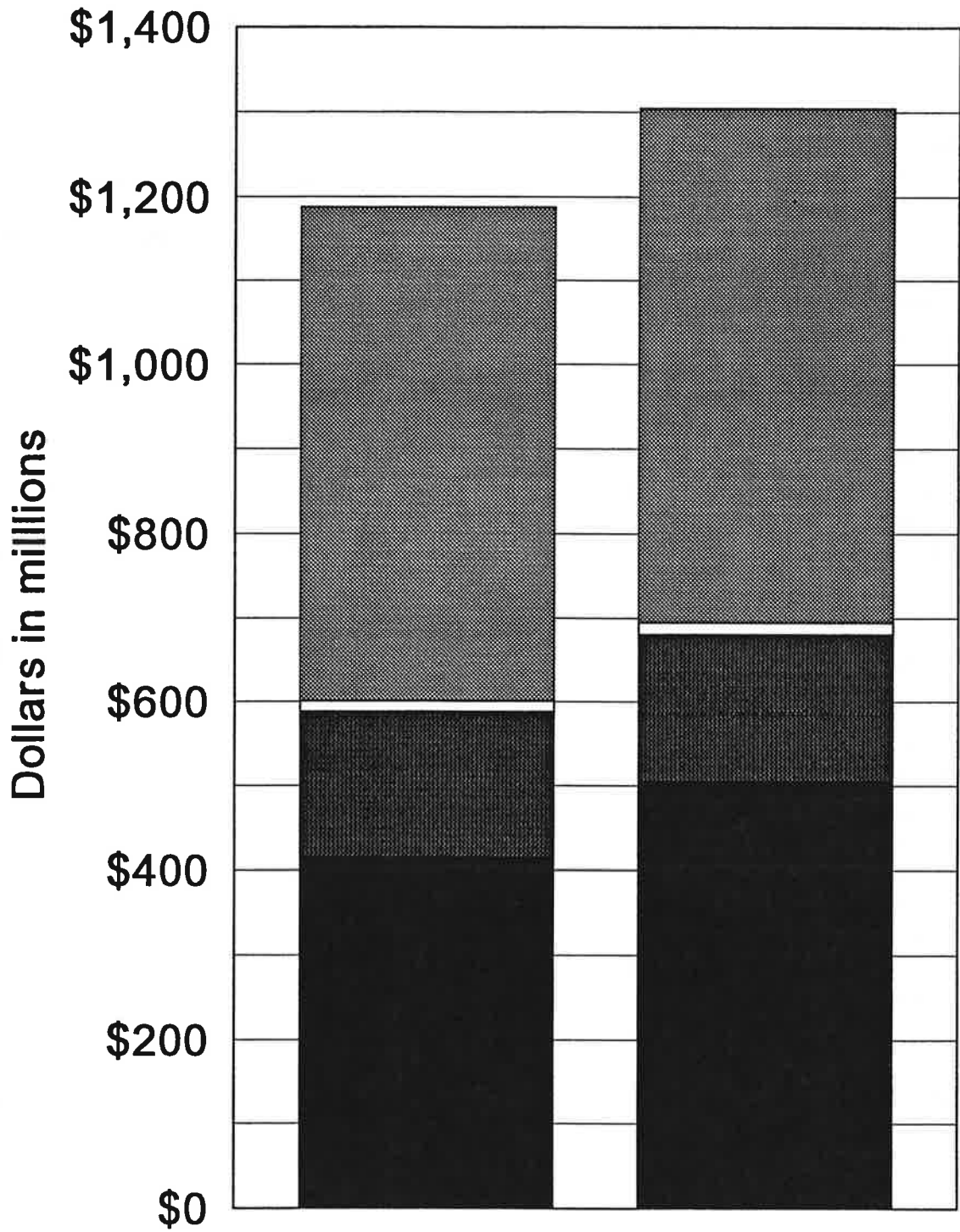
	<u>FY97</u>	<u>FY98</u>	<u>Change</u>
<b><u>WFA Debt Service</u></b>			
<b>First Resolution Bonds:</b>			
Outstanding Bonds	\$392,609	\$393,790	\$1,181
Anticipated Future Bonds	0	57,133	57,133
<b>Total First Resolution DS</b>	<b>392,609</b>	<b>450,923</b>	<b>58,314</b>
<b>Subordinate Obligations:</b>			
Short-Term Obligations	12,282	17,565	5,283
Outstanding Bonds	93,366	101,335	7,969
Anticipated Future Bonds	0	30,609	30,609
Less: EFC Subsidy and capitalized interest	(21,689)	(34,421)	(12,732)
<b>Actual Subordinate DS</b>	<b>83,959</b>	<b>115,088</b>	<b>31,129</b>
Less: EFC Subsidy on Outstanding Bonds	(17,314)	(16,724)	590
Less: Carryforward and Other Revenues	(43,360)	(45,464)	(2,104)
<b>Net Subordinate DS</b>	<b>23,285</b>	<b>52,900</b>	<b>29,615</b>
<b>Total Debt Service</b>	<b>415,894</b>	<b>503,823</b>	<b>87,929</b>
<b><u>Operating Expenses</u></b>			
Authority/Board Operations	12,900	14,200	1,300
Water System	235,662	257,012	21,350
Wastewater System	370,697	383,603	12,906
Indirect Expenses	16,168	16,653	485
Judgments/Claims	3,000	3,000	0
<b>Total Operating Expenses</b>	<b>638,427</b>	<b>674,468</b>	<b>36,041</b>
Less: Trust Account Withdrawals	(12,000)	(50,000)	(38,000)
Less: Credit for Prior Yr Overpayment	(26,329)		26,329
<b>Net Operating Expenses</b>	<b>600,098</b>	<b>624,468</b>	<b>24,370</b>
Rental Payment	172,524	176,477	3,953
<b>Total Expenses</b>	<b>772,622</b>	<b>800,945</b>	<b>28,323</b>
<b>Total Expenditures</b>	<b><u>1,188,516</u></b>	<b><u>1,304,768</u></b>	<b><u>116,252</u></b>
<b><u>Revenues</u></b>			
<b>Operating Revenues:</b>			
User Payments	1,139,002	1,237,545	98,543
Upstate Revenues	9,112	10,023	911
Miscellaneous Revenue (Permits, etc.)	6,722	7,058	336
Miscellaneous Interest Income	20,000	25,000	5,000
Interest Income on System Funds	45,500	38,196	(7,304)
<b>Revenues Available for Debt Service</b>	<b>1,220,336</b>	<b>1,317,822</b>	<b>97,486</b>
Additional Interest Income	11,299	12,890	1,591
<b>Gross System Revenues</b>	<b><u>1,231,635</u></b>	<b><u>1,330,712</u></b>	<b><u>99,077</u></b>
<b>Surplus</b>	<b>43,119</b>	<b>25,944</b>	<b>(17,175)</b>

## Anticipated Water and Wastewater System Costs

(in 000's)

	FY 1998	Water Costs	Wastewater Costs
<b><u>WFA Debt Service</u></b>			
<b>First Resolution Bonds:</b>			
Outstanding Bonds	393,790	132,628	261,162
Anticipated Future Bonds	57,133	26,007	31,126
<b>Total First Resolution DS</b>	<b>450,923</b>	<b>158,635</b>	<b>292,288</b>
<b>Subordinate Obligations:</b>			
Short-Term Obligations	17,565	7,996	9,569
Outstanding Bonds	101,335		101,335
Anticipated Future Bonds	30,609		30,609
Less: EFC Subsidy and capitalized interest	(34,421)		(34,421)
<b>Actual Subordinate DS</b>	<b>115,088</b>	<b>7,996</b>	<b>107,092</b>
Less: EFC Subsidy on Outstanding Bonds	(16,724)		(16,724)
Less: Carryforward and Other Revenues	(45,464)		(45,464)
<b>Net Subordinate DS</b>	<b>52,900</b>	<b>7,996</b>	<b>44,904</b>
Rental Payment	176,477	102,824	73,653
<b><u>Operating Expenses</u></b>			
Authority/Board Operations	14,200	7,100	7,100
Water System	257,012	257,012	
Wastewater System	383,603		383,603
Indirect Expenses	16,653	6,681	9,972
Judgments/Claims	3,000	1,500	1,500
<b>Total Operating Expenses</b>	<b>674,468</b>	<b>272,293</b>	<b>402,175</b>
Less: Trust Account Withdrawals	(50,000)		(50,000)
<b>Net Operating Expenses</b>	<b>624,468</b>	<b>272,293</b>	<b>352,175</b>
<b>Total Expenditures</b>	<b><u>1,304,768</u></b>	<b><u>541,748</u></b>	<b><u>763,020</u></b>

# Water/Wastewater System Cost Components



	FY97	FY98
WFA Debt Service	\$415.9	\$503.8
Pre-1985 Debt Svce	\$172.5	\$176.5
WFA/WB Expenses	\$12.9	\$14.2
DEP O&M	\$587.2	\$610.3
<b>Total</b>	<b>\$1,188.5</b>	<b>\$1,304.8</b>

## Rate Advisor's Conclusions

- **The 6.5% increase in water rates and charges proposed by the Board will yield anticipated revenues for Fiscal Year 1998 that are sufficient to cover the expected costs of providing water service and wastewater service.**
- **The current ratio of the Board's charges for water service and wastewater service approximates the current cost of providing water service and wastewater service.**
- **The Billing Policy Proposals being considered by the Board are not anticipated to significantly affect Board revenues.**



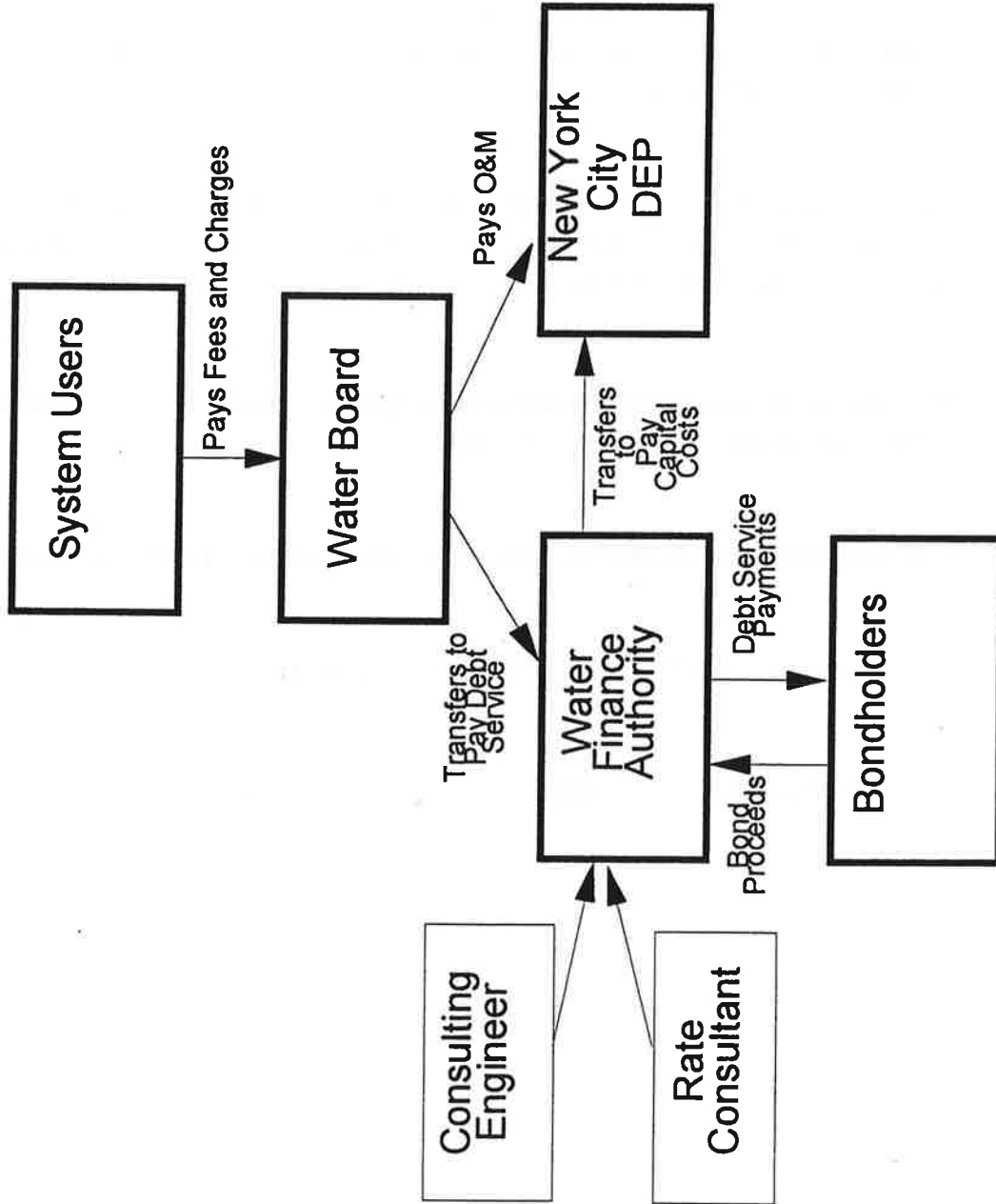
## **Process For Water Board Rate Adoption**

- **Board must adopt rates which will satisfy the revenue requirements of the system**
- **Water Finance Authority projects debt service on bonds issued after 1985 to finance water and wastewater capital projects and certifies the FY 1998 amount to the Water Board**
- **City Office of Management and Budget projects DEP's operating and maintenance expenses and certifies the FY 1998 amount to the Water Board based on the Mayor's Executive Budget**
- **City projects debt service on General Obligation bonds issued prior to 1985 to finance water and sewer capital projects based on information received from the Office of the Comptroller and certifies the FY 1998 amount to the Water Board**
- **Consulting engineer must certify that expenses are reasonable and appropriate**
- **Board must hold a public hearing**

## **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**

# Water and Wastewater System Financing



# Description Of The Water System And The Wastewater System

## The Water System

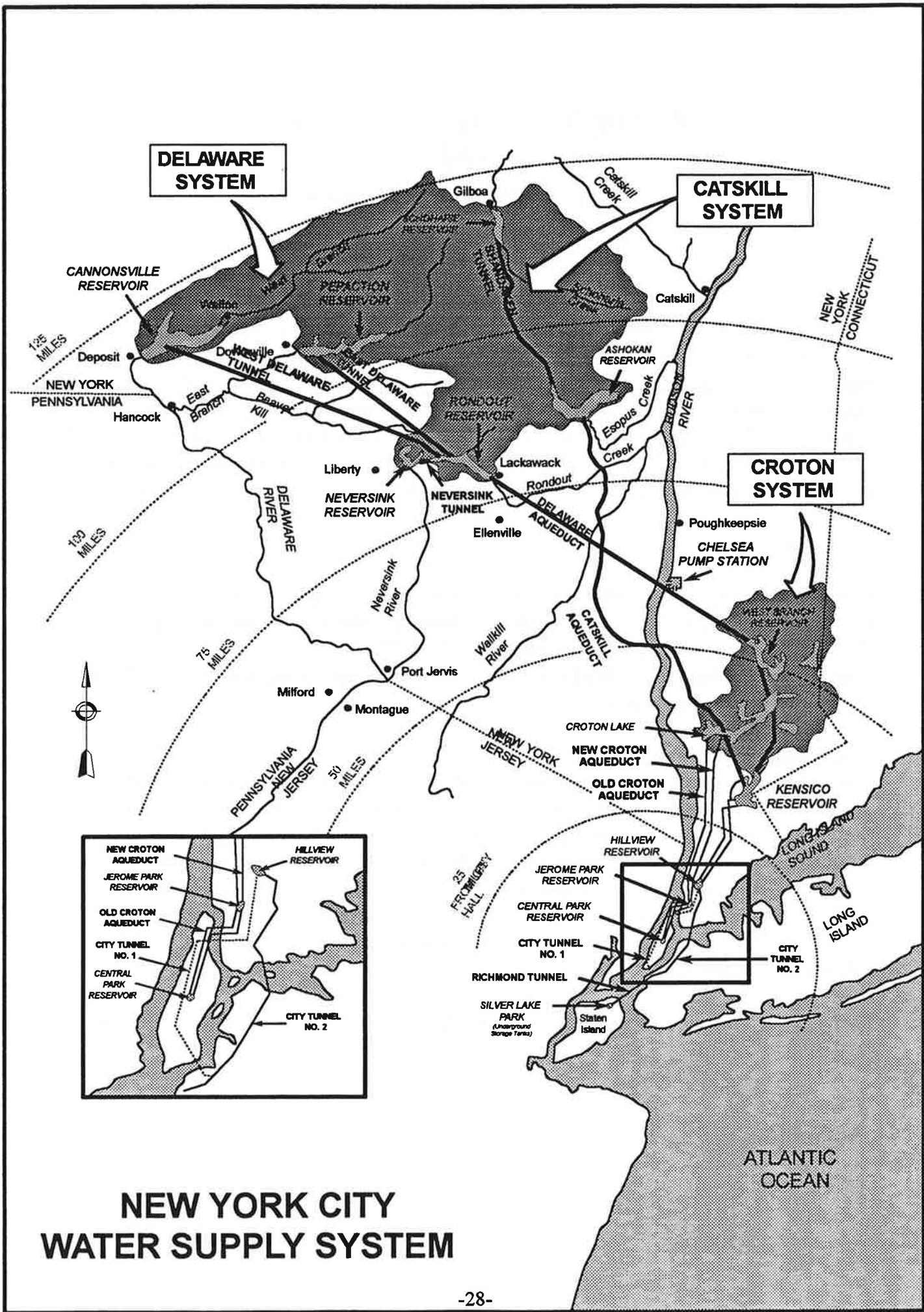
Water for the System is impounded at three upstate reservoir systems: the Croton, Catskill and Delaware watersheds. There are 18 reservoirs and three controlled lakes with a storage capacity of 550 billion gallons. The Water System provides an average of 1,432 million gallons per day to customers within the City and in upstate areas. 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 6,048 miles of pipe, 88,633 mainline valves and 103,661 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, 90,000 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 1,500 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.



**Plant Location**                      **Capacity (MGD)**

**MANHATTAN**

Wards Island	250
North River	170

**BRONX**

Hunts Point	200
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**BROOKLYN**

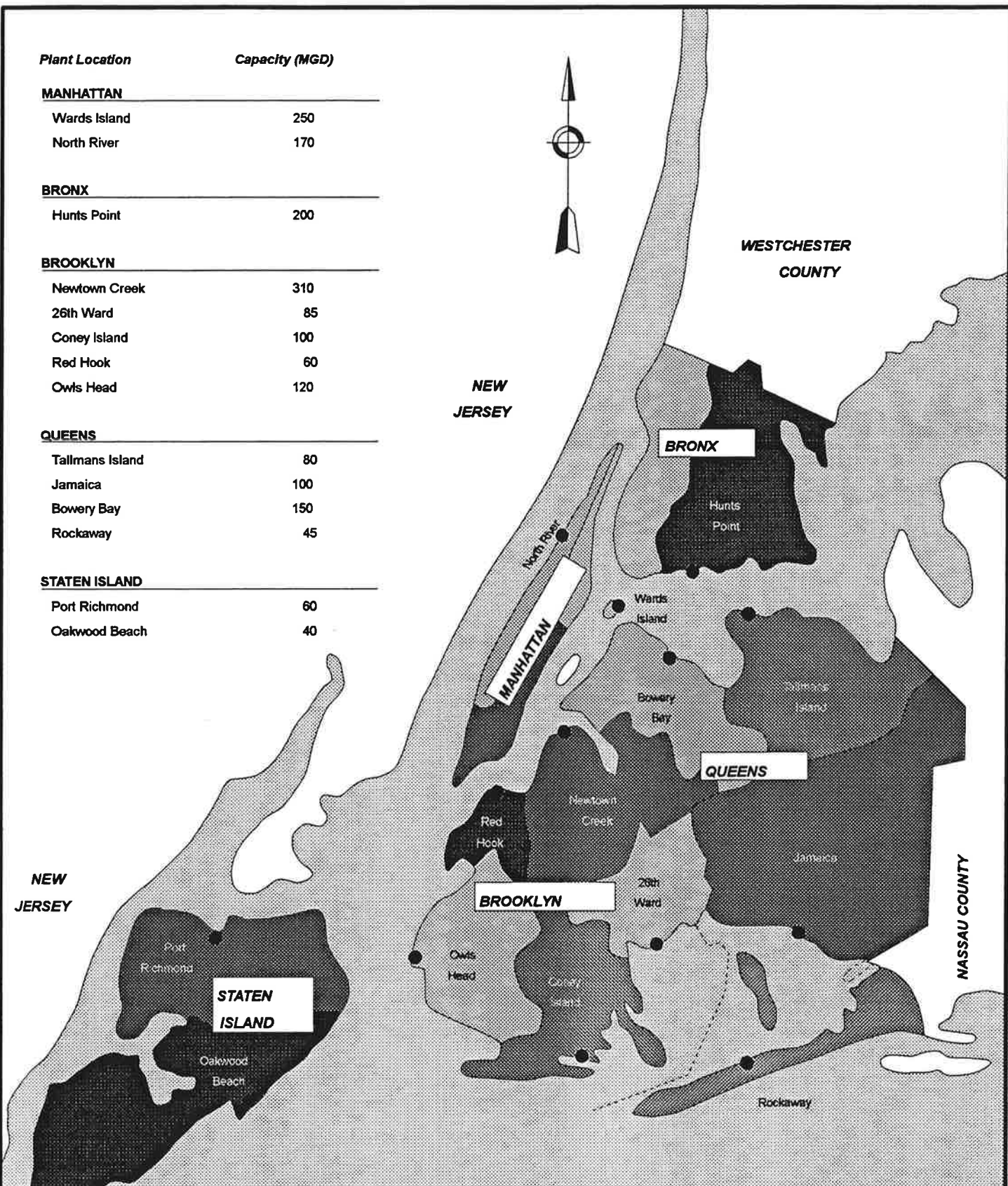
Newtown Creek	310
26th Ward	85
Coney Island	100
Red Hook	60
Owls Head	120

**QUEENS**

Tallmans Island	80
Jamaica	100
Bowery Bay	150
Rockaway	45

**STATEN ISLAND**

Port Richmond	60
Oakwood Beach	40



# NEW YORK CITY DRAINAGE AREAS AND WASTEWATER TREATMENT PLANTS

● Indicates Plant Location Within Drainage District

