NEW YORK CITY WATER BOARD

PUBLIC INFORMATION REGARDING WATER AND WASTEWATER RATES

APRIL 2004

NEW YORK CITY WATER BOARD
Information Booklet

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Introductory Statement

The New York City Water Board ("the Board") has prepared this information booklet to acquaint the public with its rate and billing policy and regulatory proposals for Fiscal Year 2005 ("FY2005") and with the financial condition of the water and wastewater system and its budget for the upcoming year.

Public hearings concerning the proposals set forth herein 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 FY2005 rate proposal is to increase water rates by 5.5% percent. This proposal is consistent with and continues the Board's policy of promoting the lowest possible annual rate change that also allows a stable and predictable rate profile for future years. This approach seeks to avoid large fluctuations in year-to-year rate changes and the current proposal supports this objective. Last year at this time, it was anticipated that a 9.4% increase would be required for FY2005. Accordingly, this proposal represents a substantial improvement over those prior projections.

Several factors have impacted the development of the proposed rate for FY2005. These factors include the following.

Security

In recent years, DEP has taken a number of steps to enhance and augment its security arrangements in order to protect the water system, including water supply structures and facilities. These steps include, increasing the size of the DEP police force by approximately 70 officers, obtaining legislation authorizing the DEP police 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. The DEP Police Division has gone through a period of reorganization and expansion, resulting in a number of specialized subdivisions and units including the Environmental Enforcement Division; the Detective Bureau and Intelligence Division; the Special Projects unit, a full-time Aviation Unit surveying the entire watershed; and first-of-its kind Environmental Police Academy.

In addition, DEP has been consulting with other governmental agencies, including the Federal Bureau of Investigation and the U.S. Army Corps of Engineers, on longer-term plans to modernize and improve security systems. In response to the attacks on the World Trade Center, DEP, in concert with law enforcement authorities, immediately implemented certain further measures to protect the water system. These measures include increased frequency of patrols, restricting vehicular access to certain facilities, and more frequent monitoring of the water supply for contaminants. Increased security requirements have resulted in additional labor costs and related expenses for both the water and wastewater systems.

Property Taxes on Watershed Lands
The City owns over 100,000 acres of property in its watersheds in upstate New York. The preservation of underdeveloped land around the reservoirs helps reduce the potential for deterioration in the quality of water in the reservoirs. As part of its program to protect drinking water quality and avoid the potentially costly need to filter water from the Catskill/Delaware watershed, the City continues to expand its land holdings in the watersheds by either the outright purchase of property or through other techniques such as the purchase of conservation easements. Property taxes on City land are expected to exceed $84 million in FY2005. Such taxes will continue to increase in the future based on an increase in the size of the land holdings as well as annual property tax increases in watershed communities that typically exceed the rate of inflation.

Drought Emergency Status
Reduced precipitation in the watershed in 2001 and 2002 resulted in the declaration of a drought emergency by Mayor Bloomberg in April 2002. The drought emergency had the effect of reducing water consumption and revenues from metered consumption in FY2003 and increasing the operating expenses of the Water System due to the need to pump water from the Croton watershed and implement conservation initiatives.

Abundant precipitation during 2002 and 2003 refilled the City's reservoirs and relieved the water shortage and drought emergency condition. While no drought-related expenses are included in the proposed budget for FY2005, water consumption by metered customers has not returned to pre-drought levels.

Increases in Other Operating Expenses
Operating expense increases from FY2004 to FY2005 are anticipated for energy costs; especially those related to wastewater pumping and treatment facilities, health and safety-related initiatives and customer service enhancements.

Federal and State Mandates
Federal and State environmental mandates continue to drive system costs. Mandated capital infrastructure investments under the Clean Water and Safe Drinking Water Acts as well as negotiated consent decrees account for about 70% of the system's capital budget over the next five years. 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 infrastructure related capital mandates, mandated environmental health and safety programs are impacting operating costs as well.

Favorable Interest Rates
Current financial operations are continuing to benefit from the low interest rate environment. Low interest rates permit higher cost bonds to be refinanced at lower rates, allow new bonds to be sold at rates lower than projected and reduce the interest costs on outstanding variable rate debt. The NYC Municipal Water Finance Authority has refinanced $652 million in outstanding

bonds achieving approximately $4.2 million in debt service savings in FY2004 and FY2005. Present value savings from these refinancings amount to $69 million. Low interest rates by stimulating residential and commercial mortgage initiations and refinancing also benefit the system's revenue performance because outstanding liens from unpaid water charges must be satisfied in order to remove a potential title encumbrance.

New York City Water/Sewer Rates Remain Competitive

Although rates and charges for water and wastewater service in the City have increased in recent years, the information presented herein demonstrates that charges in the City are competitive with charges levied in other jurisdictions. In absolute dollars and as a percentage of median income, NYC charges for single-family residential customers rank in the lower half of the twenty-four large cities surveyed and are below the average of all of these cities. The increase in the rates and charges of other cities in the last year illustrates that many utilities in the water and wastewater industry are facing the same mandates and challenges that are driving rate increases within the City.

A typical single-family homeowner in the City is currently paying about $526 per year or $44 per month for water and sewer services. The proposed 5.5% increase will add about $28 per year or about $2.30 per month to the average bill. The new bill for combined water and wastewater services will be about $46 per month and is likely to be less that his/her average monthly charges for electric service and heating and probably less than most telephone and cable TV services as well.

Proposed Billing Policy Changes

In addition to the rate proposal for basic water and wastewater service and the rate for wholesale water service provided to municipalities and water districts north of the City, the Board is also considering certain billing policy changes. A description of these proposed changes can be found in the Program Summary contained in this booklet.

A significant new program initiative is the proposed establishment of a Comprehensive Water Reuse Program. The purpose of this program is to stimulate conservation by encouraging and assisting the new development and construction of properties with comprehensive water reuse systems. Water reuse systems represent an investment in facilities, technologies and processes that capture, treat and reuse a portion of the daily wastewater production thereby reducing the utilization of water and wastewater system resources. A survey of other jurisdictions shows that water reuse programs are being encouraged elsewhere as well.

DEP Program Overview

Water and Wastewater Capital Improvement Program
With the support of the Mayor, in FY2004, DEP was able to double its 10-year capital program to approximately $16 billion. This expanded program allocates substantial resources to the City's water supply infrastructure and to meeting DEP's commitments mandated by a variety of consent orders. The increased resources will provide adequate funding for continued compliance with Federal and State mandates, the protection of drinking water quality, the completion of work on the in-City portion of the Third Water Tunnel as well as the initiation of important new water conveyance tunnels required to secure long-term water conveyance capacity, and for sustaining the integrity of the water main and sewer collection networks in the City.

Among the capital investments to be made over the next ten years (2004-2013) are:

$1.6 billion to protect our upstate watersheds
The City is supporting a number of watershed protection programs in its Catskill and Delaware watersheds. These programs, which include everything from rehabilitating upstate septic systems to buying the land surrounding our system of reservoirs, help to ensure that the high quality of New York City's source waters remains that way for years to come. DEP reached a milestone in the Catskill/Delaware watershed protection program when it acquired more than 50,000 acres.

$1.7 billion to continue building the Third Water Tunnel and to begin construction of the Kensico Aqueduct
The City relies on infrastructure that is, for the most part, almost 100 years old to bring water from its upstate reservoirs. These two projects will allow the City to inspect and repair its older tunnels, while providing redundancy in the water supply system in case of emergency.

$1.3 billion to build a filtration plant for the Croton water system
Ten percent of the City's water comes from the Croton Reservoir system, which is located in the more populated counties of Westchester and Putnam, where pollution is more common and more difficult to control. The Croton filtration plant will ensure that water from the Croton system as continues to meet New York City's high standards for quality.

DEP successfully obtained passage of legislation to authorize the use of Mosholu Golf Course in Van Cortlandt Park for construction of a federally mandated water filtration plant for the Croton water supply. In addition, DEP is conducting a Supplemental Environmental Impact Statement ("SEIS") to determine which of three possible sites for the filtration plant is the best location – the two additional sites include another location in the Bronx and one in Westchester County. Should the Mosholu site be selected for the filtration plant, DEP has agreed to fund up to $240 million in capital improvement projects for parks in the Bronx, creating a green legacy for the borough.

$5.6 billion to upgrade sewage treatment plants in the City
The water in New York Harbor is the cleanest it has been in over 90 years. To continue that

progress and to meet the requirements of federal government mandates, the City must upgrade its older sewage treatment plants. Almost $2 billion of this amount will be used to improve water quality in Long Island Sound by reducing nitrogen, which will improve the environment for the fish and shellfish native to these waters.

$714 million to decrease the amount of raw sewage that flows from combined sewers into New York Harbor almost every time it rains
The City is building facilities to capture the overflows from combined sanitary and storm sewers before they can reach the Harbor and damage City beaches.

$450 million to build the Staten Island Bluebelt system and the new sewers that will connect to it.
The Bluebelt alleviates the need for even more expensive storm sewer networks in parts of Staten Island by preserving natural open spaces for stormwater management. In August 2003, Mayor Bloomberg announced an expansion in the program to include the Mid-Island areas of New Creek, South Beach and Oakwood Beach. The land acquisition program for 70 acres has already begun. The Bluebelt system will provide improved drainage for approximately 2,000 acres of surrounding lands and 30,000 residents in Midland Beach, Grant City and Todt Hill.

For more than 150 years, New Yorkers have invested in the infrastructure that provides residents and businesses with clean drinking water and the means to dispose of wastewater properly. DEP is continuing that tradition by taking meaningful steps to protect and improve this valuable legacy for generations to come.

Drinking Water Quality Protection Program
New York City obtains its drinking water primarily from three watersheds: the Croton system located primarily in Westchester County; the Catskill reservoir system located in Schoharie, Greene, Ulster and Orange Counties; and the Delaware reservoir system located in Delaware, Sullivan and Ulster Counties.

The City works with its upstate partners – groups like the Catskill Watershed Corporation, the Watershed Agricultural Council, and the Watershed Protection and Partnership Council – to implement its comprehensive watershed protection plan to ensure the high quality of New York City's drinking water supply at its sources.

These efforts include the following programs:

Watershed Agricultural Program
The Watershed Agricultural Program (WAP) is a comprehensive effort to develop and implement pollution prevention plans for commercial farms in the Catskill and Delaware Watersheds. DEP is looking to expand this program to farms located east of the Hudson River. To date, the City has invested $40 million in developing best management practices and whole farm plans in the watershed.

Forestry Program
Forests cover more than three-quarters of New York City's watersheds. In partnership with landowners, loggers and the forest industry, DEP supports a voluntary Watershed Forestry Program. As of April 2003, trained foresters completed management plans covering more than 55,000 privately owned acres. The City's funding commitment to the Forestry Program is over $4 million through June 2007.

Stream Management Program
DEP works with watershed communities and landowners to address the problems of Catskill mountain streams that affect water quality, including streambank and bed erosion, flood hazard risks and habitat degradation. The City has committed nearly $31 million to stream management and has worked to secure an additional $5 million from environmental groups and State and federal agencies.

Wastewater Infrastructure
For small communities in the Catskill/Delaware watershed, the costs of building and operating new sewage treatment plants are prohibitive. New York City has appropriated $87 million to finance the construction of seven new sewage treatment plants or community septic systems in watershed communities whose source water quality is most threatened by failing septic systems. The City will also provide funding for upgrades to existing municipal treatment plants to significantly reduce or eliminate the discharge of pathogens.

Septic System Rehabilitation
Septic systems are used to treat wastewater from homes and small businesses that aren't served by sewer systems and treatment plants. Very old and failing systems threaten both groundwater and surface water quality. Between 1997 and 2003, DEP contributed $13.6 million in program support to repair or replace failing septic systems. DEP will provide an additional $15 million for the next five years.

Stormwater Infrastructure
Contaminants such as metals, oils, nutrients from fertilizers and bacteria can be located on the surface of saturated soils or surfaces like rooftops. They are easily dislodged and carried by stormwater runoff into storm sewers, watercourses, and eventually into drinking water supply reservoirs. Funded originally by New York City in 1997 with $7.6 million, the Stormwater Retrofit Program supports the design, construction and maintenance of stormwater best management practices. In 2003, the City allocated an additional $7.5 million to extend the program through 2012.

Ultraviolet Disinfection for the Catskill and Delaware water supplies
The City is designing an ultraviolet (UV) light disinfection facility for the Catskill and Delaware water supplies. Once operational, this facility will inactivate certain waterborne pathogens. At present, plans for the filtration facility are in the early stage of design. Construction of the plant is scheduled to begin in 2005. The facility is expected to cost $547 million and will have the capacity of treating 2 billion gallons of water per day.

Water Delivery and Wastewater Collection
Replacement and reinforcement of the trunk mains and the distribution main system have improved water circulation, water pressure and system reliability. All areas of the City experience better water pressure now than twenty years ago and there are fewer water pressure emergencies now than in the past.

Water Tunnel No. 3, under construction since the 1970s, will provide redundancy for much of the City's distribution system. The thirteen-mile, Stage 1 section of the Tunnel was activated in 1998 and currently delivers water to the Bronx and upper Manhattan. The 10.5-mile Brooklyn/Queens leg of Stage 2 was completed in May 2001. Currently supply shafts that will feed water from this new section to the distribution system are under construction. It is anticipated that the Brooklyn/Queens section will begin delivering water to Staten Island, Brooklyn and Queens in 2007. Construction of the 8.5-mile leg of the Manhattan section of Stage 2 commenced in the summer of 2003, and it is anticipated that water delivery will begin in 2012.

The 10-Year Capital Improvement Plan now includes a project to construct a new aqueduct from the Kensico Reservoir in Westchester County to Hillview Reservoir in Yonkers. This deep tunnel construction will run approximately 16 miles and take ten years to complete. When finished, the new aqueduct will provide redundancy and security for the water transmission system between Kensico and the City line.

Improvements to the Staten Island water distribution network have increased system reliability and have enhanced fire protection as well. Extension of the sanitary sewer system on Staten Island continues each year connecting more homes and businesses to the City's wastewater system, thereby eliminating septic systems.

Wastewater Management
About 1.4 billion gallons of wastewater from homes, businesses, schools and streets in the five boroughs are treated each day at DEP's fourteen wastewater treatment plants. Purified effluent water is discharged back into the surrounding waterways.

According to the most recent Harbor Survey, water quality in New York Harbor and the surrounding rivers has shown great improvement over the past thirty years. The Harbor Survey is an ongoing monitoring effort of the City's waterways that has been in existence since 1909. The Survey monitors 17 water quality parameters at 53 sampling stations in New York Harbor. Significant improvement can be seen following treatment plant expansions and upgrades in 1985 and the start-up of the City's last two wastewater pollution control plants in 1988. Further improvements since 1989 are attributed to increased surveillance and improved operation and maintenance for all of the City's sewage treatment plants. Improved conditions in the Harbor are evidenced by fewer incidences of beach closings than in the past and the return of several species of migratory birds and fish to Harbor waters.

DEP has initiated an Urban Watershed Planning Program that focuses on those areas within the harbor that remain impacted. This program will look at certain waterbodies and their drainage basins and will develop a comprehensive plan for each. Some of the projects in the program include construction of combined sewer overflow facilities for Paerdegat Basin in Brooklyn, Flushing Bay in Queens, and the Bronx River, which will substantially improve the surrounding waterbodies and the communities in which they are located.

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.

The Staten Island Bluebelt program provides environmentally and economically prudent stormwater management for the borough's South Richmond area. Benefits of the program include improved drainage and flood control, enhancement of the natural environment, wetland restoration and improved stream quality. A similar program has commenced for New Creek in the Midland Beach neighborhood of Staten Island.

Schedule for Water Board Rate Adoption

April 2, 2004 — **Water Board Meeting to Approve Public Notice of 5.5%**

Rate Hearing Dates and Locations

Borough	Location	Date/Time
Bronx	Herbert H. Lehman College Carman Hall, Rm. B-08 250 Bedford Park Boulevard West Bronx, NY 10468	Friday April 23, 2004 9:30 A.M.
Brooklyn	Brooklyn College Student Center-Alumni Lounge, Rm. 409 (opposite Whitehead Hall) East 27th Street and Campus Road Brooklyn, NY 11210	Monday April 26, 2004 9:30 A.M.
Staten Island	College of Staten Island Center for the Arts, Recital Hall 2800 Victory Boulevard Staten Island, NY 10314	Monday April 26, 2004 3:00 P.M.
Queens	Department of Environmental Protection Lecture Room, 6th Floor 59-17 Junction Boulevard Flushing, NY 11373	Tuesday April 27, 2004 9:30 A.M.
Manhattan	St. John's University - Manhattan Room 118 101 Murray Street New York, NY 10007	Tuesday April 27, 2004 5:00 P.M.

May 7, 2004 — **Water Board Meeting to Adopt Rates for Fiscal Year 2005**
St. John's University – Manhattan
Room 118
101 Murray Street
New York, NY 10007

May 2004 — **Flat-Rate Bills are Mailed Over the Several Weeks Following Rate Adoption**

July 1, 2004 — **Fiscal Year 2005 Rates Become Effective**

Program Summary

FY 2005 Rate Proposals

- Increase in-City water rates by 5.5% 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 an amount not to exceed $600.00 per million gallons

FY 2005 Billing Policy Proposals and Changes to Miscellaneous Fees

Multiple Family Conservation Program (MCP) Application Extension
The current deadline to file for entry into this program is 12/31/04. The Board proposes to extend the deadline to apply for MCP by one year to 12/31/05. The reason for the extension is to enable DEP to implement a program to assist toilet fixture replacement for those accounts eligible for and opting for MCP, and requiring toilet fixture replacement to qualify.

Transition Program for Residential Premises with Six or More Dwelling Units and Pre-Transition Program Flat-Rate Charge
In conjunction with MCP, these programs were set to expire on June 30, 2005, and in conjunction with the MCP extension described above, their expiration will also be extended one year to expire June 30, 2006. After June 30, 2006, properties currently in these programs must have filed an application and been approved for eligibility into MCP or they will be converted to metered billing.

Exceptions to Standard Wastewater Allowances
Customers may submit an application for an Exception to the Standard Wastewater Allowances if their commercial process is such that the water supplied is not entirely discharged into the wastewater system and the commercial process is not included in the list of standard wastewater allowances. Current practice provides an allowance equal specifically to the demonstrated proportion of wastewater retained in the commercial process as verified and approved by DEP. The contemplated change is to round the approved allowance up or down to the nearest 5% allowance percentage. This will allow DEP to utilize their automated billing system to discount the wastewater charges for customers, rather than the current practice of producing manual bills.

Comprehensive Water Reuse Program
The Board will establish a billing program to encourage the reuse of water and wastewater within newly developed properties. The proposed incentive is anticipated to include a 25% reduction in water charges and eligibility for an Exception to the Standard Wastewater Allowances irrespective of residential or commercial designation for properties that meet

specific requirements. Eligibility criteria include the following:

- The presence of an on-site wastewater treatment system(s)
- The capture and reuse of stormwater
- Metering of all water uses
- Property is fully equipped with low-consumption water fixtures, including ultra low-flow toilets, low-flow showerheads and faucets, and high efficiency clothes washing machines, and
- The property is in compliance with all governmental requirements including the acquisition of any required operating permits.

Dishonored Check Charge

It is proposed that the charge imposed for dishonored checks be increased from $15 to $20 to be in conformity with Executive Order No. 45 dated February 24, 2004 wherein the charge for dishonored payments to the City of New York was set at $20.

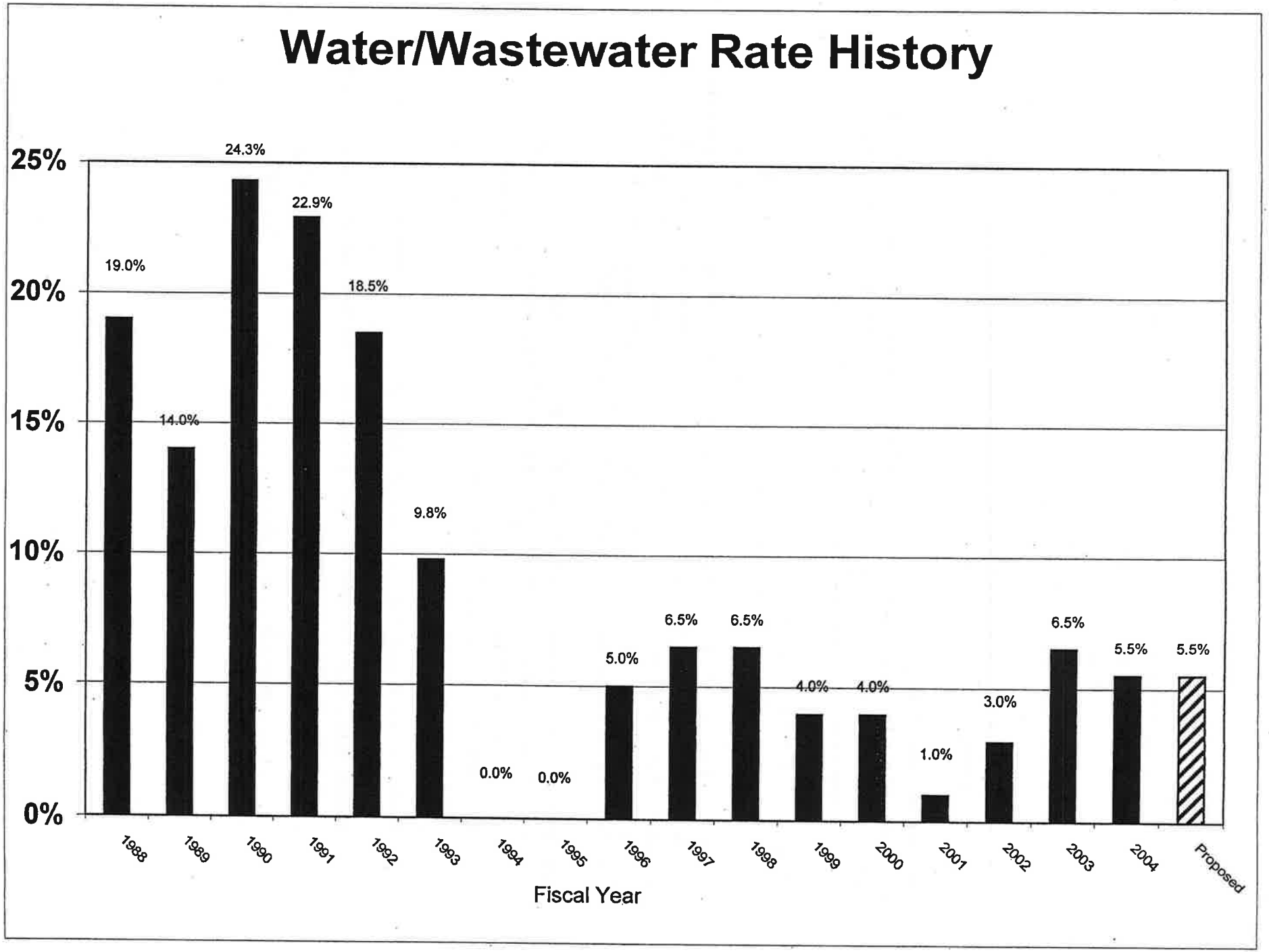
Frontage Charge for Hose Bibs

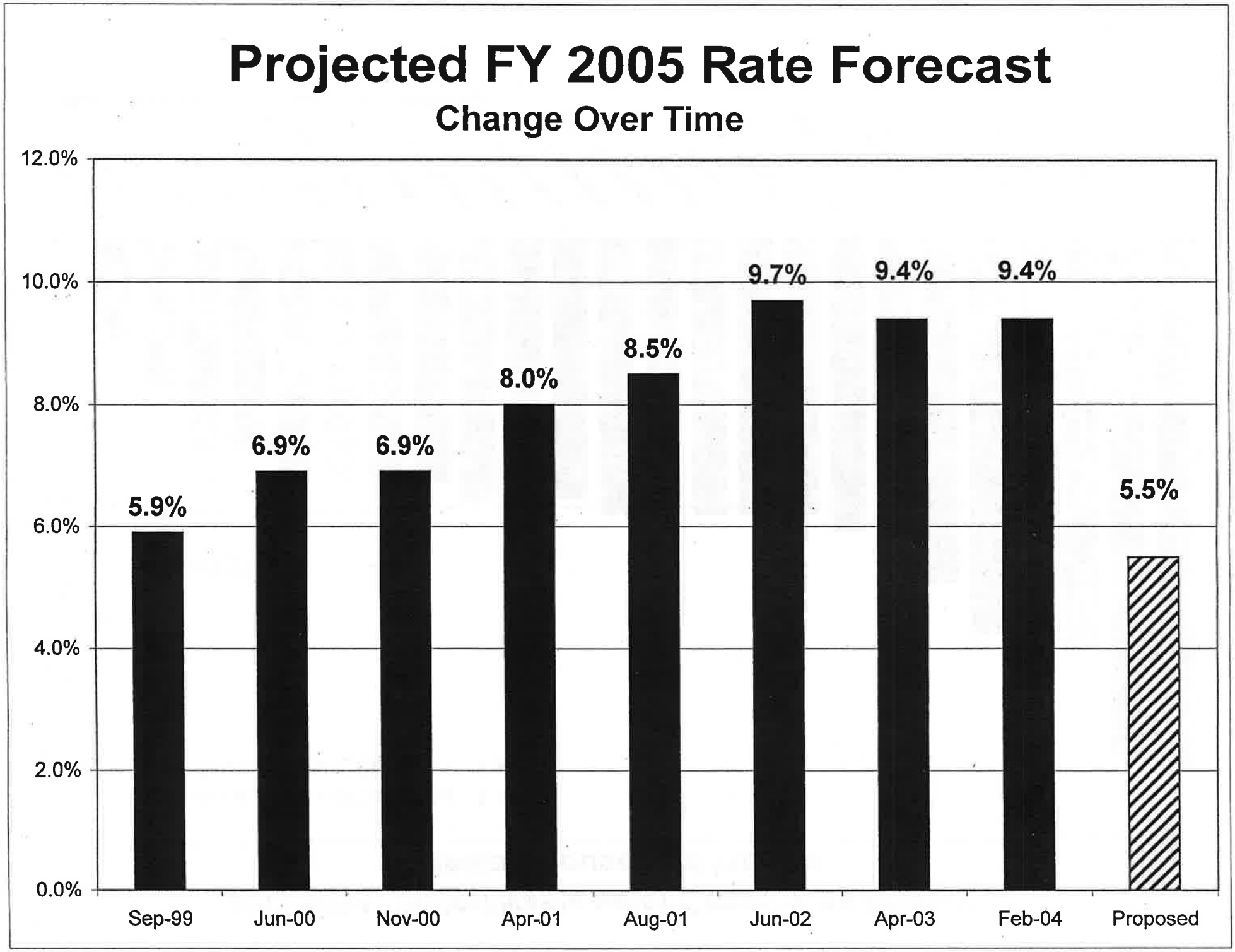
The existing frontage charge for hose bibs exempts from additional charges any hose bib in excess of the first one per building, provided that the water from the hose bibs is used for the same general purpose. There is administrative difficulty inherent in upholding this provision wherein it must be determined the general use of a specific source of water and because of the dissimilarity between the treatment of hose bibs and every other water consuming fixture that is subject to a per fixture rate. It is proposed that all hose bibs be subject to a charge per fixture and that the exemption for additional hose bibs be discontinued.

Reiteration of Current Board and DEP Policies in Rate Schedule

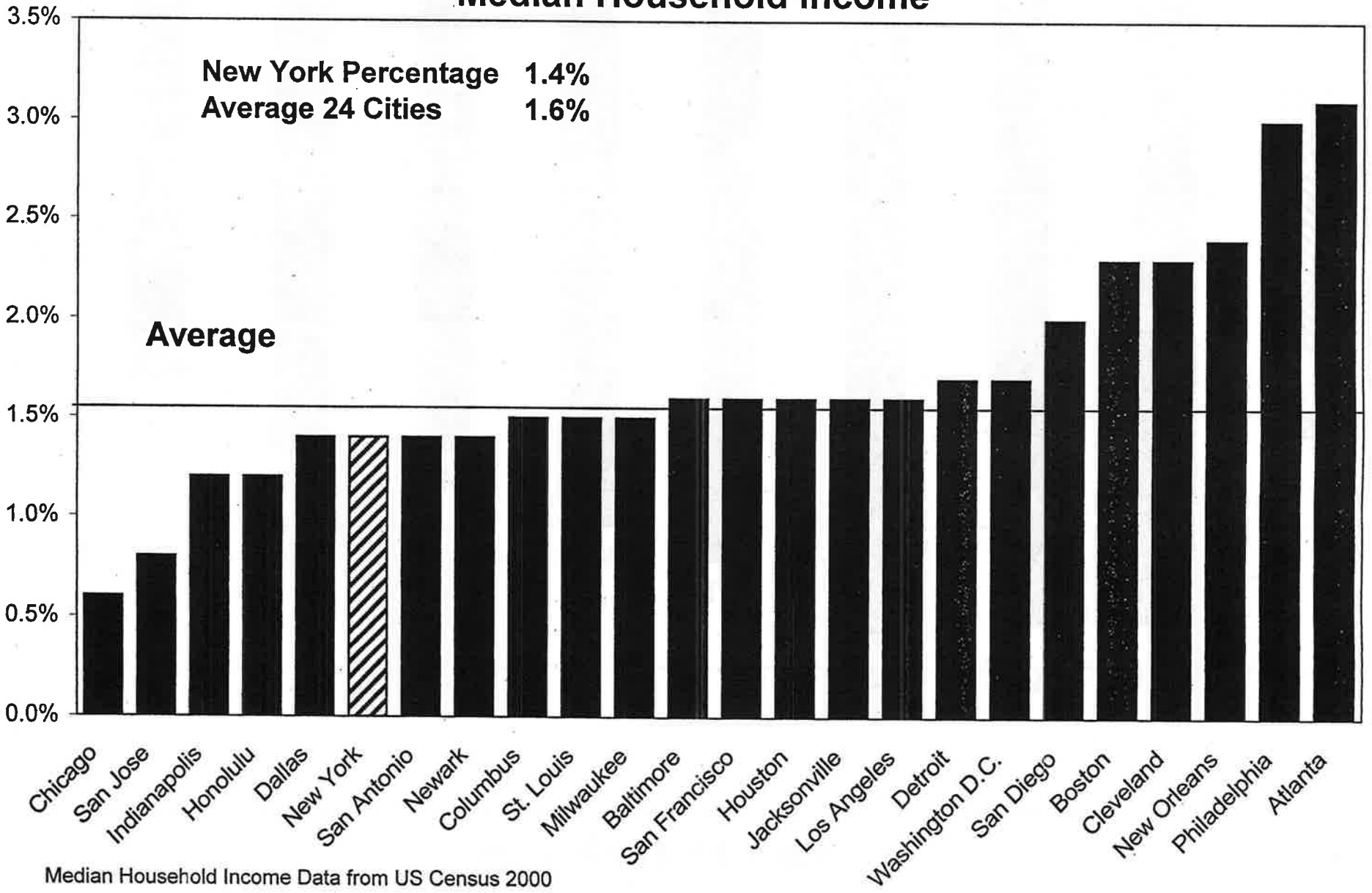
It is proposed that certain existing Board and DEP billing practices and procedures be incorporated into and cited in the Board's Rate Schedule to enhance its completeness. Such currently existing policies include the following.

- Frontage fixture charge adjustments are made on a prospective basis only from the date of discovery by DEP.
- Customers are responsible for installing, repairing and maintaining meters that are required to be installed, repaired or maintained by the customer to be eligible for a reduction in charges pursuant to a billing program, wastewater allowance, or any other modification to standard billing rates.
- Part IX, Section 2.D.3 of the Rate Schedule relating to the disposition of interest for non-meritorious appeals will be deleted as it is inconsistent with other sections of the Rate Schedule and is not representative of DEP or Board practice or policy.


Water/Wastewater Rate History
25%
20%
15%
10%
5%
0%
19.0%
14.0%
24.3%
22.9%
18.5%
9.8%
0.0%
0.0%
5.0%
6.5%
6.5%
4.0%
4.0%
1.0%
3.0%
6.5%
5.5%
5.5%
1988
1989
1990
1991
1992
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
Proposed
Fiscal Year


Projected FY 2005 Rate Forecast
Change Over Time
12.0%
10.0%
8.0%
6.0%
4.0%
2.0%
0.0%
5.9%
6.9%
6.9%
8.0%
8.5%
9.7%
9.4%
9.4%
5.5%
Sep-99
Jun-00
Nov-00
Apr-01
Aug-01
Jun-02
Apr-03
Feb-04
Proposed

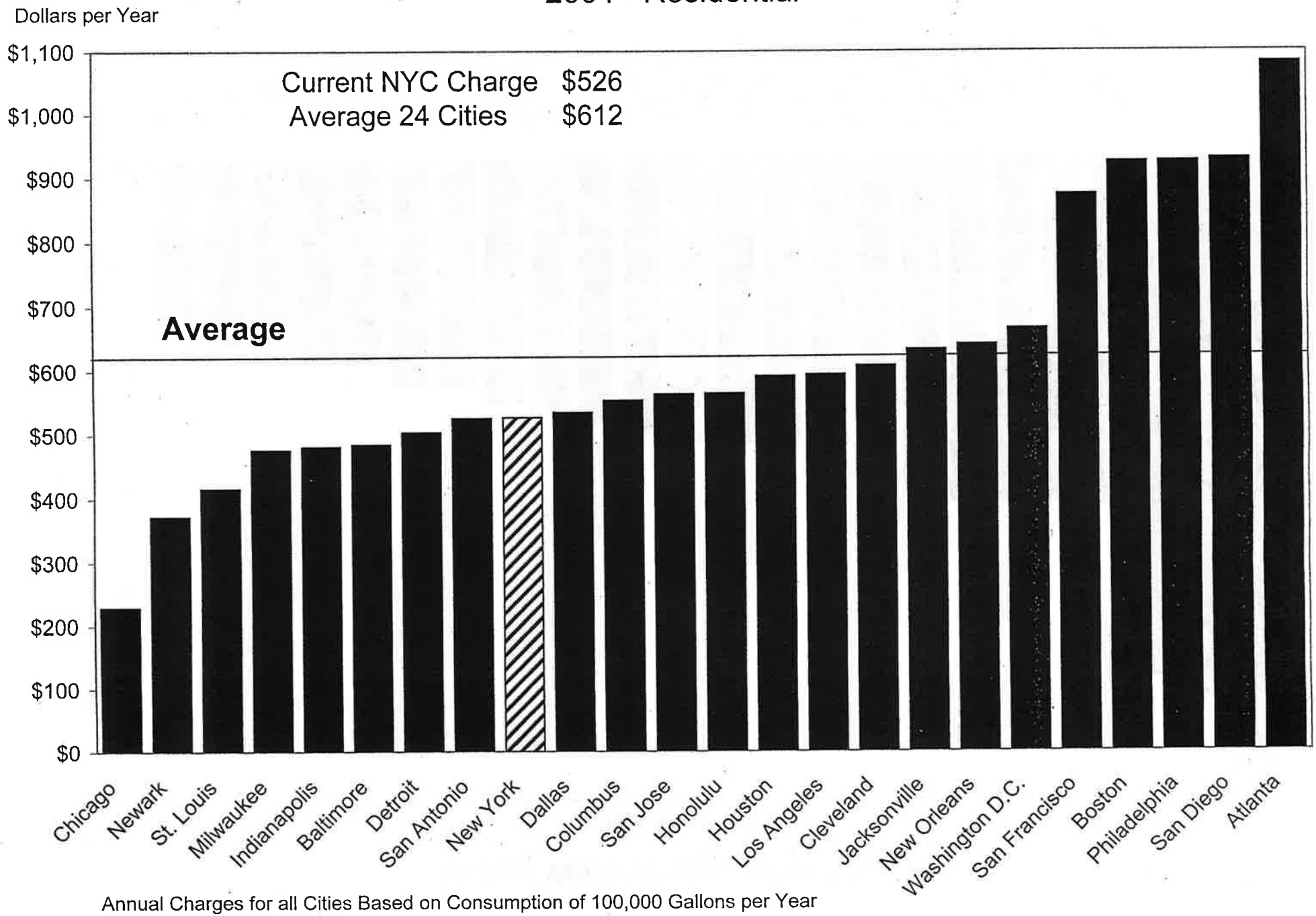
Residential Water/Wastewater Charges as Percent of Median Household Income



Median Household Income Data from US Census 2000

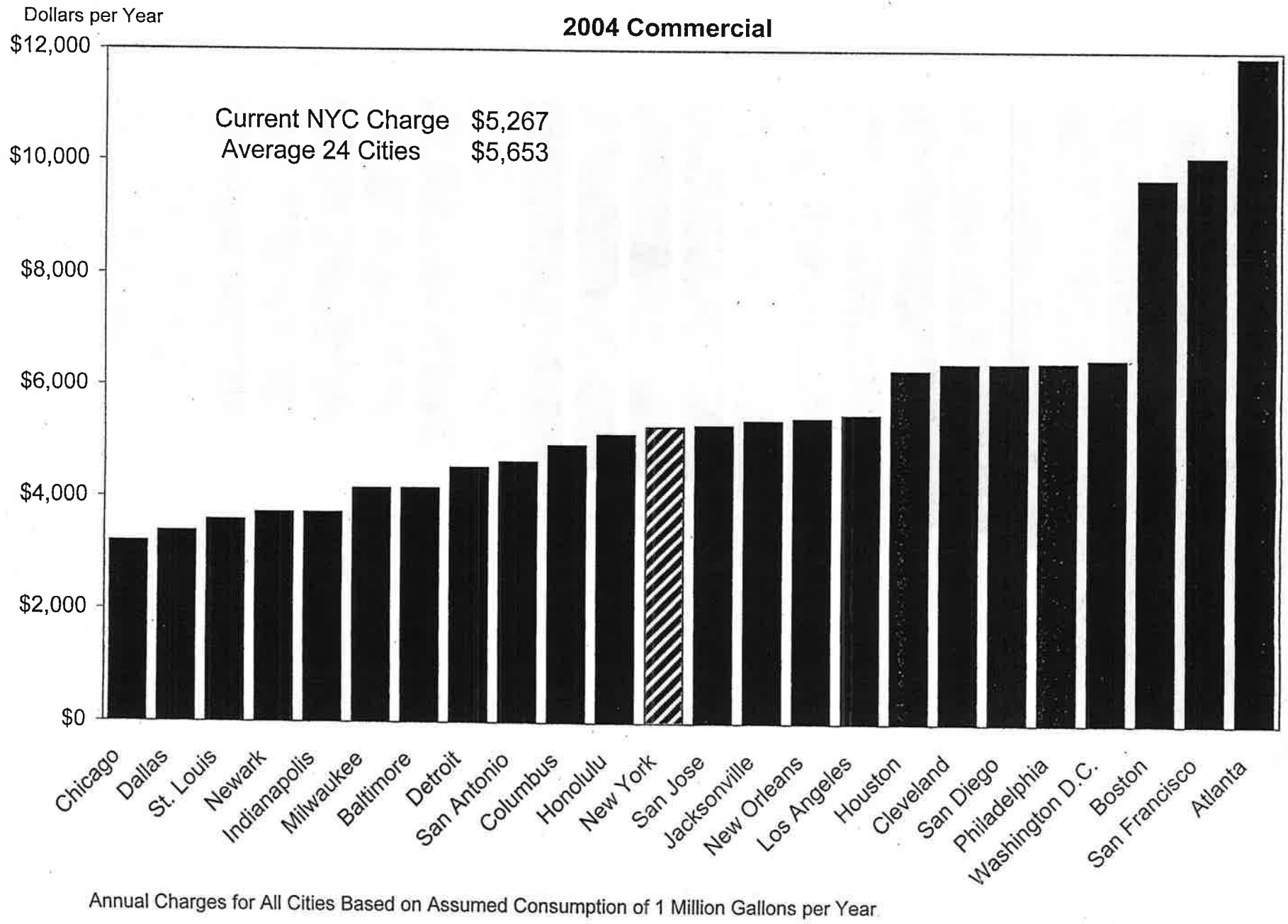
Annual Water/Wastewater Charges

2004 - Residential



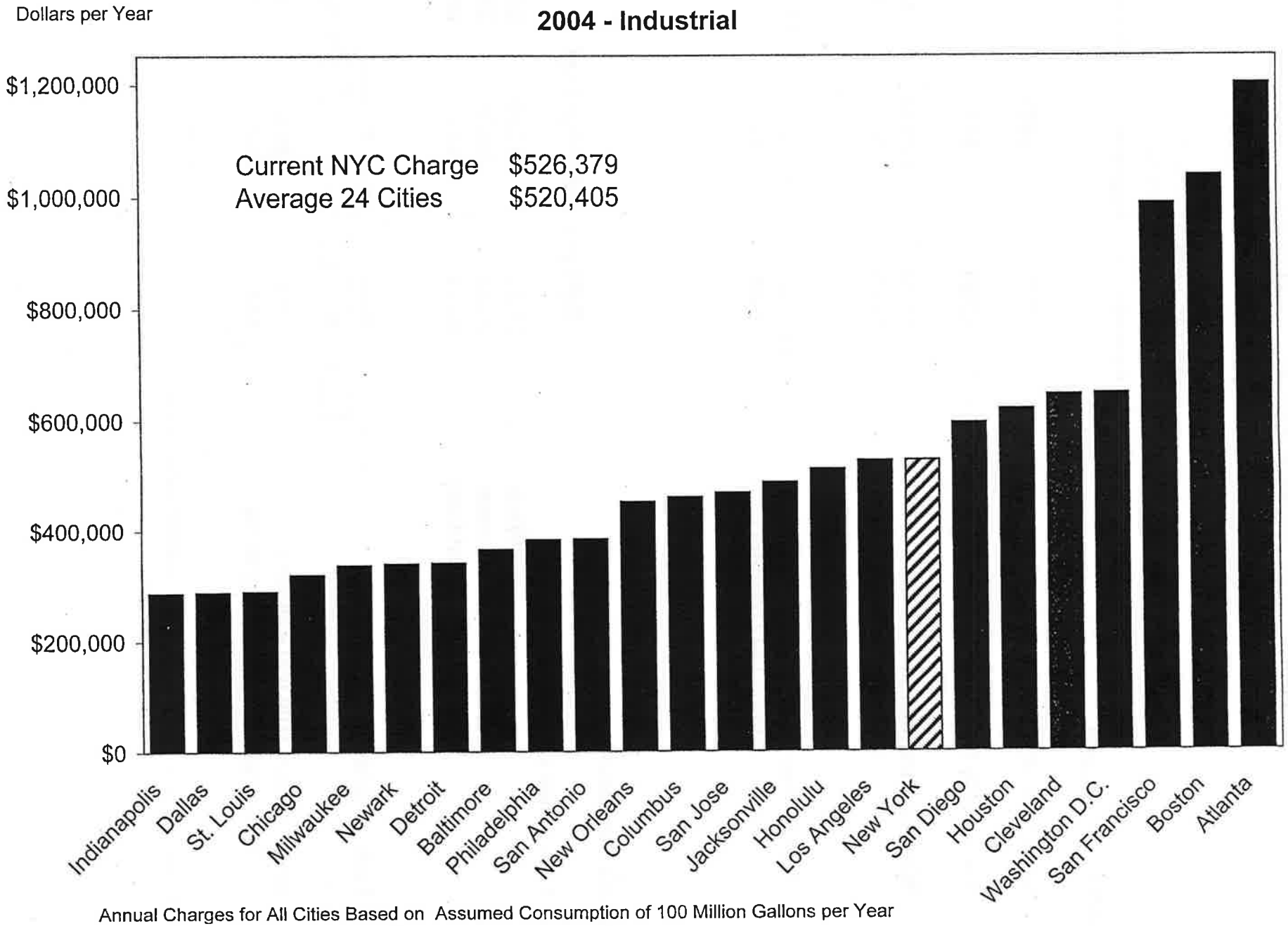
Annual Charges for all Cities Based on Consumption of 100,000 Gallons per Year

Annual Water/Wastewater Charges



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

Annual Water/Wastewater Charges



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		
	FY04 Average	FY05 Average	Change
Flat-Rate Customers			
Single-Family Residential	$593	$626	$33
Two-Family Residential	$920	$971	$51
Walk-Up Apartments	$2,819	$2,974	$155
Charge per Dwelling Unit	$424	$447	$23
Elevator Apartments	$31,721	$33,466	$1,745
Charge per Dwelling Unit	$481	$507	$26

Metered Customers

	Rate per 100 Cubic Feet		
Residential & Commercial			
Water	$1.52	$1.60	$0.08
Wastewater	$2.42	$2.54	$0.13
Combined	$3.94	$4.14	$0.21

Typical Metered Charges	Average Annual Charges		
	FY04	FY05	Change
Single Family (100,000 gallons)	$526	$554	$28
Per Multifamily Unit (85,000 gallons)	$447	$471	$24

Note: Rounding may affect some of the additions and subtractions

Change in Single Family Charges

2003-2004

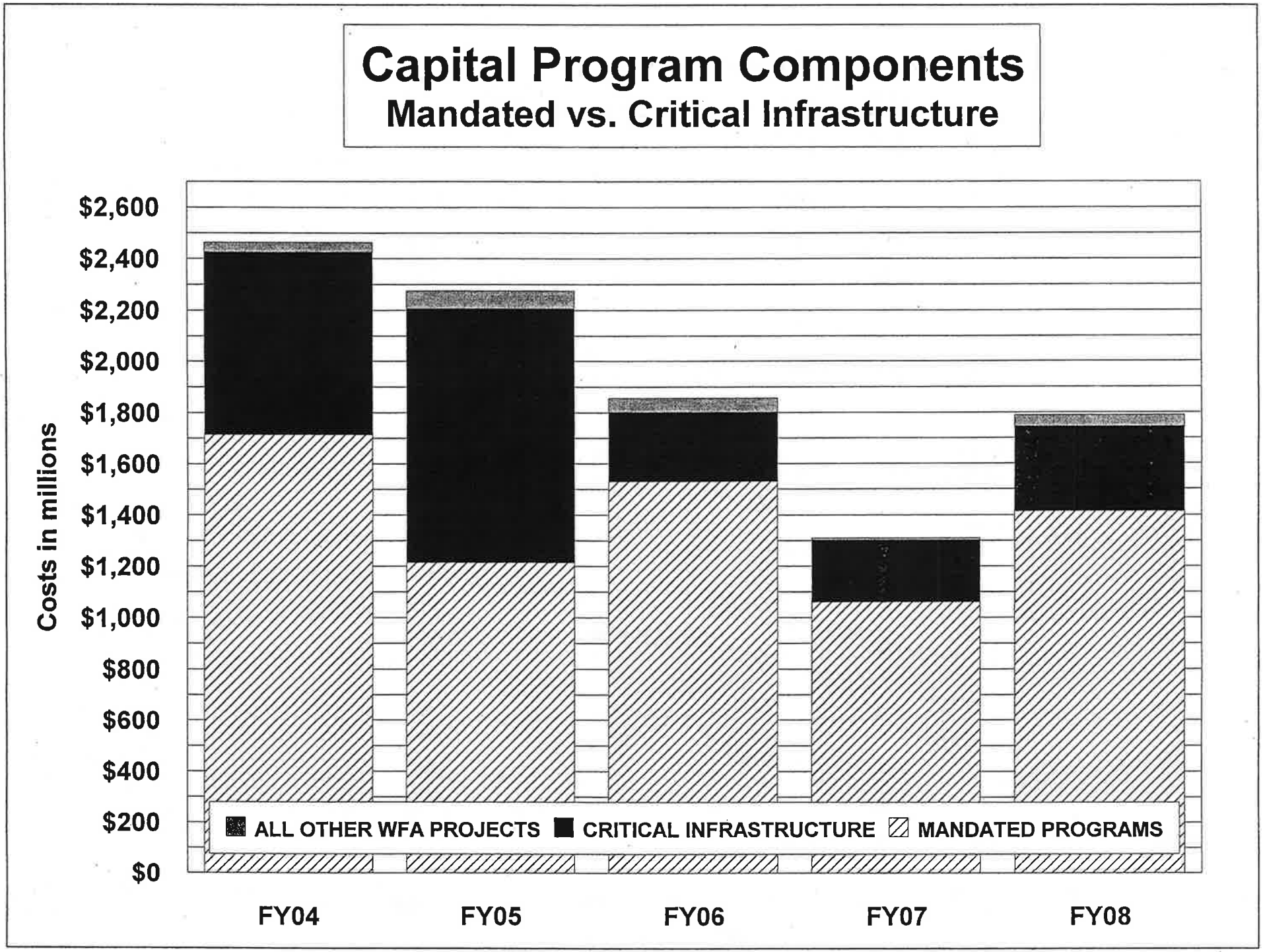
Atlanta	$253	31%
Philadelphia	$114	14%
San Antonio	$61	13%
St Louis	$46	12%
Dallas	$47	10%
Baltimore	$40	9%
San Francisco	$73	9%
New York	$28	5.5%
24 City Average	$35	5.3%

Water and Wastewater System Capital Program

(Per January 2004 Commitment Plan)

Program $(000)'s

	FY04	FY05	FY06	FY07	FY08	5-Year Total
Combined Sewer Overflow	41,495	188,386	81,659	3,350	41,370	356,260
Watershed Investments	334,332	246,142	214,323	496,186	318,300	1,609,283
Hillview Reservoir	11,607	135,100	58,500	0	0	205,207
Newtown Creek	676,963	233,500	274,000	0	92,000	1,276,463
Croton Filtration	61,366	9,673	415,000	451,600	470,000	1,407,639
Meter Installations	23,039	8,612	12,861	4,612	9,611	58,735
Water Pollution Control Plants	536,669	373,154	452,590	83,950	462,025	1,908,388
Utility Relocation Costs	27,789	20,156	20,480	20,375	20,375	109,175
MANDATED PROGRAMS	**1,713,260**	**1,214,723**	**1,529,413**	**1,060,073**	**1,413,681**	**6,931,150**
	69.5%	**53.4%**	**82.4%**	**80.9%**	**79.0%**	**71.5%**
Sewer Construction	271,852	138,535	115,041	57,727	128,459	711,614
In-City WaterMain Construction	178,372	107,300	102,489	135,294	120,041	643,496
Third Water Tunnel	92,641	644,700	55,000	50,000	83,000	925,341
Delaware Aqueduct Project	169,749	101,000	0	0	0	270,749
CRITICAL INFRASTRUCTURE	**712,614**	**991,535**	**272,530**	**243,021**	**331,500**	**2,551,200**
	28.9%	**43.6%**	**14.7%**	**18.5%**	**18.5%**	**26.3%**
ALL OTHER WFA PROJECTS	**37,793**	**68,433**	**54,300**	**7,599**	**44,103**	**212,228**
	1.5%	**3.0%**	**2.9%**	**0.6%**	**2.5%**	**2.2%**
TOTAL CAPITAL PROGRAM	**$2,463,667**	**$2,274,691**	**$1,856,243**	**$1,310,693**	**$1,789,284**	**$9,694,578**
	100%	**100%**	**100%**	**100%**	**100%**	**100%**


Capital Program Components
Mandated vs. Critical Infrastructure
Costs in millions
$2,600
$2,400
$2,200
$2,000
$1,800
$1,600
$1,400
$1,200
$1,000
$800
$600
$400
$200
$0
ALL OTHER WFA PROJECTS
CRITICAL INFRASTRUCTURE
MANDATED PROGRAMS
FY04
FY05
FY06
FY07
FY08

Capital Improvement Program
(THOUSANDS OF DOLLARS)

CITY FUNDS	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	Total
WATER SUPPLY AND TRANSMISSION											
Conveyance	$39,754	----	----	$50,000	$50,000	----	$425,000	----	$550,000	----	$1,114,754
Kensico-City Tunnel	15,000	----	50,000	----	----	500,000	150,000	500,000	----	500,000	1,715,000
City Tunnel No. 3, Stage 1	9,568	135,100	58,500	----	----	----	----	----	2,800	----	205,968
City Tunnel No. 3, Stage 2	39,088	642,700	5,000	----	33,000	----	150,000	----	15,000	----	884,788
Miscellaneous Programs	838	2,000	----	----	----	----	----	----	----	----	2,838
Subtotal	104,248	779,800	113,500	50,000	83,000	500,000	725,000	500,000	567,800	500,000	3,923,348
WATER DISTRIBUTION											
Brooklyn-Queens Aquifer	8,162	3,600	8,200	----	----	----	----	----	----	----	19,962
Croton Filtration Project	61,217	9,673	415,000	451,600	470,000	----	7,000	----	----	----	1,414,490
Dam Safety Program	56,398	50,000	92,475	----	305,000	----	----	----	----	----	503,873
Trunk Distribution & Main Extensions	17,309	51,276	35,420	43,081	19,689	5,729	5,872	6,031	6,206	6,398	197,011
Trunk Distribution & Main Replacement	141,782	53,624	53,769	92,213	100,352	110,271	110,128	109,969	111,534	113,256	996,898
Water Quality Preservation	441,264	295,942	121,848	496,186	13,300	11,609	11,927	11,255	11,593	44,191	1,459,115
Other System Improvements	11,208	----	5,100	----	----	----	----	----	----	----	16,308
Subtotal	737,340	464,115	731,812	1,083,080	908,341	127,609	134,927	127,255	129,333	163,845	4,607,657
WATER POLLUTION CONTROL											
Consent Decree Upgrading & Const.	760,450	246,500	290,721	----	125,000	260,000	48,457	10,000	31,000	70,000	1,842,128
Plant Upgrading & Reconst.	118,409	99,180	137,075	73,950	194,025	86,050	100,500	93,500	83,500	83,500	1,069,689
Sludge Disposal	26,620	----	----	----	----	148,250	----	----	----	----	174,870
Plant Component Stabilization (1)	203,927	260,974	298,794	----	215,000	345,000	325,000	330,000	345,000	365,000	2,688,695
Water Quality Mandates	21,788	163,386	56,659	(11,650)	36,370	31,000	16,000	205,000	10,000	100,000	628,553
Subtotal	1,131,194	770,040	783,249	62,300	570,395	870,300	489,957	638,500	469,500	618,500	6,403,935
Sewers											
Replacement or Augmentation	25,100	2,232	5,000	5,476	8,600	----	----	----	----	----	46,408
Extensions to Accommodate New Development	110,125	64,162	76,156	36,131	59,608	83,802	70,800	89,801	69,219	92,560	752,364
Programmatic Response to Regulatory Mandates	----	----	----	----	9,000	----	----	----	----	----	9,000
Programmatic Replacement & Reconstruct	3,943	----	500	----	----	3,200	3,200	3,200	3,293	3,395	20,731
Replacement of Chronically Failing Components	130,801	67,141	28,249	16,120	51,251	46,998	45,000	45,999	49,127	48,587	529,273
Trunks	1,665	5,000	5,136	----	----	----	----	----	----	----	11,801
Subtotal	271,634	138,535	115,041	57,727	128,459	134,000	119,000	139,000	121,639	144,542	1,369,577
Equipment											
Conservation	23,039	14,612	30,861	4,612	9,611	4,223	4,223	4,223	4,345	4,480	104,229
Management Information Systems	4,329	1,892	2,000	2,000	2,000	----	----	----	----	----	12,221
Facility Purchases & Reconstruction	22,622	55,966	30,300	1,600	38,103	38,118	----	----	----	----	186,709
Utility Relocation	27,789	20,156	20,480	20,375	20,375	20,375	20,375	20,405	20,435	20,510	211,275
Vehicles and Equipment	10,842	4,500	4,000	3,999	4,000	4,000	4,000	4,000	4,000	4,000	47,341
Subtotal	88,621	97,126	87,641	32,586	74,089	66,716	28,598	28,628	28,780	28,990	561,775
TOTAL CITY FUNDS	**$2,333,037**	**$2,249,616**	**$1,831,243**	**$1,285,693**	**$1,764,284**	**$1,698,625**	**$1,497,482**	**$1,433,383**	**$1,317,052**	**$1,455,877**	**$16,866,292**

Anticipated Water and Wastewater System Expenditures

(in 000's)

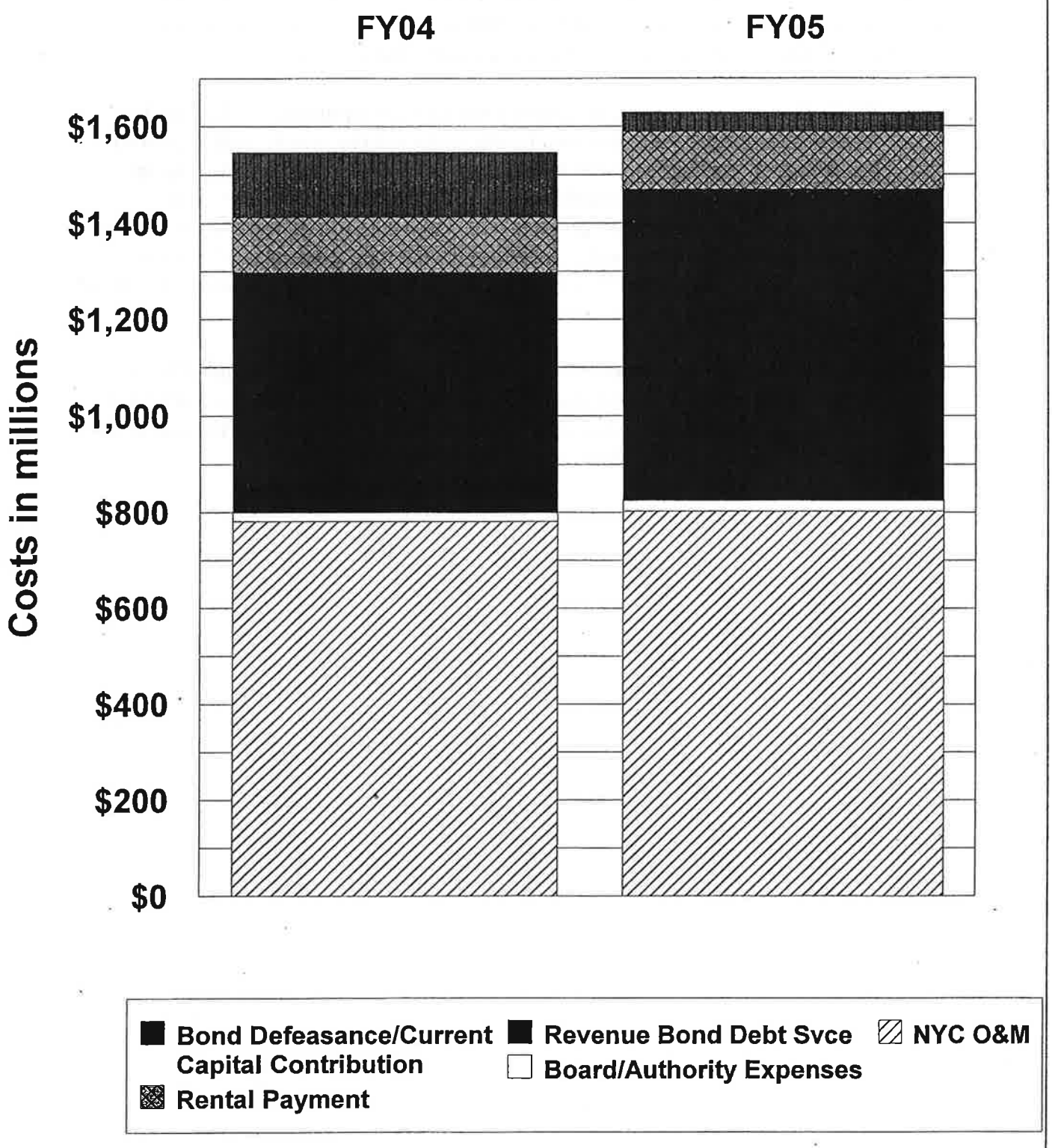
	FY04	FY05	Change
WFA Debt Service			
First Resolution Bonds:			
Outstanding Bonds	$498,900	$483,000	($15,900)
Anticipated Future Bonds		38,600	$38,600
Total First Resolution DS	498,900	521,600	$22,700
Subordinate Obligations:			
Short-Term Obligations	14,000	30,000	16,000
Outstanding Bonds	268,800	280,900	12,100
Anticipated Future Bonds	0	40,600	40,600
Less: EFC Subsidy and Capitalized Interest	(88,000)	(88,500)	(500)
Actual Subordinate DS	194,800	263,000	68,200
Less: Carryforward and Other Revenues	(194,800)	(139,000)	55,800
Net Subordinate DS	0	124,000	124,000
Net Debt Service	**498,900**	**645,600**	**146,700**
Operating Expenses			
Authority/Board Operations	18,000	22,000	4,000
Authority Expense for Defeasance of Bonds	**134,000**		
Water System	333,000	350,400	17,400
Wastewater System	425,400	431,300	5,900
Indirect Expenses	12,900	12,900	0
Judgments/Claims	22,700	8,000	(14,700)
Total Operations and Maintenance	**946,000**	**824,600**	**(121,400)**
Less: Credit for Excess Prior Year O&M Payment	**(13,200)**		
Rental Payment	114,800	119,000	4,200
Cash Financed Capital Construction		40,000	40,000
Net Operating Expenses	**$1,047,600**	**$983,600**	**($77,200)**
Total Expenditures	**$1,546,500**	**$1,629,200**	**$82,700**
Revenues			
User Payments	1,572,000	1,655,600	83,600
Upstate Revenues	25,000	26,900	1,900
Miscellaneous Revenue (Permits, etc.)	5,600	5,800	200
Miscellaneous Interest Income	25,000	25,000	0
Interest Income on System Funds	57,400	56,200	(1,200)
Gross System Revenues	**$1,685,000**	**$1,769,500**	**$84,500**
Carryforward	**$138,500**	**$140,300**	**$1,800**

Water vs. Wastewater System Costs

(in 000's)

	FY2005 Total Costs	Water Costs	Wastewater Costs
WFA Debt Service			
First Resolution Bonds:			
Outstanding Bonds	483,000	248,460	234,540
Anticipated Future Bonds	38,600	19,856	18,744
Total First Resolution DS	521,600	268,316	253,284
Subordinate Obligations:			
Short-Term Obligations	30,000	11,594	18,407
Outstanding Bonds	280,900	28,090	252,810
Anticipated Future Bonds	40,600	4,060	36,540
Less: EFC Subsidy and Capitalized Interest	(88,500)	(8,850)	(79,650)
Actual Subordinate DS	263,000	34,894	228,107
Less: Carryforward and Other Revenues	(139,000)	(53,717)	(85,283)
Net Subordinate DS	124,000	(18,823)	142,823
Net Debt Service	**$645,600**	**$249,493**	**$396,107**
Operating Expenses			
Authority/Board Operations	22,000	6,727	15,273
Water System	350,400	350,400	
Wastewater System	431,300		431,300
Indirect Expenses	12,900	5,782	7,118
Judgments/Claims	8,000	3,600	4,400
Total Operations and Maintenance	**824,600**	**366,510**	**458,090**
Rental Payment	119,000	45,988	73,012
Cash Financed Capital Construction	40,000	15,458	24,542
Net Operating Expenses	**$983,600**	**$427,955**	**$555,645**
Total Expenditures	**$1,629,200**	**$677,449**	**$951,751**

Water/Wastewater System Costs



Rate Advisor's Conclusions

- The 5.5% increase in water rates and charges proposed by the Board will yield anticipated revenues for Fiscal Year 2005 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 other 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 is reasonable compared to the current ratio of wastewater charges to water charges.

- The Rate Advisor has reviewed the Billing Policy Proposals advanced by the Board. Part of this review included a comparison with the policies and practices of other large water and wastewater systems. The proposals 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 FY2005 amount to the Water Board
- The City Office of Management and Budget projects the Water and Wastewater Systems' operating and maintenance expenses and certifies the FY2005 amount to the Water Board based on the Mayor's Executive Budget
- The system's consulting engineer must certify that expenses are reasonable and appropriate
- The Board must hold a 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

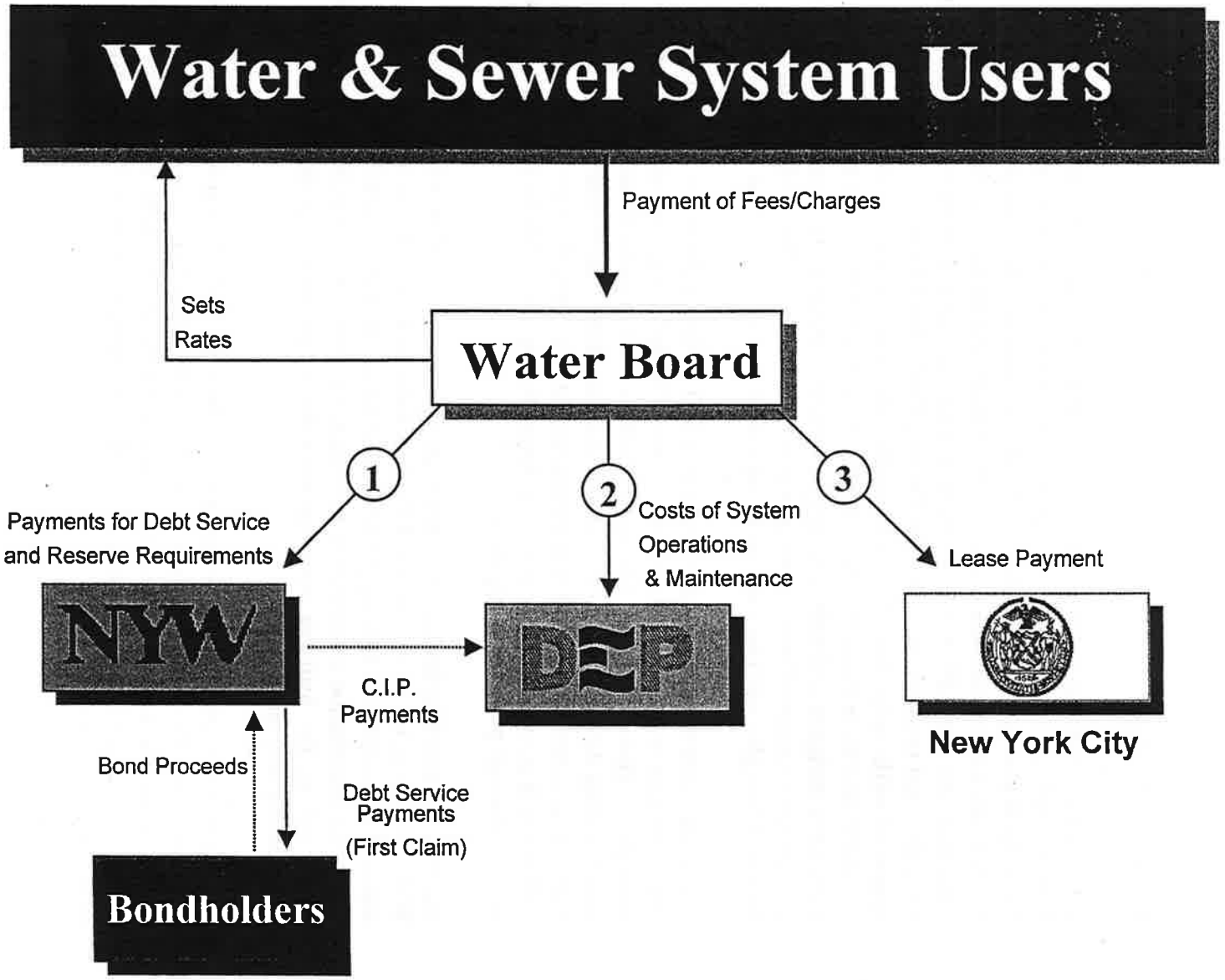
- The rate structure, both present and long term, should provide a reasonably stable and predictable flow of revenue

- 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

DEP supplies water 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 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. Water for the System is derived from three upstate watershed and reservoir systems (the Croton, Catskill and Delaware watersheds) and a system of wells in Queens. The three upstate water collection systems include 18 reservoirs and three controlled lakes with a storage capacity of 550 billion gallons. They were designed and built with various interconnections to increase flexibility by permitting exchange of water from one system to another. This feature mitigates localized droughts and takes advantage of excess water in any of the three watersheds.

The Water System provides an average of 1,300 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 wells could be used to provide more of the daily supply during drought conditions. Unlike the rest of the City's water supply which is a surface and gravity supplied system originating in a network of upstate reservoirs, well water is pumped from extensive underground aquifers. When drought conditions exist, additional pumping is required.

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 consists of a grid network of over 6,200 miles of pipe, as well as valves, fire hydrants, distribution facilities, gatehouses, pump stations and maintenance and repair yards.

In comparison to other public water systems, New York 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 comprised of the wastewater collection system and the water pollution control facilities. The Wastewater System is divided into 14 drainage areas corresponding to the fourteen in-City water pollution control plants and includes over 6,600 miles of sewer pipes of varying size which are classified as one of three types: sanitary, storm or combined. Sanitary sewers accommodate household and industrial waste. Storm sewers carry rainwater and surface water runoff. Combined sewers carry both types of waste. In addition to the sewage pipes, the wastewater system includes catch basins and seepage basins to prevent flooding and sewer backups. During periods of heavy rainfall a combination of stormwater and sewage may bypass treatment and be released into the surrounding waterways through combined sewer overflows.

The water pollution control facilities treat approximately 1,200 million gallons per day of dry-weather sewage, virtually all of the dry-weather sewage generated in the City. The facilities related to the treatment of sewage include 14 water pollution control plants, a combined sewer overflow treatment plant, wastewater pump stations, laboratories, sludge dewatering facilities and inner-harbor vessels which transport sludge between facilities. Sludge or ("biosolids "), a by-product of the sewage treatment process, is acceptable for land-based beneficial use and virtually all of the City's biosolids are currently treated and used for beneficial purposes. The wastewater System also includes eight City-owned upstate water pollution control plants to prevent untreated sewage from being released into the watersheds.