NEW YORK CITY WATER BOARD

PUBLIC INFORMATION REGARDING WATER AND WASTEWATER RATES

APRIL 2005

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 2006 ("FY2006") and with the financial condition of the water and wastewater system (the "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 FY2006 rate proposal is to increase water rates by 3% 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. The current published forecast of System rates, developed almost one year ago, anticipated that a 5% increase would be required for FY2006. Accordingly, this proposal represents a substantial improvement over prior projections.

Several factors have impacted the development of the proposed rate for FY2006. 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 120 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 the System.

Property Taxes on Watershed Lands
The City owns over 135,000 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 anticipated to exceed $100 million in FY2006 as compared to an expected expenditure of $91.5 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.

Increases in Other Operating Expenses
Operating expense increases from FY2005 to FY2006 are anticipated for energy costs, especially those related to wastewater pumping and treatment facilities, health and safety-related initiatives and customer service enhancements. New needs of $40 million for operations and maintenance expenses have been included in the System's FY2006 financial projections.

Rental Payment
Pursuant to the Agreement of Lease between the City and the Water Board dated July 1, 1985, the Board is required to make lease payments to the City equal to the greater of debt service on older general obligation bonds issued by the City prior to 1985 for water/sewer purposes or 15% of debt service payable on revenue bonds issued by the Water Finance Authority. The basis of the rental payment in the System's financial plan is assumed to equal 15% of revenue bond debt service in the current and future years. This amount, therefore, will increase in proportion to future debt service requirements.

Collection Enforcement
DEP and the Board are committed to aggressively pursuing the collection of delinquent monies owed by customers. It is unfair to the vast majority of customers who pay their bills in a timely manner to allow some customers to defer or avoid their payment responsibility. Higher collection rates on bills issued will allow lower required rate increases and lower annual water/sewer charges for all customers. The System's financial projections assume additional revenues in each of the next five years from improved collection efficiency. This assumption enables a reduced rate increase to be proposed this year for FY2006 and produces a lower overall rate profile over this planning period.

Current Capital Contributions
It is recognized that financing a portion of the System's capital requirement on a current basis will produce lower debt service requirements and lower user rates in future years. Accordingly, the System's financial projections allocate additional funds in FY2005 and FY2006 for Pay-As-You-Go (PAYGO) current capital funding and for the defeasance of outstanding bonds. In future years, an annual PAYGO allocation is assumed to reach a fixed amount of $100 million per year.

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 65% 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
Financial operations are continuing to benefit from the current 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 $1.04 billion in outstanding bonds achieving approximately $3.1 million in debt service savings in FY2005 and approximately $4 million in debt service savings in FY2006. Additional savings of between $2.2 million and $4.7 million will also be realized in each year through FY2031. Present value savings from these refinancings amount to $63 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. It is noted, however, that U.S. interest rates have begun to increase and it is uncertain whether this favorable trend will continue in the future.

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 $554 per year or a little more than $46 per month for water and sewer services. The proposed 3% increase will add about $17 per year or less than $1.50 per month to the average bill. The new bill for combined water and wastewater services will be less than $48 per month and is likely to be less than the 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.

100th Anniversary

This year marks the 100th anniversary of the creation of the New York City Board of Water Supply, the predecessor of today's Department of Environmental Protection. In 1905, recognizing that the City's water supply needed further development, State voters ratified three major legislative acts to allow the water system to expand further north to the Catskill region. The first act established a five-person State Water Supply Commission with the authority to approve or reject any New York City water plan. The second provided for an additional supply of wholesome water for New York City and for the acquisition of lands or interests for the construction of necessary water supply infrastructure. The third provided for the appointment of a board to oversee the process of water system development called the Board of Water Supply.

In recognition of the 100th anniversary of these historic legislative acts and the City's modern water supply, DEP has planned two programs. The first, a panel discussion entitled **New York City's Water Supply System: A Study of the Monumental** was held on April 12, 2005 at the CUNY Graduate Center Auditorium. It highlighted the history of the water supply system. A second program will be held in the fall and its focus will be on the future of water delivery in New York City and across the nation.

DEP Program Overview

Water and Wastewater Capital Improvement Program
In FY2004, with the support of the Mayor, DEP doubled its 10-year capital program to approximately $16 billion. The current capital plan, which covers an eleven year period extending from the current FY2005 plus ten projected years from FY2006 – FY2015, anticipates environmental infrastructure investments amounting to $18.7 billion. The capital program allocates substantial resources to the City's water supply infrastructure and to meeting DEP's commitments mandated by a variety of consent orders. 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 under this program are:

$1.4 Billion to Protect 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.

$2.9 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 enable the City to inspect and repair its older tunnels, while providing redundancy in the water supply system in case of emergency.

$1.5 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 continues to meet New York City's high standards for quality.

DEP completed a Supplemental Environmental Impact Statement ("SEIS") in order to determine which of three possible sites for the filtration plant was the best location. The Mosholu site was selected. 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 has agreed to fund up to $240 million in capital improvement projects for parks in the Bronx, creating a green legacy for the borough.

$634 Million to Build an Ultraviolet Disinfection Facility for Cat/Del 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, design for the disinfection facility is nearly complete. Construction of the plant is scheduled to begin in 2005. The facility is expected to cost $633 million and will have the capacity of treating 2 billion gallons of water per day.

$1 Billion Dependability/Alternative Sources Program
The infrastructure that carries drinking water from the Catskill and Delaware watersheds to New York City has been in continuous operation for decades without ever having been taken offline in any significant way for inspection or repair. While neither of the aqueducts is in danger of immediate failure, at some time in the future, each must be shut down for inspection and the City will lose access to a large percentage of its supply for a period of time. DEP has initiated a Water Supply Dependability Study in order to determine how water will be supplied to its 9 million customers when that happens. The Dependability Study is intended to develop a plan that will enable DEP to take critical water system components out of service, one at a time, for inspection and repair and still meet demand requirements.

$6.1 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.

$703 Million to Decrease the Amount of Raw Sewage that Flows from Combined Sewers into New York Harbor when 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 Connecting Storm Sewers
The Bluebelt eliminates 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 of the program to include the Mid-Island areas of New Creek, South Beach and Oakwood Beach. The land acquisition program for 70 acres in that new Bluebelt has already begun. The Bluebelt system will provide improved drainage for approximately 2,000 acres of surrounding lands and for 30,000 residents in the neighborhoods of Midland Beach, Grant City and Todt Hill. Wetland acquisition for the South Beach Bluebelt has also begun while feasibility studies for the Oakwood Beach Bluebelt continue.

The Staten Island Bluebelt program provides environmentally sound 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 water quality. The program has expanded to the mid-Island area with the launching of the New Creek Bluebelt in the Midland Beach neighborhood.

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 properly dispose of wastewater. 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 and Putnam Counties; the Catskill reservoir system located in Schoharie, Greene, Ulster and Orange Counties; and the Delaware reservoir system located in Delaware, Sullivan, Ulster and small portions of Greene and Schoharie 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 has expanded 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 80,000 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 stream bank 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 $92 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 in order 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 2002, DEP contributed $13.6 million in program support to repair or replace failing septic systems. DEP will provide an additional $15 million through 2007.

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 2002, the City allocated an additional $7.5 million to extend the program through 2007.

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 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. 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 by 2009. 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 1.3 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 DEP's 2003 annual Harbor Survey Report, 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 effort that monitors the City's waterways and has been in existence since 1909. DEP's Marine Sciences section monitors 17 water quality parameters at 33 sampling stations in New York Harbor to keep track of water quality levels. Additionally, significant improvement was seen following treatment plant expansions and upgrades since 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 operations and maintenance for all of the City's sewage treatment plants. For the past three years, no public beach closings (other than for a few days during the 2003 blackout) and the return of several specifies of migratory birds and fish to Harbor waters are further evidence of improved conditions in the Harbor.

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 water bodies 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 water bodies and the communities in which they are located.

The Alley Creek Combined Sewer Overflow (CSO) 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.

It is noted that the System has realized a significant increase in the capture of wet weather flows in recent years, which has reduced CSO discharges into the harbor. This improvement is attributable to several factors including technical adjustments to the systems Stormwater management facilities, but in particular to water conservation and water use reductions which have made additional capacity available in the wastewater system to handle and process stormwater.

Schedule for Water Board Rate Adoption

April 8, 2005 **Water Board meeting to approve Public Notice of 3.0%**

Rate Hearing Dates and Locations

Borough	Location	Date/Time
Queens	Department of Environmental Protection Lecture Room, 6th Floor 59-17 Junction Boulevard Flushing, NY 11373	Monday May 2, 2005 1:00 P.M.
Staten Island	College of Staten Island Center for the Arts, Recital Hall 2800 Victory Boulevard Staten Island, NY 10314	Monday May 2, 2005 6:00 P.M.
Brooklyn	Brooklyn College Student Center-Alumni Lounge, Rm. 409 (Opposite Whitehead Hall) East 27th Street and Campus Road Brooklyn, NY 11210	Tuesday May 3, 2005 7:00 P.M.
Bronx	Herbert H. Lehman College Carman Hall, Rm. B-39 250 Bedford Park Boulevard West Bronx, NY 10468	Wednesday May 4, 2005 9:30 A.M.
Manhattan	St. John's University - Manhattan Room 118 101 Murray Street New York, NY 10007	Wednesday May 4, 2005 5:00 P.M.

May 13, 2005 **Water Board Meeting to adopt rates for Fiscal Year 2006**
St. John's University – Manhattan
101 Murray Street Room 118
New York, NY 10007

June 2005 **Flat-Rate Bills are mailed**

July 1, 2005 **Fiscal Year 2006 rates become effective**

Program Summary

FY 2006 Rate Proposals

- Increase in-City water rates by 3% 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 $646.09 per million gallons

FY 2006 Billing Policy Proposals and Changes to Miscellaneous Fees

Comprehensive Water Reuse Program
The Board proposes to extend this program in order to extend eligibility to graywater systems in addition to the currently approved blackwater systems. Graywater systems actively promote and result in the conservation of water resources and the Board wishes to create a financial incentive for buildings that conserve water.

Renovation Bill Cap Program (RBC)
The Board is considering discontinuing this program, which creates a cap on metered water charges and a disincentive to conserve water. The program was conceived in 1994 and the original intent of the program was to provide a five-year fixed cap on metered charges from the date of a building's renovation. The program remained relatively unutilized with only a handful of participants until recently. An influx of applications has brought deficiencies in the program to light. First, the five-year limit on the age of the renovation was inexplicably dropped in the Fiscal Year 2000 Rate Schedule and property managers are requesting the RBC for properties renovated over 10 years ago. In addition, the RBC requires replacement of all pipes and valves, but is silent on fixture replacements. The vast majority of water waste, however, originates in fixtures, not pipes and valves, which brings into question the efficacy of the program. Finally, the program provides no incentive to actively conserve water subsequent to the replacement of pipes and valves. In the event that the program is not discontinued, the Board will consider respecifying program requirements to reincorporate omissions from the current version of the Rate Schedule, including but not limited to the age of eligible renovations, the duration of the program and the replacement of all water consuming fixtures.

Title Meter Reading, Flat-rate Reconciliation and Special Meter Reading Fee
The Board is proposing the elimination of the $55 Title Meter Reading fee and the $25 Flat-rate Account Reconciliation fee in connection with a sale of real property, and an increase in the Special Meter Reading fee from $55 to $115 for a special meter reading requested by a customer not in connection with a property transfer. The Board hopes that by eliminating the fees associated with property transfers, more buyers and sellers of real property will obtain a Title Meter Reading or Flat-rate Account Reconciliation upon property transfer enabling DEP to validate charges and avoid future conflicts between purchasers and sellers. The fee for a Special

Meter Reading not in connection with a property transfer, however, will be raised to $115 to cover the calculated actual cost which DEP incurs in providing this service.

Laundry Rate
The Board will establish an additional fixed-rate charge for a clothes washing machine located within an individual apartment. The Rate Schedule currently provides a fixed-rate charge for all clothes washing machines of $134.76 per annum. This charge does not differentiate between machines located within an apartment or those in a common area. In recognition that a washing machine located within an apartment will be used less than one in a common area, the Board is proposing a fixed-rate of $26.47 per annum for washing machines within an individual apartment. This charge will be prospective only from the date of adoption, July 1, 2005 forward.

Multiple Family Conservation Program (MCP)
The current deadline to file for entry into this program is December 31, 2005. The Board proposes to extend the deadline to apply for MCP by one year to December 31, 2006. 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, but requiring toilet fixture replacement to qualify.

Extension of 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, 2006, and in conjunction with the MCP extension described above, their expiration will also be extended one year to expire June 30, 2007. After June 30, 2007, 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.

Transition Program - New Construction
All new construction will be excluded from participating in the Transition Program and will be billed on the basis of metered consumption or on the MCP rate.

Cap on Metered Charges
In the interest of promoting the use of water conserving fixtures, the Board proposes that only properties entirely equipped with low-flow toilets will be eligible for the program.

Forgiveness Program for Extraordinary Leaks and Disasters
A criterion for eligibility is that the reduction in charges resulting from application of the program must meet a minimum threshold amount on an annualized basis. The purpose of the minimum threshold amount is to ensure that only significant leaks are eligible for the program. The threshold has not been increased since Fiscal Year 2000 and the Board proposes to raise the threshold from $300.00 to $381.04 to incorporate all rate increases adopted subsequent to Fiscal Year 2000, including the current rate increase.

Requests for Billing Programs
All Billing Programs must be requested within 18 months of the date of the bill. In order to effectively administer this deadline, the Board proposes that all requests be made in writing to DEP and that phone and in-person verbal requests will not be accepted, but the caller or person

will be provided with a mailing or email address to where the request must be submitted in writing.

Iteration of Current Board and DEP Policies in Rate Schedule

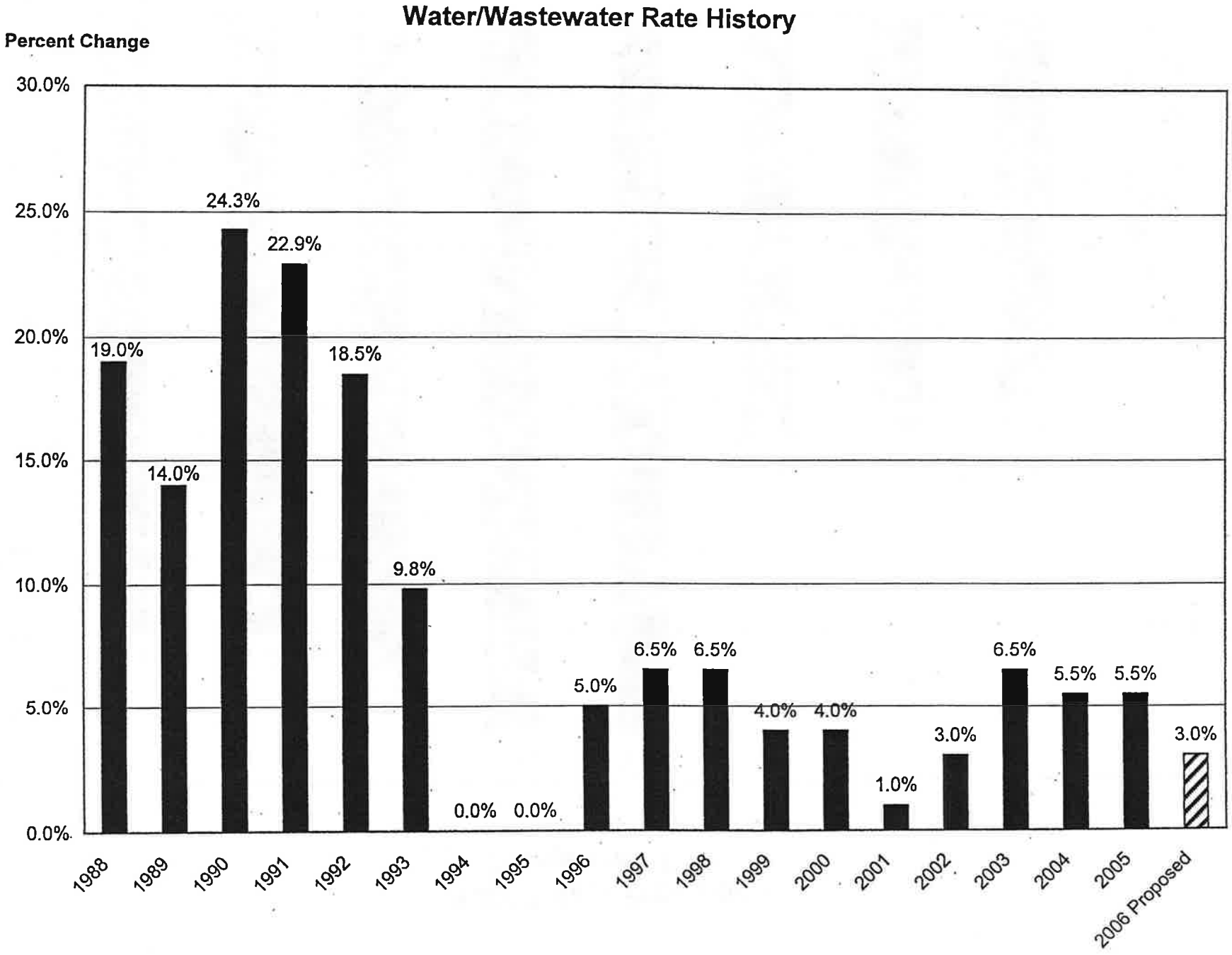
It is proposed that certain existing Board and DEP billing practices and procedures be incorporated into and cited in the Board's Rate Schedule to enhance its completeness. Such currently existing policies include the following.

- Exemptions - Existing statutory authorization of and DEP's administrative policies and procedures for implementing exemptions from water charges will be incorporated by reference into the Board's Rate Schedule.
- Forgiveness Program for Extraordinary Leaks and Disasters – A failure of a maintainable plumbing fixture is neither an extraordinary leak nor a disaster. A failure of a toilet flapper, for instance, is an ordinary leak, which can be prevented by routine maintenance of plumbing fixtures, and is not eligible for a reduction of charges.
- When a meter fails to record consumption, Part VII Section 3 of the Rate Schedule authorizes DEP to use a representative average daily flow of water recorded during a period when a meter was accurately functioning as the basis to issue a bill. The existing policy, although not limited to periods prior to or after failure of the meter, will be explained in more detail by noting that DEP may calculate a representative average daily flow as reasonably determined by DEP and may rely on a representative period occurring either prior to or after failure of the meter.
- Part VII Section 4 Estimated Bills will include a statement that estimated bills, if not paid when due, are subject to late payment charges. While the imposition of late payment charges on all delinquent charges is explicitly authorized in other sections of the Rate Schedule and by statute, the Board wants to provide customers with a more comprehensive understanding of the imposition of late payment charges by repeating the same authority in this section.
- Election of Meter Based Billing
    - Currently, the Rate Schedule indicates that all requests must be in writing. The Board will modify this section to conform to DEP's practice of only accepting elections of meter billing on an authorized DEP form.
    - The Board will include in the Rate Schedule DEP's practice and procedures regarding an election of meter billing form submitted when a meter is not working, which is to convert the account to meter billing on a prospective basis only from the date an approved meter is installed and subsequently read by DEP.

Revenue Enhancement from Collection Enforcement

The Board's proposed 3% increase in FY2006 water and sewer rates relies on producing additional one-time revenues from collection enforcement activities. New and enhanced collection initiatives will be implemented to reduce the $650 million accounts receivable balance. While DEP has been making greater efforts to collect monies owed and some improvement has been achieved, it is intended that payment enforcement from delinquent accounts will be pursued more aggressively. It is anticipated that once paid a portion of the accounts with an accumulated delinquency will become regularly paying customers, thereby providing an annual recurring revenue enhancement to the System which has not been included in future rate and revenue projections at this point. Enforcement activities include the following policies:

- Initiating dunning and collection action on accounts that have not paid their bill by its due date;
- Enforcing termination of service for non-payment of delinquent commercial accounts;
- Regular reporting of residential delinquencies to mortgage companies and credit rating agencies;
- Exploring more aggressive collection enforcement on residential accounts including actions such as property foreclosures and selected water service shut-offs;
- In addition, the Water Board will be working closely with the City to make changes in the lien sale law to allow delinquent residential water charges, particularly those associated with multi-family buildings, to be sold in the lien sale without a coinciding property tax delinquency.


Water/Wastewater Rate History
Percent Change
30.0%
25.0%
20.0%
15.0%
10.0%
5.0%
0.0%
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%
3.0%
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2004
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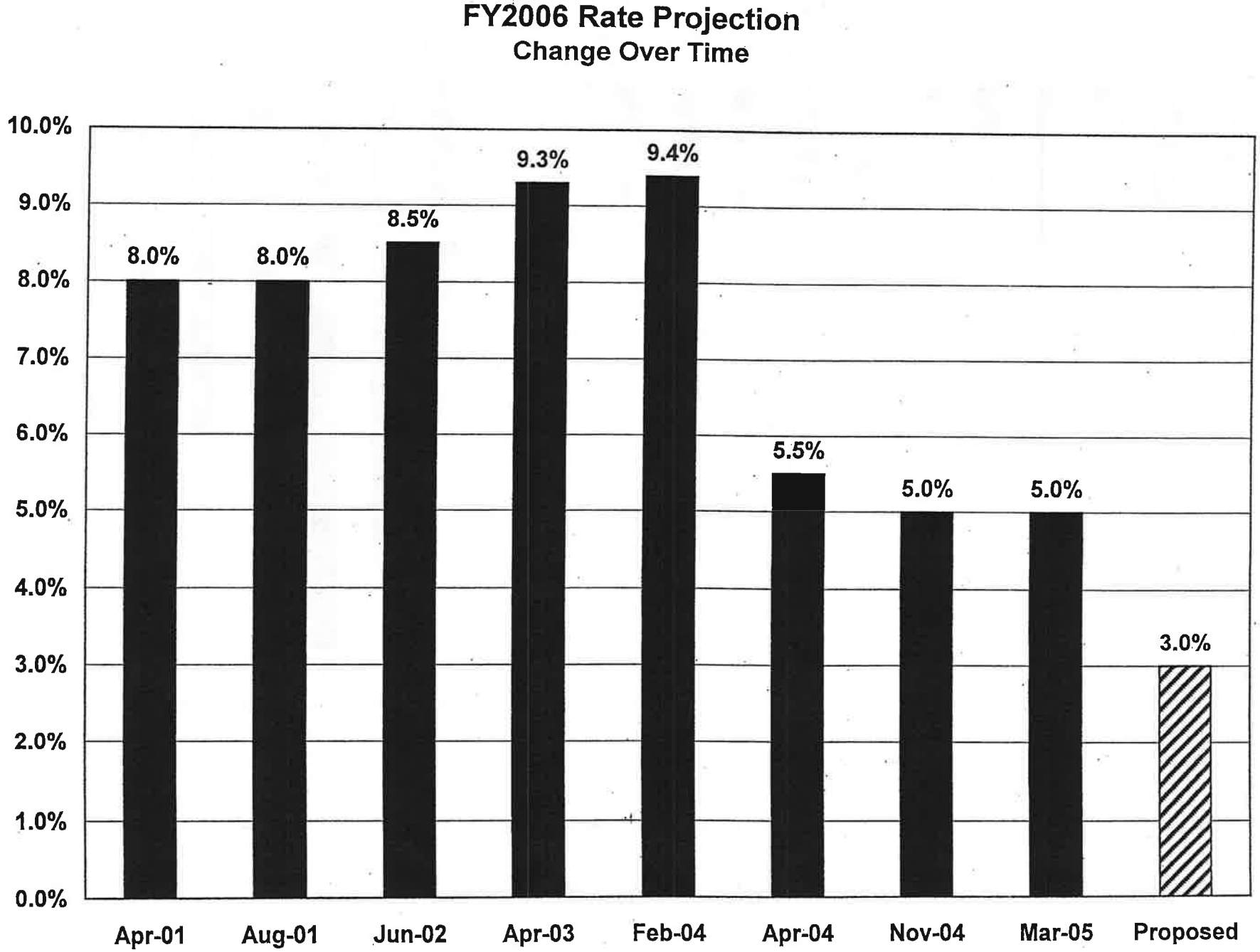
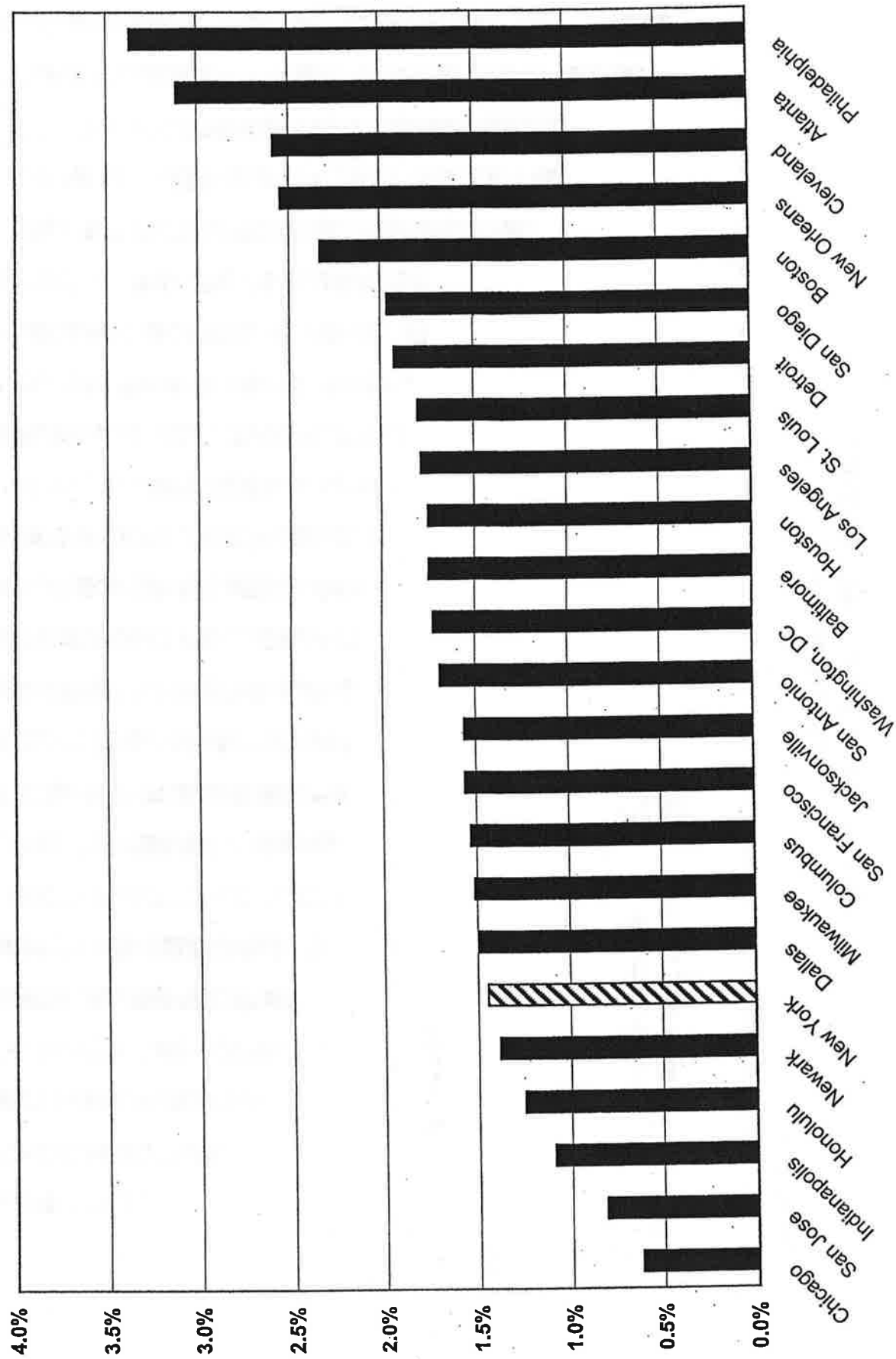
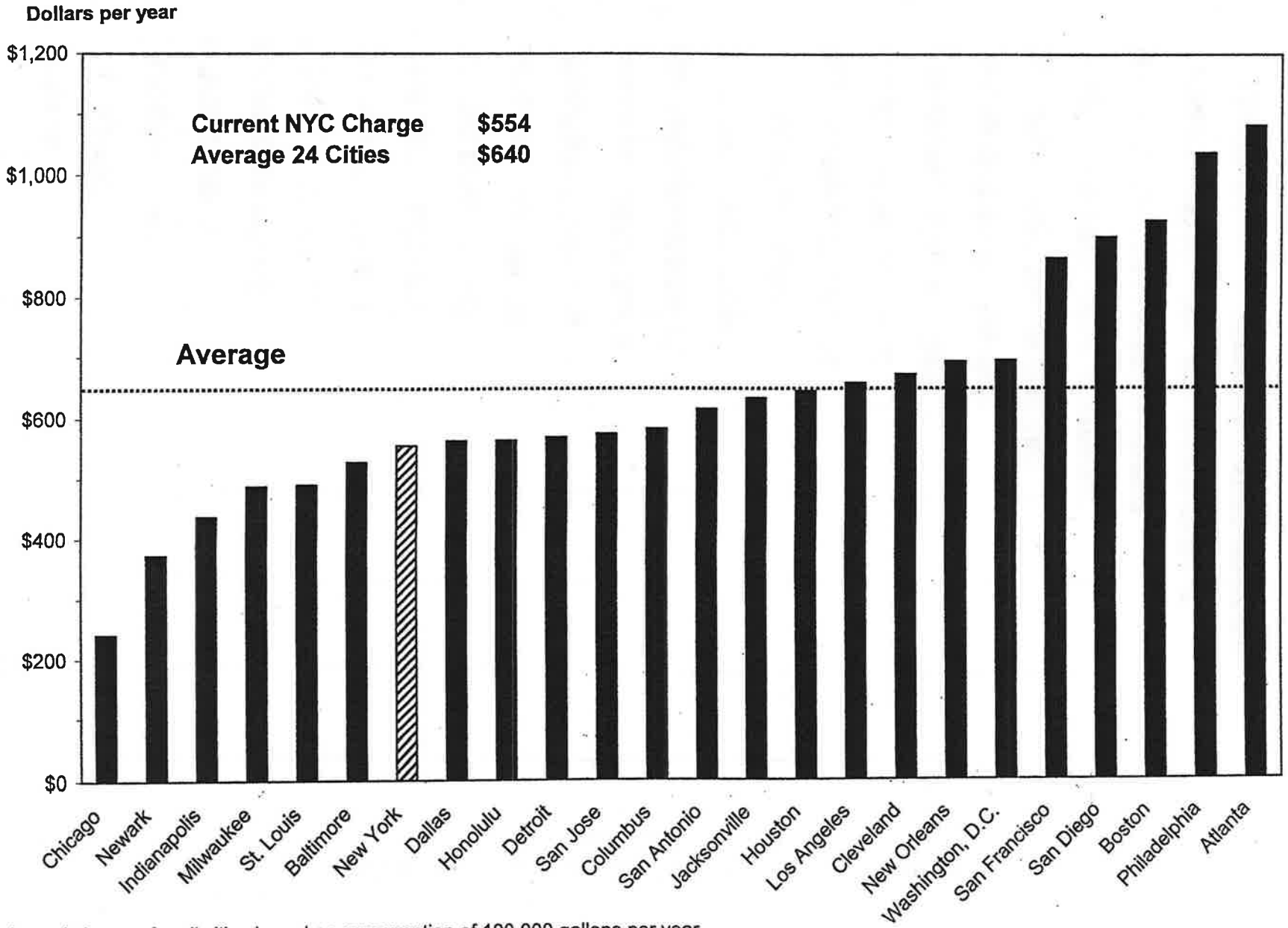
2006 Proposed


FY2006 Rate Projection
Change Over Time
10.0%
9.0%
8.0%
7.0%
6.0%
5.0%
4.0%
3.0%
2.0%
1.0%
0.0%
8.0%
8.0%
8.5%
9.3%
9.4%
5.5%
5.0%
5.0%
3.0%
Apr-01
Aug-01
Jun-02
Apr-03
Feb-04
Apr-04
Nov-04
Mar-05
Proposed

Residential Water/Wastewater Charges as Percent of Median Household Income

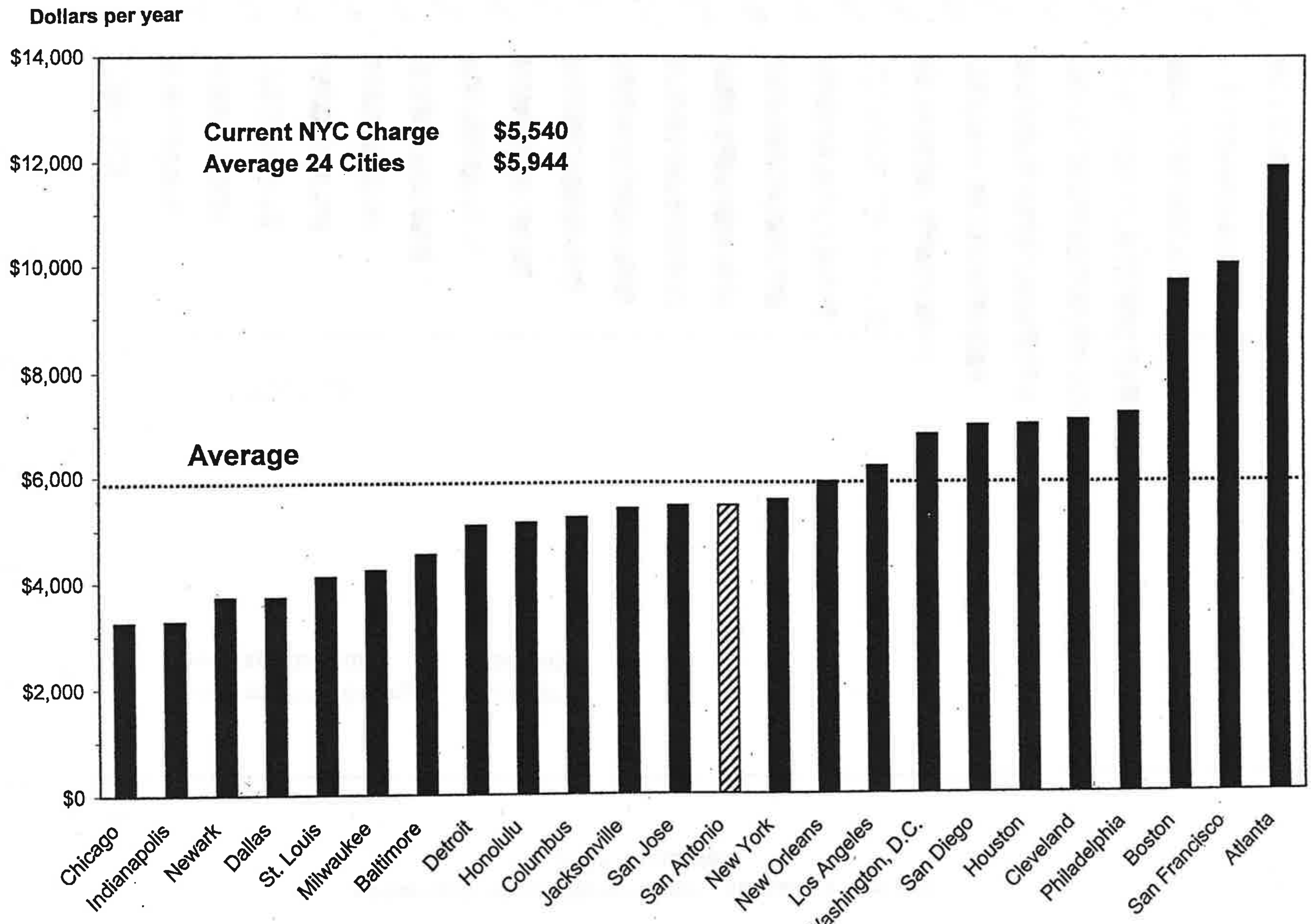


Annual Water/Wastewater Charges
2005 Residential



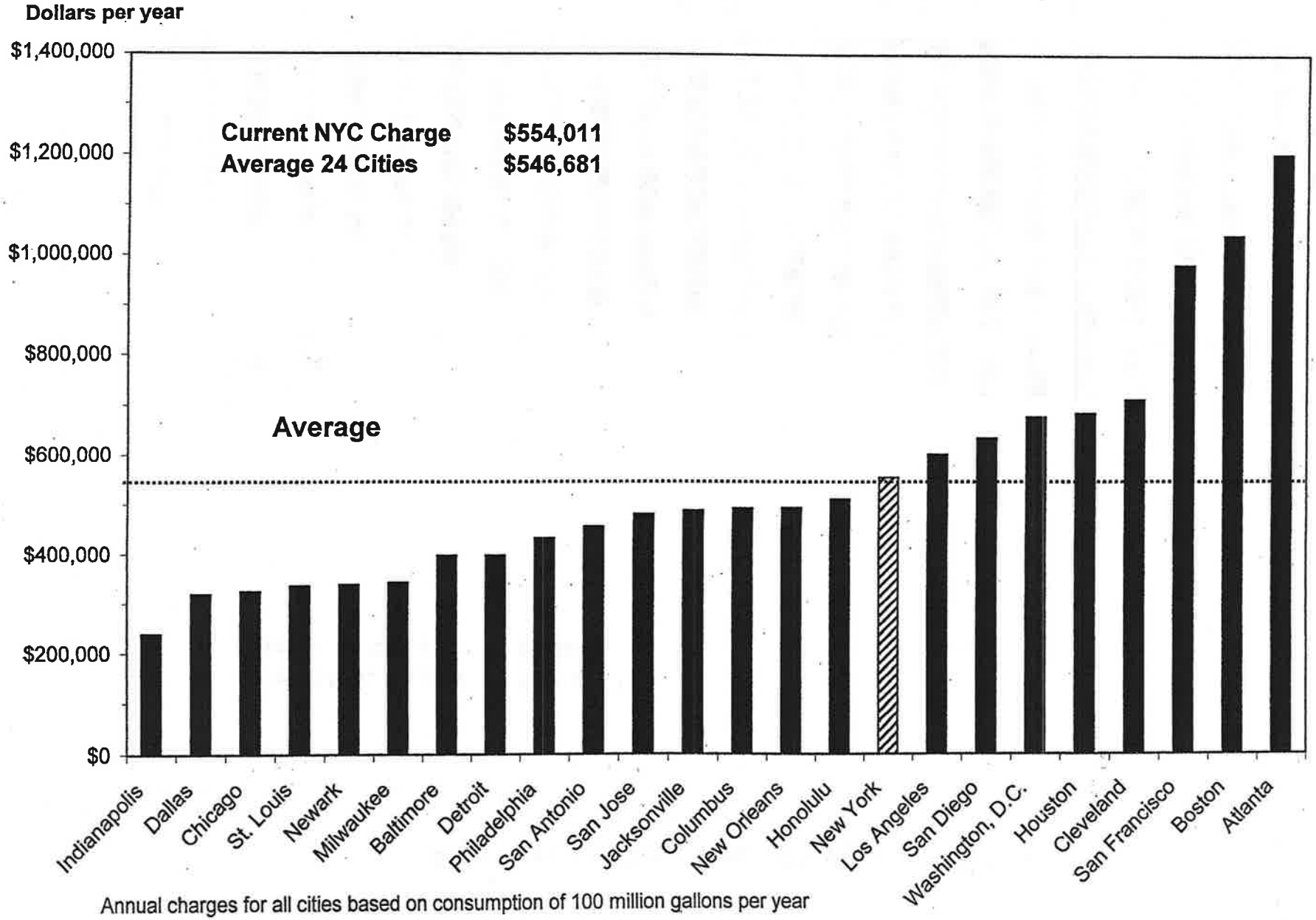
Annual charges for all cities based on consumption of 100,000 gallons per year

Annual Water/Wastewater Charges
2005 Commercial



Annual charges for all cities based on consumption of 1 million gallons per year

Residential Water/Wastewater Charges as Percent
2005 Industrial



Annual charges for all cities based on consumption of 100 million gallons per year

Typical New York City Charges

Assuming Proposed 3% Increase in FY2006 Rates

(Combined Water/Wastewater Charge)

	FY2005 Average	FY2006 Average	Change
Flat-Rate Customers			
Single Family Residential	$626	$645	$19
Two-Family Residential	$971	$1,000	$29
Walk-Up Apartments	$2,974	$3,063	$89
Charge per Dwelling Unit	$447	$460	$13
Elevator Apartments	$33,466	$34,470	$1,004
Charge per Dwelling Unit	$507	$522	$23

Metered Customers

	Rates per 100 Cubic Feet		
Residential & Commercial			
Water	$1.60	$1.65	$0.05
Wastewater	$2.54	$2.62	$0.08
Combined	$4.14	$4.27	$0.13

Typical Metered Charges

	Average Annnual Charges		
	FY2005	FY2006	Change
Single Family (100,000 gallons)	$554	$571	$17
Per Multifamily Unit (85,000 gallons)	$471	$486	$15

Change in Single Family Charges

2004 - 2005

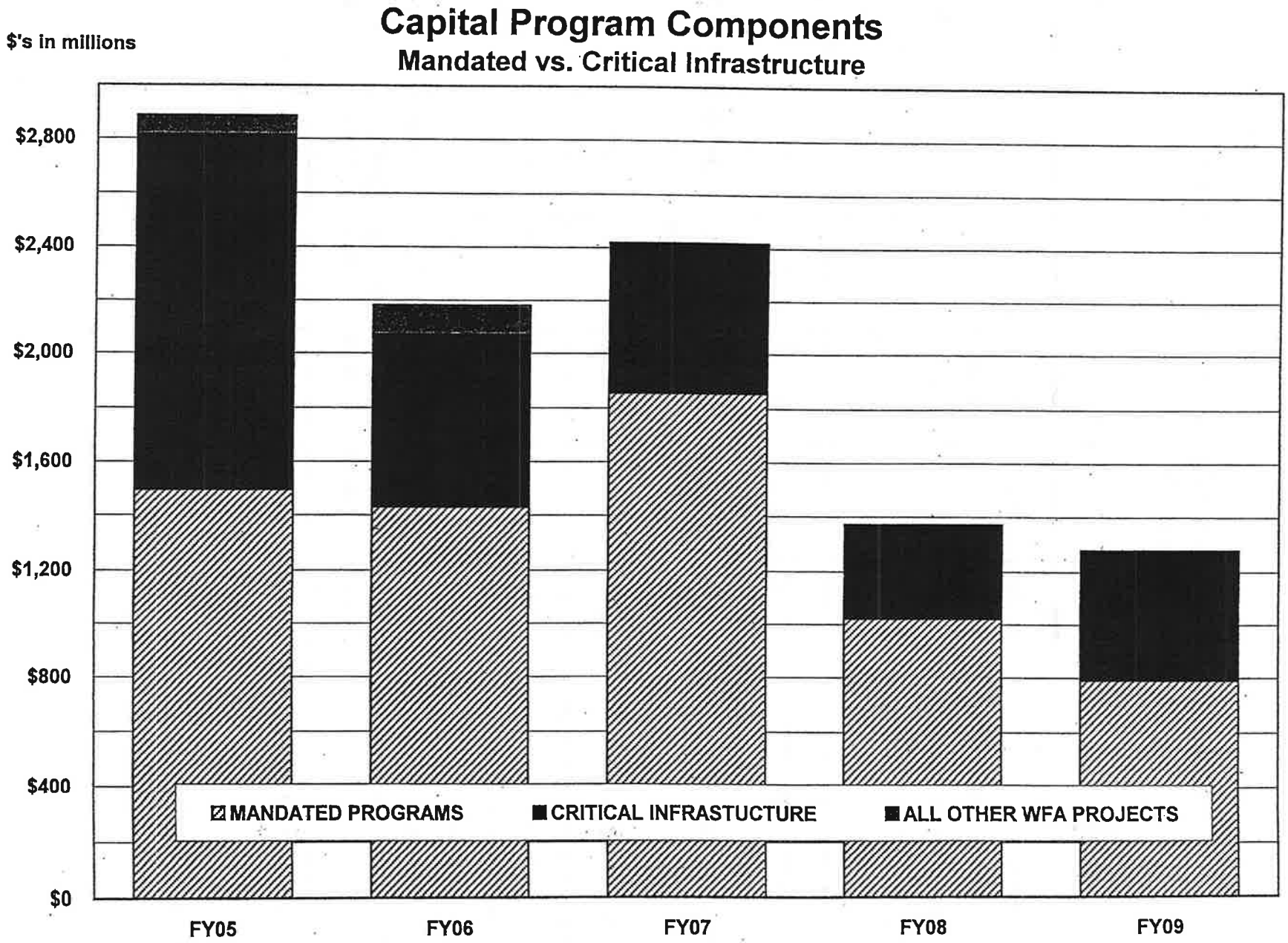
	Dollars	Percent Change
St. Louis	$73	17.6%
San Antonio	$89	16.9%
Detroit	$65	12.9%
Philadelphia	$110	11.9%
Los Angeles	$64	10.8%
Cleveland	$64	10.6%
Houston	$52	8.8%
Baltimore	$43	8.8%
New Orleans	$52	8.2%
Dallas	$28	5.3%
New York City	*$17*	*3.0%*
24 City Average	$28	5.0%

Water and Wastewater System Capital Program

(Per January 2005 Commitment Plan)

Program $(000)'s

	FY05	FY06	FY07	FY08	FY09	5-Year Total
Croton Filtration	221,292	194,219	1,016,500	78,000	-	1,510,011
Ultra Violet Disinfection Facility	141,901	-	491,800	-	-	633,701
Filtration Avoidance Program	66,699	29,778	15,361	6,000	1,000	118,838
Other Watershed Investments	189,133	103,280	14,000	197,175	91,759	595,347
Newtown Creek	282,007	229,000	-	142,000	260,000	913,007
Combined Sewer Overflow	32,060	239,656	11,104	71,644	36,500	390,964
Water Pollution Control Plants	534,903	605,428	278,755	499,161	364,142	2,282,389
Utility Relocation	26,399	26,893	26,375	27,788	37,662	145,117
MANDATED PROGRAMS	**1,494,394**	**1,428,254**	**1,853,895**	**1,021,768**	**791,063**	**6,589,374**
	51.8%	**65.5%**	**76.7%**	**74.5%**	**61.8%**	**65.0%**
Sewer Construction	222,247	163,068	170,146	178,695	172,124	906,280
In-City Water Main Construction	155,564	176,159	112,371	116,289	121,084	681,467
Third Water Tunnel	769,528	72,003	50,000	4,000	150,000	1,045,531
Delaware Aqueduct Project	33,806	1,000	177,300	-	-	212,106
Hillview Reservoir	15,174	84,137	-	8,000	-	107,311
Other DEP Projects	122,656	143,801	52,981	42,649	44,751	406,838
CRITICAL INFRASTUCTURE	**$1,318,975**	**$640,168**	**$562,798**	**$349,633**	**$487,959**	**$3,359,533**
	45.7%	**29.4%**	**23.3%**	**25.5%**	**38.2%**	**33.2%**
ALL OTHER WFA PROJECTS	**$71,203**	**$111,541**	**$0**	**$0**	**$0**	**$182,744**
	2.5%	**5.1%**	**0.0%**	**0.0%**	**0.0%**	**1.8%**
TOTAL CAPITAL PROGRAM	**$2,884,572**	**$2,179,963**	**$2,416,693**	**$1,371,401**	**$1,279,022**	**$10,131,651**
	100%	**100%**	**100%**	**100%**	**100%**	**100%**

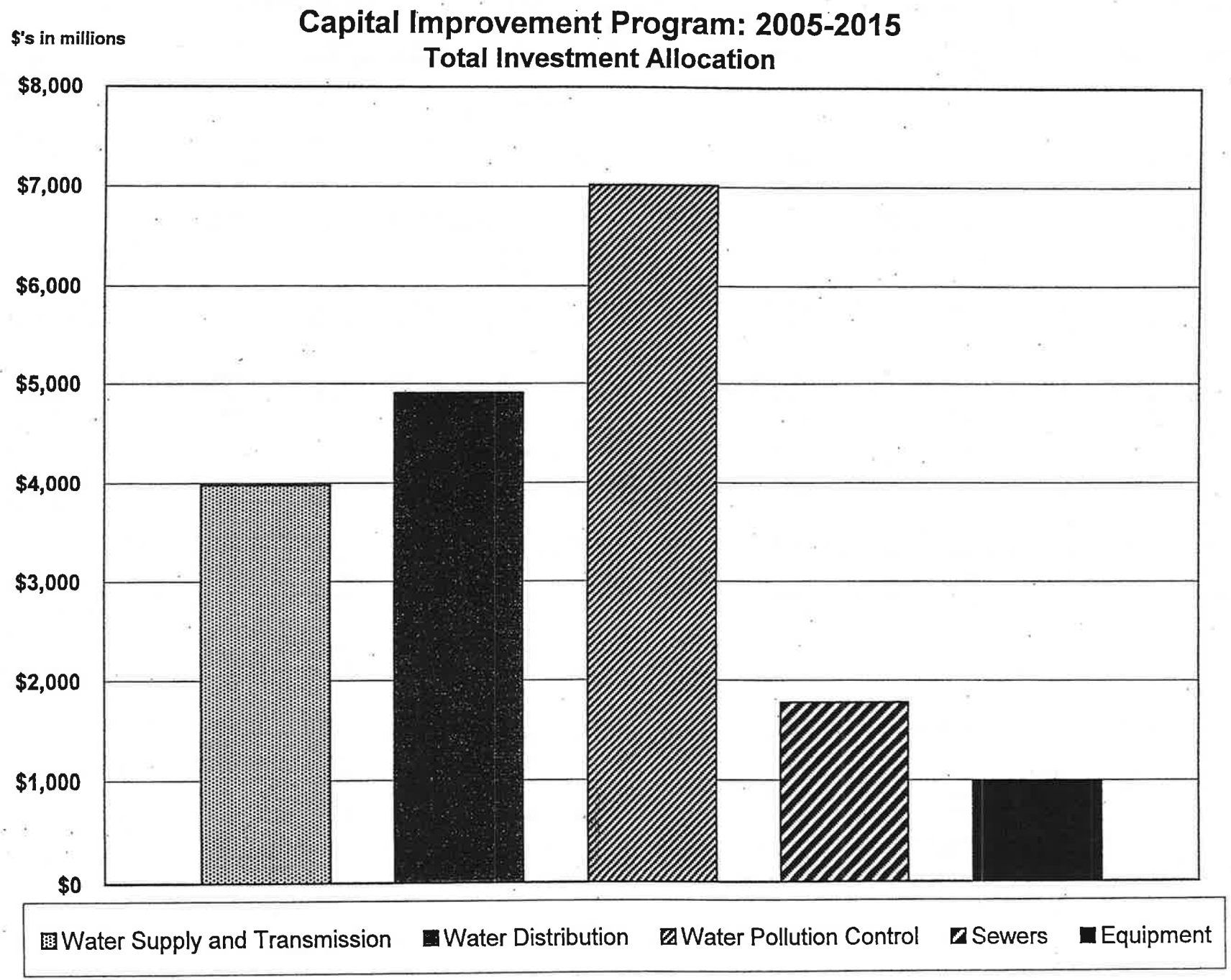

Capital Program Components
Mandated vs. Critical Infrastructure
$'s in millions
$2,800
$2,400
$2,000
$1,600
$1,200
$800
$400
$0
MANDATED PROGRAMS
CRITICAL INFRASTUCTURE
ALL OTHER WFA PROJECTS
FY05
FY06
FY07
FY08
FY09

Water and Wastewater Capital Improvement Program

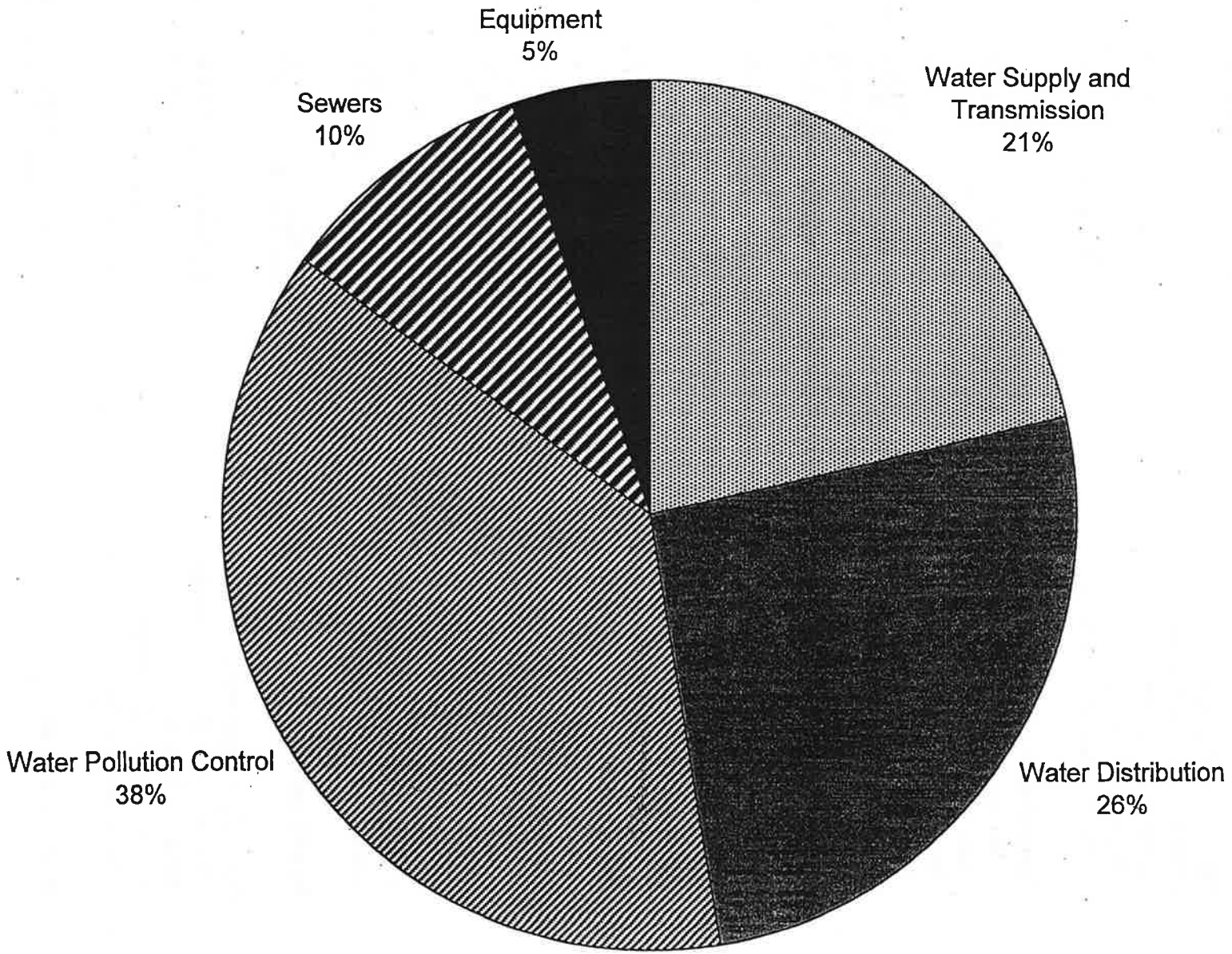
$ 000's

City Funds

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	Total
Water Supply and Transmission												
Conveyance	$27,190	$0	$0	$0	$50,000	$0	$0	$301,299	$150,000	$203,455	300,000	$1,031,944
Kensico-City Tunnel	11,925	-	50,000	-	100,000	100,000	250,000	300,000	200,000	350,000	350,000	1,711,925
City Tunnel No.3, Stage 1	2,360	75,000	-	-	-	145,000	-	-	-	5,345	5,500	233,205
City Tunnel No.3, Stage 2	743,227	46,037	-	8,000	-	-	150,000	15,000	-	-	-	962,264
Miscellaneous Programs	-	35,103	-	4,000	-	-	-	-	-	-	-	39,103
Sub-total	$784,702	$156,140	$50,000	$12,000	$150,000	$245,000	$400,000	$616,299	$350,000	$558,800	$655,500	$3,978,441
Water Distribution												
Brooklyn-Queens Aquifer	$11,762	$13,200	$30,000	$0	$35,000	$0	$0	$0	$0	$0	$0	$89,962
Croton Filtration Project	221,292	194,219	1,016,500	78,000	-	-	-	-	-	-	-	1,510,011
Dam Safety Program	40,338	61,315	-	163,875	-	124,000	120,000	55,000	-	-	-	564,528
Trunk & Distribution Main Extensions	20,297	53,415	16,970	58,012	32,819	46,286	54,164	31,206	41,398	42,744	44,128	441,439
Trunk & Distribution Main Replacement	116,393	91,610	60,401	47,264	47,807	66,489	58,494	86,334	78,056	80,180	82,513	815,541
Water Quality Preservation	390,001	72,743	698,461	39,300	92,759	11,927	11,255	11,593	11,941	47,100	48,466	1,435,546
Other System Improvements	8,312	17,934	5,000	11,013	5,458	-	2,558	-	-	-	-	50,275
Sub-total	$808,395	$504,436	$1,827,332	$397,464	$213,843	$248,702	$246,471	$184,133	$131,395	$170,024	$175,107	$4,907,302
Water Pollution Control												
Consent Decree Upgrading & Const.	$418,939	$260,794	$0	$156,000	$260,000	$110,457	$8,000	$31,000	$70,000	$28,722	$29,554	$1,373,466
Biological Nutrient Removal	-	93,326	-	-	-	8,712	-	-	-	-	-	102,038
Plant Upgrading & Reconstruction	122,064	165,167	92,423	191,558	67,150	105,500	98,500	83,500	83,500	90,039	95,100	1,194,501
Sludge Disposal	28,074	7,027	-	-	141,056	-	-	-	-	-	-	176,157
Plant Component Stabilization	266,743	331,408	186,332	293,603	155,936	517,130	330,000	280,000	430,000	306,201	312,633	3,409,986
Water Quality Mandates	28,800	239,656	11,104	71,644	56,500	62,875	127,500	5,000	7,000	30,000	120,000	760,079
Sub-total	$864,620	$1,097,378	$289,859	$712,805	$680,642	$804,674	$564,000	$399,500	$590,500	$454,962	$557,287	$7,016,227
Sewers												
Replacement or Augmentation	$8,775	$29,284	$20,014	$31,809	$27,818	$5,000	$8,300	$5,000	$5,000	$0	$0	$141,000
Extensions (New Develpopment)	79,866	56,829	102,005	88,145	109,320	105,269	124,032	83,391	108,292	117,484	121,797	1,096,430
Programmatic Replacement & Reconst.	715	-	500	-	-	-	-	-	-	-	-	1,215
Response to Regulatory Mandates	-	-	-	9,000	-	-	-	-	-	-	-	9,000
Replacement of Failing Components	129,054	75,671	46,343	48,457	34,986	34,485	32,551	32,998	31,000	31,000	31,000	527,545
Trunk Sewers	3,837	1,284	1,284	1,284	-	-	-	-	-	-	-	7,689
Sub-total	$222,247	$163,068	$170,146	$178,695	$172,124	$144,754	$164,883	$121,389	$144,292	$148,484	$152,797	$1,782,879
Equipment												
Conservation	$30,679	$25,262	$10,000	$27,500	$10,000	$10,000	$10,000	$10,000	$10,000	$10,000	$10,000	$163,441
Landfill Remediation - Brookfield Ave.	71,203	111,541	-	-	-	-	-	-	-	-	-	182,744
Management Information Systems	28,335	14,407	4,743	4,224	6,061	2,507	2,670	2,843	3,042	3,246	3,290	75,368
Facility Purchases & Reconstruction	29,279	73,163	31,228	3,975	1,600	38,118	-	-	-	-	-	177,363
Utility Relocation	26,399	26,893	26,375	27,788	37,662	26,825	27,383	26,885	26,960	26,450	26,450	306,070
Vehicles and Equipment	18,713	7,675	7,010	6,950	7,090	7,100	7,050	7,035	7,065	7,085	7,290	90,063
Sub-total	$204,608	$258,941	$79,356	$70,437	$62,413	$84,550	$47,103	$46,763	$47,067	$46,781	$47,030	$995,049
Total City Funds	$2,884,572	$2,179,963	$2,416,693	$1,371,401	$1,279,022	$1,527,680	$1,422,457	$1,368,084	$1,263,254	$1,379,051	$1,587,721	$18,679,898


Capital Improvement Program: 2005-2015
Total Investment Allocation
$'s in millions
$8,000
$7,000
$6,000
$5,000
$4,000
$3,000
$2,000
$1,000
$0
Water Supply and Transmission
Water Distribution
Water Pollution Control
Sewers
Equipment

Capital Improvement Program: 2005-2015
Total Investment Allocation

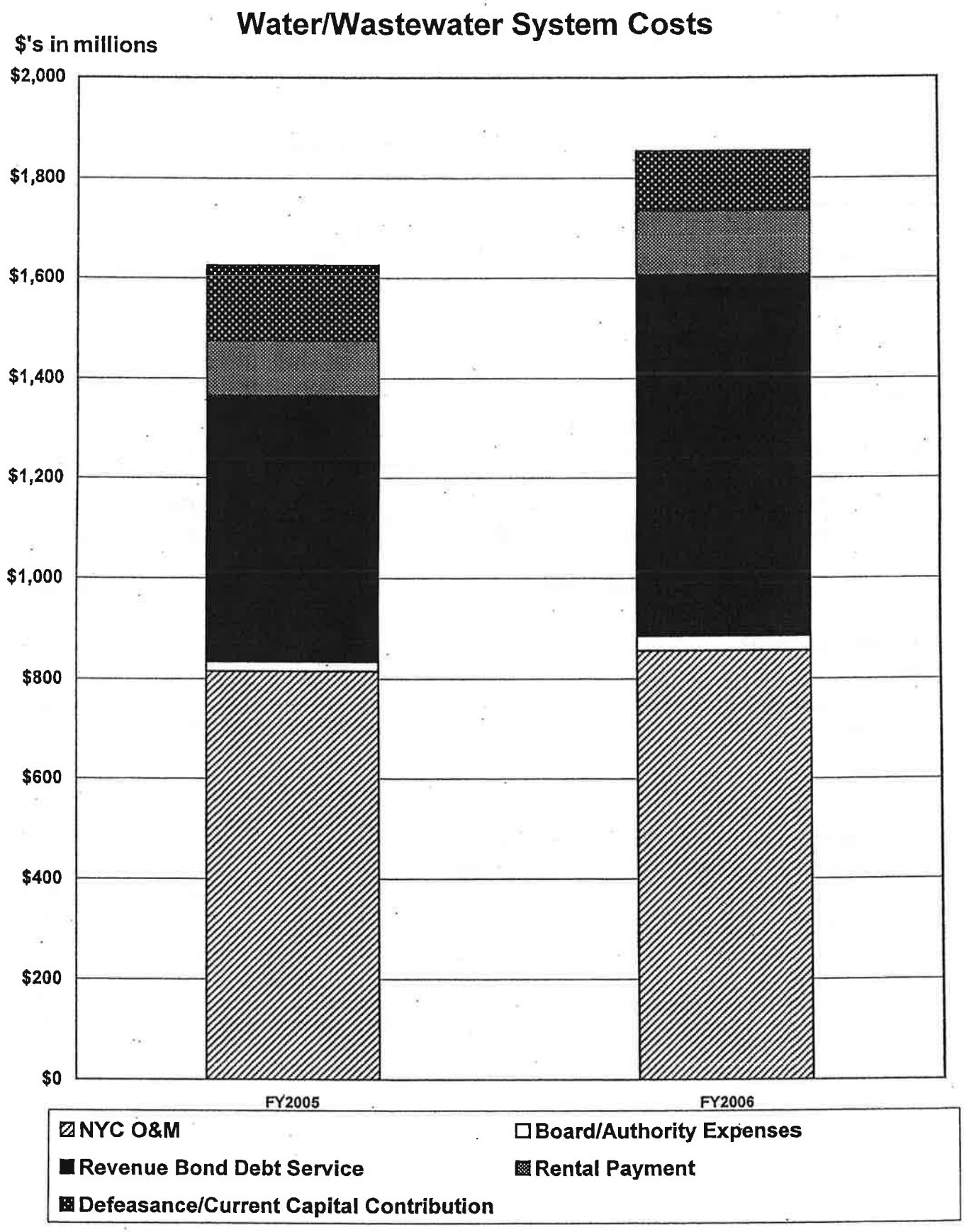


Anticipated Water and Wastewater System Expenditures
($'s in millions)

	FY2005	FY2006	Change
WFA Debt Service			
First Resolution Bonds:			
Outstanding Bonds	$472.6	$510.9	$38.3
Anticipated Future Bonds	0.4	40.5	40.1
Total First Resolution Bonds	$473.0	$551.4	$78.4
Subordinate Obligations:			
Interest on Commercial Paper	$18.0	$34.0	$16.0
Outstanding Second Resolution Bonds	312.7	344.4	31.7
Anticipated Future Second Resolution Bonds	-	7.0	7.0
Less: EFC Subsidy and Cap Interest	(82.2)	(93.3)	(11.1)
Actual Debt Service on Subordinated Obligations	$248.5	$292.1	$43.6
Less: Carryforward Revenues	(190.0)	(121.2)	68.8
Net Debt Service on Subordinated Obligations	$58.5	$170.9	$112.4
Debt Service Payable from Current Revenues	$531.5	$722.3	$190.8
Operating Expenses			
Authority/Board Operations	$19.4	$29.0	$9.6
Authority Expense for Defeasance of Debt	150.0	60.0	(90.0)
Water System	356.1	376.0	19.9
Wastewater System	440.9	458.7	17.8
Indirect Expenses	12.9	12.9	-
Judgments and Claims	8.0	8.0	-
Total Operating & Maintenance Expenses	$987.3	$944.6	($42.7)
Less: Credit for Prior Year Excess O&M Payment	(3.3)	-	3.3
Rental Payment	109.5	127.7	18.2
Current Capital Contribution	-	60.0	60.0
Total Operating Expenses	$1,093.5	$1,132.3	$38.8
Total Expenses	$1,625.0	$1,854.6	$229.6
Operating Revenues			
Water/Sewer User Payments	$1,665.5	$1,882.8	$217.3
Upstate Revenues	24.1	26.3	$2.2
Miscellaneous Revenue	5.8	6.1	$0.3
Water Finance Authority Investment Income	50.7	65.3	$14.6
Total Revenues	$1,746.1	$1,980.5	$234.4
Surplus Carryforward	$121.1	$125.9	$4.8

Water vs. Wastewater System Costs
($'s in millions)

	FY2006 Total Costs	Water Costs	Wastewater Costs
WFA Debt Service			
First Resolution Bonds:			
Outstanding Bonds	$510.9	$258.3	$252.6
Anticipated Future Bonds	40.5	20.5	20.0
Total First Resolution Bonds	$551.4	$278.7	$272.7
Subordinate Obligations:			
Interest on Commercial Paper	$34.0	$12.8	$21.2
Outstanding Second Resolution Bonds	344.4	34.4	310.0
Anticipated Future Second Resolution Bonds	7.0	0.7	6.3
Less: EFC Subsidy and Cap Interest	(93.3)	(9.3)	(84.0)
Actual Debt Service on Subordinated Obligations	292.1	$38.6	253.5
Less: Carryforward Revenues	(121.2)	(45.6)	(75.6)
Net Debt Service on Subordinated Obligations	$170.9	($7.0)	$177.9
Debt Service Payable from Current Revenues	$722.3	$271.7	$450.6
Operating Expenses			
Authority/Board Operations	$29.0	$9.5	$19.5
Authority Expense for Defeasance of Debt	60.0	30.3	29.7
Water System	376.0	376.0	
Wastewater System	458.7		458.7
Indirect Expenses	12.9	5.8	7.1
Judgments and Claims	8.0	3.6	4.4
Total Operating & Maintenance Expenses	$944.6	$425.2	$519.4
Less: Credit for Prior Year Excess O&M Payment	-		
Rental Payment	127.7	48.0	$79.7
Current Capital Contribution	60.0	22.6	37.4
Total Operating Expenses	$1,132.3	$495.9	$636.4
Total Expenses	$1,854.6	$767.6	$1,087.0


Water/Wastewater System Costs
$'s in millions
$2,000
$1,800
$1,600
$1,400
$1,200
$1,000
$800
$600
$400
$200
$0
FY2005
FY2006
NYC O&M
Board/Authority Expenses
Revenue Bond Debt Service
Rental Payment
Defeasance/Current Capital Contribution

Rate Advisor's Conclusions

- The 3.0% increase in water rates and charges proposed by the Board will yield anticipated revenues for Fiscal Year 2006 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 and Miscellaneous Fee 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.

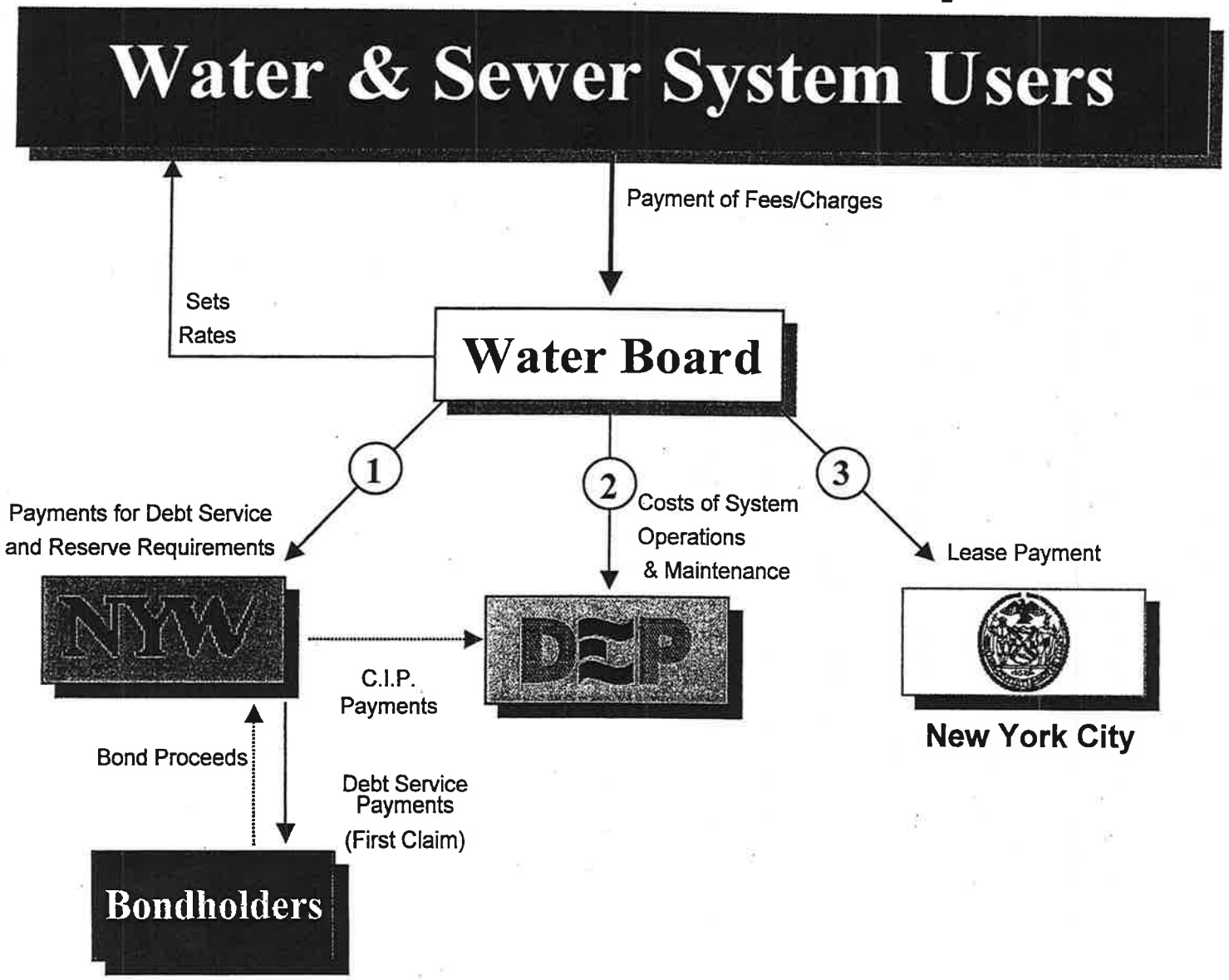
Process for Water Board Rate Adoption

- 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 1986 to finance water and wastewater capital projects and certifies the FY2006 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 FY2006 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 and Wastewater Systems

The Water System

DEP supplies water to over eight million people in the Boroughs of the Bronx, Brooklyn, Manhattan, Queens and Staten Island, an area of over 300 square miles. The City is also required by law to sell water to communities located in the eight counties where its water supply facilities are located. It currently provides water to approximately one million additional people in portions of four of the eight eligible counties.

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 well system has 2.6 billion gallons of storage capacity.

In fiscal year 2004, the Water System provided an average of 1,215 million gallons per day from its upstate surface water systems to in-City and upstate customers as well as an average of 8 million gallons per day from wells located in southeast Queens. On summer days when demand is at its highest, the surface water system has provided over 1,500 million gallons per day. The well system could provide up to 33 million gallons per day. Unlike the City's surface water supply, which is a gravity-supplied system, well water is pumped from extensive underground aquifers.

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. Tunnel 3 is being built in four stages and the first stage went into operation in July 1998. Stage 2 is currently under construction and is expected to be completed in 2012. Tunnel 3 will provide water delivery if Tunnels 1 or 2 are taken out of service for inspection and/or repair.

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. Various facilities provide storage to meet the hourly fluctuations in demand for water throughout the City, as well as any sudden increase in demand that might arise from fire or other emergencies.

New York City's water system is economical, flexible and reliable. 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 fourteen drainage areas corresponding to the fourteen in-City water pollution control plants. More than 6,600 miles of sewer pipes of varying size convey wastewater to one of the water pollution control plants. Sewer pipes 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. Approximately 70% of the City's sewers are classified as the combined type. In addition to sewage pipes, the wastewater system includes catch basins and seepage basins, which prevent flooding and sewer backups.

The water pollution control facilities have the capacity to treat approximately 1,805 million gallons of wastewater per day. The facilities related to the treatment of sewage include fourteen water pollution control plants, a combined sewer overflow treatment plant, wastewater pump stations, sewer regulators and tide gates, laboratories, sludge dewatering facilities and inner-harbor vessels which transport sludge between facilities.

Normally, the City produces 1,300 million gallons per day of dry-weather sewage. During periods of heavy rainfall, a combination of stormwater and sewage may bypass treatment and be released into the surrounding waterways since there may not be sufficient capacity to treat or retain all of the wastewater carried by the system. Wastewater pump stations lift sewer flow when gravity flow becomes uneconomical or impractical so that it can flow again by gravity. Sewer regulators and tide gates control the rate of flow in the System. 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 water pollution control plants located in the watershed region in order to prevent untreated sewage from being released into the waterways.