

SEWER AND WATER DISTRICTS

Areas which are not served by private water or sewer systems are grouped into County Sewer and Water Districts. Thirteen sewer districts and four water districts are responsible for providing these services. The capital and operating costs of the Department of Environmental Facilities and all treatment facilities are shared by each District through an ad valorem tax.

The results of the Sanitary Sewer System Evaluation Studies have been reviewed by the Department of Environmental Facilities, and shared with local municipalities. The studies together with a New York State Department of Environmental Conservation consent order, are expected to direct future capital projects including the Municipal Inflow and Infiltration Reduction Program (S__86 series).

Appropriations have been included in the 2000 Capital Budget for the following projects:

- SBB10 Blind Brook WWTP Automation
- SBB86 Blind Brook SSD Municipal Sewer System Rehabilitation
- SM010 Mamaroneck WWTP Automation
- SM075 Mamaroneck SSD - Pump Station Rehabilitation Program
- SM086 Mamaroneck SSD Municipal Sewer System Rehabilitation
- SNR10 New Rochelle WWTP Automation
- SNR85 New Rochelle SSD - Sewer System Rehabilitation
- SNR86 New Rochelle SSD Municipal Sewer System Rehabilitation
- SOS03 Ossining WWTP – Additional Clarifier Tank
- SOS10 Ossining WWTP Automation
- SPK01 Peekskill WWTP – Performance Maintenance
- SPK10 Peekskill WWTP Automation
- SPC01 Port Chester WWTP – Performance Maintenance
- SPS10 North Yonkers Pump Station Automation
- SY002 Yonkers JTP Primary Gravity Thickener
- SY004 Yonkers JTP Plant Gravibelt Filter
- SY010 Yonkers JTP Automation
- SY011 Yonkers JTP Fire Suppression Alarm and Security Systems
- SY012 Yonkers JTP Sludge Collection and Processing Equipment
- SY013 Yonkers JTP Storage Building
- SY038 Yonkers JTP Engine Replacement & Blower Reconditioning
- SY42C Yonkers JTP Odor Control Digest Sludge Storage Tanks
- SY075 Saw Mill SSD – Pump Station Rehabilitation Program
- SY080 Yonkers JTP Effluent Treatment
- SY086 Yonkers Joint SSD – Municipal Sewer System Rehabilitation

- WD302 CWD #3, Water Distribution System Improvements

Existing projects, approved in prior capital budgets, which require no additional funding in 2000 include:

Appropriated As Of August 31, 1999 (000's)

<u>Project</u>	<u>Total</u>	<u>Non-District Share</u>	<u>County</u>	<u>Status</u>
SBB04 Blind Brook WWTP – Refurbish Influent Headworks	3,500	2,975	525	Underway
SBB05 Blind Brook WWTP – Replace Sludge Collector Mechanisms	1,500	-0-	1,500	Underway

SEWER AND WATER DISTRICTS

Appropriated As Of August 31, 1999 (000's)

<u>Project</u>	<u>Total</u>	<u>Non-District Share</u>	<u>County</u>	<u>Status</u>	
SBB75	Blind Brook SSD - Pump Station Rehabilitation	1,500	-0-	1,500	Underway
SBB85	Blind Brook SSD - Sewer System Rehabilitation	1,500	-0-	1,500	Partially Complete
SBV75	Bronx Valley SSD - Pump Station Rehabilitation	1,360	-0-	1,360	Complete
SM085	Mamaroneck SSD - Sewer System Rehabilitation	1,500	-0-	1,500	Complete
SNR01	New Rochelle WWTP – Sludge Collection Equipment	3,500	-0-	3,500	In Design
SNR06	New Rochelle WWTP - Composite Performance	16,000	-0-	16,000	Partially Complete
SNR09	New Rochelle WWTP - Structural Repairs	1,000	-0-	1,000	Partially Complete
SNR11	New Rochelle SSD Sludge Treatment Study, Des., Const.	16,400	-0-	16,400	In Progress
SNR75	New Rochelle SSD - Pump Station Rehabilitation Program	2,600	-0-	2,600	Underway
SNY75	North Yonkers SSD - Pump Station Rehabilitation Program	1,840	-0-	1,840	Partially Complete
SOS01	Ossining WWTP Performance Maintenance	3,500	-0-	3,500	Pending
SOS02	Ossining WWTP Plant Expansion	500	-0-	500	On Hold
SOS18	Ossining WWTP Incineration Upgrade	4,500	-0-	4,500	On Hold
SOS75	Ossining SSD – Pump Station Rehabilitation	3,200	-0-	3,200	Partially Complete
SOS80	Ossining WWTP – Sodium Hypochlorite	700	-0-	700	Completed
SOS85	Ossining SSD – Sewer System Rehabilitation	750	-0-	750	Pending
SPK75	Peekskill SSD – Pump Station Rehabilitation Program	1,030	-0-	1,030	Partially Completed
SPK80	Peekskill WWTP – Sodium Hypochlorite	700	-0-	700	Underway
SPK85	Peekskill SSD – Sewer System Rehabilitation	750	-0-	750	Pending
SPC28	Port Chester WWTP Furnace Upgrade	6,200	-0-	6,200	Underway
SPC80	Port Chester WWTP – Sodium Hypochlorite	700	-0-	700	In Design
SPS17	North Yonkers Pump Station Modifications	8,780	-0-	8,780	Completed
SSM01	Saw Mill SSD - Kinderogen Sewer	2,150	150	2,000	Underway
SY001	Yonkers JTP Grit Removal Equipment	650	-0-	650	In Design
SY003	Yonkers JTP Gas Burner	500	-0-	500	In Construction
SY005	Yonkers JTP Potassium Permanganate Bulk Storage Facility	1,000	-0-	1,000	In Design
SY006	Yonkers JTP Automatic Skimming System	1,100	-0-	1,100	Underway
SY007	Yonkers JTP Sodium Hypochlorite System	560	-0-	560	Pending
SY008	Yonkers JTP Primary Boiler System Addition	750	-0-	750	Pending
SY020	Tarrytown Forcemain Replacement	50	-0-	50	Study In Progress
SY037	Yonkers JTP Cellular Bulkhead Rehabilitation	500	-0-	500	Pending
SY40C	Yonkers JTP Sludge Long Term Solution	7,000	-0-	7,000	Pending
SY042	Yonkers JTP - Odor Control Studies	600	-0-	600	Completed
SY42A	Yonkers JTP Plant Odor Control Construction & Monitoring	9,725	-0-	9,725	Completed
SY050	Yonkers JTP Clean Air Act Compliance Study	200	-0-	200	Pending
SY085	Yonkers JTP - Sewer System Rehabilitation	9,100	-0-	9,100	Partially Complete
SW007	Aerial Photos and Digital Mapping	150	-0-	150	Underway
SW036	Administration - Office Space Expansion	820	-0-	820	On Hold
SW050	Clean Air Act Compliance	600	-0-	600	Pending
SW061	General Studies, Computerization & Energy Conservation	1,400	-0-	1,400	Underway
SW070	Flow Monitoring Program - Phases II & III	1,000	-0-	1,000	Pending
SW080	Effluent Treatment	200	-0-	200	In Progress
SW098	Nutrient Removal – Pilot Project	5,000	3,800	1,200	In Design
SW101	Sewer District Consolidation	400	-0-	400	In Progress
SW102	Environmental Benefit Projects	250	-0-	250	Underway
WD301	CWD #3 - Pump Station Repair	1,400	-0-	1,400	Underway
<u>1999 Closeouts</u>					
SNR13	New Rochelle WWTP Replacement of Motor Equipment	1,250	-0-	1,250	
SW001	Yorktown Garage Upgrade	250	-0-	250	

**ENVIRONMENTAL FACILITIES
BLIND BROOK WWTP AUTOMATION (SBB10)**

FIVE YEAR CAPITAL PROGRAM (in thousands)

	Estimated							
	Ultimate	Approp-						Under
	Total Cost	riated	2000	2001	2002	2003	2004	Review
Gross	1,600	1,400	200					
Less non-District Shares	765	765						
Net	835	635	200					

Project Description:

This project provides for the design, acquisition and installation of equipment that permits the remote operation of certain plant functions from a separate location, and the automation of certain plant functions. The 2000 appropriation represents additional funding recommended by a recently completed study to improve operations at the County's wastewater treatment plants.

	<u>1999 and Prior</u>	<u>2000</u>	<u>Total</u>
	<u>Appropriation</u>	<u>Appropriation</u>	<u>Cumulative</u>
			<u>Appropriation</u>

Financing Plan:

Non-District	765,000		765,000
Bonds and/or Notes	635,000	200,000	835,000
Cash	<hr/>	<hr/>	<hr/>
Gross Appropriation	1,400,000	200,000	1,600,000

**ENVIRONMENTAL FACILITIES
MUNICIPAL SEWER SYSTEM REHABILITATION –
BLIND BROOK SSD (SBB86)**

FIVE YEAR CAPITAL PROGRAM (in thousands)

	Estimated							
	Ultimate	Approp-						Under
	Total Cost	riated	2000	2001	2002	2003	2004	Review
Gross	1,300	335	965					
Less non-District Shares								
Net	1,300	335	965					

Project Description:

This project will fund rehabilitation of municipal sanitary sewer lines and manholes as identified in the Sanitary Sewer Evaluation Study (SSES) and pursuant to consent order.

The SSES identified certain municipal sewer lines and manholes that need rehabilitation due to excessive inflow and/or infiltration. These projects will provide funds for TV monitoring, cleaning, lining, or replacing as necessary those lines which have been or will be identified as having excessive inflow and infiltration. In addition, manholes will be rehabilitated, replaced or sealed as needed. Smoke testing and dye testing of existing and rehabilitated lines and manholes will also be included as part of this project. This testing will be necessary to identify specific programs and verify the effectiveness of the rehabilitation, repair and replacement work.

	<u>1999 and Prior</u>	<u>2000</u>	<u>Total</u>
	<u>Appropriation</u>	<u>Appropriation</u>	<u>Cumulative</u>
			<u>Appropriation</u>

Financing Plan:

Non-District Bonds and/or Notes	335,000	965,000	1,300,000
Cash	<hr/>	<hr/>	<hr/>
Gross Appropriation	335,000	965,000	1,300,000

**ENVIRONMENTAL FACILITIES
MAMARONECK WWTP AUTOMATION (SM010)**

FIVE YEAR CAPITAL PROGRAM (in thousands)

	Estimated							
	Ultimate	Approp-						Under
	Total Cost	riated	2000	2001	2002	2003	2004	Review
Gross	1,600	1,250	350					
Less non-District Shares								
Net	1,600	1,250	350					

Project Description:

This project provides for the design, acquisition and installation of equipment that permits the remote operation of certain plant functions from a separate location, and the automation of certain plant functions. The 2000 appropriation represents additional funding recommended by a recently completed study to improve operations at the County's wastewater treatment plants.

	<u>1999 and Prior</u>	<u>2000</u>	<u>Total</u>
	<u>Appropriation</u>	<u>Appropriation</u>	<u>Cumulative</u>
			<u>Appropriation</u>

Financing Plan:

Non-District Bonds and/or Notes	500,000		500,000
Cash	<u>750,000</u>	<u>350,000</u>	<u>1,100,000</u>
Gross Appropriation	1,250,000	350,000	1,600,000

**ENVIRONMENTAL FACILITIES
PUMP STATION REHABILITATION PROGRAM –
MAMARONECK SSD (SM075)**

FIVE YEAR CAPITAL PROGRAM (in thousands)

	Estimated							
	Ultimate	Approp-						Under
	Total Cost	riated	2000	2001	2002	2003	2004	Review
Gross	2,800	2,500	300					
Less non-District Shares								
Net	2,800	2,500	300					

Project Description:

This project stems from Capital project SW075, which established a program for rehabilitating the 40 sewage pump stations operated by DEF. The overall project was first presented in 1992. The condition of each station is evaluated each year to establish priorities.

The 2000 appropriation will fund a rehabilitation of the Glen Oaks (Beaver Brook) Pump Station. The existing appropriation covers the Fenimore Road, Weaver Street and Saxon Woods Pump Stations.

	<u>1999 and Prior</u>	<u>2000</u>	<u>Total</u>
	<u>Appropriation</u>	<u>Appropriation</u>	<u>Cumulative</u>
			<u>Appropriation</u>

Financing Plan:

Non-District Bonds and/or Notes	2,500,000		2,500,000
Cash	<u> </u>	<u>300,000</u>	<u>300,000</u>
Gross Appropriation	2,500,000	300,000	2,800,000

**ENVIRONMENTAL FACILITIES
MUNICIPAL SEWER SYSTEM REHABILITATION
MAMARONECK SSD (SM086)**

FIVE YEAR CAPITAL PROGRAM (in thousands)

	Estimated							
	Ultimate	Approp-						Under
	Total Cost	riated	2000	2001	2002	2003	2004	Review
Gross	10,100	2,465	7,635					
Less non-District Shares								
Net	10,100	2,465	7,635					

Project Description:

This project will fund rehabilitation of municipal sanitary sewer lines and manholes as identified in the Sanitary Sewer Evaluation Survey (SSES) and pursuant to consent order.

The SSES Study has identified certain municipal sewer lines and manholes in need of rehabilitation due to excessive inflow and/or infiltration. These projects will provide funds for TV monitoring, cleaning, lining or replacement as necessary those lines which have been or will be identified as having excessive inflow and infiltration. In addition, manholes will be rehabilitated, replaced or sealed as needed. Smoke testing and dye testing of existing and rehabilitated lines and manholes will also be included as part of this project. This testing will be necessary to identify specific problems and verify the effectiveness of the rehabilitation, repair and replacement work.

	<u>1999 and Prior</u>	<u>2000</u>	<u>Total</u>
	<u>Appropriation</u>	<u>Appropriation</u>	<u>Cumulative</u>
			<u>Appropriation</u>

Financing Plan:

Non-District Bonds and/or Notes	2,465,000	7,635,000	10,100,000
Cash	<hr/>	<hr/>	<hr/>
Gross Appropriation	2,465,000	7,635,000	10,100,000

ENVIRONMENTAL FACILITIES NEW ROCHELLE WWTP AUTOMATION (SNR10)

FIVE YEAR CAPITAL PROGRAM (in thousands)

	Estimated							
	Ultimate	Approp-						Under
	Total Cost	riated	2000	2001	2002	2003	2004	Review
Gross	1,200	950	250					
Less non-District Shares								
Net	1,200	950	250					

Project Description:

This project provides for the design, acquisition and installation of equipment that permits the remote operation of certain plant functions from a separate location, and the automation of certain plant functions. The 2000 appropriation represents additional funding recommended by a recently completed study to improve operations at the County's wastewater treatment plants.

	<u>1999 and Prior Appropriation</u>	<u>2000 Appropriation</u>	<u>Total Cumulative Appropriation</u>
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Financing Plan:

Non-District Bonds and/or Notes Cash	950,000	250,000	1,200,000
	<hr/>	<hr/>	<hr/>
Gross Appropriation	950,000	250,000	1,200,000

ENVIRONMENTAL FACILITIES

SEWER SYSTEM REHABILITATION – NEW ROCHELLE SSD (SNR85)

FIVE YEAR CAPITAL PROGRAM (in thousands)

	Estimated							
	Ultimate	Approp-						Under
	Total Cost	riated	2000	2001	2002	2003	2004	Review
Gross	11,300	2,000	9,300					
Less non-District Shares	3,300		3,300					
Net	8,000	2,000	6,000					

Project Description:

On completion of the SSES for the New Rochelle Sewer District, it was determined that because of the condition of the sanitary sewer system, rehabilitation of the system would not enable the closing of the Flint and Whitewood overflow. The Department has completed a feasibility study to construct sanitary sewer overflow treatment facilities at two locations. The SSO Treatment Facility will result in the treatment of raw sewage discharges which presently occur from these two overflow points during major storm events. This project may include acquisition of currently unidentified property in the Whitewood Avenue area to accommodate the SSO facilities.

The Feasibility Study is complete and design of the SSO project is underway. Due to the preliminary design estimates, an additional \$3.3 million dollars above the original \$6 million is being appropriated in year 2000. The year 2000 appropriation has also been modified to reflect anticipated receipt of state grant funds. This is a consent order project.

	<u>1999 and Prior Appropriation</u>	<u>2000 Appropriation</u>	<u>Total Cumulative Appropriation</u>
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Financing Plan:

Non-District Bonds and/or Notes	2,000,000	3,300,000	3,300,000
Cash	2,000,000	6,000,000	8,000,000
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Gross Appropriation	2,000,000	9,300,000	11,300,000

**ENVIRONMENTAL FACILITIES
MUNICIPAL SEWER SYSTEM REHABILITATION –
NEW ROCHELLE SSD (SNR86)**

FIVE YEAR CAPITAL PROGRAM (in thousands)

	Estimated							
	Ultimate	Approp-						Under
	Total Cost	riated	2000	2001	2002	2003	2004	Review
Gross	14,600	3,710	10,890					
Less non-District Shares								
Net	14,600	3,710	10,890					

Project Description:

This project will fund rehabilitation of municipal sanitary sewer lines and manholes as identified in the Sanitary Sewer Evaluation Study (SSES) and pursuant to consent order.

The SSES has identified certain municipal sewer lines and manholes requiring rehabilitation due to excessive inflow and/or infiltration. These projects will provide funds for TV monitoring, cleaning, lining or replacement as necessary those lines which have been or will be identified as having excessive inflow and infiltration. In addition, manholes will be rehabilitated, replaced or sealed as needed. Smoke testing and dye testing of existing and rehabilitated lines and manholes will also be included as part of this project. This testing will be necessary to identify specific problems and verify the effectiveness of the rehabilitation, repair, and replacement work.

	<u>1999 and Prior</u>	<u>2000</u>	<u>Total</u>
	<u>Appropriation</u>	<u>Appropriation</u>	<u>Cumulative</u>
			<u>Appropriation</u>

Financing Plan:

Non-District Bonds and/or Notes	3,710,000	10,890,000	14,600,000
Cash	<hr/>	<hr/>	<hr/>
Gross Appropriation	3,710,000	10,890,000	14,600,000

**ENVIRONMENTAL FACILITIES
OSSINING WWTP ADDITIONAL CLARIFIER TANK (SOS03)**

FIVE YEAR CAPITAL PROGRAM (in thousands)

	Estimated							
	Ultimate	Approp-						Under
	Total Cost	riated	2000	2001	2002	2003	2004	Review
Gross	8,000		1,500	6,500				
Less non-District Shares								
Net	8,000		1,500	6,500				

Project Description:

This project will fund the installation of a fourth clarifier tank at the Ossining Waste Water Treatment Plant to handle periodic surges in flow. The year 2000 appropriation will fund design. Construction will take place in year 2001. This project complies with the recommendations of a recently completed study on improving wastewater treatment plant operations.

**2000
Appropriation**

Financing Plan:

Non-District Bonds and/or Notes	1,500,000
Cash	<hr style="width: 100px; margin-left: auto; margin-right: 0;"/>
Gross Appropriation	1,500,000

ENVIRONMENTAL FACILITIES OSSINING WWTP AUTOMATION (SOS10)

FIVE YEAR CAPITAL PROGRAM (in thousands)

	Estimated							
	Ultimate	Approp-						Under
	Total Cost	riated	2000	2001	2002	2003	2004	Review
Gross	1,800	1,350	450					
Less non-District Shares								
Net	1,800	1,350	450					

Project Description:

This project provides for the design, acquisition and installation of equipment that permits the remote operation of certain plant functions from a separate location, and the automation of certain plant functions. The 2000 appropriation represents additional funding recommended by a recently completed study to improve operations at the County's wastewater treatment plants.

	<u>1999 and Prior Appropriation</u>	<u>2000 Appropriation</u>	<u>Total Cumulative Appropriation</u>
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Financing Plan:

Non-District Bonds and/or Notes Cash	1,350,000	450,000	1,800,000
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Gross Appropriation	1,350,000	450,000	1,800,000

ENVIRONMENTAL FACILITIES PEEKSKILL WWTP PERFORMANCE MAINTENANCE (SPK01)

FIVE YEAR CAPITAL PROGRAM (in thousands)

	Estimated							
	Ultimate	Approp-						Under
	Total Cost	riated	2000	2001	2002	2003	2004	Review
Gross	1,500	1,100	400					
Less non-District Shares								
Net	1,500	1,100	400					

Project Description:

This is a previously programmed project which will provide for the replacement, rehabilitation or upgrading of major plant components and equipment which will be reaching the end of useful life. The project will include, but not be limited to, a secondary gas digester system, air blower, bar screen, transformer, sludge recirculating pump, grit pumps, tank drain pumps, odor abatement system, security system upgrade, primary tank collector equipment, aeration tank air system, chlorinators, and such other equipment as may be found to be in need of replacement, upgrading or rehabilitation, together with all necessary construction, design and engineering supervision.

Performance maintenance projects are periodically undertaken at each of the wastewater treatment plants to replace or upgrade plant equipment and components that are reaching the end of their useful lives and/or are no longer feasible to repair. Parts are often unavailable for older equipment and the cost benefit of continued repair indicates replacement as the logical approach. As many of these components form interrelated subsystems and reach the end of their useful lives at approximately the same time, replacement of these items is most efficiently and economically undertaken as a single comprehensive project.

	<u>1999 and Prior Appropriation</u>	<u>2000 Appropriation</u>	<u>Total Cumulative Appropriation</u>
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Financing Plan:

Non-District Bonds and/or Notes	1,000,000	400,000	1,400,000
Cash	100,000		100,000
Gross Appropriation	1,100,000	400,000	1,500,000

ENRIVONMENTAL FACILITIES PEEKSKILL WWTP AUTOMATION (SPK10)

FIVE YEAR CAPITAL PROGRAM (in thousands)

	Estimated							
	Ultimate	Approp-						Under
	Total Cost	riated	2000	2001	2002	2003	2004	Review
Gross	1,850	1,200	650					
Less non-District Shares								
Net	1,850	1,200	650					

Project Description:

This project provides for the design, acquisition and installation of equipment that permits the remote operation of certain plant functions from a separate location, and the automation of certain plant functions. The 2000 appropriation represents additional funding recommended by a recently completed study to improve operations at the County's wastewater treatment plants.

	<u>1999 and Prior Appropriation</u>	<u>2000 Appropriation</u>	<u>Total Cumulative Appropriation</u>
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Financing Plan:

Non-District Bonds and/or Notes Cash	1,200,000	650,000	1,850,000
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Gross Appropriation	1,200,000	650,000	1,850,000

ENVIRONMENTAL FACILITIES PORT CHESTER WWTP PERFORMANCE MAINTENANCE (SPC01)

FIVE YEAR CAPITAL PROGRAM (in thousands)

	Estimated							
	Ultimate	Approp-						Under
	Total Cost	riated	2000	2001	2002	2003	2004	Review
Gross	2,600		2,600					
Less non-District Shares								
Net	2,600		2,600					

Project Description:

This project will accomplish the upgrading of the Port Chester Waste Water Treatment Plant including replacement of bearings and shafts on the rotating biological contractor which provides secondary treatment, replacement of variable frequency drives for sludge handling equipment and sewage pumping and replacement of miscellaneous plant equipment including odor control systems. This project is a result of recommendations from a recently completed study on improving wastewater treatment plant operations.

2000 Appropriation

Financing Plan:

Non-District Bonds and/or Notes	2,600,000
Cash	<hr style="width: 100px; margin: 0 auto;"/>
Gross Appropriation	2,600,000

ENVIRONMENTAL FACILITIES NORTH YONKERS PUMP STATION AUTOMATION (SPS10)

FIVE YEAR CAPITAL PROGRAM (in thousands)

	Estimated							
	Ultimate	Approp-						Under
	Total Cost	riated	2000	2001	2002	2003	2004	Review
Gross	1,500	700	800					
Less non-District Shares								
Net	1,500	700	800					

Project Description:

This project provides for the design, acquisition and installation of equipment that permits the remote operation of certain pump station functions from a separate location, and the automation of certain pump station functions. The 2000 appropriation represents additional funding recommended by a recently completed study to improve operations at the County's wastewater treatment plants.

	<u>1999 and Prior Appropriation</u>	<u>2000 Appropriation</u>	<u>Total Cumulative Appropriation</u>
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Financing Plan:

Non-District Bonds and/or Notes Cash	700,000	800,000	1,500,000
	_____	_____	_____
Gross Appropriation	700,000	800,000	1,500,000

**ENVIRONMENTAL FACILITIES
YONKERS JOINT TREATMENT PLANT PRIMARY
GRAVITY THICKENER (SY002)**

FIVE YEAR CAPITAL PROGRAM (in thousands)

	Estimated							
	Ultimate	Approp-						Under
	Total Cost	riated	2000	2001	2002	2003	2004	Review
Gross	850		850					
Less non-District Shares								
Net	850		850					

Project Description:

This is a previously programmed project which will provide funds for the replacement of the primary gravity thickener sludge collection mechanism.

This is a normal wear-and-tear item which is reaching the end of its useful life. This project will provide equipment to help process solids and prevent the solids build-up which contributes to permit violations at this facility.

**2000
Appropriation**

Financing Plan:

**Non-District
Bonds and/or Notes
Cash**

850,000

Gross Appropriation

850,000

ENVIRONMENTAL FACILITIES

YONKERS JOINT TREATMENT PLANT GRAVIBELT FILTER (SY004)

FIVE YEAR CAPITAL PROGRAM (in thousands)

	Estimated							
	Ultimate	Approp-						Under
	Total Cost	riated	2000	2001	2002	2003	2004	Review
Gross	4,500		500	4,000				
Less non-District Shares								
Net	4,500		500	4,000				

Project Description:

This is a previously programmed project which will provide funds for enhancement and expansion of the waste activated sludge thickening facilities at the Plant.

With the addition of the dewatering facilities more solids (centrate) are being captured and returned to the plant for treatment. These solids are sent to the secondary plant which has caused a burden on the waste activated sludge thickening facilities. A gravibelt filter installation built over two of the existing dissolved air flotation thickener units will increase thickening capacity to handle the additional centrate. This project will provide equipment to help process solids and prevent the solids buildup which contributes to permit violations at this facility.

<p>2000 <u>Appropriation</u></p>
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Financing Plan:

**Non-District
Bonds and/or Notes**

Cash 500,000

Gross Appropriation 500,000

ENVIRONMENTAL FACILITIES YONKERS JOINT TREATMENT PLANT AUTOMATION (SY010)

FIVE YEAR CAPITAL PROGRAM (in thousands)

	Estimated							
	Ultimate	Approp-						Under
	Total Cost	riated	2000	2001	2002	2003	2004	Review
Gross	5,900	4,250	1,650					
Less non-District Shares								
Net	5,900	4,250	1,650					

Project Description:

This project provides for the design, acquisition and installation of equipment that permits the remote operation of certain plant functions from a separate location, and the automation of certain plant functions. The 2000 appropriation represents additional funding recommended by a recently completed study to improve operations at the County's wastewater treatment plants.

	<u>1999 and Prior Appropriation</u>	<u>2000 Appropriation</u>	<u>Total Cumulative Appropriation</u>
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Financing Plan:

Non-District Bonds and/or Notes	3,950,000	1,650,000	5,600,000
Cash	<u>300,000</u>	<u> </u>	<u>300,000</u>
Gross Appropriation	4,250,000	1,650,000	5,900,000

ENVIRONMENTAL FACILITIES

YJTP FIRE SUPPRESSION ALARM AND SECURITY SYSTEMS (SY011)

FIVE YEAR CAPITAL PROGRAM (in thousands)

	Estimated							
	Ultimate	Approp-						Under
	Total Cost	riated	2000	2001	2002	2003	2004	Review
Gross	6,500		1,625	4,875				
Less non-District Shares								
Net	6,500		1,625	4,875				

Project Description:

Installation of a fire alarm, fire suppression system and security system at the facility pursuant to the recommendations of the County's consultant on sewage treatment plants.

2000 <u>Appropriation</u>
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Financing Plan:

Non-District Bonds and/or Notes	1,625,000
Cash	_____
Gross Appropriation	1,625,000

ENVIRONMENTAL FACILITIES

YJTP SLUDGE COLLECTION AND PROCESSING EQUIPMENT (SY012)

FIVE YEAR CAPITAL PROGRAM (in thousands)

	Estimated							
	Ultimate	Approp-						Under
	Total Cost	riated	2000	2001	2002	2003	2004	Review
Gross	10,400		2,600	7,800				
Less non-District Shares								
Net	10,400		2,600	7,800				

Project Description:

This project will replace or upgrade various items of equipment associated with sludge collection and processing at the Yonkers Joint Treatment Plant as indicated by consent order. Also, a recently completed study on improving wastewater treatment plant operation recommends replacement of four primary and nine secondary tanks, shafts, sprockets, wall bearings and rails and replacement or upgrading of sludge processing equipment including centrifuges and pumps. Upgrading of electrical equipment and installation of voltage sag correctors are also included. The year 2000 appropriation is for engineering services. The year 2001 amount is for construction.

2000 Appropriation

Financing Plan:

Non-District Bonds and/or Notes	2,600,000
Cash	_____
Gross Appropriation	2,600,000

**ENVIRONMENTAL FACILITIES
YONKERS JOINT TREATMENT PLANT STORAGE BUILDING (SY013)**

FIVE YEAR CAPITAL PROGRAM (in thousands)

	Estimated							
	Ultimate	Approp-						Under
	Total Cost	riated	2000	2001	2002	2003	2004	Review
Gross	5,200		1,300	3,900				
Less non-District Shares								
Net	5,200		1,300	3,900				

Project Description:

Pursuant to recommendations from a recently completed study on improving wastewater treatment plant operations, this project will design and construct of a 20,000 square foot storage building at the facility. The year 2000 appropriation will fund engineering services and the 2001 amount will fund construction.

**2000
Appropriation**

Financing Plan:

Non-District Bonds and/or Notes	1,300,000
Cash	_____
Gross Appropriation	1,300,000

**ENVIRONMENTAL FACILITIES
YONKERS JOINT TREATMENT PLANT ENGINE REPLACEMENT
AND BLOWER RECONDITIONING (SY038)**

FIVE YEAR CAPITAL PROGRAM (in thousands)

	Estimated							
	Ultimate	Approp-						Under
	Total Cost	riated	2000	2001	2002	2003	2004	Review
Gross	11,500	9,800	1,700					
Less non-District Shares								
Net	11,500	9,800	1,700					

Project Description:

This is a previously programmed project which originally requested funds for replacement for the three diesel/methane dual fuel engines and reconditioning of the blowers. The project has been revised as required by consent order and, to provide for the refurbishment of the engines, reconditioning of the blowers and installation of new mixers in the digesters. A revised cost estimate has been prepared by DPW reflecting updated costs and ancillary work related to the Blower/Engine project as contained in the 30% complete design drawings. Additional funds are, therefore, being appropriated in year 2000.

Three electric motor-driven blowers were installed several years ago to supplement the dual fuel (diesel/methane) engine-driven blowers. Experience has shown that the most cost-effective method of operation currently is to operate one motor-driven blower and one engine-driven blower simultaneously. This prevents excessive wear on the engines and controls high electric demand costs. Increased use of the engines will generate additional savings. Use of an engine-driven blower instead of a motor-driven blower is estimated to generate savings of \$34,000 per month per motor. The new mixers will allow the digesters to be more efficient in generating methane gas which fuels the engines.

	<u>1999 and Prior</u>	<u>2000</u>	<u>Total</u>
	<u>Appropriation</u>	<u>Appropriation</u>	<u>Cumulative</u>
			<u>Appropriation</u>

Financing Plan:

Non-District Bonds and/or Notes	9,800,000	1,700,000	11,500,000
Cash	<hr/>	<hr/>	<hr/>
Gross Appropriation	9,800,000	1,700,000	11,500,000

**ENVIRONMENTAL FACILITIES
YJTP ODOR CONTROL DIGEST SLUDGE STORAGE TANKS (SY42C)**

FIVE YEAR CAPITAL PROGRAM (in thousands)

	Estimated							
	Ultimate	Approp-						Under
	Total Cost	riated	2000	2001	2002	2003	2004	Review
Gross	2,000		2,000					
Less non-District Shares								
Net	2,000		2,000					

Project Description:

This project implements recommendations from a recently completed study on improving wastewater treatment plants. It provides for the design, acquisition and installation of odor control equipment associated with the storage tanks for digestive sludge.

**2000
Appropriation**

Financing Plan:

Non-District Bonds and/or Notes	2,000,000
Cash	<hr/>
Gross Appropriation	2,000,000

**ENVIRONMENTAL FACILITIES
PUMP STATION REHABILITATION PROGRAM
SAW MILL SSD (SY075)**

FIVE YEAR CAPITAL PROGRAM (in thousands)

	Estimated							
	Ultimate	Approp-						Under
	Total Cost	riated	2000	2001	2002	2003	2004	Review
Gross	1,100		1,100					
Less non-District Shares								
Net	1,100		1,100					

Project Description:

This project stems from Capital project SW075, which established a program for rehabilitating the 40 sewage pump stations operated by DEF. The overall project was first presented in 1992. The condition of each station is evaluated each year to establish priorities.

The 2000 appropriation will fund a rehabilitation of the Briarcliff Pump Station.

**2000
Appropriation**

Financing Plan:

**Non-District
Bonds and/or Notes
Cash**

1,100,000

Gross Appropriation

1,100,000

ENVIRONMENTAL FACILITIES YONKERS JOINT TREATMENT EFFLUENT TREATMENT (SY080)

FIVE YEAR CAPITAL PROGRAM (in thousands)

	Estimated							
	Ultimate	Approp-						Under
	Total Cost	riated	2000	2001	2002	2003	2004	Review
Gross	4,500	600	3,900					
Less non-District Shares								
Net	4,500	600	3,900					

Project Description:

The 2000 appropriation will fund consent ordered work for disinfection system improvements at the Yonkers Joint Treatment Plant. This will include construction of dechlorination facilities and/or relocation of the existing dechlorination facilities, and replacement of the existing sodium hypochlorite system. The 2000 appropriation includes \$1.5 million requested under SY007 (Yonkers Joint Treatment Plant Sodium Hypochlorite System) as the work will be accomplished as one project.

The Dispersion Study has been completed and has been submitted to the State for review. Effluent limits (chlorine) set by the State were appealed. The result of these negotiations was that dechlorination facilities have to be constructed. Also, it is beneficial to upgrade the chlorination facilities within the plant and to relocate them within the plant. This relocation will be studied this year.

	<u>1999 and Prior Appropriation</u>	<u>2000 Appropriation</u>	<u>Total Cumulative Appropriation</u>
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Financing Plan:

Non-District Bonds and/or Notes	300,000	3,900,000	4,200,000
Cash	<u>300,000</u>	<u> </u>	<u>300,000</u>
Gross Appropriation	600,000	3,900,000	4,500,000

**ENVIRONMENTAL FACILITIES
MUNICIPAL SEWER SYSTEM REHABILITATION
YONKERS JOINT SSD (SY086)**

FIVE YEAR CAPITAL PROGRAM (in thousands)

	Estimated							
	Ultimate	Approp-						Under
	Total Cost	riated	2000	2001	2002	2003	2004	Review
Gross	13,000	3,240	9,760					
Less non-District Shares								
Net	13,000	3,240	9,760					

Project Description:

This project will fund rehabilitation of municipal sanitary sewer lines and manholes as identified in the Sanitary Sewer Evaluation Survey (SSES) and required by consent order.

The SSES has identified certain municipal sewer lines and manholes requiring rehabilitation due to excessive inflow and/or infiltration. These projects will provide funds for TV monitoring, cleaning, lining or replacement as necessary those lines which have been or will be identified as having excessive inflow and infiltration. In addition, manholes will be rehabilitated, replaced or sealed as needed. Smoke testing and dye testing of existing and rehabilitated lines and manholes will also be included as part of this project. This testing will be necessary to identify specific problems and verify the effectiveness of the rehabilitation, repair, and replacement work.

	<u>1999 and Prior</u>	<u>2000</u>	<u>Total</u>
	<u>Appropriation</u>	<u>Appropriation</u>	<u>Cumulative</u>
			<u>Appropriation</u>

Financing Plan:

Non-District Bonds and/or Notes	3,240,000	9,760,000	13,000,000
Cash	<hr/>	<hr/>	<hr/>
Gross Appropriation	3,240,000	9,760,000	13,000,000

ENVIRONMENTAL FACILITIES

CWD#3 WATER DISTRIBUTION SYSTEM IMPROVEMENTS (WD302)

FIVE YEAR CAPITAL PROGRAM (in thousands)

	Estimated							
	Ultimate	Approp-						Under
	Total Cost	riated	2000	2001	2002	2003	2004	Review
Gross	3,600	750	250		1,100			1,500
Less non-District Shares								
Net	3,600	750	250		1,100			1,500

Project Description:

This project provides for improvements to the water distribution system at the Valhalla Campus, and is based on a detailed evaluation of the overall water system.

The existing appropriation and the 2000 appropriation will fund the following work in association with the recently completed comprehensive study of water issues at the reservation:

- (1) Cleaning and cement lining of mains to and from the Greenburgh Booster pump station.
- (2) De-commissioning the Greenburgh Booster Pump Station including pump repair, new seepage pit and upgrading of the sump alarm. These items will allow the station to be used in an emergency.

To be funded in future years:

- (3) Replacement and relocation of the 4,000 foot long 10-inch diameter forcemain
- (4) Development of a water use and conservation program.
- (5) Preparation of a computerized water distribution map of the system.
- (6) Conduct detailed distribution system evaluation to determine piping conditions.
- (7) Clean and cement mortar and line pipes identified in the system evaluation.
- (8) Installation of a telemetry system in conjunction with computerized mapping.
- (9) Installation of Backflow Preventer at estimated 20 sites.

This project will allow the most effective and efficient use of the water distribution system capabilities.

	<u>1999 and Prior</u> <u>Appropriation</u>	<u>2000</u> <u>Appropriation</u>	<u>Total</u> <u>Cumulative</u> <u>Appropriation</u>
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Financing Plan:

Non-District			
Bonds and/or Notes	250,000		250,000
Cash	500,000	250,000	750,000
Gross Appropriation	750,000	250,000	1,000,000