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I. Introduction

The City of New York is primarily served by a combined sewer system. Approximately 70% of the City is comprised of combined sewers with 4,800 miles of combined sewers within the five boroughs. The sewer system drains some 200,000 acres and serves a population of about 7 million. Approximately 450 outfalls are permitted to discharge during wet-weather through combined-sewer overflows (CSOs) to the receiving waters of the New York Harbor. Although these discharges do not represent a major source of pollution to the harbor on a long-term basis, they can result in local water-quality problems such as periodically high levels of coliform bacteria, nuisance levels of floatables, depressed dissolved oxygen, and, in some cases, sediment mounds and unpleasant odors.

The NYC Department of Environmental Protection (DEP) is committed to improving water quality and achieving the maximum potential uses of the region's waters, and to maintaining compliance with the applicable regulations. The City has committed billions of dollars for improved pollution-control facilities, water-quality monitoring programs, and scientific and engineering investigations of innovative and cost-effective pollution-control alternatives. As a result, water quality has improved dramatically over the past 10 years.

One of the City's major initiatives to improving local receiving water quality is the $1.8 billion Citywide CSO Program. For this program the City has been divided into eight (8) areas which together cover the entire harbor area. Four (4) area-wide project areas were developed (East River, Jamaica Bay, Inner Harbor, and Outer Harbor) and four (4) tributary projects areas were defined (Flushing Bay, Paerdegat Basin, Newtown Creek, and the Jamaica Tributaries) as shown in Figure 1.

This quarterly report summarizes recent progress by the City in its efforts to plan and construct the recommended CSO facilities under the Citywide CSO Program. This report covers a period from April 1, 2001 through June 30, 2001.

II. Project Progress for Comprehensive Citywide CSO Project

A.) Flushing Bay

- **Corona Avenue Vortex Facility**

The Corona Avenue Vortex Facility includes three vortex units operating in parallel in an underground facility in Corona Avenue, Queens. The three units treat flow diverted from the lower deck of the "CS-3" outfall (permitted CSO outfall BB–006 in the Bowery Bay WPCP system). The overflow from the facility is returned to the CSO outfall, the underflow (foul waste) is carried to the 108th Street Pumping Station which pumps the flow to the high level interceptor**.**

Construction

Construction is substantially complete. The facility has been on-line since November 1997. A few punch list items remain to be completed by the contractor.

Monitoring Program

The two-year sampling program began in March 2000. To date, seven water quality sampling events have been conducted. The program was originally to include 15 sampling events; however, additional events are now planned to allow testing of the vortex units individually for a number of storms. To date, ten floatable sampling events have been completed. An interim report on the sampling and monitoring was submitted on January 17, 2001. A second interim report has been prepared for the period ending March 31, 2001.

- **Flushing Bay CSO Retention Facility**

The Flushing Bay CSO Retention Facility is an underground storage tank, which will have a storage capacity of 43 million gallons, 28 MG in the tank and 15 MG in the upstream sewers. The facility collects flow from the system tributary to the "CS-4" outfall which discharges to the head of Flushing Creek. The elements of the facility include:

- Relocation of ballfields at the construction site
- Rerouting of sewers around the construction site
- Phase 1 construction of the underground structural elements of the tank
- Phase 2 construction of the mechanical and above-ground portion of the facility
- Construction of tide gates on the tank outfall sewer

Design

Design has been completed for all elements**.**

Construction

Construction has been completed for the relocation of ballfields and the rerouting of sewers. Phase 1 construction (Contract CS4-3) for the tank is 99% complete. Completion of all contract work for Phase 1 is projected for July 24, 2001. Bids were opened for the Phase 2 construction contracts. The Electrical, HVAC and Plumbing Contracts have been awarded. The award of the General Contract is being reviewed by the Department. Phase 2 construction is projected to be completed for final acceptance by December 2004.

Table 1

Flushing Bay CSO Project

Plan Elements:	Corona Avenue Vortex Facility	Flushing Bay CSO Retention Facility
Location:	Corona Avenue, Queens	Intersection of College Point Boulevard and Avery Avenue, Queens
Actions:	Design and construction of three underground vortex units to treat CSO diverted from the lower deck of the "CS-3" outfall.	Design and construction of a 43 MG storage facility which includes a 28 MG underground storage tank and 15 MG in-line storage in upstream sewers. The facility collects flow from the system tributary to the "CS-4" outfall.
Cost:	$33,000,000	$291,000,000
Status:	Construction – substantially complete	Bids opened for Phase 2, construction contracts E, H and P awarded, but G Contract not yet awarded
Other Issues:	Monitoring program – ongoing Contracts for final design of an odor treatment system at the facility and for final design of modifications at the facility are completed and are awaiting final Department review then bidding.	Contract change orders for additional work are in progress.

B.) Paerdegat Basin

The Paerdegat Basin CSO Retention Facility is located in southeastern Brooklyn and receives combined sewer overflows from a drainage area of approximately 6,000 acres. The Facility consists of a four (4) bay underground storage tank, which will have storage capacity of 30 million gallons, 20 MG in the tanks and 10 MG in the influent channels. The upstream combined sewers can store additional 20 million gallons. The stored CSO is pumped back to the Coney Island WPCP for treatment after each rain event.

The elements of the facility include the following design and construction phases:

- Phase IA (Contract 4A) – Influent Channels
- Phase II (Contract 4B) – Foundations and Substructures – underground structural elements
- Phase III (Contracts 5G, H, P & E) – Structures and Equipment – aboveground buildings and equipment
- Phase IV (Contract 6) – Natural Area Park Restoration

- **Phase IA – Influent Channels**

Design

Design was completed in 1997**.**

Construction

Construction of the influent channels to the CSO facility is ongoing. Completion of contract work is projected for December 2001.

- **Phase II - CSO Facility Foundations and Substructures**
- **Phase III – Structures and Equipment**

Meetings

Principal meetings held during this report period are as follows:

- Progress meetings with DEP were held during this period. The meetings took place on April 25, May 23, and June 27, 2001.

Design

Final design work continues on both Phases of the project simultaneously**.**

Cost Estimates and Schedules

The Consultant has developed final cost estimate for Contract 4B, Foundations and Superstructures. The cost estimate was submitted to DEP to obtain the CP number for the project.

The construction schedules were also developed. Contract 4B duration is estimated at 42 months; Contract 5 duration was revised from 36 to 48 months due to changes in the construction

scope of work. Contract 4B is scheduled to be advertised on August 7, 2001. The Notice To Proceed (NTP) for Contract 4B is anticipated for March 2002.

Dredging

A dredging permit application was filed in April 2001 with the US Army Corps of Engineers (COE), NYS DEC and other agencies. A public notice was posted by the COE on June 25, 2001 regarding dredging of Paerdegat Basin.

In order to proceed with construction work, a dredging permit must be obtained prior to awarding the contract.

Soils Disposal

It was determined that barges will be used to remove all excess soils from the construction site. Barging operation requires dredging of Paerdegat Basin.

- **Phase IV – Natural Area Park Restoration**

Design

This phase will be designed in the future.

Table 2

Paerdegat Basin CSO Project

	Phase IA	*Phase II*	*Phase III*	*Phase IV*
Plan Elements:	Influent Channels	Foundations and Substructures	Structures and Equipment	Natural Area Park Restoration
Location:	Ralph Avenue and Flatlands Avenue, Brooklyn	Ralph Avenue and Flatlands Avenue, Brooklyn	Ralph Avenue and Flatlands Avenue, Brooklyn	Ralph Avenue and Flatlands Avenue, Brooklyn
Actions:	Construction of the influent channels to the CSO facility	Underground structural elements	Aboveground buildings and equipment	Park extending on both sides of Paerdegat Basin.
Cost:	$9,000,000	$145,809,424	$130,026,844	$8,000,000
Status:	Design was completed in 1997 Completion of Contract work is projected for September 2001	Final design work is in progress. Scheduled for advertisement on 8/07/01.	Final Design work is in progress.	This phase will be designed in the future.
Other Issues:		Dredging permit is required prior to award of the contract.		

C.) Inner Harbor

The Inner Harbor CSO Facility Planning area consists of the North River, Newtown Creek, and Red Hook WPCP drainage areas. The facility plan concluded that CSOs in the Inner Harbor do not contribute to dissolved oxygen and coliform problems in the open water areas of the Hudson River, Lower East River, and Upper Bay. Therefore, consistent with the EPA's Nine Minimum Controls, the recommended elements of the facility plan for the open waters consists of:

- Regulator Improvements
- Throttling Facilities
- In-Line CSO Storage

In contrast to open waters, in Gowanus Canal, CSOs have a significant impact on numerical water quality limits for dissolved oxygen. The recommended plan for Gowanus included:

- Reactivate the flushing tunnel
- Dredge the canal

- **Open Waters**

Meetings

Two progress meetings between Hazen and Sawyer and DEP were held during this period. The meetings took place on May 15 and June 19, 2001.

Final Design

In the final design contract, the following three elements have been targeted in order to achieve the goals of reducing the magnitude, frequency, and duration of CSO discharges:

- Phase I – Regulator Improvements
- Phase II – Throttling Facilities
- Phase III – In-Line Storage (Inflatable Dams)

Design has continued on Phase I, which will provide improvements to approximately 70 regulators in Manhattan and Brooklyn. Investigations into the constructability of the modifications yielded various changes to the plans, including additional access covers to supply more room for passing equipment and materials into and out of the regulators. A subconsultant licensed in confined space entry was engaged to conduct surveys of the existing conditions within the regulators. Design of the necessary structural alterations was initiated. Work was started on the Maintenance and Protection of Traffic plans necessary to carry out the project.

Design has progressed on the Phase II portion of the contract, intended to provide a new throttling facility for the North River WPCP. While the scope of the project has remained the

same, legal concerns have caused a rethinking of the preferred construction alternative. With the Court's recent ruling disallowing the construction of the Croton Water Treatment Plant in a city park, it seems unlikely that the Parks Department will allow the drilling of a new shaft in Riverside Park for installation of the throttling gates. Therefore, an investigation into using an existing stairway shaft to the interceptor as the construction passageway was commenced. Design will continue on the basis of this alternative.

Final design of Phase III has not yet been initiated.

Table 3

Inner Harbor CSO Project

OPEN WATERS

	Phase I	*Phase II*	*Phase III*
Plan Elements:	Regulator Improvements	Throttling Facility	In-Line Storage
Location:	70 regulator sites throughout Manhattan and Brooklyn	North River WPCP	Upstream of regulators B-6 and R-20 in Brooklyn
Actions:	Conversion to manually operated sluice gates, replacement of stop plank guides, termination of water supply	Installation of two sluice gates in interceptor sewer	Installation of two inflatable dams in the combined sewer systems
Construction Cost:	$14,000,000	$3,000,000	$3,000,000
Status:	Final Design – 75% Complete	Final Design –15% Complete	Final Design – Not Initiated
Other Issues:	-	-	-

D.) Outer Harbor

The Outer Harbor CSO Facility Planning area consists of the drainage areas of the Port Richmond, Oakwood Beach, Owls Head and Coney Island (separately sewered area) Water Pollution Control Plants (WPCPs) and their associated sewers and pumping stations. The receiving waters of the study area include the New York limits of the Raritan Bay, Arthur Kill, Kill Van Kull, Upper New York Bay waters to the boundary of the Inner Harbor CSO Project, the Narrows, Gravesend Bay, Lower New York Bay, Richmond Creek and Lemon Creek. The facility plan concluded that CSOs have minimal impact on the dissolved oxygen and coliform concentrations in the open water areas of the Outer Harbor. Therefore, consistent with the EPA's Nine Minimum Controls, the recommended elements of the facility plan for the open waters consist of:

- Regulator Improvements
- Throttling Facilities
- In-Line CSO Storage

- **Open Waters**

Preliminary Design

Meetings

Principal meetings held during this report period were as follows:

- Project Progress Meetings with NYCDEP on April 17, and June 19, 2001.

Throttling Facilities

Evaluation of the feasibility of installation of new throttling gate in the East Branch 2 interceptor, from Hannah Street Pump Station to the Port Richmond WPCP, was completed. A 60" x 72" sluice gate is proposed to be installed approximately 120 ft upstream of the junction chamber in the east interceptor in order to store the flow on the east side. In addition, throttling of the proposed new gate would reduce the high velocities at the screening channels which result from throttling of the existing sluice gates at the Port Richmond WPCP.

Design Memorandums

A preliminary design report was submitted for review to the NYCDEP. This report includes the following recommended elements:

- Regulator Improvements
- Throttling Facility
- In-Line Storage
- Coordination of CSO & WPCP Operations

Table 4

Outer Harbor CSO Project

	Phase I	*Phase II*	*Phase III*
Plan Elements:	Regulator Improvements	Throttling Facility	In-Line Storage
Location:	60 regulator sites throughout Brooklyn and Staten Island	Port Richmond WPCP	Owls Head: OH-6C P. Richmond: PR-6W
Actions:	Conversion to manually Operated sluice gates, replacement of stop plank guides, termination of water supply, tide gate telemetry	Installation of sluice gate in Port Richmond east interceptor sewer	Installation of two inflatable dams in the combined sewer system
Project Cost:	$4,800,000	$1,300,000	$3,100,000
Status*:*	Final Design – Not initiated	Final Design – Not initiated	Final Design – Not initiated
Other Issues:	------	-----	-----

E.) Jamaica Bay

The Jamaica Bay CSO Abatement Facilities Plan submitted in November 1993 recommended retention of 34 million gallons of CSO from Fresh Creek (27 million gallons) and Hendrix Creek (7 million gallons) combined. The retention facility was to be located beneath the Bruekelen Houses Park, a 12-acre site north of the head end of Fresh Creek, and adjacent to the major CSO sewer in Williams Avenue.

Two issues that necessitated examining alternate options impacted the feasibility of constructing this facility at the proposed location. These issues were: 1) the need to provide five interim ballfields off-site, but within the immediate neighborhood, to replace the five ballfields that would be eliminated during the construction, and 2) the subsequent sale of the only large available land in the immediate neighborhood that could accommodate five interim ballfields.

Recently, a third issue necessitating alternatives to storage beneath Bruekelen Park materialized: park land alienation resulting from the Croton Water Treatment Plant lawsuit.

Over the past several years, the advent of soft ground tunneling has resulted in this type of construction to now be seen as practical for the project area. The alternate option of a storage/conveyance tunnel in lieu of retention tank involves a construction of a 23 foot diameter tunnel about 80 feet beneath Jamaica Bay using advanced full faced Earth Pressure Balanced Tunnel Boring Machine (EPBTMB) and precast concrete segmented gasketed lining techniques. This facility relocates the CSO from the existing Fresh Creek outfall by the Williams Avenue regulator to a NYCDEP owned site south of the sludge dewatering facility at the 26th Ward WPCP, and from Hendrix Creek outfall at the Hendrix Street Canal near the 26th Ward WPCP to the south of sludge dewatering facility at the 26th Ward WPCP. The proposed tunnel will store and convey about 27 million gallons (per Value Engineering revision) of CSO from Fresh Creek (22 million gallons) and Hendrix Creek (5 million gallons), combined, before overflowing into the Hendrix Creek just south of the 26th Ward WPCP. Preliminary estimates resulted in a tunnel length of approximately 16,000-ft. Preliminary examination has indicated that less land acquisition would be required for construction for this alternate and also, water quality computer models have resulted in improved water quality in Fresh Creek in reference to dissolved oxygen (DO) and coliform standards.

Meetings

No meetings held during this period.

Preliminary Examinations

An administrative approval for a change order to the Engineer's contract to commence further work on CSO planning and preliminary design has been received. A progress kick-off meeting has been scheduled for July 10, 2001 at the Department's offices in Queens to discuss the scope of work for the change order. The draft final O'Brien & Gere Eutrophication Study report was submitted to the Department on October 19, 2000 and to the NYSDEC on November 3, 2000. A report on the Chlorine Residual Study is under development.

Table 5

Jamaica Bay CSO Project

Plan Elements:	CSO Storage Tank	Dredging
Location:	Fresh Creek, Brooklyn	Head Ends of Fresh, Hendrix and Spring Creeks
Actions:	Facility Plan and conceptual/preliminary design to be revised for storage/conveyance tunnel	No additional actions regarding dredging have been taken on this project at this time
Project Cost:	$295 million	$3 million (estimate from 1993 Facility Plan)
Status:	An administrative approval of a change order for facility plan revisions and conceptual/preliminary design has been received	A progress kick-off meeting was held on July 10, 2001
Other Issues:	ULURP, SEQR to be revised	

F.) East River

- **Bronx River**

Project Description

The Bronx River CSO Storage Conduit Project will include construction of a storage conduit to effect 4 MG of off-line CSO storage capacity to provide CSO abatement at Outfall HP-23 on the Bronx River. The storage conduit, which will be approximately 500' L x 60' W x 18' H, will be located along the east shore of the Bronx River in an area immediately south of the intersection of East 177th Street, Devoe Avenue and the Sheridan Expressway. This project will also include relocating Outfall HP-23, approximately 600 feet downstream of the outfall's existing location, to the downstream end of the storage conduit. Existing Outfall HP-23 will be abandoned. Other principal facilities to be constructed as part of this project include a pumping station with a rated capacity of 2,800 gpm with an accompanying 16-inch diameter force main for pumpback purposes, air treatment facilities, and mechanical screening facilities.

Meetings

Principal meetings held during this report period are as follows:

- Project Progress meetings on April 19, 2001, May 17, 2001 and June 21, 2001 at the NYC Department of Environmental Protection (NYCDEP) offices between representatives of the NYCDEP, NYS Department of Environmental Conservation (NYSDEC), URS, Lawler, Matusky and Skelly Engineers (LMS), Helen Neuhaus and Associates, and Dvirka and Bartilucci Engineers to discuss and review the overall progress of the East River CSO Project.
- Meeting on March 27, 2001 at the NYCDEP offices between representatives of the NYCDEP and URS to discuss the Memorandum of Understanding (MOU) for the project.
- Meeting on March 30, 2001 at the NYCDCP offices in Manhattan between representatives of the NYCDCP, NYCDEP and URS to discuss issues and requirements pertaining to the preparation of the ULURP Application for the project.
- Meeting on April 20, 2001 at the project site between representatives of the NYCDEP, NYSDOT, NYCDPR, NYCDCP, URS and LMS, to discuss ULURP and EAS issues, property acquisitions and transfers and demapping of lands.
- Meeting on May 16, 2001 at the NYCDEP offices between representatives of the NYCDEP and NYSDOT to discuss the MOU for the project.
- Meeting on June 11, 2001 at the NYCDEP offices between representatives of the NYCDEP, NYSDOT, URS and LMS to discuss the status of the EAS for the project.

Field Investigations

Principal field investigations conducted during this report period are as follows:

- Responded to the NYCDEP's review on the odor sampling and testing protocols in early April 2001.
- Completed the drilling of the environmental borings and the collection of soil samples from the borings for the CSO storage conduit site in early May 2001.
- Completed the collection of groundwater samples from the environmental borings for the CSO storage conduit site in late May 2001.
- Completed the drilling of shallow borings (2-3 feet deep) along the northern section of the Greenway Project in late May 2001 based on the approved shallow boring drilling protocols.
- Continued work on completing the subsurface geotechnical investigation report for the CSO storage conduit site.
- Completed a review of the geotechnical boring logs for the CSO storage conduit site, and based on this review, modified the recommendation for a Phase 1B archaeological survey for the storage conduit site; the Phase 1B survey will be limited to the area in proximity to the new outfall and to the area near the north entrance to the storage conduit site.

Environmental Review

URS and LMS continued preparation of the draft EAS for the combined Bronx River CSO Storage Conduit/Greenway Project. In early June 2001, LMS submitted a draft EAS of the northern portion of the project to URS for review. In mid-June 2001, URS completed its review, and submitted comments to LMS for incorporation into the draft EAS.

ULURP

URS continued with preparation of the draft ULURP Application for the Bronx River CSO Storage Conduit/Greenway Project.

Facility Planning/Preliminary and Final Designs

Principal work performed during this report period includes:

- Prepared and submitted a cost estimate to the NYCDEP for the demolition and removal of existing Outfall HP-23 in late May 2001.
- Prepared and submitted review comments to the NYCDEP on the scopes of work in the MOU for the Metropolitan Transport Authority (MTA) property and the Greenway Project in the vicinity of the Bronx River CSO Storage Conduit in late May 2001.

- Continued with preliminary design of the CSO storage conduit.
- Continued to work on determining the limits of the easements needed for the diversion sewer, storage conduit, and outfall sewer and structure, in order that this information may be included in the MOU.
- Prepared and submitted to the NYCDEP a preliminary construction cost estimate for the Bronx River CSO Storage Conduit based on a design completion level of approximately 10 percent in late April 2001.

Table 6

Bronx River CSO Project

Plan Elements:	Bronx River CSO Storage Facility
Location:	Property adjacent to intersection of East 177th Street, DeVoe Ave., and Sheridan Expressway
Actions:	Design and construction of 4 MG storage conduit, with new outfall, including screenings, air treatment system, and pumping station to pump stored CSO flow back into the interceptor system; abandonment of existing Outfall HP-23.
Cost:	$40,000,000
Status:	Preliminary design is underway.
Other Issues:	NYSDOT needs to prepare sections of EAS in order to finalize the EAS, ULURP Application needs to be completed including sections addressing land transfers; Memorandum of Understanding between the NYCDEP, NYCDPR, NYSDOT and MTA needs to be finalized.

Hutchinson River

Project Summary

The Hutchinson River CSO Storage Conduit Project will include the construction of a storage conduit to effect 7 MG of off-line storage in order to provide CSO abatement at Outfalls HP-14 and HP-15 on the Hutchinson River. The design of the storage conduit will incorporate the San Francisco Collector concept so as to achieve a level of primary treatment (settling) within the conduit. The storage conduit will consist of a northern reach and a southern reach. The northern reach will consist of a conduit varying in width from 16'-0" to 24'-0" by a height of 11'-0" extending southward within roadway rights-of-way approximately 3,600 linear feet from near where Boston Road crosses over the Hutchinson River to the Conner Street Pumping Station, resulting in 4.7 MG of storage capacity. The southern reach will consist of a conduit (10'-0"W x 11'-0" H) extending southward within roadway rights-of-way approximately 3,300 linear feet from the intersection of Conner Street and Peartree Avenue to the CO-OP City North Pumping Station, resulting in 2.3 MG of storage capacity. Other principal facilities to be constructed as part of this project include: four large chambers for connection of the storage conduit to the existing sewer system; modifications to the existing Conner Street and CO-OP City North Pumping Stations; air treatment facilities; rehabilitation of existing Outfalls HP-14 and HP-15; and construction of a new outfall at the southern terminus of the southern reach.

Meetings

Principal meetings held during this report period are as follows:

- Project Progress meetings on April 19, 2001, May 17, 2001 and June 21, 2001 at the NYC Department of Environmental Protection (NYCDEP) offices between representatives of the NYCDEP, NYS Department of Environmental Conservation (NYSDEC), URS, Lawler, Matusky and Skelly Engineers (LMS), Helen Neuhaus and Associates and Dvirka and Bartilucci Engineers to discuss and review the overall progress of the East River CSO Project.
- Meeting on May 29, 2001 at the NYCDEP offices between representatives of the NYCDEP and URS to finalize the scope of work to be performed at the Conner Street Pumping Station.
- Meeting on June 19, 2001 at the NYCDEP offices between representatives of the NYCDEP, URS and utility companies to coordinate the northern and southern reaches of the CSO storage conduit with the affected utility companies.
- Meeting on June 21, 2001 at the offices of Community Board No. 10 in the Bronx between representatives of the community board, NYCDEP, URS and Helen Neuhaus and Associates to review the project in general, and to specifically discuss traffic impacts that will be caused by the construction of the project.

Field Investigations

Principal field investigations conducted during this report period are as follows:

- Submitted the finalized baseline odor investigation report to the NYCDEP in mid-April 2001.
- Prepared a draft subsurface geotechnical investigation report, and initiated preparation of a final report summarizing the results and conclusions of the subsurface geotechnical investigations along both the northern and southern reaches of the CSO storage conduit. Completion of this report is awaiting the results of the four borings drilled along the Loop Road in May 2001 to determine the depth of rock needed for the design of the barrier wall.
- Continued work on finalizing the subsurface environmental investigation report summarizing the results and conclusions of the environmental boring investigations along the northern and southern reaches of the CSO storage conduit.
- Completed the soils classification analyses to determine quantities of regulated, non-regulated and hazardous soils in April 2001. The NYCDEP will send their analyses to the NYSDEC.

Environmental Review

URS and LMS continued preparing a revised draft EAS that addresses comments provided by the NYCDEP in early April 2001.

ULURP

The NYCDEP Corporation Council made a determination that a ULURP review is not needed for the CSO storage conduit, and sent correspondence to the NYSDEC documenting this determination.

Facility Planning/Preliminary and Final Designs

Principal work performed during this report period includes:

- Continued with the final design for the northern and southern reaches of the CSO storage conduit.
- Prepared and submitted a draft letter to the NYCDEP in late May 2001 describing the Hutchinson River CSO Storage Conduit Project, and the measures and facilities being included in the project as a result of the New York Bus Service Company (NYBSC) fuel oil spill remediation program. The NYCDEP will finalize this letter and send it to the NYSDEC.
- Prepared and submitted a draft letter to the NYCDEP in late May 2001 describing the Hutchinson River CSO Storage Conduit Project, and the measures and facilities being

included in the project as a result of the Hexagon Pharmaceutical Spill Site. The NYCDEP will finalize this letter and send it to the NYSDEC.

- Prepared and submitted to the NYCDEP in mid-May 2001 a letter summarizing the additional facilities and measures that had to be included in the project, and the associated costs, as a result of the Hexagon Pharmaceutical Spill Site and the NYBSC fuel oil spill.
- Revised the report presenting the operation and control system for the CSO storage conduit based on discussions at the May 29, 2001 meeting, and submitted the revised report to the NYCDEP in mid-June 2001.
- Continued to make revisions to the traffic control plan, pavement limits and related items for the northern and southern reaches of the CSO storage conduit based on comments received from the NYCDOT.
- Received information on equipment, suggested equipment layouts and associated costs for air treatment equipment from the Calgon Corporation in May 2001.

Table 7

Hutchinson River CSO Project

Plan Elements:	Hutchinson River CSO Storage Conduit
Location:	Public Right-of-Ways from Boston Road to CO-OP City North Pumping Station
Actions*:*	Design and construction of CSO storage conduit consisting of two segments; a 4.7 MG northern segment and 2.3 MG southern segment. Includes overflow chambers and conduits, dry weather flow conduits, outfalls and drainage conduits with connections to Conner Street Pumping Station. for northern segment, and CO-OP City North Pumping Station for southern segment.
Cost:	$138,000,000
Status:	Final Design 80% complete.
Other Issues:	Negative Declaration needed for the environmental review of the project.

Alley Creek

Project Summary

The Alley Creek Drainage Area Improvements/CSO Abatement Facilities Project will be constructed in two phases with the first phase consisting of two stages, the Alley Creek Drainage Area Improvements (Phase I, Stage 1), the Alley Creek CSO Abatement Facilities (Phase I, Stage 2), and the Oakland Ravine Stormwater Treatment System (Phase II). The principal elements included in the project are additional stormwater and combined sewers, a new outfall sewer, and a new combined sewer outfall to substantially eliminate street flooding and sewer surcharging, and construction of a new 5 MG CSO Storage Facility to abate CSO discharges into Alley Creek (Phase I, Stage 1); activation of the 5 MG CSO Storage Facility (Phase I, Stage 2); and, construction of a stormwater treatment system in the form of settling basins and natural emergent wetlands (Phase II).

The principal facilities to be provided under Phase I, Stage 1 include approximately 1,300 linear feet of an 11'-0" W x 8'-0" H combined sewer; approximately 1,200 linear feet of an 11'-0" W x 9'-0" H combined sewer; approximately 2,900 linear feet of stormwater sewers ranging from 15- through 48-inches in diameter; a double barrel outfall sewer consisting of approximately 1,475 linear feet of two 16'-0" W x 7'-6" H barrels followed downstream by approximately 650 linear feet of two parallel 20'-0" W x 8'-6" H barrels (average height); a CSO Storage Facility to be constructed alongside of the 20'-0" W x 8'-6" H (average height) double barrel outfall sewer, with approximate dimensions of 120 feet wide by 600 feet long and a maximum depth of 15 feet; and, an outfall structure on Alley Creek. The outfall sewer will discharge into Alley Creek through the new outfall structure to be constructed under Phase I, Stage 1.

The 5 MG CSO Storage Facility will also be constructed under Phase I, Stage 1, and activated under Phase I, Stage 2. The final 600 feet of the new outfall sewer will function as part of the CSO Storage Facility after the construction of a weir to induce CSO storage during rainstorms. The CSO Storage Facility will be cleaned, after storms and draining, using ten HydroSelf Flushing Gates (five at each end of the CSO Storage Facility). The stormwater treatment system to be provided under Phase II will consist of a wetlands treatment system to be constructed in Oakland Ravine to provide primary and secondary treatment, with the treated effluent being discharged into Oakland Lake, and ultimately into Alley Creek through the existing 10'-0" W x 7'-6" H outfall sewer.

Meetings

Principal meetings held during this report period are as follows:

- Project Progress meetings on April 19, 2001, May 17, 2001 and June 21, 2001 at the NYC Department of Environmental Protection (NYCDEP) offices between representatives of the NYCDEP, NYS Department of Environmental Conservation (NYSDEC), URS, Lawler, Matusky and Skelly Engineers (LMS), Helen Neuhaus and Associates and Dvirka and Bartilucci Engineers to discuss and review the overall progress of the East River CSO Project.

- Meeting on March 27, 2001 at the NYCDOT offices in Manhattan between representatives of the NYCDOT and URS to review pavement restoration requirements along the project routes.
- Meeting on March 28, 2001 at the NYCDEP offices between representatives of the NYCDEP and URS to review the design of the Alley Creek Project
- Meeting on April 2, 2001 at the NYCDEP offices between representatives of the NYCDEP NYC Department of Parks and Recreation (NYCDPR), URS and LMS to discuss tree restoration and compensation issues associated with the construction of the project.
- Meetings on April 3, 2001 and April 25, 2001 at the NYCDEP offices between representatives of the NYCDEP, Consolidated Edison, Verizon, NYC Fire Department and URS to review and discuss utility coordination issues.
- Meeting on April 27, 2001 at the NYCDPR offices in Manhattan between representatives of the NYCDEP and NYCDPR to discuss tree compensation and restoration issues.
- Meeting on May 11, 2001 at the LMS offices in Pearl River between representatives of the NYCDEP, URS and LMS to discuss final revisions to the contract drawings and specifications with regard to the parkland and wetland restorations in Alley Park.
- Meeting on May 21, 2001 at the URS offices in Paramus between representatives of Lau and Shabunia and URS to review Phase I, Stage 1 of the design and to discuss the focus of the peer review to be performed by Lau and Shabunia.
- Meeting on May 23, 2001 at the Queens Borough President's Office between representatives of the Queens Borough President's Office, NYCDEP, NYCDPR, NYCDOT, Queensborough Community College, Helen Neuhaus and Associates, Alley Pond Environmental Center, Bayside Hills Civic Association, URS, community groups and political groups to review and discuss the progress of the project.
- Meeting on May 31, 2001 at the NYCDEP offices between representatives of the NYCDEP, URS and LMS to review the final restoration plans and wetland construction plans for work in Alley Park.
- Meeting on June 6, 2001 at the NYCDEP offices between representatives of the NYCDEP and URS to discuss additional comments pertaining to the amended drainage plan and to finalize the plan.
- Meeting on June 19, 2001 at the NYCDEP offices between representatives of the NYCDEP and URS to discuss and review proposed water main work on 46th and 56th Avenues.
- Meeting on June 20, 2001 at Middle School MS 158 in Bayside, Queens, between representatives of the NYCDEP, Community Board No. 11 and URS, to review the progress of the Alley Creek Project and to address specific issues raised by members of the Alley Creek Monitoring Committee.

Field Investigations

Principal field investigations conducted during this report period are as follows:

- Completed TV inspection of the interiors of approximately 2,400 linear feet of 12-, 15- and 18-inch diameter sanitary sewers located along Springfield Boulevard between 51st Avenue and 47th Avenue. Results of the inspection were submitted to the NYCDEP in mid-April 2001.
- Completed the subsurface geotechnical investigation report and submitted the report to the NYCDEP in late April 2001.
- Completed metes and bounds survey of the project limits within Alley Park, and submitted survey drawings to the NYCDEP in early May 2001.
- Completed soils classification analyses report and submitted the report to the NYSDEC in early April 2001, and resubmitted the report in mid-May 2001.
- Finalized the subsurface environmental investigation report and submitted the report to the NYCDEP in mid-June 2001.

Environmental Review

URS and LMS prepared a draft letter of response to the NYSDEC letter of December 14, 2000, and submitted this letter to the NYCDEP in mid-March 2001. URS and LMS made revisions to this draft letter and performed further water quality modeling at the request of the NYCDEP, and submitted the revised draft letter to the NYCDEP in mid-May 2001. This revised letter provides updated information on the levels of dissolved oxygen and coliforms in Alley Creek and Little Neck Bay, based on the revised water quality modeling for the 5 MG CSO Storage Facility.

URS submitted the NYCDEC Dewatering Permit Application for the project to the NYCDEP in mid-May 2001 for review and approval.

ULURP

The NYCDPR submitted a letter to the NYCDEP supporting the project in early June 2001. The NYCDEP submitted the finalized ULURP Application to the NYCDCP in mid-June 2001.

Facility Planning/Preliminary and Final Designs

Principal work performed during this report period includes:

- Continued preparation of the Conceptual Design Report for the Oakland Ravine Stormwater Treatment System.
- Submitted additional copies of the protocol for collecting and analyzing samples from the bed of Oakland Lake to the NYCDEP in late June 2001.
- Completed revisions to the upstream sewer drawings based on comments received in late March 2001 from the NYCDEP.
- Revised the locations of the existing 8- and 20-inch diameter water mains on 46th Avenue, so that the two mains are not installed directly over the existing 54-inch diameter sanitary sewer in 46th Avenue.
- Prepared and submitted to the NYCDEP a revised Pre-Solicitation Report (PSR) and Construction Permit (CP) Application letter for Phase I, Stages 1 and 2 of the project, in late April 2001.
- Completed work to address additional changes to the amended drainage plan, and submitted the revised plan to the NYCDEP in mid-June 2001.
- Revised the design and specifications for the ecological restoration within Alley Park, based on the April 2, 2001 meeting with the NYCDPR.
- Submitted revised Maintenance and Protection of Traffic (MPT) Plan drawings for review and approval to the NYCDEP and NYCDOT in mid-June 2001.
- Revised the Total Maximum Daily Load (TMDL) Program for floatables removal for Alley Creek, and submitted the revised program to the NYCDEP in early June 2001.
- Submitted the completed contract drawings to the NYCDOT-Arterial Maintenance in mid-June 2001 for final review and approval.
- Submitted final contract specifications to the NYCDEP in late June 2001 for final review by the Agency Chief Contracting Officer's (ACCO) office and the NYCDEP Legal Department.
- Prepared an outline and a detailed scope of services for a project to develop, evaluate, design and construct facilities to maximize wet weather flow to the Tallman Island Water Pollution Control Plant (WPCP) in late March 2001.
- Submitted request for approval of Contract ER-AC1 and Contract ER-AC2 to the NYC Office of Management and Budget in mid-June 2001.
- Completed revisions to the upstream pavement restoration plans for final submission to the NYCDOT in mid-June 2001.
- Prepared and submitted to the NYCDEP in late April 2001 a revised Request for Use of Incentive/Liquidated Damages Provision letter for Phase I, Stages 1 and 2 of the project.

- Submitted landscape rendering drawings showing the restoration work to be performed in Alley Park to the NYCDEP in mid-May 2001.

Table 8

Alley Creek CSO Project

Plan Elements:	Alley Creek Drainage Area Improvements (Phase I, Stage 1)	Alley Creek CSO Abatement Facilities (Phase I, Stage 2)	Oakland Ravine Stormwater Treatment System (Phase II)
Location:	46th Avenue, 53rd Avenue, 56th Avenue, Bell Boulevard, Luke Place, 214th Street, 216th Street, 217th Street, Springfield Boulevard, Cross Island Parkway, Northern Boulevard and Alley Park in Bayside, Queens	Northern Boulevard and Alley Park in Bayside, Queens	Oakland Ravine and Oakland Lake in Bayside, Queens; Queensborough Community College Campus in Bayside, Queens
Actions:	Design and construction of additional stormwater and combined sewers, catchbasins, outfall sewer and outfall structure to effect improved drainage in areas upstream of Outfall TI-7 in Bayside, Queens; design and construction of 5 MG CSO storage facility for CSO abatement within Alley Creek; design and construction of ecological restoration areas and wetlands to mitigate construction impacts.	Design and construction of modifications to the Old Douglaston Pumping Station including air treatment facilities to treat air exhausted from the CSO storage facility; hydraulic control structures and facilities to activate the 5 MG CSO storage facility constructed under Phase I, Stage 1	Design and construction of a wetlands stormwater treatment system in Oakland Ravine to treat stormwater prior to discharge into Oakland Lake and ultimately into Alley Creek; design and construction of upgrades to the stormwater sewer system on the Queensborough Community College Campus; and design and construction of rehabilitation measures within Oakland Ravine and Oakland Lake
Cost:	$124,900,000	$17,700,000	$24,600,000
Status:	Final design nearly complete; preparing to advertise for bids	Facility design report to be initiated in August 2001.	Preparation of conceptual design report nearly complete; draft report scheduled to be submitted to the NYCDEP in July 2001.
Other Issues:	Parkland alienation issue needs to be resolved; negative declaration for project needs to be issued; ULURP Application needs to be approved.	Parkland alienation issue needs to be resolved; available capacity in Old Douglaston Pumping Station and sewer system for pumpback purposes needs to be verified	Determination needs to be made if ULURP Application is required.

- **Westchester Creek**

Project Summary

The Westchester Creek CSO Storage Tank Project will include construction of a 12 MG underground CSO storage tank to be located in the southwest section of the Bronx Psychiatric Center (BPC) Campus adjacent to Waters Place, near the intersection of Eastchester Road. The proposed underground storage tank will have approximate dimensions of 410' L x 155' W x 27' D and will provide CSO abatement at Outfall HP-25 on Westchester Creek. Other principal facilities to be constructed as part of the project include: a two story administration/support building; an air treatment building; a single-barrel supply conduit (13'-0" W x 8'-0" H) extending from the Outfall HP-25 sewer in Eastchester Road to the underground storage tank, a double-barrel overflow conduit (each barrel 12'-0" W x 5'-0" H) extending from the underground storage tank to the Outfall HP-25 sewer in Eastchester Road, and a pumping station with a rated capacity of approximately 5,600 gpm and an accompanying 24-inch diameter force main extending from the underground storage tank to the sewer system in Eastchester Road for pumpback purposes. In addition to the facilities required for CSO abatement at Outfall HP-25, the NYCDEP has agreed to provide, as part of this project, amenities for use by the two Little Leagues that utilize the baseball fields adjacent to the site of the underground storage tank. These amenities consist of restroom facilities, a clubhouse, a paved parking area on top of the underground storage tank, and fencing to enclose the Little League areas so as to keep the ballfields and parking areas separated from the BPC Campus facilities.

Meetings

Principal meetings held during this report period are as follows:

- Project Progress meetings on April 19, 2001, May 17, 2001 and June 21, 2001 at the NYC Department of Environmental Protection (NYCDEP) offices between representatives of the NYCDEP, NYS Department of Environmental Conservation (NYSDEC), URS, Lawler, Matusky and Skelly Engineers (LMS), Helen Neuhaus and Associates and Dvirka and Bartilucci Engineers to discuss and review the overall progress of the East River CSO Project.
- Meeting on May 30, 2001 at the Bronx Psychiatric Center (BPC) Campus between representatives of the BPC, NYCDEP and URS to discuss the site preparation contract.

Field Investigations

URS worked on finalizing the Phase 1A Archaeological Survey Report.

Environmental Review

URS and LMS prepared and submitted a draft of the EAS for the project to the NYCDEP in mid-May 2001. Additional information with regard to natural and ecological resources to support the EAS was prepared by LMS and submitted by URS to the NYCDEP in late June 2001. The finalized Phase 1A Archaeological Survey Report and additional traffic analysis data to support the EAS will be submitted to the NYCDEP in July 2001.

Site Acquisition/ULURP

URS revised the draft ULURP Application based on comments received from the NYCDEP, and submitted this revised Application to the NYCDEP in mid-June 2001.

The NYC Department of Citywide Administrative Services (DECAS) continued to prepare a cost appraisal for the proposed storage tank site, and will tender an offer to the Dormitory Authority of the State of New York for purchase of the site.

Facility Planning/Preliminary and Final Designs

Principal work performed during this report period includes:

- Continued work on a preliminary hydraulic analysis to investigate the best alternative for routing CSO flow into and out of the CSO storage tank.
- Continued with preliminary work to prepare a site preparation contract for the project, including restroom facilities for the Bronxchester and Van Nest Little Leagues, installation of fencing to separate the Little League area from the BPC and NYCDEP facilities, and other site preparation work.
- Continued preparation of a package showing the facilities included in the site preparation contract for presentation to the NYC Art Commission on September 10, 2001.
- Initiated preparation of a Total Maximum Daily Load Program for settleables removal for Westchester Creek

Table 9

Westchester Creek CSO Project

Plan Elements:	Westchester Creek CSO Storage Tank
Location:	Bronx Psychiatric Center Campus in the Bronx
Actions:	Design and construction of a 12 MG underground CSO Storage Tank to provide CSO abatement at Outfall HP-25 on Westchester Creek, including influent and overflow conduits along Waters Place; design and construction of a two-story support/ operations building; and an air treatment building; and design and construction of amenities for the Bronxchester and Van Nest Little Leagues.
Cost:	$201,000,000
Status:	Preliminary design underway for the site preparation contract.
Other Issues:	Site needs to be acquired by NYCDEP from the State of New York; Negative Declaration needed for project; ULURP Application needs to be approved.

G.) Coney Island Creek

- **Avenue V Pumping Station**

The recommended plan for the Coney Island Creek CSO Facility Planning Project is to increase the wet weather pumping capacity of the Avenue V Pumping Station. The Avenue V Pumping Station tributary area encompasses 2,900 acres, of which 2,056 acres are separately sewered and 844 acres have combined sewers. The Avenue V Pumping Station capacity will be increased to capture 85 percent, by volume, of the CSO discharges to Coney Island Creek. The capacity of the pumping station will be increased from approximately 30 mgd to 80 mgd. New pumps, motors, variable frequency drives (VFDs) and controls will be installed and two new force mains will be constructed.

Meetings

Principal meetings held during this report period were as follows:

- Meetings with NYCDEP and Hazen and Sawyer on April 25 and May 23, 2001.

- Meeting with Con Edison to discuss electrical power supply to the pumping station was held on May 11. Con Edison informed H&S that due to space limitations, Con Edison will be unable to reinforce its existing 120/208V service to the station. Accordingly, Con Edison will need to provide 480V service via transformers and network protectors housed within a nominal 40-foot by 25-foot single story structure located along West 11th Street within the Avenue V Pumping Station property.

Final Design

Final design work of the pumping station upgrade and associated new force mains has continued. Evaluation of Grinder Well and Wet Well partitioning options is ongoing.

Additional hydrogen sulfide measurements have been scheduled for the week of July 16. These measurements will be compared to the data set collected in the summer of 1999 and used in conjunction with unitary air dispersion modeling results to determine if odor control will be required.

Value Engineering

A report of *Responses to Value Engineering Recommendations* was submitted by Hazen and Sawyer to NYCDEP on May 30, and transmitted to NYCOMB shortly thereafter. This report was prepared in response to the VE recommendations received from NYCOMB in a bound *Preliminary Value Engineering Report* on March 14.

The VE Implementation Meeting is scheduled for August 3.

Table 10

CONEY ISLAND CREEK CSO Project

	Contracts PS-79G, H, P, E	*Contract PS-79G*	*Contract PS-79F*
Plan Elements:	Pumping Station Upgrade	Regulator Modifications	New Force Mains
Location:	Avenue V PS (Avenue V and West 11th Street)	Reg. AV-1 at Avenue V PS site; Reg. OH-1 (Shore Pkwy. vic. Verrazano Bridge)	42-inch to SE-133 (Shore Pkwy. Vic. Verrazano Bridge); 48-inch to vic. Reg. 9A
Actions:	Comprehensive upgrade to automate and increase station capacity to 80 mgd; Lower Wet Well to reduce sewer surcharges; Generator system to improve station reliability; Architectural restoration of Main Building to 1915 appearance	Enlarge orifice from Regulator AV-1 to branch interceptor to maximize flow to Wet Well before onset of CSO event; Automate Reg. AV-1 throttling gate; Lower weir at Reg. OH-1 diversion chamber to maintain existing HGL in upstream sewers	New force mains to convey DWF and WWF
Cost:	$31,000,000	Incl. at left	$62,000,000
Status:	Final Design – 50% Complete	Final Design – 0% Complete	Final Design – 50% Complete
Other Issues:	____	____	Routing of force main along parkland

H.) Newtown Creek

- **Phase I Aeration Facilities**

This element of the plan will provide for aeration of English Kills, south of the Grand Street bridge, to raise DO concentrations to a minimum of 1.0 mg/l at all times. A compressor station will be located at 1106 Grand Street, adjacent to English Kills and will deliver air to English Kills via air headers and diffusers on the Creek bottom along its center-line. Data will be collected during the first year of operation to guide refinements in operating procedures and verify performance.

Preliminary Design

The preliminary design has been completed. Drawings, facility descriptions and construction cost estimates have been prepared for three alternatives. The alternatives have been presented to the Department.

CEQR and Permitting

An EAS for the Phase I Aeration has been completed and sent to NYSDEC together with applications for permits for their review. OEPA issued a negative declaration on December 14, 2000 for the Phase I Aeration project. NYSDEC issued a permit on May 31, 2001. Contacts have been made with the USACOE and the US Coast Guard for their review of the project.

ULURP

A draft ULURP application has been completed and signed. Copies were stamped in and distributed at DCP on July 12, 2001.

- **Phase II Aeration Facilities**

This element of the facility plan includes aeration of the Lower English Kills, the East Branch and Dutch Kills. This work will follow the performance evaluation of the Phase I facilities.

- **In-line Storage Facilities**

In-line storage in the combined systems within the Newtown Creek wet weather tributary area has been determined to be inconsistent with the City drainage plan. An alternative to installation of in-line storage dams has been proposed that would increase the capacity of Regulator B1, increase flow through the Morgan Avenue Interceptor, and provide a relief sewer from the St. Nicholas Weir to Regulator B1. This alternative plan is undergoing Department review.

Receiving water modeling to assess the benefits of this proposal have established required volume for supplementary off-line storage.

Preliminary Design

Preliminary design will be completed after the conclusions have been reviewed and incorporated into a new facility plan.

- **Off-Line Storage Tank**

This plan element comprises the construction of an off-line storage facility to control CSO discharge into English Kills. Flow would be diverted from the combined sewers flowing west along Johnson Avenue. As described in the facilities plan, the proposed tank was to be on property located on Varick Avenue, adjacent to English Kills. The tank was to be co-located on the site with a Department of Sanitation facility.

Siting

An alternative siting proposal was developed, to construct the tank within the head end of English Kills. This proposal was sent to NYSDEC for comment on its feasibility. The Department met with NYSDEC on May 23, 2001 to review this proposal and to solicit comment from NYSDEC. The proposal was rejected because the Department had not established sufficient cause why a tank could not be constructed on existing land.

A re-evaluation of land based siting alternatives was initiated following this meeting. Six (6) alternative sites are under review as possible locations for a CSO tank.

- **Sediment Dredging**

A dredging feasibility study was added to the facility plan at the request of NYSDEC. The feasibility of dredging CSO sediments from the branches of Newtown Creek will be investigated. The investigation includes a hydrographic survey to determine locations of sediment mounds and sediment sampling to clarify sediment quality.

Feasibility Study

The draft Dredging Feasibility Study Report was completed in October 2000. The Department anticipates collaboration with the Army Corps of Engineers to include the dredging of Newtown Creek with the COE Habitat Restoration Projects.

Table 11

Newtown Creek CSO Project

Plan Elements:	Maximize flow through Morgan Ave. Interceptor	Phase I Aeration Facilities	Off-line Storage Tank
Location:	Regulator B1 and WPCP throttling chamber	Head end of English Kills, south of Grand Street	Sewers tributary to CSO outfall discharging to English Kills
Actions:	Raise overflow weir in Regulator B1; increase sluice gate openings to interceptor; provide throttling gate on Kent Avenue Interceptor.	Provide aeration of English Kills to raise DO concentrations to a minimum of 1.0 mg/l. The facility includes a landside compressor station and an air header and diffuser assembly on the Creek bottom.	Design of an off-line storage facility to control CSO discharge into English Kills. The facility would include the tank, a pumping station, and a new force main to drain the tank for treatment at the Newtown Creek WPCP.
Cost:	Planning not complete	$8,000,000	$57,000,000
Status:	Proposed changes under review in DEP	Preliminary design & CEQR completed. ULURP and Permit issued by NYSDEC.	Siting in English Kills was rejected by NYSDEC. Re-evaluation of siting alternatives is on-going.
Other Issues:	Requires coordination with WPCP planning and design requirements	Phase II for the lower English Kills, the East Branch and Dutch Kills will follow.	Configuration of tank will depend on siting and review of proposal to maximize flow through Morgan Ave. Interceptor

I.) Jamaica Tributaries

The Jamaica Tributaries project area includes the Jamaica WPCP sewershed area and the tributaries which receive the wet weather discharges from the drainage area. These tributaries include Bergen, Thurston, Shellbank, and Hawtree Basin, which are located in the northeast portion of Jamaica Bay.

Flow Monitoring and Modeling

Continued the calibration of the HydroWorks model of the Jamaica WPCP drainage area. Confirming model input data including regulator drainage area and dry weather flow.

Field Investigations

Completed detailed field investigations of the storm sewer system tributary to Bergen and Thurston Basin. The results obtained from the field investigations are currently being analyzed. A report discussing these results should be submitted in the 3rd Quarter of 2001.

High Rate Physical Chemical Treatment Demonstration (HRCPT)

See write up in Section IV – Demonstration Projects

Destratification Demonstration

See write up in Section IV- Demonstration Projects

Abatement of Meadowmere/Warnerville Dry Weather Discharges

Completed the revised preliminary site plan and profile drawings of the pumping stations. Pump selections have been updated from the facility plan to reflect a single 6-inch force main between Meadowmere and Warnerville and an 8-inch force main between Warnerville and the New York City manhole. Received manufacturer's catalogue cut sheets and cost estimates for actuated sluice gates, cutting chambers, pumps and controls.

Based on the analysis recently completed, it was determined a dual electrical feed is not practical for pumping stations of this size. Therefore, a stationary back-up emergency generator or space for a portable generator is being proposed.

Work on obtaining information in support of an EAS, has continued. Data collection for the EAS includes wetlands, traffic, archaeology, and Phase I Environmental Site Assessment. A wetlands characterization will be completed by mid July. The geotechnical subcontractor is currently collecting bids from drillers to collect borings.

Meetings

Principal meetings held during this report period were as follows:

- Project Progress Meetings with NYCDEP on April 17, May 15, and June 19, 2001.

Table 12

Jamaica Tributaries CSO Project

Plan Elements:	Chemical Oxidation, HRPCT and Destratification Demonstrations	Abatement of Meadowmere and Warnerville	Preliminary Design –Thurston/Bergen Drainage Plan
Location:	Jamaica WPCP, Jamaica WPCP, and Shellbank Basin	Meadowmere and Warnerville – Queens, New York	Jamaica WPCP Drainage Area
Actions:	Conduct demonstration testing of new technologies	Construction of 2 Pumping Stations, Sewer Collection System, and Force Mains	
Construction Cost:	Pilot HRPCT - $100,000 Destratification - $100,000	$12.2 million	To be determined
Status:	HRPCT Pilot completed Destratification to be reactivated in May	Conceptual Design Complete	Preliminary Design Underway
Other Issues:		ULURP for site and site acquisition for pumping stations	In-line storage was found to be infeasible due to analysis of flooding complaints

J.) Citywide Floatables

Work continued on tasks being performed for the development of the Comprehensive City-Wide Floatables Control Abatement Plan. During the period April through June 2001, progress continued on tasks related to comprehensive plan development, public outreach, best management practices (BMPs) analysis, wet weather capacity analysis, CSO modeling, and catch basin and CSO abatement demonstration projects.

Comprehensive Plan Development

Work continued on the development of comprehensive plans for the North River WPCP, Red Hook WPCP, and Hunts Point WPCP drainage areas. Development of a draft pilot comprehensive plan for floatables and settleable solids control for the Bowery Bay WPCP drainage area neared completion. Additional detailed hydraulic modeling analysis of the Bowery Bay interceptor peak flows is being conducted. Completion of the draft comprehensive plan for the Bowery Bay WPCP area is expected during the third quarter of 2001.

The water quality impairment issues that require abatement vary with the different WPCP service areas. Impacts under investigation include odors and floatables, and may include sediment build-up. Use-impairments associated with potential beach closures due to elevated coliform concentrations are also being analyzed. The plans under development address CSO abatement activities to these issues under the demonstration approach. In addition, the planning efforts are evaluating costs to achieve the presumptive approach as well as to achieve virtually complete elimination of CSOs.

In addition, technologies available for widespread application of best management practices (BMPs) are being evaluated in the plan. Technologies being evaluated include public education, adopt-a-street programs, infiltration of stormwater and in-sewer CSO controls such as baffles and bending weirs. Use of these controls could provide area-wide CSO pollution reduction for the water bodies of concern.

A draft agenda was prepared for the July 20, 2001 CSO Workshop. The main purpose of this workshop is to confirm the direction of the NYCDEP CSO program and to discuss changes in the program where they may be appropriate. The format for the Workshop will consist of a presentation on each of the NYCDEP CSO Program projects by the consulting engineers who are responsible for the planning or design of these projects. The Workshop will be held at the Red Hook WPCP Training Room.

Public Outreach

The Public Outreach subtask is nearing completion as Audits and Surveys Worldwide, Inc. (ASW) completed work on a public-relations strategy that would most effectively increase public awareness of the problem and ultimately reduce littering. ASW will present a summary of their results to the NYCDEP on July 5, 2001. The final summary report, to be completed in the

third quarter of 2001, will include an analysis of an effective media campaign aimed at key target groups.

Near-Field CSO Sediment Mounds Evaluations

A dye tracer, turbidity mapping, and CSO sampling program that had been ongoing since May 1999 as part of the Near-Field CSO Sediment Mounds Evaluation project, was suspended at the end of April 2001. This project had been hampered by drought conditions and certain sampling restrictions. Five dye studies were completed, and the information is being incorporated into the comprehensive plan development.

Settleable Toxics

The sampling program to obtain representative samples of combined sewage for analysis of toxics and metals under the Containment Assessment and Reduction Program (CARP) continued during this period. Additional field investigations were conducted to identify sampling locations at the remaining WPCPs to be sampled. During the second quarter of 2001, sampling crews completed sampling of combined sewage at the North River and 26th Ward WPCPs. Following each event, samples were delivered to the NYSDEC Regional Office at 4740 21st Street, Long Island City, for sample preparation for the analysis of target analytes. To date, seven WPCPs, North River, 26th Ward, Owls Head, Coney Island, Port Richmond, Newtown Creek, at both the influent channel and the Manhattan Pump Station, and Bowery Bay, at both the High Level and Low Level channel, have been successfully sampled. The sampling program is expected to be completed during the third quarter of 2001.

Catch Basin Cleaning Demonstration Project

The objective of the catch basin demonstration project is to estimate grit and litter accumulation rates in catch basins, evaluate the impact of grit and litter accumulation on hood performance and determine optimum cleaning intervals based on floatables retention efficiency. This is being done to address concerns that the hooding of catch basins may increase the need and frequency for catch basin cleaning. Grit and litter accumulation rates are being developed from inspections of approximately 4000 catch basins distributed across different land use classes. Catch basin flooding evaluations (frequency and cause) were also made through information gathered from NYCDEP's maintenance yards.

A full-scale pilot catch basin system was used to assess the impact of grit and litter on hood efficiency. This system was constructed at the Tallman Island WPCP. A flume, pump, and water tank were utilized to permit testing at a range of flows that are typically encountered by catch basins during wet weather events. A synthetic litter matrix was prepared, composed of 20 common street litter floatable items. Grit levels were simulated with mason sand. Testing was initiated in January 2001, and was completed in late May. Data analysis indicate that hood efficiencies generally ranged between 67% to 100% over a flow range from 75 to 600 gpm and trash volumes of 3.5 to 28 cubic feet. Results also indicated that at flows of 1100 to 1350 gpm, efficiencies dropped to a range of 50% to 70%. An evaluation of a catch basin insert manufactured by AbTech Industries was also conducted. A technical memorandum presenting

the results and analyses of the entire Catch Basin Cleaning Demonstration Project is being prepared.

In-Stream Controls

The NYCDEP is investigating the purchase of inter-pier skimmer vessels, which will be completely self-contained, self-powered, and capable of operating on New York City inter-pier waterways. The request for proposal (RFP) for the purchase of inter-pier marine skimming vessels was prepared and submitted to NYCDEP. The RFP contains the performance specifications of the skimmer vessels.

A site visit was conducted on May 18, 2001 on the NYCDEP vessel, Osprey. The trip, which encompassed the Hudson River and lower East River areas, was to evaluate whether a 60-foot long vessel could function in those areas. The trip confirmed the need for a vessel with a speed of 10 to 12 knots and confirmed that a 60-foot vessel would be functional.

Currently, one manufacturer, SMAVE, has two full-scale vessels under construction. A site visit to observe their fabrication shop and to observe sea trials is planned for September 2001. A trip request letter and detailed estimated cost for the trip were approved by NYCDEP.

Wet Weather Capacity Analysis and Generic Wet Weather Operations Plan

As part of the effort to maximize wet weather flows to the City's WPCPs, an evaluation of wet weather capacity of each plant servicing a combined collection system was initiated during the third quarter of 2000. This is being done to define the maximum flows that can be handled by the plant's headworks and primary and secondary treatment processes and the bypass channels. The wet weather capacity analysis will include coordination with issues related to the BNR requirements for those WPCPs anticipated to be upgraded to provide BNR. A generic wet weather operating plan will also be prepared to establish an operating strategy for maximizing wet weather capacity.

During the second quarter of 2001, treatment plant design drawings and other process specifications were assembled so plant wet weather capacity can be estimated. Information packages for each of the wastewater treatment plants are being developed and will serve as a basis for discussion with the plant superintendents and process engineers. A meeting is planned with DEP to review project scope and goals. Plant superintendents and process engineers will then be interviewed to incorporate their operating experience into the analysis. This project is expected to be completed by the end of 2001.

Cryders Lane Outfall Diversion Channel Project

Design

Design specifications for the Cryders Lane Outfall Diversion Channel Project bid package were completed and submitted to NYCDEP on May 3. Comments on handling and disposal of the dredged material were incorporated into the final specifications. The Construction

Contract Documents are undergoing the Law Department review. NYCDEP approved the Capital Project (CP) Budget Request and the Pre-Solicitation Review (PSR). Final review by the Office of Management and Budget (OMB) is in progress. The mitigation plan is expected to be completed after finalization of the contract bid for the construction of the diversion channel. Mitigation efforts will be executed through a separate contract.

Environmental Review

April 2001

- NYCDEP Office of Environmental Planning and Assessment (OEPA) issues Lead Agency letter to the NYSDEC on April 4, 2001.

- NYCDEP provides detailed response to the NYSDEC a Notice of Incomplete Application (NOIA) on April 11, 2001.

May 2001

- NYSDEC issues a second NOIA on May 16, 2001, requesting additional information.

June 2001

- NYCDEP, OEPA provides letter on June 6, 2001 to the U.S. Army Corps of Engineers (USACE) indicating that the permit applications are considered final.

- NYCDEP provides detailed response to the NYSDEC NOIA on June 8, 2001.

- Revised permit applications are submitted to USACE on June 12, 2001 to reflect minor changes in engineering design of the proposed facility.

- New York City Department of Business Services Work Permit application is prepared in June 2001.

- NYCDEP formally requests adjacent property owner authorization from the New York City Department of Citywide Administrative Services on June 21, 2001, required for the NYCDBS permit application.

III. Project Progress for Use and Standards Attainment Project

- **Interagency Coordination**

The Use and Standards Attainment (USA) Project is being conducted by the New York City Department of Environmental Protection (DEP) for waterbodies throughout New York Harbor to address compliance with water quality standards and designated uses. The goals of the USA Project are to:

- Define, through a public process, more specific and comprehensive long-term beneficial use goals for each waterbody, including habitat, recreational, wetlands and riparian uses, in addition to water quality goals, thus maximizing the overall environmental benefit;
- Develop technical, economic, public and regulatory support for prioritizing and expediting implementation of projects and actions needed to attain the defined goals; and
- Provide the technical, scientific and economic bases to support the regulatory process needed to define water quality standards for the highest reasonably attainable use and to allow water quality standards to be attained upon implementation of recommended projects.

Waterbody/Watershed assessments are being conducted for 23 waterbodies throughout New York Harbor. The waterbodies include major open water areas of New York Harbor and selected urban tributaries. The USA Project started on August 5, 1999 and is scheduled for completion on August 5, 2003. The following is a brief description of USA Project activities for the period of April 1 to June 30, 2001.

- **Waterbody/Watershed Assessments**

The USA Project is conducting focused assessments on each of the 23 waterbodies. These assessments include various activities including existing data and information gathering/compilation, watershed/waterbody field investigations and data collection, public outreach in the form of stakeholder teams, land use and shoreline characterizations, data management, watershed and receiving water mathematical modeling, ecosystem (habitat) evaluations, waterbody use evaluations, problem identification and prioritization, engineering analyses, and waterbody/watershed planning.

Assessment Schedule

Assessments are anticipated to be 18 to 24 months in duration. Work begun in Fall 1999 on two "pilot assessments" is continuing for the Bronx River and Paerdegat Basin. Preliminary work has begun on the Group I waterbodies, which are Jamaica Bay, Mill and East Mill Basins, Fresh Creek, and Shellbank, Bergen and Thurston Basins, and Group II waterbodies, which are the East River, Alley Creek, the Hutchinson River, Westchester Creek, Flushing Creek and Bay, Newtown Creek, and Gowanus Canal. Work is scheduled to start in fall 2001on Group III waterbodies, which are the Harlem River, Hudson River, Upper New York Bay, Lower New York Bay, Kill van Kull, Arthur Kill, Raritan Bay, and Coney Island Creek.

Work is proceeding on the two pilot assessments of Paerdegat Basin and the Bronx River. Particular focus has been made during this reporting period on preparing a preliminary waterbody/watershed plan for Paerdegat Basin. Work is proceeding on the Bronx River

assessment as lessons are learned with Paerdegat Basin planning. General work is also proceeding on a variety of tasks for all waterbodies.

Waterbody/Watershed Stakeholder Team Activities

Local Waterbody/Watershed Stakeholder Teams are being formed for each waterbody being assessed by the USA Project as an integral part of the assessment process as well as an important component of the project's public outreach program. The composition of the stakeholder teams includes community leaders, local residents, and waterbody users. The teams are providing information on waterbody and watershed uses, water quality issues, and long-term intentions and desires for the waterbody.

Stakeholder teams have been formed for the Bronx River and Paerdegat Basins waterbody/watershed assessments. The Bronx River Stakeholder Team and the Paerdegat Basin Stakeholder Team have both had several meetings. Meeting notes are recorded and distributed to participants.

Stakeholders had requested that a glossary of engineering terms and acronyms be provided to the teams in support of technical and regulatory discussions. A draft glossary was prepared using a variety of sources from governmental and non-governmental organizations. The glossary has been distributed to both the Paerdegat Basin and Bronx River stakeholder teams.

At this time both Stakeholder Teams have provided land use and shoreline characteristic information, described various uses of the waterbodies and their locations, and reviewed and prioritized and water quality issues for assessment purposes. Presentations have been made on the present status of combined sewer overflow (CSO) abatement projects affecting these waterbodies by DEP's Track I facility-planning teams. These presentations updated the stakeholders on facility plan components, benefits, and schedule for completion.

Activities have commenced for convening stakeholder teams for the Group I waterbodies. Some of the waterbodies are being aggregated to accommodate similar watersheds, common community characteristics, common waterbody uses, and waterbody proximity. One stakeholder team will represent Mill and East Mill Basin. Fresh, Hendrix and Spring Creeks will have one team. Shellbank Basin will have its own team. Bergen and Thurston Basins are being combined into one team. Finally, a Jamaica Bay Stakeholder Team will be convened. Initial presentations have been made to local Community Boards and several community groups to solicit their involvement and their recommendations for team members.

Field Investigations

Field Sampling and Analysis Programs (FSAPs) are being developed and executed to conduct field investigations for waterbody/watershed assessments. Specific FSAPs address biological sampling, shoreline characterizations, and other investigations necessary for collecting comprehensive information on each waterbody/watershed, where no information has previously been collected or is out of date.

A Field and Laboratory Standard Operation Procedures (SOP) document for the USA Project is finalized. This document will be updated when new procedures are required for additional investigations. Additional procedures will be added to the document as FSAPs are developed. The SOP and all FSAPs are developed in conformance with SOP guidelines developed by the U.S. Environmental Protection Agency (EPA) and discussed with the EPA Monitoring and Assessment Branch in Edison, NJ.

Biological FSAPs are being executed for the Bronx River and Paerdegat Basin. A majority of the work is complete. Data collected during these FSAPs are being added to the USA Project's comprehensive, relational database and geographical information system (GIS). One remaining task of these FSAPs involves quarterly sample collection for assessing epibenthic recruitment and survival, and ichthyoplankton sampling for assessing aquatic spawning, both which are on schedule and will conclude by June 2001.

A Harbor-Wide Ichthyoplankton FSAP and a Harbor-Wide Epibenthic Recruitment and Survival FSAP have been implemented for conducting harbor-wide investigations. The Ichthyoplankton FSAP is being conducted to investigate spawning throughout New York Harbor and its tributaries. The Epibenthic FSAP is being conducted to characterize benthic invertebrate recruitment and community composition, species richness, and diversity throughout New York Harbor and its tributaries. Reference stations for these sampling programs are located in Manhasset Bay and Hewlett Bay on the north and south shores of Long Island, respectively.

Biological FSAPs were finalized during this reporting period for field investigations of Group I and II waterbodies. Sampling stations were selected and preparations were begun for sampling in these waterbodies.

Data Management

Sewer system, surface water, sediment, biological, and many other categories of data have been compiled from a variety of sources to construct a relational database. The database consists of data from DEP's Harbor Survey, the Interstate Environmental Commission, the National Park Service, and virtually all of DEP's CSO and water quality facility planning projects. The relational database is also integrated with a Geographic Information System (GIS) such that spatial information is maintained for analyses. Water quality, biological, and other data forms collected by the USA Project are being added to this relational database for waterbody assessments with quality assurance/control verification.

Data collected during the Paerdegat Basin and Bronx River FSAPs are currently being entered into the database. The Paerdegat Basin FSAP data includes water quality and biological data collected in Paerdegat Basin, Fresh Creek, Hendrix Creek, and Jamaica Bay. The Bronx River FSAP data includes water quality and biological data collected in the fresh and saline reaches of the Bronx River in New York City, Westchester Creek, and the Hutchinson River within New York City. Data collected during the harbor-wide epibenthic and ichthyoplankton FSAPs are also being entered into the database at this time.

Land Use and Shoreline Characterizations

Land use and shoreline characterizations described in the previous status report are continuing. The characterizations are general in nature and build upon existing data. Field verification of the analyses are being performed as existing information is compiled and interpreted.

The land use analysis includes written characterization summaries of existing and proposed land uses, zoning districts, neighborhood and community character and consistency with the City-Wide Comprehensive Waterfront Revitalization Plan and Borough-specific waterfront plans within the watershed and in areas immediately adjacent to the assessed waterbodies. The analysis also includes integration with GIS and production of maps for: existing land uses, zoning, existing public access and open resource areas, proposed land uses, waterfront revitalization areas (Special Natural Waterfront Area and Significant Maritime and

Industrial Area) and proposed public park and recreational uses. All of the GIS maps will be generalized and are not intended to be detailed land use or resources maps, but are intended to provide an overview of the land uses or resources adjacent to the waterbodies.

Shoreline characterizations are a generalized evaluation of the primary physical and biological characteristics of the shorelines adjacent to assessed waterbodies. Physical characterizations are yielding information on the physical condition, slope, substrata, and shoreline uses relating to the assessed waterbody. Biological characterizations are evaluating wetland habitats immediately adjacent to waterbodies and characterize tidal/estuarine and fresh water systems. Shoreline characterizations are also being integrated with GIS with production of several shoreline characterization maps.

Land use and shoreline characterizations are being conducted on all USA Project waterbodies and watersheds at this time. Particular focus has been made on Paerdegat Basin and Jamaica Bay in support of Paerdegat Basin waterbody/watershed planning.

Waterbody/Watershed Mathematical Modeling

An important component of the USA Project is assessing existing conditions in waterbodies as well as projecting the long-term benefits of the DEP's various water quality improvement projects. Field investigations, unless performed on a continuous if not daily basis, do not provide all the necessary information for determining compliance with water quality standards. A variety of watershed and receiving water mathematical models are therefore being used to assess water quality conditions and waterbody/watershed uses. Mathematical models provide a means to compare existing and projected water quality conditions to current and potential water quality criteria. Algorithms have been developed for interpreting model calculations for comparisons to existing water quality standards, new dissolved oxygen criteria developed by EPA, and proposed dissolved oxygen criteria being considered by the New York State Department of Environmental Conservation (DEC). Comparisons are being made to existing and upgraded-use criteria.

Watershed modeling is being performed using existing Storm Water Management Models (SWMM) and simplified rainfall-runoff models to calculate watershed impacts on receiving waters. DEP has used existing models with various levels of complexity in its Track I and II CSO facility planning projects. The USA Project is using these models to provide short- and long-term pollutant loading information for receiving water modeling. Watershed models are being modified and updated with the latest information on CSO and stormwater abatement programs and water conservation efforts being implemented by DEP as well as current modes of operation at the City's 13 combined sewer wastewater treatment plants (WWTP). These WWTPs are maximizing wet weather flow in conformance with EPA's CSO Nine Minimum Controls and Long-Term Control policies. Ongoing analyses of WWTP flow data have indicated increases in wet weather treatment and decreases in dry weather flows. Further interpretation of these data indicates that CSO discharges have been reduced which is particularly important as the USA Project is updating existing receiving water models for waterbody assessments.

The USA Project is currently utilizing, updating, and upgrading models representing Paerdegat Basin, Jamaica Bay, and the Bronx River for conducting its assessments. The Paerdegat Basin model is being used to calculate water quality conditions for year periods and is being modified to simulate ten-year periods. The selection of simulation periods is based on available rainfall statistics of over fifty years. Statistical and return-period analyses were performed to select appropriate periods. The Paerdegat Basin receiving water model is being

used to evaluate the use benefits of additional abatement measures such as additional storage, disinfection, high-rate physical chemical treatment, supplemental aeration, sewer separation, and watershed controls.

Ecosystem Evaluations

Data collected during field investigations are being used to comprehensively analyze existing ecological conditions of USA Project waterbodies. Comparisons are being made between waterbodies of similar and differing water quality and habitat conditions both within and outside New York Harbor. Information developed by mathematical modeling is also being used to assess existing benthic and water quality biological conditions and to assess future potential conditions with anticipated water quality improvements of facility plans and other pollution abatement programs. Evaluations of existing and potential dissolved oxygen conditions are being conducted for larval growth, larval survival, and juvenile growth of aquatic species for dissolved oxygen conditions.

Waterbody Use Evaluations

An analysis was conducted during this reported period to determine if a bathing beach could be located within or in the vicinity of Paerdegat Basin. This analysis was undertaken to determine if bathing criteria could be appropriately applied in the future at Paerdegat Basin. City, state and federal health codes and water quality criteria were assessed and applied throughout the waterbody to determine if all criteria could be met now or after completion of the Paerdegat Basin CSO facility plan. Environmental regulatory considerations were addressed such as: National Park Service plans for Jamaica Bay National Wildlife Refuge/Recreation Area, significant coastal fish and wildlife habitats, tidal wetlands land use restrictions, critical environmental Area restrictions. General considerations included safety issues, stakeholder goals, and consistency with riparian/community land uses were also addressed. This information was included in the preliminary Paerdegat Basin waterbody/watershed plan. A similar analysis will be applied for all waterbody assessments.

Engineering Analyses

Evaluations of CSO abatement alternatives were begun during this reporting period in support of waterbody/watershed planning for Paerdegat Basin. The Paerdegat Basin CSO Facility Plan is being implemented with the ongoing construction of the Paerdegat Basin CSO Storage Facility. Paerdegat Basin water quality will greatly improve once the facility is constructed but conditions may not meet existing and potential use designations and water quality standards. The analysis is identifying control alternatives that would be implemented in addition to the Paerdegat Basin CSO Facility Plan such that water quality goals are met. These alternatives include such measures as additional storage, floatables controls, disinfection (chlorination/dechlorination and ultraviolet), high-rate physical chemical treatment, supplemental aeration, sewer separation, and watershed controls. Costs, constructability, implementation schedule, environmental impact, and other associated issues are being developed with conceptual planning of these alternatives.

Waterbody/Watershed Planning

Planning efforts have been particularly focused on Paerdegat Basin during this reporting period. Regulatory review, data analysis/evaluation, mathematical modeling, and engineering

analysis components of the USA Project have provided information for a draft Paerdegat Basin Preliminary Waterbody/Watershed Plan. A review was conducted of existing and potential waterbody classifications and criteria for Paerdegat Basin while preparing the plan. The review included evaluations of current and draft state and federal guidance on dissolved oxygen and pathogens. Preliminary recommendations for Paerdegat Basin classification and criteria are included in the plan.

- **Interagency Coordination**

Harbor-Wide Government Steering Committee

A Harbor-Wide Government Steering Committee provides guidance and coordination for conducting the USA Project. Members of the Harbor-Wide Government Steering Committee represent the U.S. Environmental Protection Agency, the National Park Service, the U.S. Army Corps of Engineers, the Interstate Environmental Commission, the New York State Department of Environmental Conservation, the New York City Departments of Environmental Protection, City Planning, and Parks & Recreation, and the New York City Citizens Advisory Committee on Water Quality. Harbor-Wide Government Steering Committee meetings are scheduled to occur on a quarterly basis. A meeting was held on January 31, 2001. The next meeting is scheduled for September 2001.

U.S. Army Corps of Engineers Restoration Projects

The USA Project is conducting a variety of field and engineering investigations that are similar in scope to proposed plans being developed by the U.S. Army Corps of Engineers (USACE) for New York Harbor and its tributaries. These plans are primarily focused on habitat/ecosystem restoration. USA Project efforts are continually being evaluated for identifying cost-sharing opportunities that will fulfill DEP's commitments as a local sponsor to the USACE projects. Specifically, the USA Project is coordinating Jamaica Bay activities with the USACE for their work on the Jamaica Bay Ecosystem Restoration Project (JABERP). Some examples of these activities include field sampling programs, water quality modeling, and geographic information system development. During this reporting period a representative of the USA Project accompanied DEP and USACE personnel to proposed JABERP site visits.

The USA Project is also evaluating a Project Management Plan for a Gowanus Canal ecosystem restoration project to identify cost-sharing and scheduling opportunities. The USACE's Draft Project Management Plan (PMP) for their "Gowanus Bay and Canal, Brooklyn, New York, Ecosystem Restoration Study," was reviewed. Tasks were identified in the proposed PMP that correspond to USA Project tasks. DEP, as a non-federal funding partner in the USACE project, could potentially receive credit towards its share of the cost if work fulfilling PMP requirements are performed by DEP subsequent to signing the Federal Cost Sharing Agreement for the PMP. Several tasks in the PMP were identified as being not necessary since the work was already performed by previous DEP projects. Other tasks in the PMP were also identified as being similar to work efforts to be performed by the USA Project.

New York State Waterbody Inventory/Priority Waterbody List

The USA Project has been assisting the DEC in their efforts to update New York State's Waterbody Inventory and Priority Waterbody List. During this reporting period the USA Project

is reviewing revised waterbody worksheets for New York Harbor waterbodies using the broad base of information gathered, collected, and compiled for the project.

New York Harbor Total Maximum Daily Load Development

In lieu of conducting a quarterly Harbor-Wide Government Steering Committee meeting in May 2001, a meeting was held at EPA's Region 2 offices to discuss Total Maximum Daily Load (TMDL) development for New York Harbor waters. Representatives of EPA, DEC, DEP, and the USA Project team discussed TMDL schedules and waterbody assessment schedules of the USA Project.

- **Project Documentation, Reports and Publications**

Preliminary Waterbody/Watershed Characterizations

Preliminary waterbody/watershed characterization documents are being developed for each waterbody being assessed by the USA Project. Documents are being developed for each of the Group I and II waterbodies. These preliminary characterization documents are being used as a baseline for developing more comprehensive documents for each waterbody/watershed as their assessments proceed and planning is begun.

Project Web Site

A project web site describing the objectives of the USA Project and the importance of public participation is being constructed. The web site will have specific areas focused on each of the waterbody/watershed assessments. Dissemination of local waterbody stakeholder teams documents such as meeting notes is facilitated. Information on other DEP activities effecting particular waterbodies will be provided. Federal and state regulations on designated uses and water quality standards will be described with links to governmental sites for additional information. An interactive mapping tool will provide spatial representations of USA Project and general DEP activities.

During this reporting period the USA Project team met with the New York City Department of Information Technology and Telecommunications (DoITT), which administers the City's Internet operations. The project site was presented to DoITT and some comments were provided on implementing the site. HydroQual is working with DEP on making revisions as instructed by DoITT.

Reports

No reports have been issued for the USA Project.

IV. Demonstration Projects

A.) Destratification Demonstration at Shellbank Basin

The purpose of this demonstration is to specifically address the poor water quality that seasonally exists in Shellbank Basin (located in the Jamaica Bay) due to natural stratification of the waterbody.

System Design

In an effort to mitigate the natural stratification and resulting marine kills and odor releases, a full-scale destratification demonstration system has been installed in the Shellbank Basin. The destratification facility consists of a shoreside compressor station and diffused air lines, which run along the bottom of the basin. The destratification system delivers compressed air to the basin bottom, which is intended to vertically mix the water column of Shellbank Basin to create an isothermal condition.

System Preparations

The destratification demonstration in Shellbank Basin was reactivated in May, initiating a second year of testing. Surveys of the temperature and dissolved oxygen water quality conditions are being performed on a weekly basis to assess water quality conditions and the efficacy of the destratification system.

B. In-Line Storage

The Hunts Point drainage basin comprises the eastern two thirds of the borough of the Bronx. It is bounded by Westchester County to the north and the East River estuary to the east and the south. The drainage area comprises of approximately 1,800 acres of urban terrain. The Hunts Point drainage area sewer system may be appropriate for in-line storage because of a large sewer storage capacity, shallow hydraulic grade, gravity flow, and low potential for flooding.

The Hunts Point In-line Storage project incorporates the use of three inflatable dams, installed in sewers within the Hunts Point drainage basin, to make use of the in-line storage capacity of the sewers. The purpose of this project is to demonstrate the technology and ascertain the operational and maintenance issues and concerns at actual full scale New York City installations. The systems from two inflatable dam manufacturers, Rodney Hunt and Bridgestone, will be tested. O'Brien and Gere will be operating both systems for a period of one year.

The use of inflatable dam sewer installations are planned for use at several Track 1 CSO abatement projects and could be involved in Track 2 CSO abatement projects (floatables and settleables control).

Meetings

No meeting conducted this period.

Preliminary Examinations

Functional Testing of the installed equipment is planned to be done in July. Utility connections (telephone and electric) to a remote ultrasonic level transmitter (ULT) installation are expected to be completed in July. Start-up will be scheduled upon the testing of the equipment satisfactory to both the Engineer and the Department, and the utility connections completed for the ULT installation.

C. High Rate Physical Chemical Treatment

Preliminary Design

A meeting between BEE, BWT, and Hazen and Sawyer was held on May 16th to discuss the issues regarding the design and operation of the HRPCT demonstration facility at 26th Ward WPCP.

D. CSO Control Technologies

The evaluation of a hinged baffle system as retrofit CSO control technologies continued in this period. On June 7, HydroQual made a presentation to NYCDEP on the status of the demonstration project. The presentation focused on the hydraulic analysis of the Hunts Point outfall HP-004 and the conceptual design of hinged baffles. The analysis indicated that the Hunts Point outfall and regulators were not ideal locations for the demonstration test. For the hinged baffle, HydroQual recommended that a scale-model be constructed and tank tested in a laboratory to validate its operation and design. Several facilities are being evaluated where the testing can be conducted. The technical memorandum on the evaluation of CSO control technologies is being updated and reviewed. The memorandum includes discussions on the regulator screening process, control technologies evaluation, the engineering design results and the conclusions of the hydraulic analysis on the regulators and combined sewer analysis. The results of the evaluation and recommendations for pilot testing of the hinged baffle will be incorporated into the draft technical memorandum.

V. Contracts

New Contracts

- No new contracts were reported this quarter.

Change Orders

Citywide Floatables

- Change Order X-5 to the City-Wide Floatables Study Contract II was submitted to NYCDEP on January 17, 2001. A copy of the registered change order was received by HydroQual on June 29,2001. The scope of work for this change order included additional work involving assessment of end-of-pipe netting systems and modified designs for existing systems, and additional funding for testing of the Corona Avenue Vortex Facility (CAVF) resulting from delays in the scheduled readiness of sampling equipment and changes in the status of the CAVF as a non-confined space and the associated equipment costs.

Comprehensive CSO Plan

- A draft Change Order X-5 to the Comprehensive City-Wide Floatables Control Abatement Plan was submitted to NYCDEP on March 7, 2001. HydroQual and DEP have discussed specific aspects of the scope of work, which includes additional funding to evaluate capacity and operation and maintenance (CMOM) issues and funding for evaluating the use of skimmer vessels to remove floatables from New York Harbor if other CSO control measures are unable to. Following comments and discussions with DEP, the change order will be revised and re-submitted to DEP in early July 2001.

VI. Public Participation

- **Public Outreach**

Citizens Advisory Committee on Water Quality

There was one Citizens Advisory Committee on Water Quality Meetings held during the first quarter period; the meeting was held on February 14, 2001. The agenda from the meeting is presented in Appendix B.

Local Waterbody Stakeholder Teams

Stakeholder involvement has been identified as a critical component of the USA Project. Local waterbody stakeholder teams will be convened for each waterbody assessment. The USA Project is forming local waterbody stakeholder teams for the Bronx River and Paerdegat Basin.

Invitations were extended to Bronx Community Boards 2, 3, 6, 9, 11, and 12 for forming the Bronx River Stakeholder Team. An invitation was also extended to a non-governmental group, the Bronx River Working Group. These efforts have resulted in identifying more than twenty citizens for participation in the Bronx River Stakeholder Team. The first meeting of the Bronx River Stakeholder Team is scheduled for January 17, 2001.

Efforts have continued for forming the Paerdegat Basin Stakeholder Team. Several members of Brooklyn Community Board 18 have volunteered for participation on the Paerdegat Basin Stakeholder Team. A meeting was held on December 5, 2000 with representatives of several organizations who were involved with previous DEP facility planning activities at Paerdegat Basin in order to solicit participation of local waterbody users. Although the Paerdegat Basin Stakeholder Team has not been completely formed, DEP is making every effort to hold its first meeting by the end of January 2001.

Internet Project Site

The USA Project includes provisions for developing an Internet project site for dissemination of project information to the public. Development of the web site is currently underway under guidelines established by the City of New York. The web site includes general information on the USA Project, information specific to each waterbody being assessed including maps and pictures, stakeholder team meeting schedules and documents, relevant regulations, links to related web resources, documents for public release, interactive mapping, and officially released data collected by the DEP Harbor Survey. DEP is making every effort to make the project site available to the public in the winter of 2001.

- **Project Documentation, Reports and Publications**

Waterbody Fact Sheets

Fact sheets have been developed for each waterbody being assessed by the USA Project. These fact sheets include a map showing the waterbody and watershed with combined sewer, storm sewer, and overland runoff components. Locations of CSO and wastewater treatment plant discharges are also provided on the maps. The fact sheets provide tabulated information such as adjacent boroughs and community boards, water use classification, compliance with water quality standards, shoreline characterizations, waterbody improvement initiatives, and projected

water quality improvements for the waterbody. These fact sheets have been distributed to the Harbor-Wide Government Steering Committee and are being incorporated into the Internet project site.

Preliminary Waterbody Characterizations

Preliminary waterbody characterization documents are being developed for each waterbody being assessed by the USA Project. These documents build on the brief information compiled for the waterbody fact sheets. Preliminary characterization documents were finalized for the Bronx River, Paerdegat Basin, and Jamaica Bay. These documents were distributed to the Harbor-Wide Steering Committee. Documents are being developed for the entire Group I waterbodies. These preliminary characterization documents are being used as a baseline for developing more comprehensive documents for each waterbody as their assessments proceed and planning is begun.

Project Brochure

A USA project brochure is being developed for public use. This brochure will be distributed to stakeholder teams and during DEP public outreach activities. At the time of this report, the brochure has been approved by the DEP and is being prepared by a professional printer.

APPENDIX A

QUARTERLY REPORT ON STATUS OF CITY-WIDE FLOATABLES PLAN

City of New York
Department of Environmental Protection
Bureau of Environmental Engineering
Comprehensive City-Wide Floatables Control Abatement Plan

TECHNICAL MEMORANDUM

QUARTERLY REPORT ON STATUS OF CITY-WIDE FLOATABLES PLAN APRIL 2001 - JUNE 2001

July 2001

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GLOSSARY OF ACRONYMS USED IN THIS REPORT

BNR	Biological Nutrient Removal
CAC	Citizens' Advisory Committee
CB-01	Capital Program for replacement of collapsed catch basins
CP	Capital Program (NYC)
CSO	Combined (Sanitary and Stormwater) Sewer Overflow
DEC	Department of Environmental Conservation (NYS)
DEP	Department of Environmental Protection (NYC)
DWF	Dry-Weather Flow
DDWF	Design Dry-Weather Flow
DOS	Department of Sanitation (NYC)
DOT	Department of Transportation (NYC)
HI-3	Capital Program for hooding of catch basins in Phase III areas
HI-S	Capital Program for hooding of catch basins in high-speed roadways
HSV	Harbor Survey Vessel
IFCP	Interim Floatables Containment Program
MOO	Mayor's Office of Operations (NYC)
NYC	New York City
NYS	New York State
OMB	Office of Management and Budget (NYC)
SLR	Scorecard Litter Rating
PS	Pumping Station
USA	Use and Standard Attainment
WPCP	Water Pollution Control Plant
XP-SWMM	Storm Water Management Model, (proprietary version)

OVERVIEW OF PLAN ELEMENTS

REPORTING PERIOD: APRIL 2001 THROUGH JUNE 2001

Floatables Plan Elements	New Information This Period
1. Ongoing Activities	
-Maintain Street Cleanliness	Yes
-Catch Basin Hooding in Phase I/II Areas	No
-Netting/Booming and Skimming	Yes
-Track I Facilities	*
-Maximizing Wet-Weather Flow to WPCPs	Yes
2. Catch Basin Hooding in Phase III Areas	Yes
3. City-Wide Reconstruction of Unhoodable Catch Basins	No
4. City-Wide Catch Basin Re-Inspection Program	No
5. Illegal Disposal Control	No
6. Public Education Program	*
7. Pilot Studies and Demonstration Projects	*

* -Please refer to Section II of the CSO Quarterly Report.

1. Ongoing Activities

a) Maintain Street Cleanliness

Previous studies have indicated that most floatable litter in New York Harbor can be traced to city streets (HydroQual, 1993). Although many factors can affect the amount of litter on city streets at any given time, the City of New York attempts to control litter levels through a street-sweeping program administered by the Department of Sanitation and through systematic street-litter monitoring, known as the "Scorecard Program," conducted by the Mayor's Office of Operations.

According to the Mayor's Office of Operations, city-wide street litter levels have improved substantially over the past six years. Scorecard Program results for the past six 12-month periods are summarized in the following table and on Figure 1. These results show that street cleanliness has been maintained at or better than 1995 levels.

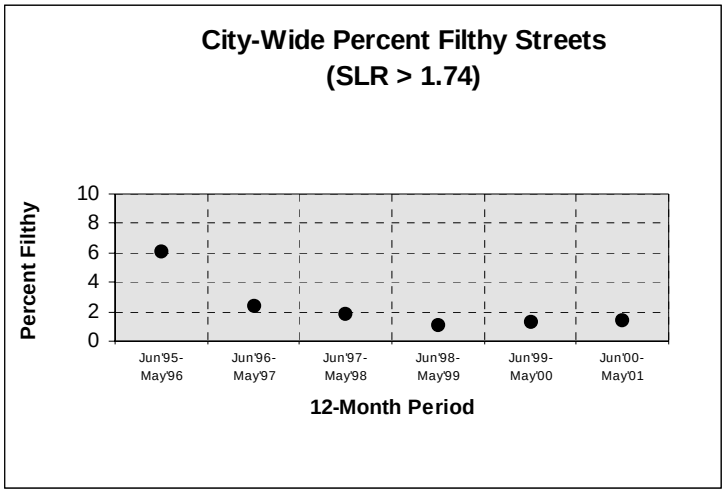
City-Wide Street Cleanliness, 1995 - 2001

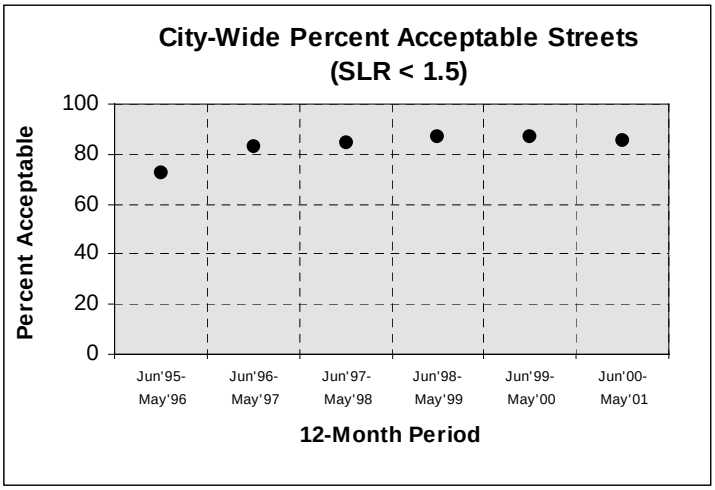
Measure of Street Cleanliness	Results of Scorecard Litter Ratings (SLR)					
	6/95-5/96	6/96-5/97	6/97-5/98	6/98-5/99	6/99-5/00	6/00-5/01
Mean SLR[(1)]	1.37	1.32	1.31	1.30	1.30	1.30
% Acceptable[(2)]	72.3	83.3	84.5	87.2	86.7	85.7
% Filthy[(3)]	6.1	2.4	1.8	1.1	1.3	1.4

Notes:
(1) SLRs follow a 7-point scale from 1.0 (cleanest) to 3.0 (dirtiest).
(2) Percentage of tested blockfaces with SLR less than 1.5.
(3) Percentage of tested blockfaces with SLR greater than 1.74.

b) Catch Basin Hooding in Phase I / II Areas

Catch basin hooding in Phase I/II areas was completed on or ahead of schedule. A detailed description of these activities, with a summary of the results, is available in previous Quarterly Reports and will not be repeated here.





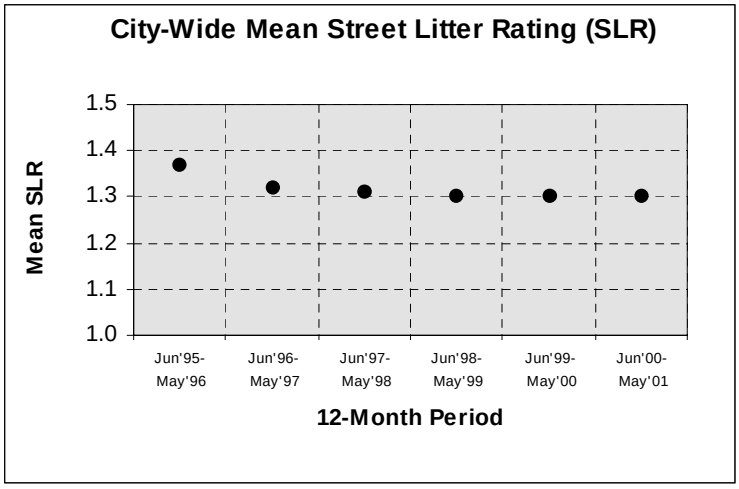


Figure 1. Street Cleanliness

c) Netting/Booming and Skimming (Interim Floatables Containment Program)

As of May 31, 2001, the IFCP included 19 boomed sites and 4 netted sites draining a total of approximately 58,600 acres. As shown in the table below and on Figure 2, the total volume of floatable material retrieved annually from these sites has varied between about 500 and 1,700 cubic yards. These retrievals are affected by many factors, including the number and efficiency of IFCP sites, street cleanliness, catch basin hooding, and weather. These factors are being analyzed to determine whether the overall decline in retrievals may be attributed to increased catch basin hooding in upland areas.

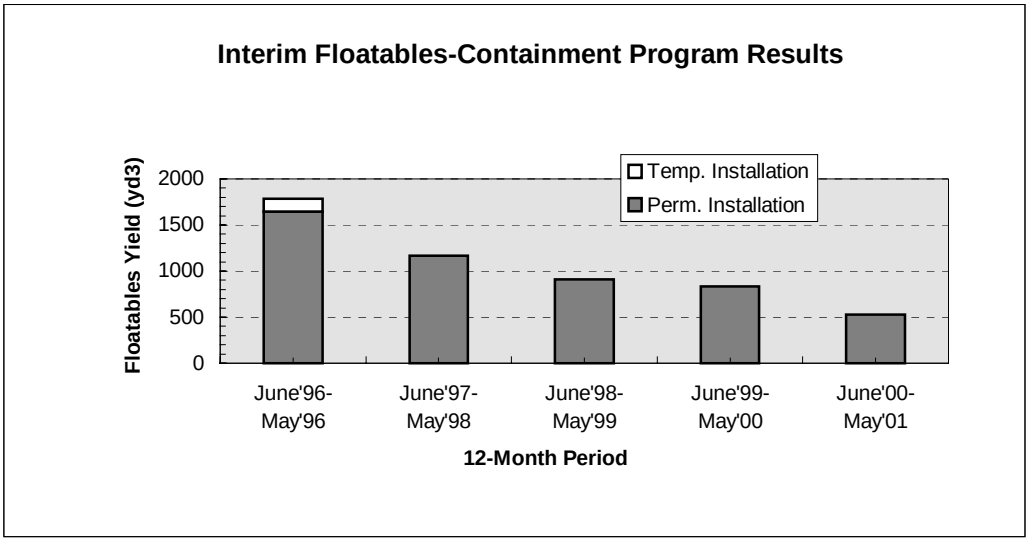


Figure 2. Floatable Material Retrieved from IFCP

As shown on Figure 2 and in the table below, the most recent 12-month period experienced lower yields than in previous years. Preliminary analysis indicates that this may be due to increased catch basin hooding and lower-than-normal precipitation. Overall, a number of sites have yielded lower-than-expected volumes of floatables. An investigation into the reasons for these low yields will be conducted through further data analyses, design review, and possible dry and wet weather inspections.

Interim Floatables Containment Program Results, 1996[1] - 2001

	6/96-5/97	6/97-5/98	6/98-5/99	6/99-5/00	6/00-5/01
No. Sites[2]					
Permanent	21	22	22	22	21
Temporary	1	1	1	1	2
Total	22	23	23	23	23
Volume [cy][3]					
Permanent	1,647	1,165	910	836	526
Temporary	135	2	0	0	0
Total	1,782	1,167	910	836	526

Notes:

(1) Volume measurements began 7/95.

(2) Maximum number of sites operating during period.

(3) Total volume of floatables retrieved from sites during period.

(4) "Temporary-status" sites feature lower-quality equipment than "Permanent-status" sites.

In addition to the IFCP netting and booming sites, there are two additional sites from which DEP has agreed to collect material on an as-needed basis. These sites are located at Buttermilk Channel (at the intake to the water tunnel) and near Bowery Bay at the Ogden Fuel Services site. Both sites are boomed. From April through May 2001, 39.5 cubic yards of material was collected from the Buttermilk channel site (including material collected by the Transportation Section). Nothing was observed at the Ogden Fuel services site.

DEP also conducts retrievals of large floating debris using the *Cormorant* skimmer vessel throughout New York Harbor. During April and May, the *Cormorant* retrieved a total of approximately 49 tons of floating debris, including roughly 4 tons of trash. Most of the remaining material was comprised of wood from decayed piers and derelict vessels.

No community clean-up activities were reported during this period.

d) Track I Facilities

Please refer to Section 2 of the CSO Quarterly Report.

e) Maximizing Wet-Weather Flow to WPCPs

Recommendations have been finalized for 7 of the 9 WPCPs not affected by Track I facilities. These recommendations, and the estimated cost associated with the recommendations, are summarized in the Quarterly Report dated July 1998 and will not be repeated here.

On behalf of NYCDEP, HydroQual, Inc. is beginning a study to investigate the wet-weather capacity of the city's WPCPs with an emphasis on their ability to process two times design dry-weather flow (DDWF). Unit-process sizing will be reviewed and capacities will be determined based on traditional engineering principles.

Information packages for each of the wastewater treatment plants have been developed and will serve as a basis for discussion with the plant superintendents and process engineers. Treatment Plant operating data from wet-weather periods is currently being reviewed to characterize plant performance during wet weather. Hazen and Sawyer Engineers, P.C. provided a draft copy of their wet-weather operations plan for the WPCPs with biological nutrient reduction (BNR). The hydraulic capacity of the biological treatment processes of the BNR plants may be downgraded to less than 1.5 times DDWF. These decreases will increase the hydraulic load to the bypass channel if the plants are to maintain a total wet-weather capacity of 2 times DDWF. DEP has also provided a report on full-scale secondary clarifier tests and performance which indicated that secondary clarifiers at the Rockaway WPCP were able to withstand overflow rates of up to 1,600 gpd/sf. This information will be used in evaluating wet-weather capacities for secondary clarifiers.

2. Catch Basin Hooding in Phase III Areas

Non-priority ("Phase III") areas of the city are not subject to Consent Order requirements for catch basin inspections and hooding. However, DEP is proceeding with catch basin inventory and hood replacement operations in Phase III areas. According to data available through June 30, 2001, a total of 40,773 structures have been found in Phase III areas, 35 percent more structures than DEP had previously estimated in these areas. Of these structures, about 73 percent are basins (that is, structures connected directly to the sewer) and about 14 percent are hoodable inlets (structures not connected directly to sewer and having a sump depth of greater than 27 inches). The remaining 13 percent of structures are inlets with sump depths of less than 27 inches, which DEP does not consider candidates for hoods.

Figure 3 summarizes the hooding program in Phase III areas as of June 30, 2001. About 13 percent of all Phase III structures are not candidates for hooding, about 54 percent structures were found hooded, 23 percent have been installed with hoods as part of this program, and the remaining 10 percent of structures are still missing hoods.

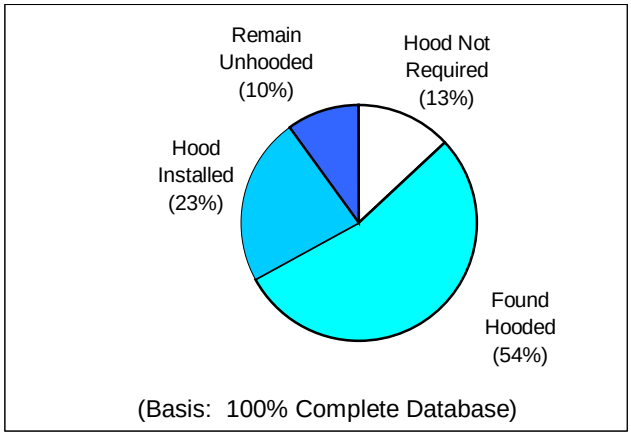


Figure 3. Status of DEP Hooding Program (Phase III)

3. City-Wide Reconstruction of Unhoodable Catch Basins

The ongoing catch basin hooding program continues to identify basins that cannot be hooded due to physical conditions requiring extensive repairs or reconstruction for hooding. DEP is reviewing the various conditions that preclude normal hooding and is assessing how many basins can be "retrofitted" with modified hood designs. Retrofitting is desirable because it can be done more quickly and cost-effectively than reconstructing the basins. DEP has developed prototype versions of modified hoods to be used in situations where a normal hood cannot be used because:

1) the exit pipe is too close to the top of the basin (15 percent of unhoodable basins),
2) the back wall of the basin is too deteriorated to support hood hanger hooks (15 percent of unhoodable basins),
3) steel plates above the exit pipe preclude hanging a normal hood (1 percent of unhoodable basins), and
4) the exit pipe is located in a corner of the basin (3 percent of unhoodable basins).

DEP has initiated a pilot program to evaluate whether the modified hood designs provide adequate performance over a reasonable time period. From March through June, 2000 and as part of this pilot program, 48 of 60 catch basins in the Queens 10 community district, which had been previously defined as requiring reconstruction for hooding, have been fitted with conventional or modified hoods. The other 12 basins have been identified for structural repair or catch basin replacement.

In addition to investigating modified hoods in lieu of basin reconstruction, Capital Program CB-01 appropriates $6 million annually for replacement of collapsed catch basins and associated work required to make sidewalks handicapped accessible. The funding for CB-01 is above and beyond the existing levels needed to address normal repair work.

In addition to the catch basins being identified for reconstruction, and based on estimates by Liro Consulting Engineers, P.C., there are roughly 1,067 catch basins that cannot be inspected and hooded as part of the ongoing program because they are located in "high-speed roadways" and as such require DOT permits as well as special safety equipment. Liro Consulting Engineers, P.C. has visited these high-speed sites to determine the need for safety measures, lane closures, etc., and contract specifications were completed for this project (MI-4) by January 2001. NYCDEP is now in the process of selecting a contractor for catch basin cleaning and hooding in those areas.

4. City-Wide Catch Basin Re-inspection Program

As a follow-up to the catch basin hooding program (discussed in Section 1b), the Consent Order also requires that all catch basins in Phase I and Phase II areas be re-inspected every two years to confirm that hoods remain in place. These two-year re-inspection cycles are to commence upon completion of the initial hooding process, for which the milestone dates were February 1998 (Phase I) and February 1999 (Phase II). DEP completed initial hooding ahead of schedule, in December 1997 (Phase I) and September 1998 (Phase II).

DEP finished re-inspections of Phase I basins by December 1999, ahead of the original milestone date in the Consent Order and within two years of completing the initial hooding. According to DEP, all missing hoods were replaced within 90 days of the inspection, as per the Consent Order. As part of its inspection program of all catch basin structures, DEP reports finishing Phase II basins re-inspection and hooding by the end of 2000. Phase III re-inspections are expected to start within a short period of time.

Status of Catch Basin Re-Inspection For Hoods[1] – Phase I

Community Board	Number of Basins[2]	Total Hoods Replaced	Rehooding Percentage[3]
BX01	772	75	9.7%
BX02	595	3	0.5%
BX03	536	46	8.6%
BX04	774	1	0.1%
BX05	590	38	6.4%
BX07	682	48	7.0%
BX09	1,612	23	1.4%
KG04	574	23	4.0%
KG06	1,040	6	0.6%
KG07	887	93	10.5%
KG10	1036	25	2.4%
KG12	1,515	27	1.8%
KG18	2,760	65	2.4%
MN01	621	3	0.5%
MN02	859	2	0.2%
MN03	679	6	0.9%
MN09	541	8	1.5%
MN10	472	20	4.2%
MN11	438	30	6.8%
MN12	824	31	3.8%
QN01	2,046	116	5.7%
QN02	2,032	90	4.4%
QN10	2,875	113	3.9%
QN14	2,168	44	2.0%
SI01	2,455	29	1.2%
Total	**29,383**	**965**	**3.3%**
Annual Hood-Dislodge Rate			**1.6%**

[1] From information provided by NYCDEP, March 2, 2000
[2] Total number of basins that do not require extensive repairs for hooding
[3] Rehooding percentage over the 2-year re-inspection cycle.

DEP compiled the results of the Phase I re-inspections and determined that, of the 29,383 basins that had been hooded initially, just under 3.3 percent required re-hooding over the two-year re-inspection cycle (as shown below). This equates to an annual hood-dislodge rate of about 1.6 percent. Results of the Phase II re-inspections are currently being compiled by DEP and they are not available at this time.

5. Illegal Disposal Control

In 1998, HydroQual helped DEP and DOS develop a protocol to record and report locations of suspected illegal shoreline trash-dumping. This "Illegal Dumping Notification" program has coordinated efforts between DEP's Harbor Survey Program, DEP's Sentinel Monitoring Program, and two branches of DOS, the Environmental Police and the Sanitation Police. The Environmental Police handle information related to hazardous substances (such as medical waste and asbestos), and the Sanitation Police handle information related to illegal trash dumping.

It is anticipated that the Illegal Dumping Notification Program will continue in 2001. With respect to enforcement, the DOS Sanitation Police will again be notified of these possible active dumping locations.

6. Public Education

Please refer to Section II of the CSO Quarterly Report.

7. Pilot Studies and Demonstration Projects

Please refer to Section II of the CSO Quarterly Report.

APPENDIX B

CITIZEN ADVISORY COMMITTEE ON WATER QUALITY – AGENDAS

New York City Department of Environmental Protection
Bureau of Environmental Engineering
96-05 Horace Harding Expressway, 5th Floor, Corona, New York 11368-5107
Joel A. Miele, SR., P.E. Commissioner
Robert Gaffoglio, P.E., Deputy Commissioner

Water Quality Citizens Advisory Committee Meeting

AGENDA

MEETING NO. 44
Wednesday, April 18, 2001
3:00 - 6:00 P.M.
Real Estate Board of New York
570 Lexington Avenue
New York, NY

1. Opening Remarks	CAC Co-chairs NYCDEP
2. Technical Advisory Committee Update	Bill McMillin, HydroQual
3. Update/Status, USA Project	John St. John, HydroQual
4. Update/Corona Avenue Vortex	Bill Leo, HydroQual
5. Other Business	
6. Next Meeting	

THE CITY OF NEW YORK DEPARTMENT OF ENVIRONMENTAL PROTECTION
JOEL A. MIELE, SR., P.E. Commissioner

ROBERT GAFFOGLIO, P.E.
Deputy Commissioner

Bureau of
Environmental Engineering

PHONE (718) 595-6002
FAX (718) 595-5999

AGENDA

CITIZENS ADVISORY COMMITTEE on WATER QUALITY

MEETING NO. 45
Wednesday, June 13, 2001
3:00 p.m. - 6:00 p.m.

Environmental Defense Fund
257 Park Avenue South

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1. Opening Remarks -- Review of April 18, 2001 Meeting Summary	CAC co-chairs NYCDEP
2. New York State Department of Environmental Conservation (NYSDEC) Regulatory Authority & Applicability to the Use and Standards Attainment (USA) Program	Phil DeGaetano, NYSDEC
3. Floatables Project, Component Updates	William Leo, HydroQual
4. Other Business	
5. Next Meeting, 7/11/00	

96-05 Horace Harding Expressway, 5th Floor, Corona, New York 11368-5107