

**WARD ISLAND STP
SEMI-ANNUAL COMPLIANCE PROGRESS REPORT**

SUMMARY

This is a semi-annual compliance progress report of the status and progress the NYCDEP made in meeting the objective and milestones of the Wards Island Modified Order on Consent ("Wards Island Orders") for the period January 1, 2002 through June 30, 2002. This Compliance Progress Report also includes reporting of measures taken by NYCDEP which are not required by this Modified Order but which nonetheless contribute to reductions in flow to the Wards Island Water Pollution Control Plant (WPCP). More detailed background information on the conservation programs, interim plant expansion, and other activities discussed in this report can be found in previous monthly progress reports by the NYCDEP as part of the Wards Island Modified Order.

This report is an edited compilation of information supplied by several DEP Bureaus. Further information on the activities and programs discussed in this report can be obtained through one or more of the following:

Phillip Heckler, P.E., Deputy Director, Bureau of Wastewater Pollution Control (BWPC): Flow Monitoring (718) 595-5051

Ernie Cavagnaro, P.E., Chief, Repair Division, Bureau of Water Supply and Wastewater Collection (BWSWC): Leak Detection, Hydrant Locking Devices (718) 595-5268

Warren C. Liebold, Director of Conservation/Technical Services, Bureau of Customer and Conservation Services (BCCS): Residential and Nonresidential Water Audits, Water Metering Study, Tiolet Rebate Program, Water Metering. (718) 595-6656

William Calbert, Chief Inspector, Meter Test Facility, Bureau of Customer and Conservation Services: Meter Slippage Tests (718) 802-1532

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EAST RIVER STUDY

Issues concerning the Newtown Creek Upgrade/East River Water Quality Plan that NYCDEP's consultants have addressed in further detail as part of this study include:

- Various location, capacity and treatment level alternatives to the Newtown Creek upgrade;
- Alternatives for reducing the water quality impacts of nitrogen discharged by East River WPCP's, including both treatment and non-treatment-based approaches, and
- Additional WPCP facilities planning issues including WPCP treatment capacity and combined sewer overflow (CSO) conveyance capacity.

Water quality models were developed for use in evaluating various alternatives.

Revised Consent Orders for the Newtown Creek upgrade and a new Consent Order addressing nitrogen control requirements have been signed. Additional environmental assessment work related to the Newtown Creek WPCP 3 facility upgrade alternative is underway. Task reports for most project tasks have been completed and finalized. The conceptual design of the recommended plan is described in the Task 13 Conceptual Design report. The final project remains to be completed.

The attached Table 1 shows specific East River Water Quality Planning project tasks and their status as of June 2002.

TABLE I**EAST RIVER WATER QUALITY PLANNING STATUS AS OF JUNE 2002**

TASK NO.	TASK DESCRIPTION	PERCENT COMPLETION	TARGET COMPLETION
6	Compilation of Available Data	100%	Completed
7	Analyze Existing Conditions	100%	Completed
8	Project Future Conditions	100%	Completed
9	Phase I Model (HEM)	100%	Completed
10	Phase II Model (SWEM)	100%	Completed
11	Develop and Evaluate Alternatives	99%	Pending
12	Plan Selection	99%	Pending
13	Conceptual Design and Value Eng.	99%	Pending
14	Final Plan Report	78%	Pending
15	Public Participation Program	99%	Pending
17	Water Quality Sampling	100%	Completed
18	Environmental Assessments	88%	Pending

REMOVAL OF LAKE OVERFLOWS

A limited water management investigation was begun under the Lake Overflow Investigations Task (14) of the Wards Island SSES. This investigation included both Central Park and Van Cortland Park. Overflows from these lakes were measured, and alternatives to remove these overflows from the Wards Island combined sewer system were developed and evaluated. However, it was determined that further, more detailed analyses would need to be performed in order to reach a final recommendation.

A twenty-four month Engineer Services Contract has been awarded to Malcolm Pirnie, Inc. to expand upon these preliminary investigations. All major waterbodies within Central Park (the Reservoir, the Pool, Harlem Meer, the Lake, Belvedere Lake, Conservatory Pond and the Pond), and Van Cortlandt Park (Van Cortlandt Lake and the 4 Henry Hudson lagoons) will be studied. Drainage areas of each individual water body will be delineated, stormwater outfalls discharging into these waterbodies will be identified, non-point runoff sources will be investigated and City water inputs will be determined. In addition, flow from existing wells and groundwater sources will be identified and quantified. A Water Quality model will be developed in order to predict water quality conditions and assist in the selection of the most favorable alternative for the diversion of flow from the Wards Island combined sewer system. In consultation with the Department of parks and Recreation (NYCDPR) and the Central Park Conservancy (CPC) for Central Park, a plan will be selected and an environmental assessment and conceptual design of that plan will be undertaken for each park.

UPDATE AS OF JUNE 2002:

While a recommended plan for Van Cortlandt Park is agreed upon in concept, further work has been deferred until such time as the new City administration can be apprised of the status of this project. NYCDPR is unable to participate in funding the Van Cortlandt Park project at this time; and although NYCDEP is prepared to move forward with components of the plan to reroute stormwater out of the collection system and to the Harlem River, NYCDPR is withholding their consent to let DEP do work in the Park until issues regarding the rest of the plan are resolved. The Central Park Conservancy, the organization that is responsible for the management of Central Park, has not approved the Central Park plan. Similar to the Van Cortlandt Park plan, the Central Park plan will need to be reviewed by the new administration prior to making decisions on implementation.

The pattern of lower flows to the Wards Island WPCP continued during this report period, with monthly averages consistently well under the plant's permit capacity.

The following table illustrates the 12-month trend through a comparison with the same period one year before.

Wards Island Flows: January – June 2001 and 2002		
	2002	2001
January	169 MGD	184 MGD
February	164 MGD	179 MGD
March	165 MGD	187 MGD
April	163 MGD	185 MGD
May	161 MGD	181 MGD
June	170 MGD	194 MGD
July		187 MGD
August		204 MGD
September		189 MGD
October		180 MGD
November		170 MGD
December		123MGD
Permit: 250 MGD January 1998 – December 1998 Average : 203 MGD January 1999 – December 1999 Average : 192 MGD January 2000 – December 2000 Average : 184 MGD January 2001 – December 2001 Average : 180 MGD January 2002 – June 2002 Average : 165 MGD		

CITYWIDE CONSERVATION INCENTIVE PROGRAM

DEP water conservation programs continued to make progress during this report period.

The New York City Toilet Rebate Program ended with final submissions in spring 1997. Through June 11, 1997 approximately 1,330,224 toilets have been replaced. Submissions for the Toilet Rebate Program ended on March 17, 1997. The final total of installations is approximately 1.33 million. The toilet and showerhead replacements are estimated to be contributing an estimated 7.1-15.4 MGD flow reduction to the Wards Island WPCP, 4.3-10.3 MGD flow reduction to the North River WPCP, 5.6-13.3 MGD flow reduction to Newtown Creek WPCP, 5.4-12.9 MGD flow reduction to the Coney Island WPCP, and 1.4-3.2 MGD to the Owl Head WPCP. An additional 13.9-32.9 MGD is estimated to be saved outside of the three consent decree drainage areas, for a total of 37.7-87.9 MGD citywide. The flow reduction estimates are based only on the projects completely inspected and paid.

The attached chart illustrates the final status of the program through June 11, 1997. "Applications Approved" reflects the total number of buildings and units which have applied and been approved. "Post-Installation Packages" represent the number of properties (and units) which have submitted the final paperwork for issuance of a rebate check.

The final report on the monitoring and evaluation of the New York City Department of Environmental Protection Toilet Rebate Program, prepared by Westat, Inc. was submitted.

Westat read water meters in the boroughs of Bronx, Brooklyn, Manhattan, and Queens over an 18 month period. Data from these readings was used in the analysis. An average 29% drop in water consumption was measured in the sample of monitored apartment buildings.