

**NYC DEPARTMENT OF ENVIRONMENTAL PROTECTION  
BUREAU OF ENGINEERING DESIGN AND CONSTRUCTION  
CROTON FACILITY MONITORING COMMITTEE MEETING MINUTES  
THURSDAY, SEPTEMBER 15, 2011 – 7:00 PM**

The Croton Facility Monitoring Committee (CFMC) met on Thursday, September 15, 2011 at the DEP Community Office, 3660 Jerome Avenue, Bronx, NY 10467. The meeting was called to order at 7:25 pm.

**Attending - CFMC Representatives:**

Father Richard Gorman, Chair, CFMC and Community Board # 12; Larry Schoones, Bronx Borough Commissioner's Office, Department of Parks & Recreation (DPR); Robert Fanuzzi, Chair, Community Board #8; Wilhelm Ronda, Bronx Borough President's Office; Council Member G. Oliver Koppell & Jamin Sewell, Office of Council Member Koppell; Mark Lanaghan, Department of Environmental Protection (DEP).

**Not Attending:** Paul Foster, Chair, Community Board #7.

**Others Attending:** Assembly Member Jeffrey Dinowitz; DEP Staff; DEP Construction Manager; DEP consultants; members of the public and press. Attendees are listed on *Attachment 1*. Agenda is *Attachment 2*.

**Adoption of CFMC Meeting Minutes**

Fr Gorman asked for and received a motion by Mr. Ronda, seconded by Mr. Fanuzzi, to approve the July 28, 2011 meeting minutes. They were adopted without objection.

**Corrections to Previous Meeting Minutes**

Fr Gorman recognized Anne Marie Garti, Jerome Park Conservancy, to present a letter restating her comments from prior CFMC meetings. By motion from Mr. Sewell, seconded by Mr. Ronda, Ms. Garti's letter was adopted by the CFMC - *Attachment 3*.

**DEP Comments - Construction of a Pedestrian Bridge over the Major Deegan Expressway (MDE) using CRO 312 FM Funding; and Jerome Park Reservoir (JPR) Public Access and Trees**

With respect to the CFMC request for DEP to fund a pedestrian bridge over the MDE using unspent force main funds, Mr. Lanaghan said the CFMC would receive a written response from DEP.

Lauren Competello, P.E., spoke about improvements at JPR that will serve DEP and the public (should future access inside JPR be approved). Ms. Competello said she is currently working on scoping and coordinating with DEP's operating bureau on improvements to be designed by DEP. They will remove and replace interior security fencing, vegetation that includes poison ivy, install a new fence at the dividing wall between JPR basins, and install pavement between Gate House No 5 and No 6. After scoping, the detailed design is likely to take about one year to prepare and then DEP will bid out the work. Fr Gorman asked the cost. Ms. Competello and Mr. Lanaghan said

that they did not know the cost at this time. Mr. Fanuzzi asked from which budget the funds would come as he does not want funds removed from Parks mitigation. Mr. Lanaghan said funding will come from the DEP Capital Budget and will not be from Parks mitigation money. Assembly Member Dinowitz asked for clarification about fencing off the dividing wall. Ms. Competello said that, at request of DEP's operating bureau, the fencing would limit entry onto the dividing wall. Mr. Dinowitz spoke about the public's previous ability to walk along the dividing wall. Robert Press, Bronx News, said the outer JPR fence should be further protected by installation of vehicle barriers.

Ms. Garti and Gary Axelbank, area resident, spoke about past public access and urged that public access be initiated without a pilot program and that JPR should be open daily. Mr. Axelbank and Mr. Fanuzzi urged that the fence design should only advance after a decision about public access is made. Ms. Garti said that previous Commissioner Miele and former Deputy Commissioner Chapin told the community eventually JPR would be transferred to DPR, as that was DEP's thinking at the time.

Fr Gorman said that improvements at JPR are important – the vegetation, potholes and other problems with the perimeter pathway should be corrected. Ms. Competello said the project is in a conceptual stage, and all decisions about design must be approved by the State Historic Preservation Office and the Public Design Commission.

There was a discussion among Messrs. Lanaghan, Sewell, Axelbank and Fanuzzi and Ms. Garti about the trees to be removed and the number of replacement trees. Mr. Dinowitz asked numerous questions about earthen dam requirements, DEP's geotechnical consultant's recommendations, and DEC's statewide opinion and requirements regarding tree removal on earthen dams. He recommended the CFMC adopt a resolution urging DEC not to require tree removal at JPR. Fr Gorman said that a resolution would not solve the problem. Mr. Dinowitz and Fr Gorman discussed having a meeting with DEC to plead for trees at JPR. Mr. Dinowitz said that perhaps DEC would send the CFMC an advisory opinion about tree removal on earthen dams. Mr. Lanaghan was asked to provide to the CFMC an excerpt from the geotechnical report, after which the CFMC would develop a tree saving plan. Mr. Fanuzzi asked for a plan to replant trees at JPR. He requested the plan be provided before the trees are removed.

Ms. Garti said in 2004 former Commissioner Ward and former Assembly Member Jeff Klein told the community that a fence, similar to the four foot high fence around Central Park Reservoir, would be installed at JPR at a cost at the time estimated at approximately \$5 million. Although public visits to JPR were terminated, specific areas were to be kept open for the public. Ms. Garti asked that at the next CFMC meeting, DEP explain how the Gate Houses will function after the Croton Filter Plant begins operations.

#### **Status of CRO 334 -Attachment 4**

Carl Pannuti, P.E., project manager for the contract, made a presentation about CRO 334, the New Croton Aqueduct (NCA) rehabilitation contract. He said the NCA is 110 years old and deteriorated sections must be repaired prior to activation of the Croton Filter Plant. Mr. Pannuti and Walter Herrick of Parsons Brinkerhoff, the Designer answered

several questions about NCA construction. Mr. Koppell asked Bernard Daly, P.E., DEP to explain the route of the NCA and its relationship to the Croton Filter Plant. Then there was discussion between Ms. Garti and Mr. Daly about the Croton Filter Plant 1999 design option of by-passing JPR, and between Messrs. Koppell and Press and Ms. Garti about Croton Filter Plant operations. Ms. Garti and Mr. Lanaghan discussed the previous perchlorethylene seepage in NCA and its remediation through the use of epoxy installed south of JPR to curb seepage. Joe Gordon, area resident, asked if the grout has special properties. Mr. Herrick said it consists of cement and water and sometimes sand. He added that pressure from water inside NCA prevents seepage from the outside. Arne Fareth, P.E., DEP, said grout not epoxy is used in the NCA.

### **Update on Schedule, Costs, Construction Activities**

#### ***Costs - Attachment 5***

Mr. Daly reviewed the Croton cost report. He repeated as he has previously that it does not include Parks mitigation funds. Mr. Koppell asked why the design contract of Metcalf & Eddy/Hazen and Sawyer, JV is so high. Lauren Competello explained, as she has at prior meetings, that several designs of the Croton Filter Plant were required, and designs were made for multiple geographic locations during Plant siting. Mr. Koppell requested a discussion at the next CFMC meeting about the change orders and the difference between the Request for Proposals (RFP) process and the bid process for the Croton Filter Plant. Ms. Competello said that the design and construction management contracts were selected through an RFP process and the construction was contracted through a competitively bid process.

#### ***Construction Update/Look-ahead - Attachment 6***

Mr. Daly provided an update:

The CRO-312 contractors are continuing to construct the Croton Filter Plant facility at the VCP site. Most of the concrete is in place. Work is continuing at the above-ground Arrivals and Receiving Building, Chemical Fill Station and Vent Structures and Stairs. Installation of the 84" water main continues. As explained before, the water main will be capped at Jerome Ave. and at a later time it may be connected to the distribution system. DEP has completed relocation of First Tee's electric power. Con Ed electric power is being brought to the plant from Yonkers. Construction in the treatment plant structure includes the installation of mechanical, electrical, plumbing and HVAC equipment. A major amount of electrical work remains and there are approximately 250 electricians working two shifts and weekends at the site. Other utility work is underway, including sewers and storm drain piping. Work in Jerome Ave and Bainbridge Ave will get underway shortly. Construction of retaining walls and foundations for driving range netting poles are also ongoing.

The CRO-313 tunnel contractor is continuing contract close-out.

CRO 312FM is not going forward. The force main will not be built. The contractor has been told he must restore test pits before the contract closes out.

The CRO-312-OS contractors at JPR are continuing to place concrete for the roof of the Shaft and Meter Chamber. Work on the South Basin Ramp at JPR is now underway. Lead abatement continues in Gate House No. 5. Sluice gate replacement and upgrades are continuing at Gate House No 5 – where 22 sluice gates are being completely replaced and at Gate House No 7 where the gates are being refurbished. The Goulden Ave street work has been proceeding, essentially on schedule. Two lanes of traffic on Goulden Ave between 205 St and Sedgwick Ave were restored by the Labor Day weekend as promised. Mr. Koppell said he was pleased that DEP kept its commitments regarding this work.

Yard piping installation at JPR will be taking place in the fall. As previously reported, rock excavation will require some blasting behind the noise wall but it will be minimal as compared to the blasting needed for excavation of the Shaft and Meter Chamber. The blasting will be scheduled after school hours and should not cause undue vibrations or noise. Mr. Fanuzzi asked Mr. Daly when the work at Sedgwick and Goulden Aves would begin. Mr. Daly said it would likely begin in summer 2012. Mr. Fanuzzi thanked DEP for installing construction lights along Goulden Ave in the area where the current street construction and overhanging tree branches had blocked illumination for pedestrians.

Mr. Daly again said that JPR basins will remain empty until rehabilitation work is completed on the NCA, including constructing a concrete plug adjacent to Shaft 21, as earlier described by Mr. Pannuti. The Low Service Shaft cap work at the Shaft and Meter Chamber will follow the installation of the plug. On-site electric work is currently underway. Mr. Daly noted that the JPR North Basin received water as part of the agency's preparations for Hurricane Irene. The basin is being drained now so that construction work can continue.

Messrs. Axelbank, Dinowitz and Lanaghan and Ms. Garti had a discussion about the extent of protection from toxics and terrorism of the filtered water.

#### **Update on Croton Jobs – Corrected Chart -Attachment 7**

Mr. Lanaghan spoke briefly about the current Croton jobs report and the addition on the chart of purchases of Bronx based goods and services as previously requested by Mr. Ronda. Mr. Fanuzzi asked about the high point for Bronx workers. In February 2009, the percentage of Bronx workers was 34%. Mr. Farrell agreed to have the construction manager research and provide a breakdown of these disciplines for the month of February 2009. *Note: As part of the follow-up, the construction manager found that there had been an error in the jobs chart. Originally, the percentage of Bronx jobs in February 2009 was shown as 32%. The correct percentage for February 2009 was 29%. The top five crafts categories that employed Bronx-based workers in February 2009 were then researched. Of a total of 170 Carpenters that month (daily average), 53 were from the Bronx (31%); of 126 Laborers (daily average), 24 were from the Bronx (19%); of 50 Lathers (daily average), 26 were from the Bronx (52%); of 68 Plumbers (daily average), 15 were from the Bronx (22%); of 108 Electricians (daily average), 49 were from the Bronx (45%).* Mr. Lanaghan explained, as he has previously, that many of the purchases for equipment and services were for specialty items that were not manufactured or

available in the Bronx. He cited, for example, the ultraviolet (UV) units that were installed inside the plant.

Mr. Koppell asked whether city workers will run the plant. Mr. Lanaghan said the decision has been made not to outsource Croton Filter Plant operations. Mr. Daly added that 22 operation workers are now active on site, and are being trained. However, for a startup period of at least six months, the Croton contractors will be on site for Startup, Testing and Commissioning. Conversely, for the Catskill-Delaware UV facility, DEP has published an RFP seeking private companies interested in operating the facility. When responses have been filed, DEP will evaluate whether to contract with a private company or use city workers. Mr. Koppell said there is pending City Council legislation to require an analysis before outsourcing decisions are reached by city agencies.

### **Federal State Mandates**

Mr. Lanaghan referred to materials he distributed at the last meeting about the city's efforts to reform and/or eliminate unnecessary federal and state mandates. As an example, he pointed to the mandate to cover the Hillview Reservoir in the absence of evidence that water quality would thereafter improve. He said that a *Wall Street Journal* article pointed to this and other requirements that result in expenditure of enormous financial sums without scientific or technical benefits. Mr. Lanaghan said that Senator Schumer and others have begun to urge USEPA to delay or eliminate such requirements, and that other methods might result in solutions that are as good as those being forced on New York City by regulators. Mr. Lanaghan pointed to requested changes in the city's plan for better managing combined sewer overflows as another example. DEP has proposed making environmental improvements without costly and intrusive infrastructure that was formerly being required in many waterbody/watershed projects. A short discussion followed.

### **CFMC Discussion**

The CFMC set the next meeting for Wednesday, October 19, 2011 at 7 pm at the DEP community office. Fr Gorman adjourned the meeting at 9:30 pm.

9/15/2011

**NYC DEP - CROTON FMC**

Attachment 1

<u>Name</u>	<u>Organization / Company</u>	<u>Address</u>	<u>Phone</u>	<u>Fax</u>	<u>E-Mail</u>
Anne Marie Garti	Jerome Park Conservancy	3967 Sedgwick Ave Bronx NY	(718) 884-7864		<a href="mailto:annemarie@garti.net">annemarie@garti.net</a>
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Thomas Farrell, PE	Construction Manager	3701 Jerome Avenue Bronx, NY 10467	(718) 696-2000		<a href="mailto:thomas.fairrell@shawgrp.com">thomas.fairrell@shawgrp.com</a>
Jamin Sewell	Office of Council Member Oliver Koppell	3636 Waldo Ave Bronx NY 10463	(718) 549-7300	(718) 798-3879	<a href="mailto:jsewell@council.nyc.gov">jsewell@council.nyc.gov</a>
Robert Barnes	DEP Community Office	3660 Jerome Avenue Bronx NY 10467	(718) 231-8470	(718) 231-8857	<a href="mailto:rbarnes@dep.nyc.gov">rbarnes@dep.nyc.gov</a>
Walter Herrick	Parsons Brinckerhoff	Hillview Reservoir Yonkers NY 10701	(347) 601 3261		
Fr. Richard Gorman	Chairman, Community Board #12	4101 White Plains Road Bronx NY 10466	(718) 881-4455	(718) 231-0635	<a href="mailto:cb12@optonline.net">cb12@optonline.net</a> <a href="mailto:rgorman@cb.nyc.gov">rgorman@cb.nyc.gov</a>
Larry Scoones	NYC Dept of Parks & Recreation	1 Bronx River Parkway Bronx NY	(718) 430-1856		<a href="mailto:lawrence.scoones@parks.nyc.gov">lawrence.scoones@parks.nyc.gov</a>
Martha Holstein	Strategic Urban Solutions	335 Adams Street Brooklyn, NY 11201	(718) 625-1005 x. 223	(718) 625-1032	<a href="mailto:mholstein@urbansol.com">mholstein@urbansol.com</a>
Bernard Daly, PE	DEP BEDC Croton Project Manager	3701 Jerome Avenue Bronx, NY 10467	(718) 696-2000	(718) 324-3034	<a href="mailto:vmooreshead@dep.nyc.gov">vmooreshead@dep.nyc.gov</a>
Arne Fareth, P.E.	DEP BEDC Croton Project Design	96-05 Horace Harding Exp Flushing NY	(718) 595 6189		<a href="mailto:arnef@dep.nyc.gov">arnef@dep.nyc.gov</a>
Ed Neisch	Construction Manager	3701 Jerome Avenue Bronx, NY 10467	(718) 696-2000		<a href="mailto:ed.neisch@arcadis-us.com">ed.neisch@arcadis-us.com</a>
Wilhelm Ronda	Bronx Borough President's Office	851 Grand Concourse Bronx NY 10451	(718) 590 8087		<a href="mailto:wronda@bronxbp.nyc.gov">wronda@bronxbp.nyc.gov</a>
Suzanne Axelbank	Resident	Van Cortlandt Village	N/A		
Gary Axelbank	Resident	Van Cortlandt Village	(718) 960 8707		<a href="mailto:gaxinthebronx@gmail.com">gaxinthebronx@gmail.com</a>
Robert Press	Bronx News	3800 Independence Avenue Bronx NY	(718) 653 6992		<a href="mailto:100percentbronxnews@gmail.com">100percentbronxnews@gmail.com</a>

# NYC DEP - CROTON FCMC

Page 2 Continued.....

<u>Name</u>	<u>Organization / Company</u>	<u>Address</u>	<u>Phone</u>	<u>Fax</u>	<u>E-Mail</u>
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Robert Fanuzzi	Chairman, Community Board #8	5676 Riverdale Avenue Bronx NY 10471	(718) 884-4740	(718) 796-2763	<a href="mailto:fanuzzir@stjohns.edu">fanuzzir@stjohns.edu</a>
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Hon. Oliver Koppell	City Council Member	3636 Waldo Avenue Bronx NY 10463	(718) 549 7300		<a href="mailto:okoppell@council.nyc.gov">okoppell@council.nyc.gov</a>
Hon. Jeffrey Dinowitz	NYS Assembly Member	3107 Kingsbridge Avenue Bronx NY 10463	(718) 796-5345		
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Margot Perron	NYC Department of Parks & Recreation	1 Bronx River Pkwy Bronx NY	(718) 430 1890		<a href="mailto:margot.perron@parks.nyc.gov">margot.perron@parks.nyc.gov</a>
Rosemary Ginty	Community Board #8	5676 Riverdale Avenue Bronx NY 10471	(718) 884-4740		<a href="mailto:rosemary.ginty@gmail.com">rosemary.ginty@gmail.com</a>
Carl Pannuti	DEP BEDC Project Manager	Hillview Reservoir Yonkers NY 10701	(914) 803 1270		<a href="mailto:cpannuti@dep.nyc.gov">cpannuti@dep.nyc.gov</a>
Bryant Daniels	Assistant to Assembly Member Dinowitz	3107 Kingsbridge Avenue Bronx NY 10463	(718) 796-5345	(718) 796-0694	
Nathaniel Herz	Columbia Journalism School	601 W 115 Street New York NY 10025	(207) 841 4199		<a href="mailto:nbh2112@columbia.edu">nbh2112@columbia.edu</a>

**Agenda**

**Croton Facility Monitoring Committee Meeting**

Thursday, September 15, 2011 – 7:00 PM

DEP Community Office – 3660 Jerome Avenue, Bronx NY 10467 - (718) 231-8470

- |  |                              |
|--|------------------------------|
| <b>I</b> Welcome   | Father Richard Gorman, Chair |
| <b>II</b> Consider, Adopt 7/28/11 Meeting Minutes  | CFMC Representatives         |
| <b>III</b> Status of DEP's consideration of JPR Public Access and Fund Pedestrian Bridge over MDE                            | Mark Lanaghan, DEP           |
| <b>IV</b> Status of CRO 334  | Carl Pannuti, P.E., DEP      |
| <b>V</b> Construction Update, Schedule & Costs,<br><i>Status of CRO 312, OS, 313, 334 &amp; Construction at Goulden Ave.</i> | Bernard Daly, P.E., DEP      |
| <b>VI</b> Croton Jobs & Bronx Purchases  | Mark Lanaghan, DEP           |
| <b>VII</b> Federal & State Mandate Relief  | Mark Lanaghan, DEP           |
| <b>VIII</b> CFMC Discussion, Set Next Meeting  | CFMC Representatives         |
| <b>IX</b> Adjourn  |                              |

Anne Marie Garti  
Jerome Park Conservancy  
3965 Sedgwick Avenue  
Bronx, NY 10463

August 16, 2011

Via email

Father Gorman, Chair  
Croton Filtration Monitoring Committee

Martha Holstein, Principal  
Strategic Urban Solutions, Inc.

Dear Father Gorman and Martha Holstein:

I would like to make the following corrections to the minutes of the Croton Filtration Monitoring Committee:

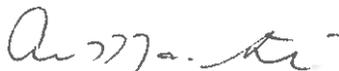
1. The April 27, 2011 minutes states on the top of page 3 "Ms. Garti and Ms. Argenti strongly urged that the pathway project go forward before the allocated funds become devalued from inflation and studies."

My support for the project moving forward was contingent upon the removal of the running path and exercise equipment from the design. I have consistently stated that it should be a beautification project, and the running track should be inside the DEP's security fence.

2. The June 30, 2011 minutes states at the bottom of page 1 "Anne Marie Garti, Jerome Park Conservancy, said public access pilots were held in the early 1990s with DEP Commissioners Gelber and Miele participating, and that those activities are what the public wants now: reservoir tours, lectures, walks around the JPR basins and along the dividing wall, and use of the open space for community events. She advocated having those activities again without a pilot."

The public access pilots were held from the mid to late 1990s (from 1995-1997). While the rest of the statements are not incorrect, they leave out the vital component – regular public access. The Jerome Park Conservancy held these pilots with the DEP to test what would happen if the public were allowed inside the DEP's security fence under a variety of circumstances. They were all well attended, and occurred without a single negative incident. However, the point then – and now – is to have full public access. The reservoir should be open every day, during daylight hours, for walking and running. The special events, with tours, lectures, and other community activities, should be in addition to regular public access.

Sincerely,



Anne Marie Garti



# **Croton Facility Monitoring Committee Meeting**

Thursday, September 15, 2011  
7:00 PM

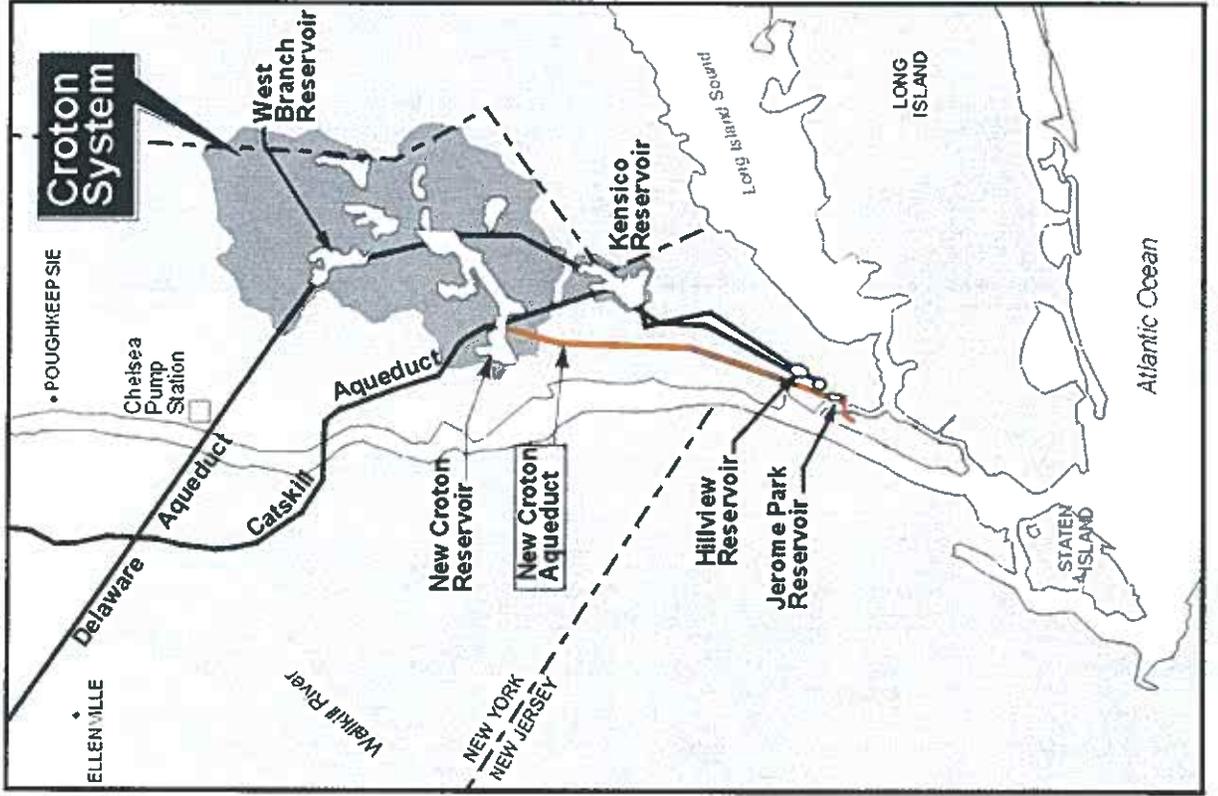


# New Croton Aqueduct Rehabilitation

## A brief history

- The NCA is approximately 30 miles long, runs from the New Croton reservoir in Westchester County to the Jerome Park Reservoir (JPR) in The Bronx
- The NCA spans 14 communities, including Bronx and Manhattan
- The NCA will transport raw water to JPR which will supply the Croton Filtration Plant
- Portions of the NCA were inspected in 1993, in 1997 and in 2004-2005.
- Work to bring the NCA into first-class operating condition is divided into four contracts: CRO-333 (November 2004 to May 2006), CRO-477 (October 2006 to Sept. 2007), CRO-334G and CRO-334E (currently on-going).
- Under CRO-333 and CRO-477, 25 miles of gravity flow, horseshoe tunnel were grouted, bricks replaced, and mortar joints repaired. Some pressure covers were replaced, and new precast concrete covers were installed then buried at the tops of shafts.

# Croton System

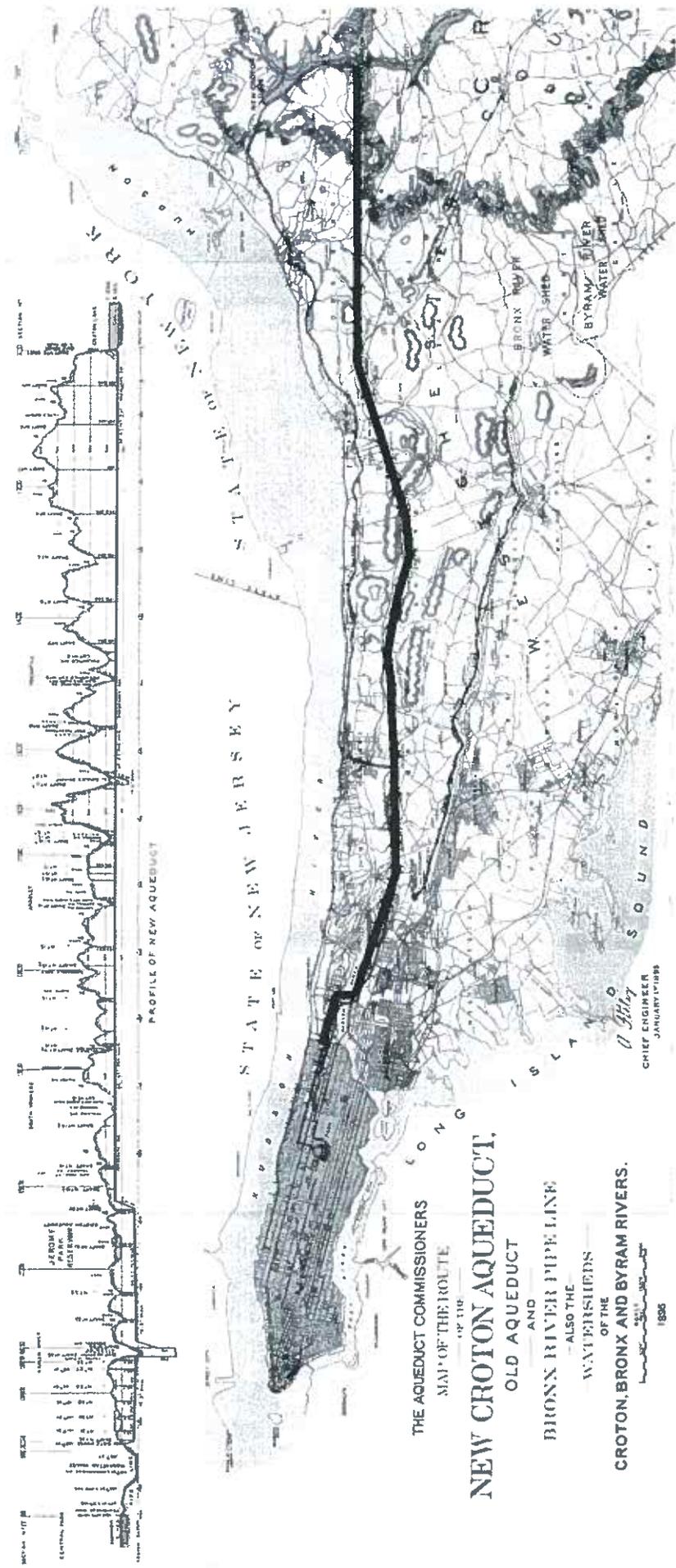




# Objectives of the CRO-334 Contracts

- Shaft Rehabilitation Work
  - Repair shafts by grouting, replacing bricks, and repairing mortar joints.
- Pressurized Tunnel Rehabilitation Work
  - Repair about 6 miles of pressurized tunnels by brick and mortar repair, contact grouting, and consolidation grouting
- Surface Structure Rehabilitation Work
  - Repair surface structures by cleaning, re-pointing, and resetting stonework
  - Replace roofs, doors and windows of surface structures
  - Remove blow-off gates; re-point and repair Aqueduct and blow-off chambers
  - Re-point and repair stream structures
- Support for Engineer Inspections
- Demolish & Upgrade of Electrical Service and Mechanical Systems
- Site Restoration

# CRO-334 Site Map



# Current Status

- NCA REHABILITATION
- GRAVITY SECTION – CLGH To Jerome Park Reservoir
  - Currently 80% complete
  - 95% completion by November 4, 2011
- PRESSURE SECTION – Gatehouse #1 to Shaft #33
  - Currently 65% complete
  - 95% completion by May 31, 2012

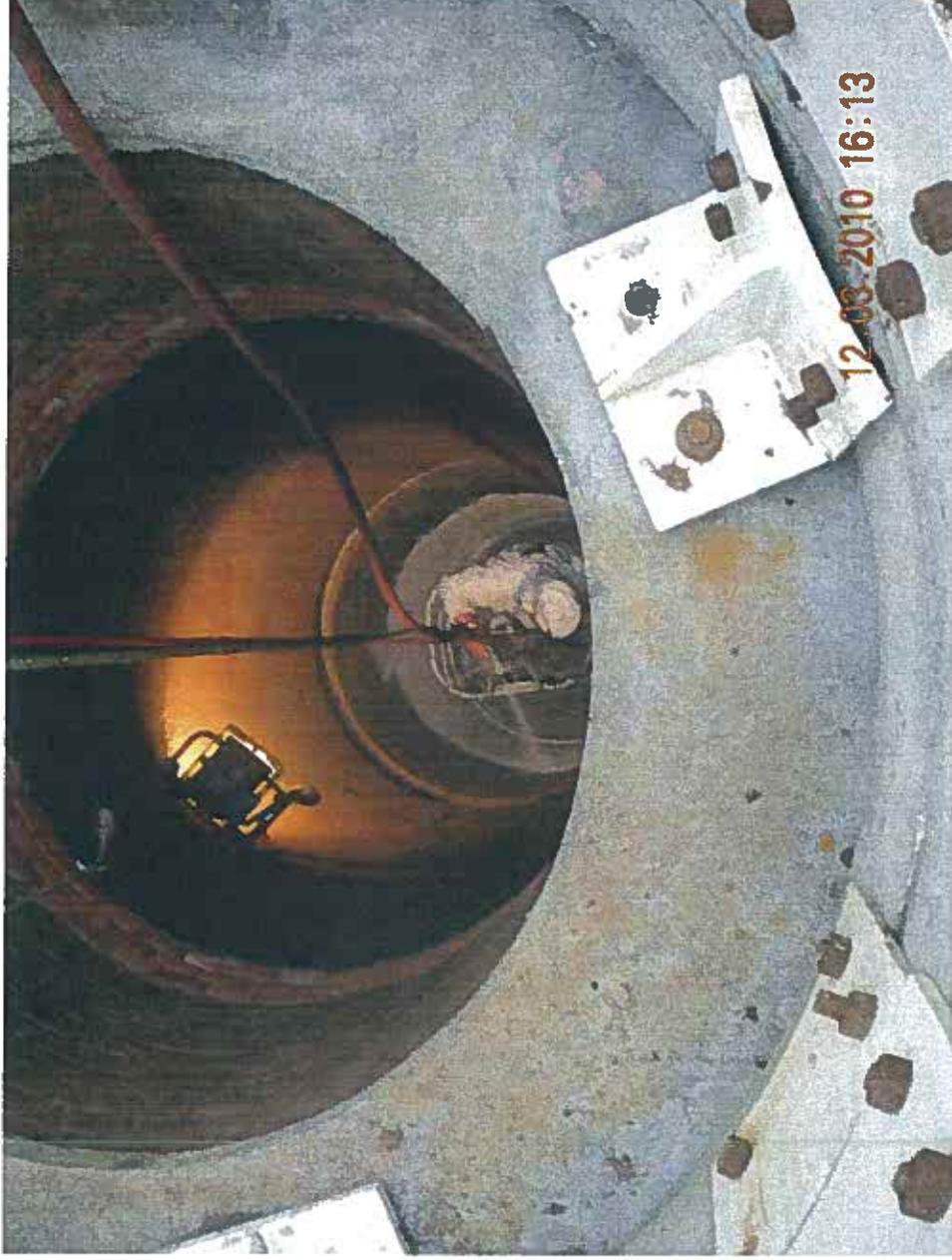
## Gravity Section - Shaft Repairs



## Gravity section – Shaft Repairs



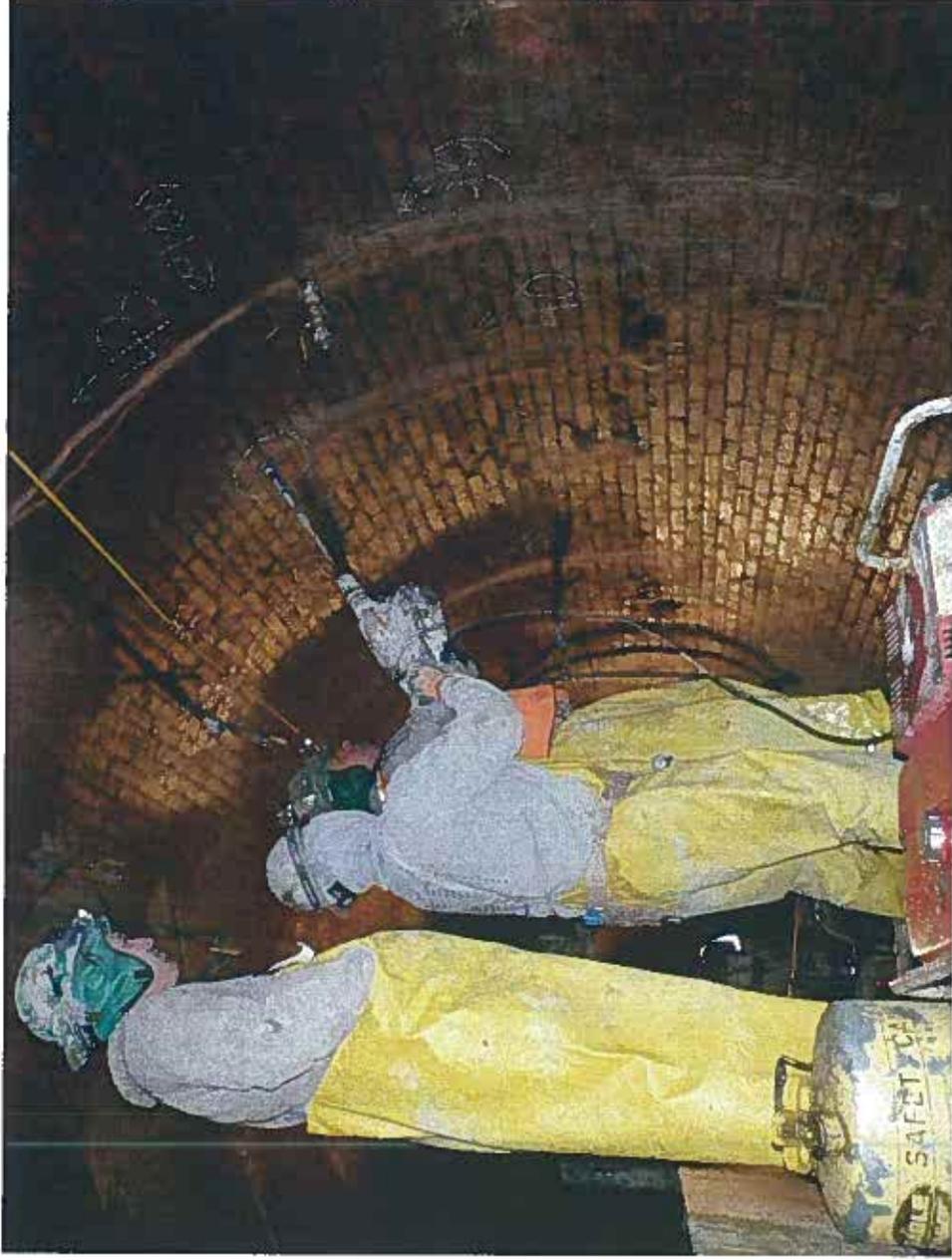
## Gravity Section – Shaft Repairs



# Gravity Section – Building Rehabilitation



## Bronx Pressurized Tunnel Repairs - Drilling



## Bronx Pressurized Tunnel Repairs - Grouting



# Bronx Pressurized Tunnel Repairs - Grouting



## Bronx Pressurized Section – Surface Rehabilitation



WM-11 Croton Water Treatment Plant  
Cost Summary as of 8/31/2011

Croton WTP Construction Costs						
Contract	Contractor Name	Original Contract Price	Registered Change Orders	Current Contract Amount	% Contract Increase	
CRO-311	Schiavone Construction Co.	\$127,660,000	-\$14,445,214	\$113,214,786	-11%	
CRO-312G	Skanska/Tully, JV	\$1,327,700,000	\$104,102,909	\$1,431,802,909	8%	
CRO-312E1	Schlesinger-Siemens, LLC	\$134,680,000	\$17,060,644	\$151,740,644	13%	
CRO-312E2	Schlesinger-Siemens, LLC	\$37,678,000	\$6,537,799	\$44,215,799	17%	
CRO-312H	Durr Mechanical Construction	\$105,700,000	\$14,421,550	\$120,121,550	14%	
CRO-312P	Picone/WDF, JV	\$58,475,000	\$11,726,079	\$70,201,079	20%	
CRO-312OS-G	Picone-Schiavone, JV	\$96,842,500	\$17,629,783	\$114,472,283	18%	
CRO-312OS-E	Eldor Electric	\$15,762,500	\$938,114	\$16,700,614	6%	
CRO-312OS-H	AWL Industries	\$822,000	\$12,901	\$834,901	2%	
CRO-312OS-P	JPP Plumbing	\$872,000	\$163,133	\$1,035,133	19%	
CRO-312FM (1)	Maspeth Supply Co. LLC	\$18,626,745	\$12,519,525	\$31,146,270	67%	
CRO-313	Schiavone/Picone, JV	\$212,227,000	\$1,998,084	\$214,225,084	1%	
CRO-315G	Angelakis Construction Corp.	\$3,641,000	\$14,894	\$3,655,894	0%	
CRO-315E	Interphase Electric	\$807,317	\$145,800	\$953,117	18%	
CRO-312CE	Con Edison	\$4,074,526	\$0	\$4,074,526	0%	
<b>TOTAL</b>		<b>\$2,145,568,588</b>	<b>\$172,825,999</b>	<b>\$2,318,394,587</b>	<b>8%</b>	
Croton WTP Design / Construction Management Costs						
HED-543 DES	Metcalf & Eddy / Hazen and Sawyer, JV	\$44,226,000	\$222,182,648	\$266,408,648	502%	
HED-545 CM	URS/Malcolm Pirnie, JV	\$63,400,000	\$32,936,305	\$96,336,305	52%	
<b>TOTAL</b>		<b>\$107,626,000</b>	<b>\$255,118,953</b>	<b>\$362,744,953</b>	<b>237%</b>	

Rehabilitation of the New Croton Aqueduct Construction Costs						
Contract	Contractor Name	Original Contract Price	Registered Change Orders	Current Contract Amount	% Contract Increase	
CRO-334G	Frontier-Kemper/Schiavone/Picone JV	\$91,696,805	\$9,948,368	\$101,645,173	11%	
CRO-334E	Community Electric	\$1,119,000	\$247,275	\$1,366,275	22%	
<b>TOTAL</b>		<b>\$92,815,805</b>	<b>\$10,195,643</b>	<b>\$103,011,448</b>	<b>11%</b>	
Rehabilitation of the New Croton Aqueduct Construction Management Costs (2)						
TCM-CRO-334	Washington/HAKS JV	\$5,952,446	\$0	\$5,952,446	0%	
<b>TOTAL</b>		<b>\$5,952,446</b>	<b>\$0</b>	<b>\$5,952,446</b>	<b>0%</b>	

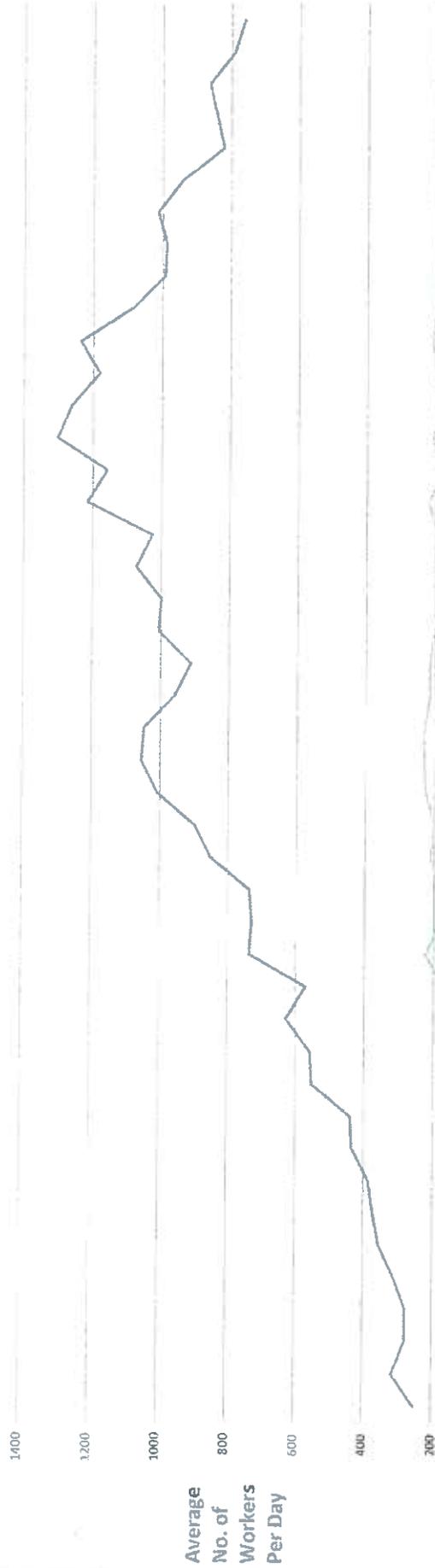
Notes:

- (1) Costs shown for CRO-312FM are for the original Force Main Route to Hunts Point WPCP.
- (2) Design costs for CRO-334G and CRO-334E are included in Contract HED-543 DES.

WM-11 Croton Water Treatment Plant  
 Facility Monitoring Committee  
**Look-Ahead Schedule**  
 September 15, 2011

Task	Current Forecasted Completion Date	Aug-11				Sep-11				Oct-11				Nov-11				Dec-11	
		WK 3	WK 4	WK 1	WK 2	WK 3	WK 4	WK 1	WK 2	WK 3	WK 4	WK 1	WK 2	WK 3	WK 4	WK 1			
CRO-312 - Water Treatment Plant Construction at Moshulu Site Utility Work in Jerome Avenue (Intermittent) Entrance Driveway and Site Utility Work (Intermittent) Furnish and Install Equipment, Electrical, HVAC and Plumbing Work for Water Treatment Plant Equipment Check-out Startup and Testing	4/1/2012																		
	2/15/2012																		
	10/29/2012																		
	10/29/2012																		
CRO-31205 - Off-Site Facilities at Jerome Park Reservoir and Gate House No. 1 Shaft and Meter Chamber & Yard Piping at Jerome Park Reservoir (including Emergency Bypass) Rehabilitation Work in Gate House Nos. 1, 2, 3, 5, 6 & 7 (Intermittent) South Basin Ramp Concrete Work at Jerome Park Reservoir South Basin Ramp Stone Work at Jerome Park Reservoir Borings at South Basin for Jerome Park Reservoir Inspection Program Goulden Avenue High Service Treated Water Connection Across from Bronx School of Science Asbestos Abatement Work at Various Gate Houses (Asbestos Task Force Contractor)	9/21/2012																		
	9/21/2012																		
	10/1/2011																		
	11/30/2011																		
	10/1/2011																		
	11/30/2011																		
10/31/2011																			
CRO-312FM - Residuals Force Main to Hunts Point Restorat on of Test Pits Along Original Force Main Route	TBD																		
Begin Startup and Testing of Water Treatment Plant Commerce Operation of Water Treatment Plant Above G-grade Architectural Work at DEP Area	10/29/2012																		
	4/2/2013																		
	12/14/2014																		

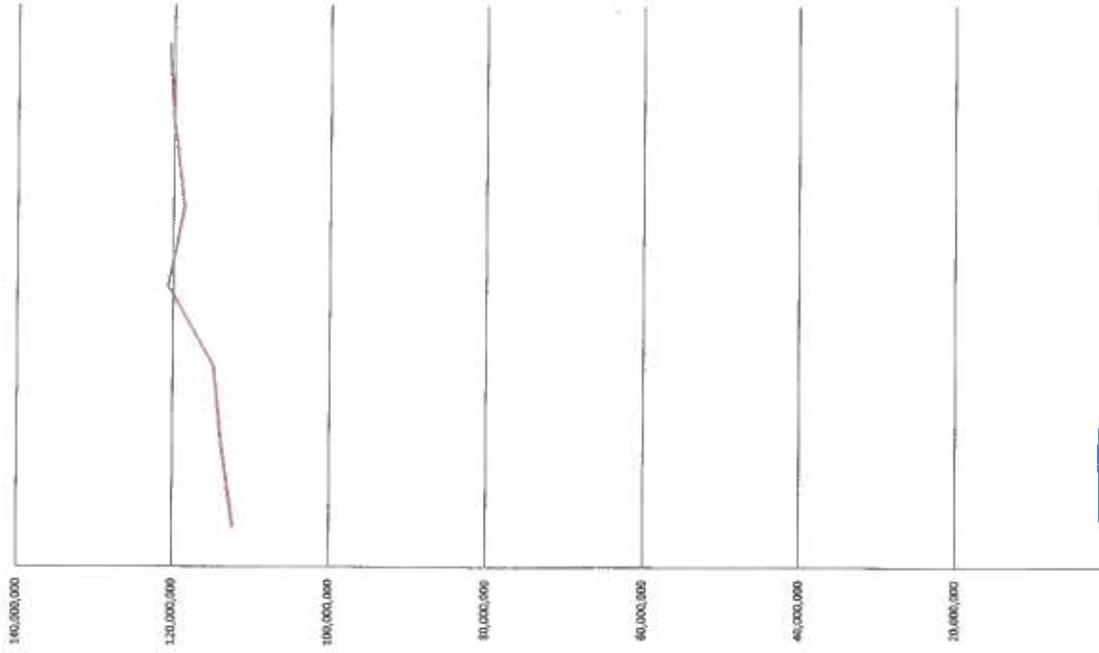
# CROTON WATER TREATMENT PLANT AND OFFSITE FACILITIES AT JEROME PARK RESERVOIR



	Jan-08	Feb-08	Mar-08	Apr-08	May-08	Jun-08	Jul-08	Aug-08	Sep-08	Oct-08	Nov-08	Dec-08	Jan-09	Feb-09	Mar-09	Apr-09	May-09	Jun-09	Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10	Jul-10	Aug-10	Sep-10	Oct-10	Nov-10	Dec-10	Jan-11	Feb-11	Mar-11	Apr-11	May-11	Jun-11	Jul-11	Aug-11
Bronx Workers	46	73	70	72	83	91	102	104	110	111	133	139	163	168	225	181	181	212	199	227	232	231	216	216	204	181	193	195	222	185	210	190	200	211	200	166	162	159	137	142	132	127	125	131
Total Workers	254	317	280	278	312	356	374	387	436	441	553	558	629	573	738	730	738	852	900	1009	1056	1048	959	912	1007	1000	1073	1027	1216	1159	1302	1263	1182	1237	1088	994	988	1014	941	822	842	864	791	762
Bronx Workers %	18%	23%	25%	26%	27%	26%	27%	27%	25%	25%	24%	25%	26%	29%	30%	25%	25%	25%	22%	22%	22%	22%	23%	24%	20%	18%	18%	19%	18%	16%	16%	15%	17%	17%	18%	17%	16%	15%	16%	15%	16%	17%		

Total Average Overall = 20%

### Croton WTP Bronx Purchases



	Jan-11	Feb-11	March-11	April-11	May-11	June-11	July-11
Bronx Monthly Purchases	1,324,957	1,569,586	978,443	1,248,938	1,527,594	1,356,264	608,561
Bronx Monthly Cumulative	112,354,995	113,835,807	114,889,676	120,662,336	118,695,276	120,000,287	120,622,008

#### TOP FIVE VENDORS TO DATE

Jenma Concrete	39,134,353	Portinoter Security	2,247,387
CFS Sheet	36,728,988	Conlar Sheet Metal	27,894,909
Tilcon	1,963,042		