

STATE OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL CONSERVATION

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In the Matter of the Violations of Article 17 of the New York State Environmental Conservation Law and Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York,

-by-

The City of New York and the New York City Department of Environmental Protection,

Respondent.

**2014 CSO BMP ORDER ON
CONSENT**

**DEC File No.
R2-20140203-112**

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WHEREAS:

1. The New York State Department of Environmental Conservation (“DEC”) or the “Department”) is a department of the state of New York which is responsible for the administration and enforcement of laws and regulations pertaining to the abatement and prevention of pollution of state waters pursuant to Article 17 of the ECL and 6 NYCRR Part 750, *et seq.*

2. The Federal Clean Water Act (the “Act”) pursuant to 33 U.S.C. § 1251 *et seq.* authorizes the State of New York to control wastewater and stormwater discharges in accordance with the Act. Under New York State law the program is the State Pollutant Discharge Elimination System (“SPDES”) and is administered pursuant to Article 17, Title 8 of the ECL and Part 750, Title 6 of the NYCRR.

3. The New York City Department of Environmental Protection (“DEP”), a municipal agency, and the City of New York (the “City”) (collectively referred to herein as “Respondent”), own, operate and are responsible for the City’s fourteen Wastewater Treatment Plants (“WWTPs”). Collectively, these WWTPs process approximately 1.4 billion gallons of sewage per day generated within New York City.

ENFORCEABLE ORDERS AND PERMITS

4. The Department issued a SPDES Permit for each of the 14 WWTPs, (hereinafter “SPDES Permit” or “Permit”). Thirteen of the fourteen WWTPs and SPDES permits are the subject of this Order. They are as follows: SPDES Permit Numbers NY0026158 (Bowery Bay), NY0026182 (Coney Island), NY0026191 (Hunts Point), NY0026115 (Jamaica), NY0026204 (Newtown Creek), NY0026247 (North River), NY0026166, (Owls Head), NY0026107 (Port Richmond), NY0027073 (Red Hook), NY0026221 (Rockaway), NY0026239 (Tallman Island), NY0026212 (26th Ward) and NY0026131 (Wards Island). The fourteenth WWTP, NY0026174

(Oakwood Beach) is excluded from this Order because it has no combined sewer overflows (CSOs).

5. All 13 SPDES Permits contain effluent limitations, monitoring requirements, special conditions and general conditions, including certain permit conditions under the Section titled "BEST MANAGEMENT PRACTICES FOR COMBINED SEWER OVERFLOWS (CSO BMPs)." The BMPs are technology-based controls designed to reduce CSOs and their effects on receiving water.

6. In accordance with the 2010 CSO BMP Order, Respondent is bound to comply with all terms and requirements of the 2010 CSO BMP Order, including, but not limited to, the Compliance Schedule and all required submittals. The Department and the Respondent have each consented to this 2014 CSO BMP Order, which supersedes the 2010 CSO BMP Order, without further action, litigation, hearing or adjudication of any issues of fact or law, and Respondent is bound to comply with all of the terms and requirements of this 2014 CSO BMP Order, including but not limited to the Schedules of Compliance in Appendix A and Appendix B.

7. Collection systems are the sewers, pipelines, conduits, manholes, pumping stations, force mains, and all other facilities (excludes service lines) used for collection and transmission of wastewater from individual service connection laterals.

8. DEC recognizes that the City's system is not currently designed to assure that individual regulators will not discharge outside a critical wet weather event¹.

FACTS

9. On November 3, 2010 Respondent entered into a consent order with the Department (DEC File No. R2-20080312-141) to resolve certain violations relating to these "CSO BMPs" ("2010 CSO BMP Order"). The 2010 CSO BMP Order contains a Schedule of Compliance. Respondent has completed many of the milestones listed in that Schedule of Compliance, but a number of milestones remain to be completed.

10. To address the remaining milestones in the 2010 CSO BMP Order, an updated Schedule of Compliance is incorporated into this Order on Consent ("2014 CSO BMP Order" or "Order") as Appendix A, which identifies the milestones that have been completed and provides new dates for the milestones to be completed.

11. Pursuant to the 2010 CSO BMP Order, the Schedule of Compliance, Required Action 3(e), the Respondent was required to "Submit an approvable plan for review and approval with implementation schedule to incorporate and implement the results for the successful pilot² ("Pilot") at all WWTPs except Rockaway and Oakwood Beach."

¹ See Appendix B, Footnote 2 of this Order for a definition of "critical wet weather event."

² Pursuant to Required Action 3 (a) of the schedule of compliance of the 2010 CSO BMP Order, DEP must "submit an approvable pilot program(s) for review and approval in the Coney Island and Hunts Point WWTP drainage basins. Use telemetry, plant flow and rainfall data to determine if the collection system is consistently achieving two

12. The 90-day period for submission, incorporation and implementation of the September 30, 2012 Pilot Report ended on February 21, 2013. An extension was granted to March 21, 2013. DEP submitted a plan for DEC's review and approval on June 28, 2013. DEC determined such submittal was not approvable on July 19, 2013.

13. On or about November 7, 2013, Department staff issued a Notice of Violation ("NOV") for failure to submit, incorporate and implement the September 30, 2012 Pilot Report.

14. Pursuant to Section IX (D) of the 2010 CSO BMP Order, "all penalties owed to DEC under this section shall be payable within 60 days of receipt of the notification of noncompliance. Penalties shall accrue from the date of violation regardless of whether DEC has notified the Respondent of a violation. Interest shall begin to accrue on the unpaid balance at the end of the 60-day period."

15. The date of the initial non-compliance was March 22, 2013. The stipulated penalties accrued and owed to November 7, 2013 were \$1,492,500. Pursuant to the NOV, payment of the stipulated penalties in the amount of \$1,492,500 must be made no later than January 7, 2014. DEC extended this date to March 7, 2014. This Order, once fully executed, resolves the NOV.

16. A compliance meeting with DEP staff and DEC staff to resolve the NOV for compliance with the 2010 CSO BMP Order, Appendix A, Required Action 3(e) was held on December 17, 2013 at the DEC Region 2 office.

17. The Respondent has submitted, and DEC has approved by execution of this Order, a plan with an implementation schedule to incorporate and implement the methods used in the Pilot at all WWTPs except Rockaway and Oakwood Beach. This plan and implementation schedule is included as part of the requirements incorporated into this 2014 CSO BMP Order as part of Appendix B.

18. As part of the approved plan, the Respondent submitted lists of Key Regulators, Inclinometer Feasible Regulators, and SCADA Telemetered Regulators ("Lists"), as Attachments 1, 2, and 3, respectively. These lists are deemed approved by DEC upon execution of this Order. Any and all modifications to the approved lists will be made through a letter agreement between Respondent and the Department.

APPLICABLE PROVISIONS OF LAW

19. Pursuant to ECL §17-0811(5), SPDES permits shall include provisions requiring compliance with any further limitations necessary to ensure compliance with water quality standards adopted pursuant to state law.

times design dry weather flow (2xDDWF) on a real time basis" and (b) "commence approved pilot program(s)." and (c), "submit an approvable report ("Pilot Report") for review and approval with all pilot results and recommendations . . . ". DEC approved the pilot program on November 21, 2012. SPDES permitted wet weather flows are generally referred to as two times design dry weather flow ("2xDDWF"). The specific wet weather flow required for each WWTP is specified in that WWTP's SPDES permit.

20. Pursuant to ECL §17-0815(6), SPDES permits may be modified, suspended or revoked where the Department finds: a) a violation of any term of the permit; b) that the permit was obtained by misrepresentation or failure to disclose fully all relevant facts; or c) a change in conditions or the existence of a condition which requires either a temporary or permanent reduction or elimination of the authorized discharge.

21. Pursuant to 6 NYCRR 750-1.14(f), [SPDES] permits may include and the permittee shall comply with such other terms, provisions, requirements or conditions as may be necessary to meet the requirements of ECL Article 17 and 40 CFR 122 (see section 750-1.24 of this Part) including but not limited to requirements to implement best management practices plans, pollution prevention plans, studies of the effects of the permitted discharge on the receiving water, studies of the treatability of the permitted discharge and studies of the discharge to determine usable analytical procedures and analytical capabilities and pollutant minimization programs as described in 40 CFR Part 132 (see section 750-1.24), except that the Department may require a pollutant minimization program where the pollutant to be minimized is impairing or precluding the best use of the receiving water.

22. Pursuant to ECL §71-1929, a person who violates any of the provisions of, or who fails to perform any duty imposed by titles 1 through 11 inclusive and title 19 of article 17, or the rules, regulations, orders or determinations of the commissioner promulgated thereto or the terms of any permit issued thereunder shall be liable to a penalty not to exceed thirty-seven thousand five hundred dollars per day for each violation, and, in addition thereto, such person may be enjoined from continuing such violation as hereinafter provided.

VIOLATIONS DOCUMENTED BY THE DEPARTMENT

23. The Respondent violated the 2010 CSO BMP Order, the Schedule of Compliance, Required Action 3(e), Compliance with 2xDDWF, by failing to submit an approvable plan for review and approval with implementation schedule to incorporate and implement the results for the successful pilot at all WPCPs (WWTPs) except Rockaway and Oakwood Beach by March 21, 2013.

24. In settlement of the Respondent's civil liability for the aforesaid violations, the Respondent waives its right to a hearing herein as provided by law, and consents to the issuing and entering of this Order on Consent pursuant to the provisions of ECL Articles 17 and 71, and agrees to be bound by the provisions, terms and conditions herein.

NOW, BEING DULY ADVISED AND HAVING CONSIDERED THIS MATTER, IT IS HEREBY ORDERED THAT:

I. Civil Penalty. In settlement of the violations set forth in this Order, Respondent is assessed a civil penalty in the amount of ONE HUNDRED THOUSAND DOLLARS (\$100,000). Respondent shall pay this penalty within 60 days of the Effective Date of this Order, by check made payable to the order of the "Commissioner of Environmental Conservation," which shall be forwarded to the Region 2 Office of General Counsel of the New York State Department of Environmental Conservation, 47-40 21st Street, Long

Island City, New York 11101-5407, Attention: Megan J. Joplin, Assistant Regional Attorney.

II. Compliance Schedule. The Respondent shall carry out its obligations set forth in the attached Schedules of Compliance, Appendices A and B, which are hereby made an enforceable part of this Order. Should the Respondent sell, transfer or otherwise convey the subject property or any ownership or controlling interest therein, the Respondent shall impose the obligation to comply with the Schedule of Compliance and all other terms and conditions of this Order on the purchaser, successor, or assign by contract. The Respondent shall submit to DEC a copy of any contract of sale of the premises, or of a controlling interest therein, within five days of execution. The Respondent, its successors and assigns, shall apply for any required DEC permits for future work on the site to be conducted by, or on behalf of, the Respondent and obtain them before doing any such work, except that a DEC permit under ECL Article 17 and the regulations promulgated thereunder shall not be required for the performance of the work described in the Schedule of Compliance.

III. Settlement and Reservation of Rights.

A. Upon completion of all obligations created in this Order, this Order settles only all claims for civil and administrative penalties concerning the above-referenced violations as set forth in paragraphs 28 through 30 of ECL Article 17, and 6 NYCRR Part 750 against Respondent and its successors (including successors in title) and assigns.

B. Except as provided in Subsection III (A) of this Order, nothing contained in this Order shall be construed as barring, diminishing, adjudicating or in any way affecting any of the civil, administrative, or criminal rights of the Department or of the Commissioner or his designee (including, but not limited to, nor exemplified by, the rights to recover natural resource damages and to exercise summary abatement powers) or authorities with respect to any party, including the Respondent.

IV. Modification. No change in this Order shall be made or become effective except as set forth by a written order of the Commissioner or the Commissioner's designee except as with respect to Attachments 1, 2 and 3 to Appendix B that may be changed by letter agreement between Respondent and the Department.

V. Indemnification. Respondent will indemnify and hold the Department, the State of New York, and their representatives and employees harmless for all claims, suits, actions, damages, and costs of every name and description arising out of or resulting from the acts and/or omissions of the Respondent, their trustees, officers, employees, servants, agents, successors or assigns, resulting from compliance or attempted compliance with the provisions of this Order.

VI. Failure, Default and Violation of Order.

- A. Respondent's failure to comply with any provision of this Order shall constitute a default, and a failure to perform an obligation under this Order shall be deemed to be a violation of both this Order and the ECL.
 - B. Respondent's failure to comply fully and in timely fashion with any provision, term, or condition of this Order shall constitute a default, and a failure to perform an obligation under this Order and under the ECL shall constitute sufficient grounds for revocation of any permit, license, certification, or approval issued to Respondent by the Department.
- VII. Binding Effect.** The provisions, terms, and conditions of this Order shall inure to the benefit of and be binding upon the Department and the Respondent, its agents, servants, employees, successors and assigns, and all persons, firms, and corporations acting subordinate thereto.
- VIII. Access.** For the purpose of monitoring or determining compliance with this Order, employees and agents of the Department shall be provided access to any facility, site or records owned, operated, controlled or maintained by Respondent, in order to inspect and/or perform such tests as the Department may deem appropriate, to copy such records, or to perform any other lawful duty or responsibility. Employees and agents of the Department will comply with all DEP health and safety requirements.
- IX. Stipulated Penalties.**
- A. The Respondent shall pay stipulated penalties in the amounts set forth in Section IX(H) of this Order to DEC for failure to comply with the milestone dates set forth in Appendices A and B, the Schedule of Compliance. Compliance by the Respondent shall include completion of an activity under this Order or a plan approved under this Order or any matter under this Order in an acceptable manner and within the specified time schedules in and approved under this Order. Any modification of the time for performance pursuant to Section IV ("Modification") of this Order shall be in writing.
 - B. All penalties begin to accrue on the day that complete performance is due or a violation occurs, and continue to accrue through the final day of correction of the noncompliance. Nothing herein shall prevent the simultaneous accrual of separate penalties for separate violations of this Order.
 - C. Following DEC's determination that the Respondent has failed to comply with the requirements of this Order, DEC shall give the Respondent written notification of the same and describe the noncompliance. Said notice shall also indicate the amount of penalties due.
 - D. All penalties owed to DEC under this section shall be payable within 60 days of receipt of the notification of noncompliance. Penalties shall accrue from the date of violation regardless of whether DEC has notified the Respondent of a violation. Interest shall begin to accrue on the unpaid balance at the end of the 60-day period. Such

penalties shall be paid by check to "DEC - Marine Resources Account" and shall contain the Respondent's complete and correct address and the Order number.

All checks shall be mailed to DEC, Region 2, Attn: Regional Attorney, 47-40 21st Street, Long Island City, New York, New York.

E. Payment of penalties shall not alter in any way the Respondent's obligation to complete the performance required hereunder.

F. The Respondent may challenge DEC's right to the stated amount of stipulated penalties by submitting to the Regional Attorney its challenge in writing within 15 days of receipt of the notification of noncompliance. Penalties shall accrue but need not be paid during the pendency of the challenge. If the Respondent does not prevail, DEC has the right to collect all penalties which accrued prior to and during the period of the challenge.

G. No penalties shall accrue for violations of this Order caused by Force Majeure events as identified in Section X herein. The Respondent has the burden of proving Force Majeure or compliance with this Order.

H. If the Respondent fails to pay stipulated penalties within 60 days of receipt of the notification of noncompliance, DEC, at its discretion, may accelerate the penalty amount to the maximum allowable by law and may institute proceedings to collect the penalties. However, nothing in this section shall be construed as prohibiting, altering, or in any way limiting the ability of DEC to seek any other remedies or sanctions available by virtue of Respondent's violation of this Order or of the statutes and regulations upon which it is based.

I. The following stipulated penalties shall be payable per violation per day to DEC for any noncompliance identified in IX(A):

PERIOD OF NON-COMPLIANCE	PENALTY PER-DAY
1st day through 30th day	\$2,500
31st day through 60th day	\$5,000
61st day and beyond	\$7,500

J. No payments made under this section shall be tax-deductible.

K. This section shall remain in full force and effect for the term of this Order..

X. Force Majeure. Respondent shall not be in default of the provisions of this Order to the extent that its non-compliance is directly attributable to an Act of God, war, terrorism, insurrection, strike, judicial injunction, contractor default, catastrophic condition, or other circumstance that is entirely beyond its control. Respondent shall notify DEC, in writing, within 30 days of any claimed Force Majeure event that may lead to delays in compliance, or the prospective inability to comply with this Order, and shall promptly request modification of this Order prior to such noncompliance. Penalties for

failure to satisfy any Order requirement can be excused only under the terms of this decretal paragraph and only where DEP shows with clear and convincing evidence that it took all steps reasonably necessary to avoid or mitigate the delay, and that it strictly complied with the notice requirements of this Section.

XI. Termination. This Order shall be deemed completely satisfied and shall terminate when each of the following conditions has been fully satisfied: (1) Respondent's payment of the civil penalty as set forth in Section I above, and any and all other outstanding penalties assessed hereunder; and (2) Respondent has certified in writing that it has completed each compliance action required by this Order where a submittal is required, and DEC has approved, in writing, within a reasonable time frame after receipt, all certifications; and (3) Appendix A, Items 1.(b)(iv); 1.(c); and 4.(b) and Appendix B in its entirety have been included and made an enforceable part of Respondent's SPDES permits Respondent agrees to not challenge the inclusion of the specified requirements in either Appendix A.1(b)(iv); 1.(c); and 4.(b) or Appendix B in its entirety in a Department-initiated modification to Respondent's SPDES Permits provided that such modification is identical in all material respects to Appendix B and the above specified items in Appendix A. If any provision of Appendix B or the above specified items in Appendix A are materially changed, the City may contest, have a hearing on, or appeal only that change to that particular provision(s). In the event Appendix B or the above specified items in Appendix A have not been included, either in whole or in part, in Respondent's SPDES permits within 10 years of the effective date of this Order, and irrespective of Respondent's compliance with the requirements of this Order, the parties agree that this Order shall be terminated.

XII. Entire Order. The provisions hereof shall constitute the complete and entire Order between the Respondent and the Department. No terms, conditions, understandings or agreements purporting to modify or vary the terms hereof shall be binding unless made in writing and subscribed by the party to be bound, pursuant to the Modification provision of this Order. No informal oral or written advice, guidance, suggestions or comments by the Department regarding reports, proposals, plans, specifications and no schedules or any other writing submitted by the Respondent shall be construed as relieving the Respondent of its obligations to obtain such formal approvals as may be required by this Order.

XIII. Authority to Execute Order. The individual signatories to this Order represent that they have the authority to bind the respective parties by execution of this Order.

XIV. Obligations. This Order does not relieve Respondent of its obligation to comply with all applicable provisions of federal, state or local law.

XV. GENERAL PROVISIONS

A. All references to days herein are to calendar days unless otherwise specified.

- B. All technical submittals to the Department required by this Order shall be made as follows:

Director, Bureau of Water Compliance
Division of Water
625 Broadway, 4th floor
Albany, NY 12233-3506

DEC Region 2 Water Engineer
47-40 21st Street
Long Island City, NY 11101

All communications and modification requests to the Department under this Order, other than technical submittals, shall be made to the above parties and also to:

Chief, Water Bureau
Office of General Counsel
625 Broadway, 14th floor
Albany, NY 12233-5500

DEC Region 2 Regional Attorney
47-40 21st Street
Long Island City, NY 11101

The Department reserves the right, upon written notice to Respondent, to designate additional or different individuals or addressees for communication or to request that technical submissions be additionally made to the DEC Chief, Water Bureau, Office of General Counsel.

- C. All responses to submittals, and any other correspondence regarding technical issues that are sent to Respondent, shall be provided to:

Deputy Commissioner, Bureau of Wastewater Treatment
DEP
59-17 Junction Blvd.
Corona, NY 11368

Deputy Commissioner, Bureau of Engineering Design and Construction
DEP
59-17 Junction Blvd.
Corona, NY 11368

All other writings transmitted under this Order shall be submitted to:

Gail Saunders, Esq.
New York City Law Department
Office of the Corporation Counsel

100 Church Street
New York, NY 10007

and to:

Melinda Sherer, Esq.
DEP
Bureau of Legal Affairs
59-17 Junction Blvd.
Flushing, NY 11373


Respondent reserves the right, upon written notice to the Department, to designate additional or different individuals or addressees for communication or to request that technical responses be additionally made to Gail Saunders, Esq. at the New York City Law Department and Melinda Sherer, Esq. at DEP Bureau of Legal Affairs.

- XVI. Effective Date.** The effective date of this Order shall be the date upon which it is signed on behalf of the Department.
- XVII. Effect on Previous Orders.** Respondent is bound by, and agrees to follow and comply with, the terms, provisions and requirements set forth in this Order, including Appendices A and B, which are incorporated herein. This Order supersedes and replaces, in its entirety, the 2010 CSO BMP Order. Upon the effective date of this Order, the 2010 CSO BMP Order is considered null and void. The requirements set forth in this Order are additional to, and do not affect any requirements set forth in, any Orders on Consent between DEC and Respondent other than the 2010 CSO BMP Order.
- XVIII. Implementation Plan.** The Respondent has submitted and DEC has approved upon execution of this Order, a plan with an implementation schedule to incorporate and implement the methods used in the Pilot at all WWTPs except Rockaway and Oakwood Beach. This plan and implementation schedule is included as part of the requirements incorporated into this 2014 CSO BMP Order as part of Appendix B.
- XIX. Lists of Key Regulators, Inclinometer Feasible Regulators, and SCADA Telemetered Regulators.** As part of the approved plan, the Respondent submitted Lists (as Appendix B, Attachments 1, 2, and 3, respectively). The Lists are deemed approved by DEC upon execution of this Order. Any and all modifications to the approved Lists will be made through a letter agreement between Respondent and the Department.

DATED: Long Island City, New York
May 8, 2014

JOSEPH J. MARTENS
Commissioner
New York State Department of
Environmental Conservation

By: _____


VENETIA A. LANNON
Regional Director
DEC - Region 2

CONSENT BY RESPONDENT

Respondent THE CITY OF NEW YORK hereby consents to the issuing and entering of this Order without further notice, waives its rights to a hearing herein, and agrees to be bound by the terms, conditions and provisions contained in this Order.

The City of New York

By (signature): Gail C Saunders

Print name: GAIL SAUNDERS

Title: SENIOR COUNSEL

Date: April 29, 2014

ACKNOWLEDGMENT

STATE OF NEW YORK)
) SS:
COUNTY OF NEW YORK)

On this 25th day of April, 2014, before me personally came GAIL C SAUNDERS, to me known, who being by me duly sworn did depose and say that s/he resides in New York City, that s/he is SENIOR COUNSEL of The City of New York Office of the Corporation Counsel and that s/he signed his/her name as authorized by the City of New York.

HILARY MELTZER
Notary Public, State of New York
No. 02ME5010465
Qualified in New York County
Commission Expires ~~June~~ 15
March 29

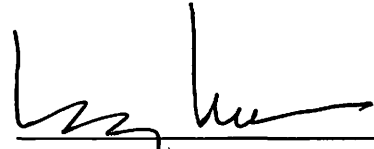
[Signature]
NOTARY PUBLIC

CONSENT BY RESPONDENT

Respondent NEW YORK CITY DEPARTMENT OF ENVIRONMENTAL PROTECTION ("DEP") hereby consents to the issuing and entering of this Order without further notice, waives its rights to a hearing herein, and agrees to be bound by the terms, conditions and provisions contained in this Order.

DEP

By (signature):



Print name:

Emily Lloyd

Title:

Commissioner

Date:

04/24/14

ACKNOWLEDGMENT

STATE OF NEW YORK)

)

SS:

COUNTY OF QUEENS)

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On this 24 day of April, 2014, before me personally came Emily Lloyd, to me known, who being by me duly sworn did depose and say that s/he resides in Flushing NY, that s/he is Commissioner of DEP and that s/he signed his/her name as authorized by the City of New York.



NOTARY PUBLIC

RUSSELL PECUNIES
Commissioner of Deeds
City of New York No. 4-6227
Commission Expires 1-1-16

Appendix A
 SCHEDULE OF COMPLIANCE
 FOR ALL CSO BMP PROJECTS

Required Action	Deadline for Submission
1. Interceptor Improvement Program (Condition Assessment and Cleaning):	
a) Interceptor Inspections	
i) Complete all TV/Video and Sonar of all interceptor sewers in all 14 WWTP drainage areas and submit a notice of completion of inspection identifying each sewer line inspected.	1(a)(i): December 31, 2011 Completed
ii) Submit results in a report for each WWTP drainage area as the work is completed. Report will include raw data from TV inspections and sonar including sediment depth.	1(a)(ii): Within 90 days of contractor completing a drainage area Completed
iii) Submit an approvable proposal for review and approval for a final scoring system to be used to prioritize all necessary types of work.	1(a)(iii): March 31, 2011 Completed
iv) Submit an approvable report for review and approval that summarizes the findings of the inspections, including the score of the summation of all defects and corresponding severity for each interceptor. This score will be used to prioritize the removal of debris and deposits, repair, rehabilitation and replacement of the sewers.	1(a)(iv): June 30, 2012 Completed
v) Submit for review and approval an approvable schedule with start and end dates for all necessary removal of debris and deposits, repairs, rehabilitations and replacement of sewers.	1(a)(v): December 31, 2012 Completed
vi) Certify to the Department commencement of work through either issuance of a Notice to Proceed to Construction (NTPC) issued to a contractor(s) or other directive to commence work, as applicable, for all necessary removal of debris and deposits, repairs, rehabilitations and replacement of interceptors scored in the highest category from iv) above. If multiple contracts are let, all NTPCs for this work must be issued.	1(a)(vi): June 30, 2013 Completed in part See 1(a)(vi)(aa) and (bb) below for all remaining items
aa) Issue NTPC for repair, rehabilitation or replacement of interceptors	aa) December 31, 2014

<p>bb) Complete “unconventional” cleaning of interceptors (<i>See Required Actions 1.b.i. and 1.a.v.</i>)</p> <ul style="list-style-type: none"> i) Port Richmond – complete construction and cleaning ii) Coney Island – complete cleaning iii) Wards Island – complete design iv) Wards Island – start construction and/or cleaning v) Wards Island – provide to DEC end date for construction and/or cleaning 	<ul style="list-style-type: none"> i) Oct 31, 2013 (certified complete) ii) September 30, 2014 iii) September 30, 2014 iv) April 3, 2015 v) To be determined and submitted with design submission
<p>b. Interceptor Cleaning</p>	
<p>i) Conduct initial two-year cycle of Interceptor Cleaning. Cleaning to be completed using conventional methods, including vector trucks. Debris and deposits unable to be removed by conventional methods, including vector trucks, will be removed pursuant to Items 1(a)(v) and 1(a)(vi) above. (See 1(a)(vi)(bb))</p>	<p>1 (b)(i): Commence by September 30, 2010 Completed</p>
<p>ii) Provide notice of commencement of cleaning for each WWTP drainage area. DEP shall prioritize cleaning of each WWTP drainage area based on the findings of the interceptor inspections completed under Item 1.a.ii.</p>	<p>1(b)(ii): At least 5 business days prior to commencement of cleaning of a WPCP drainage area. Completed</p>
<p>iii) Provide notice of completion of cleaning for each WWTP drainage area. Notification of completion shall include data concerning amount (ft³) of debris removed by individual interceptor and a description of the methods used and procedures followed.</p>	<p>1(b)(iii): Within 90 days of contractor completing a drainage area Completed</p>
<p>iv) Include cleaning results for each calendar year in Annual CSO BMP Report. Inclusion of cleaning results in Annual CSO BMP Report to be incorporated into Respondent’s SPDES Permits.</p>	<p>1(b)(iv): April 1, 2011 Completed</p>

<p>c. Interceptor Re-inspection and Cleaning</p>	
<p>Submit an approvable plan and schedule for review and approval for a regular 2-year program of re-inspection and cleaning of the interceptors, based on the initial inspections and the need to maximize storage capacity of the interceptors in accordance with BMP #2. Upon approval by DEC, plan to be incorporated into Respondent's SPDES permits.</p> <p>After the second 2-year cycle of inspections and cleaning, a rate of deposition will be determined for each drainage basin and will be used to schedule subsequent inspections and cleanings.</p>	<p>1(c): December 31, 2012 Completed</p>
<p>2. Evaluation of Hydraulic Capacity of the NYC Sewer System (combined and sanitary) by WWTP Drainage Area (excluding Oakwood Beach)</p>	
<p>a) Using the existing INFOWORKS Models and available data develop a report that evaluates the hydraulic capacity of the existing sewer system in accordance with BMP #2 for the entire New York City combined and sanitary sewer collection systems by WWTP drainage areas.</p>	<p>2(a): December 31, 2010 Completed</p>
<p>b) Update and recalibrate/verify INFOWORKS Models for all WWTP drainage basins using updated impervious data based on a satellite flyover in 2009 using quickbird infrared imagery, existing in-system monitoring, interim sewer metering data, flow data from CSO RTF and interceptor inspections and cleaning results and all other relevant combined sewer system monitoring data available.</p>	<p>2(b): June 30, 2012 Completed</p>
<p>c) Submit updated INFOWORKS Modeling Reports (addenda to 2007 INFOWORKS Modeling Reports) for each drainage basin including a sensitivity and validation analysis.</p>	<p>2(c): June 30, 2012 Completed</p>
<p>d) Using updated INFOWORKS Models for each WWTP drainage basin, complete and submit the evaluation of the current hydraulic capacity of the entire New York City combined and sanitary sewer collection systems by WWTP drainage basin.</p> <p>Determination of hydraulic capacity is to be verified in all drainage basins by comparison to the TV/Sonar inspection results from Item 1(.a). above.</p>	<p>2(d): December 31, 2012 Completed</p>

<p>3. Compliance with 2xDDWF</p>	
<p>a) Submit an approvable pilot program(s) for review and approval in the Coney Island and Hunts Point WWTP drainage basins. Use telemetry, plant flow and rainfall data to determine if the collection system is consistently achieving two times design dry weather flow (2xDDWF) on a real time basis.</p> <p>Within 60 days of DEP's submittal, DEC shall provide in writing either approval or comments on the submittal requiring re-submission by DEP. Any comments must be addressed and the submission re-submitted to DEC within 60 days. If DEC disapproves DEP's re-submittal, DEP shall be in violation of this deliverable. In the event DEC fails to respond in writing within 60 days of receipt, of either the submittal or re-submittal, DEP's submission shall be deemed approved. For the purposes of this provision the date of DEP's submission and DEC's written response shall be the actual date of mailing personal delivery or electronic transmission.</p>	<p>3(a): Within 30 days of Order execution</p> <p>Completed</p>
<p>b) Commence approved pilot program(s).</p>	<p>3(b): Upon the later of DEC approval of the pilot program or the following dates:</p> <p>Hunts Point: March 31, 2011</p> <p>Coney Island: June 30, 2011</p> <p>Completed</p>
<p>c) Submit an approvable report ("Pilot Report") for review and approval with all pilot results and recommendations based on pilot results as to the feasibility of implementation of a full scale program for all WWTPs except Rockaway and Oakwood Beach. Pilot Report must assess the effectiveness of the pilot(s) and propose any modifications and/or additions to the existing pilot program(s) to satisfy the requirements to develop a real time wet-weather monitoring system.</p>	<p>3(c): 90 days after 12th month of data collection for both Coney Island and Hunts Point</p> <p>Completed</p>
<p>d) If necessary, an additional twelve months from the date of the submission of the Pilot Report can be taken to implement the Pilot Report's recommendations for modifications and additions to the existing pilot program(s)</p>	<p>3(d): 12 months after Pilot Report is submitted to DEC.</p> <p>Completed</p>

<p>e) Submit an approvable plan for review and approval with implementation schedule to incorporate and implement the results for the successful pilot at all WWTPs except Rockaway and Oakwood Beach.</p>	<p>3(e): 90 days after Pilot Report is approved by DEC.</p> <p>Completed</p> <p>See Appendix B Schedule of Compliance</p>
<p>4. Data Submission</p>	
<p>a) Submit a list of all regulators and other combined sewer system structures that have flow metering, level measurement or overflow detection/tipping sensors with all collected data from the last 12 months.</p>	<p>Completed</p>
<p>b) Submit all future data (raw data on a compact disk) from regulators and other combined sewer system structures in 4(a) on a quarterly basis within 30 days of the end of the quarter. All pertinent and relevant data is to be used in verification of INFOWORKS models. DEP to evaluate if this data can be used as part of the full scale program in Item #3 above. Include evaluation in Pilot Report under Item #3.c.</p> <p>Submittal Requirement to be incorporated into Respondent's SPDES permit.</p>	<p>4(b): Commencing with 4th quarter of 2010 (October 1, 2010).</p> <p>Completed</p>
<p>5. Tidegate Inspection and Repair Program:</p>	
<p>a) Investigate and repair as necessary all tidegates on interceptor sewers tributary to the Newtown Creek, Wards Island, Port Richmond and Red Hook WPCPs to determine the cause of chloride levels that are consistently above 400 mg/l.</p>	<p>5(a): October 31, 2011</p> <p>Completed</p>
<p>b) Submit an approvable report for review and approval detailing the inspections and repairs made at all tidegates on interceptor sewers tributary to the Newtown Creek, Wards Island, Port Richmond and Red Hook WPCPs.</p>	<p>5(b): December 31, 2011</p> <p>Completed</p>
<p>6. Coney Island WPCP Infiltration and Inflow investigation:</p>	
<p>a) Perform an infiltration and inflow investigation of the combined and sanitary sewer system in the Coney Island WPCP drainage area to determine the cause of the consistently high chloride levels at the WPCP.</p>	<p>6(a): September 30, 2011</p> <p>Completed</p>

<p>b) Develop and submit an approvable Infiltration/Inflow (I/I) Report for review and approval summarizing the results of the above investigation and any identified sources of salt water intrusion into the sewer system. The report shall prioritize necessary repairs and include a scope of work and a schedule for the repairs, if any. Any CSO outfalls that are going to be closed as a result of the I/I investigation shall be listed in the report.</p>	<p>6(b):March 31, 2012 Completed</p>
<p>c) Commence post-construction monitoring as set forth in the I/I Report submitted March 29, 2012 in accordance with Required Action 6(b) above.</p> <p>Respondent has indicated that safety and efficacy issues exist regarding implementing the monitoring program in certain areas, due to discharges from the New York City Aquarium to Respondent's sanitary sewer system. In performing its monitoring, the City may factor in any contributions from the New York Aquarium located in Coney Island.</p>	<p>Commence within 90 days after the effective date of the Order.</p> <p>For the area marked in the attached map, Respondent shall begin its monitoring program no later than 90 days of receiving written notice from DEC that the New York Aquarium has terminated all its discharges to the New York City sanitary system.</p>
<p>d) Within 6 months of completion of post construction monitoring, DEP shall submit to DEC a post construction monitoring report.</p>	
<p>7. Rockaway Chlorides</p>	
<p>a) DEP to determine based upon current scientific information and/or literature, if current chloride levels at the Rockaway WPCP will impact BNR process efficiency.</p>	<p>7(a): August 31, 2010 Completed</p>
<p>b) DEP to propose new action level for chlorides at Rockaway WPCP to protect future BNR operations. Upon approval by DEC, new level to be incorporated into the Rockaway WPCP SPDES permit.</p>	<p>7(b): August 31, 2010 Completed</p>

8 . Catch Basin Retrofits:	
a) Submit results of the New York City Department of Design and Construction (DDC) investigation discussed in the 2009 CSO BMP Annual Report (page 33). If all catch basins have not been completed, submit a reasonable date by which they will be completed.	8(b): September 30, 2010 Completed
b) Submit documentation as to when all catch basin retrofits, repairs and reconstructions were completed, including number of retrofits completed and remaining as of April 1, 2008 and the number of reconstructions completed and remaining as of January 1, 2010.	8(c): September 30, 2010 Completed

CI - Aquarium to Plant



Appendix B
SCHEDULE OF COMPLIANCE
DEP Combined Sewer Overflows (Maximize Flow)

1. Maximize Flow to Waste Water Treatment Plant (WWTP)
 - a. DEP shall maximize flow through the sewer collection system to the WWTP at all times.
 - b. No Combined Sewer Overflow (CSO) discharges shall occur from any approved key regulator¹ outside the period of a critical wet weather event² as a result of either: (1) inadequate or improper operation or maintenance of the WWTP, (2) inadequate or improper maintenance of the sewage collection system and regulators, (3) improper throttling/unthrottling of flow to the WWTP, (4) critical WWTP equipment out of service for prolonged periods, (5) negligence, (6) the system not being operated as designed, (7) or any combination thereof.
 - c. The sewage collection system, regulating devices and head works upstream of the throttling gates shall be capable of delivering, and must be designed and operated to deliver, at a minimum, the wet weather flow identified in the associated SPDES permit to the WWTP during critical wet weather events.

2. Maximize Flow at WWTP
 - a. DEP shall maximize flow through all thirteen of the WWTPs during all wet weather events.
 - b. The WWTP shall be capable of receiving, and must be operated to receive, the peak design hydraulic loading rates for all process units. For the entire duration of each critical wet weather event, the WWTPs shall be operated to receive and treat, through primary treatment and disinfection works, an average flow at least equal to the wet weather flow requirement in the applicable SPDES permit. All critical equipment out-of-service for necessary repair or maintenance must be returned to service as quickly as reasonably possible. If critical equipment is anticipated to be, or is out-of-service for necessary repair or maintenance for more than 48 hours or under a DEC approved schedule, DEP must notify DEC Region 2 verbally and in writing of such event and the anticipated time such equipment will be

¹ The list of key regulators as approved by DEC is at Attachment "1."

² A "wet weather event" is any precipitation, snow melt, runoff or storm surge event which causes the influent flow at the WWTP to exceed normal dry weather flows. A "critical wet weather event" is a wet weather event which causes or would cause the influent flow at the WWTP to exceed the wet weather flow identified in the associated SPDES permit. The period of a critical wet weather event shall be defined, for these purposes, to begin when an instantaneous influent flow rate equivalent to the SPDES wet weather flow occurs at the WWTP and end at the latter of either the instantaneous influent flow rate dropping below the SPDES wet weather flow or when the influent flow rate would have dropped below the SPDES wet weather flow absent any throttling of the influent flow.

returned to service. DEP must also notify DEC Region 2 both verbally and in writing if during such an outage DEP will be unable to temporarily and safely return the equipment to normal service without the potential for reasonable damage to the equipment. Upon receipt of such notice, and on a case-by-case basis, DEC may adjust the flow required to be passed through the WWTP in consideration of the recommendations contained within an approved Wet Weather Operating Plan (“WWOP”) as set forth in Subparagraph 4(c) below. DEC will not unreasonably refuse to adjust the flow requirement. DEP’s verbal and written notice shall be made in a call to the Region 2 Office (Water Program) at (718) 482-4933 and via email to the NYSDEC Regional Water Engineer. If DEC adjusts the flow, the adjustment shall be deemed retroactive to the start date and time of the event. The notification requirements in this paragraph will be effective 30 days from the effective date of the Order.

- c. Within 90 days, DEP shall submit to DEC an engineering analysis of WWTP influent flow throttling operations. Such analysis shall provide specific recommendations for initiation and cessation of wet weather flow throttling operations designed to maximize flow through the WWTP.
- d. WWTP influent flow throttling operations shall not be initiated until the influent flow at the WWTP is at or above the wet weather flow requirement in the applicable SPDES permit (as may be adjusted in accordance with 2(b) above). Cessation of such flow throttling shall be initiated on or before the influent flow to the WWTP drops below the wet weather flow requirement and shall proceed at the maximum rate until complete. In addition, all flow throttling operations shall be conducted in accordance with the engineering recommendations provided under 2(c) above.

3. CSO Monitoring and Equipment

- a. Within 90 days, DEP shall submit to DEC for approval a proposal for the installation of CSO monitoring equipment at all key regulators if different from the approved list of key regulators at Attachment “1,” for the purpose of detecting CSO discharges, including the approximate start and end times of CSO discharges at each regulator, and shall allow for subsequent comparison to the actual influent wastewater flow rates being conveyed to the associated WWTP at those same times. The CSO monitoring equipment shall be the Doppler Sensors in the telemetry system and inclinometers where feasible. The equipment shall include actual measurement (with data collection at no greater than 15-minute intervals) of water depth on both the interceptor and CSO sides of the regulator weir and the degree of tide gate opening for key regulators identified as inclinometer feasible in Attachment “2”. Such proposal shall identify specific locations for installation, include a map showing the relation of the identified key regulators to the WWTP, provide the selection criteria and evaluation for determining the list of proposed key regulators, and provide a detailed schedule for completion. All equipment must be installed within six months of the proposal being approved by DEC.

- b. Within 90 days, DEP shall submit to DEC a list of all CSO regulators, in addition to the key regulators identified in Subparagraph 3(a) above if different from Attachment “3,” for which CSO monitoring equipment have been installed. Such monitoring equipment shall be utilized for the purpose of identifying any known or suspected CSO discharges which occur outside the period of a critical wet weather event.
- c. Based on observations, lessons learned, the availability of additional information or the development of new detection devices, DEC may require DEP to install additional feasible and effective monitoring equipment at key regulators if the existing monitoring equipment is unable to provide an accurate indication of CSO discharges, or add to the list of key regulators and install monitoring equipment at those additional regulators if it determines either: that additional monitoring locations are necessary to verify that the system has been maximized or to calibrate the hydraulic model; or that monitoring does not exist for a significant volume of the overall CSO discharge.

4. Wet Weather Operating Plan (WWOP)

- a. DEP shall maximize flow through the WWTP during wet weather events. This shall be accomplished by having a WWOP containing procedures and guidance for operating unit processes, including any regional CSO treatment/retention facilities listed in this permit. The goals of the WWOP are to provide operational guidance to WWTP staff for treating the maximum flows, while not appreciably diminishing effluent quality or destabilizing treatment upon return to dry weather operation. The WWOP will establish process control procedures and set points to maintain the stability and efficiency of the Biological Nitrogen Removal (BNR) process, if required, for the host WWTP. The WWOP shall be written in accordance with the DEC publication, Wet Weather Operating Practices for POTWs with Combined Sewers. DEP shall incorporate the throttling protocol and guidance developed during the CSO BMP Order, Pilot Study into the WWOP. The WWOP shall also include an update of the critical equipment lists for the WWTPs, which shall include screening facilities at pump stations that deliver flow directly to the WWTP and at WWTP headworks. The updated WWOP shall be submitted to Region 2 for review and approval within 6 months. After approval by the Department, DEP shall implement and follow the terms of the approved WWOP.
- b. The requirement in Subparagraph (4)(a) above to update the wet weather operating plan is a one-time requirement that shall be done to the Department’s satisfaction, unless future upgrades change the treatment thresholds in place at the time of this submission. In such case, the Department will notify DEP of the need to revise the WWOP and a schedule for submission of the revised WWOP.
- c. The WWOP provides operational guidance for unit processes before, during and after each wet weather event based on the critical equipment assessed to calibrate the peak hydraulic loadings. The flow rate recommendations incorporated into an approved WWOP that apply when specific equipment

is out of service are guidelines that should be followed by the personnel operating the WWTP. However, the recommendations contained within a WWOP do not automatically modify or reduce the requirement to maintain the minimum wet weather flow requirements in the applicable SPDES permit, nor does having a treatment unit out of service automatically modify or reduce such flow requirements.

5. Event Reporting and Corrective Actions

- a. Bypass Reporting: 30 days from the effective date of the Order, DEP shall report bypasses in accordance with Part 750-2.7 Incident Reporting, (b) through (g) as applicable. DEP will report within the required two-hour time frame events in which the WWTP throttled but never achieved the applicable SPDES permitted wet weather capacity at any point during the period the WWTP throttled, except in instances the WWTP is at reduced capacity with prior approval by the DEC in accordance with Subparagraph 2(b) above. However, DEP is not required to report such events if they are the result of routine equipment outages for less than 48 hours except that DEP shall report as a reportable bypass such events if they occur because screening equipment becomes “blinded” or equipment is removed from service during a wet weather event, as it circumvents unit processes designed to provide treatment. DEC will accept a revised bypass report, in the event that DEP subsequently reports that all impacted equipment has been returned to service within 48 hours of the initial report.
- b. Key Regulator(s) Monitoring Reporting: Following installation of the CSO monitoring equipment described in Subparagraph 3(a) above, within 45 days after the end of each month, DEP shall provide to DEC, a monthly report of all known or suspected CSO discharges from key regulators outside the period of a critical wet weather event. Such monthly report shall provide an itemized list of such CSO discharges, the approximate start time and end time for each discharge, the corresponding WWTP flow rate, and the start time and end time of the critical wet weather event. Within 90 days after the end of each quarter (after the first year, reports shall only be filed for each calendar year and shall be submitted with the Annual CSO BMP Report), DEP shall submit for DEC approval an engineering analysis of the cause(s) for each discharge and an analysis of options to reduce or eliminate similar future events. A schedule must be provided for all reasonable and cost effective options which can be completed within two years (exclusive of the time required for procurement) and DEP must complete those projects in accordance with a DEC approved schedule. All other options shall be considered as part of the Long Term Control Plan (“LTCP”) process towards achieving the water quality goals of the Clean Water Act, and built into the LTCP hydraulic model per Paragraph 6 below.
- c. Regulator(s) with CSO Monitoring Equipment Identification Program Reporting:

The first day of the month following full execution of this Order, Respondent shall commence a 12-month data gathering period of all known

or suspected CSO discharges, from early tipping regulators with CSO monitoring equipment identified in Subparagraph 3(b) above. Within 18 months of the first day of the month following execution of this Order, DEP shall submit a report ("Report") for the first twelve month period after the effective date of the Order, with the Report due within six months later, for all known or suspected CSO discharges, from early tipping regulators with CSO monitoring equipment identified in Subparagraph 3(b) above, which occurred outside the periods of critical wet weather events. The Report shall include an engineering analysis of the cause(s), identify system limitations and evaluate options for reducing or eliminating future similar events. A schedule must be provided for all reasonable and cost effective options which can be completed within two years (exclusive of the time required for procurement) and DEP must complete those projects in accordance with a DEC approved schedule. Other capital intensive projects requiring more than two years to implement (exclusive of the time required for procurement) shall be considered as part of the LTCP process towards achieving the water quality goals of the Clean Water Act, and built into the LTCP hydraulic model pursuant to Paragraph 6 below.

6. Hydraulic Modeling Verification

DEP shall assess data obtained from Paragraphs one through five above for the purpose of verification and further calibration of the hydraulic model developed under DEP's CSO LTCPs. Data from all monitoring systems available at CSO regulators, including those at key regulators shall be compared to existing projections of frequency and volume of overflows for those regulators used in establishing baseline conditions in the LTCPs for those drainage areas. DEP shall verify through regulator and WWTP monitoring that the CSO baseline average rainfall year are conservative projections that do not consistently underestimate the frequency or volume of annual CSO. Each LTCP shall include an analysis of the veracity of CSO baseline projections through further calibration of the hydraulic model using all available data obtained during the CSO monitoring program as described above.

Appendix B

ATTACHMENT 1

WWTP	Regulator No.	Key Regulator in Report	Interceptor	Comments
26W	01	x	HL - Hendrix St	Regulator (26W-03) on Vandaha interceptor not used since it overflows to the Sping Creek CSO facility.
26W	02	x	HL - Flatlands Ave	
26W	03	x	HL - Vandaha Ave	
BBH	02	x	High Level	The low point regulator on the interceptor is used in addition to one other regulator which is very large in size and design flow. BB-09 is larger but not used because has no lid/gate.
BBH	06	x		
BBL	04	x	Low Level	The low point regulator on the interceptor is used in addition to one other regulator which is very large in size and design flow.
BBL	22	x		
HP	05	x	1	Three largest regulators are used including HP-13 which is a low point regulator. Low point regulator HP-06 is not used. Instead, HP-05 is used because it has the larger design flow (receives overflow from HP-06 which is the largest regulator).
HP	13	x		
HP	06	x		
HP	10	x		
JA	01		East	Even though JA-14 is a low point regulator, JA-03 was used because it has a larger design flow.
JA	09			
JA	03	x		
JA	14			
NC(B)	01	x	Bklyn - Morgan	Low point regulator is used on the Kent Interceptor. Largest regulator is used on the Morgan Interceptor.
NC(B)	04	x	Bklyn - Kent	
NC(M)	47	x	North	On the North interceptor, NCM-50 is larger but NCM-47 is used because of access issues with NCM-50 (on highway exit ramp).
NC(M)	01		South	
NC(M)	16			
NR	16	x	North	Reg. 16 is used because it has the largest design capacity.
NR	23	x	South	Reg. 23,33 are used because they have the largest DW design flows.
NR	33	x		
OH	01	x	South	Largest regulator on the South interceptor is used.
OH	06	x	North	Largest regulator on the North interceptor is used.
PR	06W	x	West	Largest regulator on the West interceptor is used.
PR	13E	x		
PR	35E*	x		
RH	02	x	1	The low point regulator on the interceptor is used in addition to one other regulator which is very large in size and flow.
RH	20	x		
TI	09	x	Flushing	The largest regulators on both interceptors were used.
TI	10A	x	Whitestone	
WI(B)	53	x	Bronx West	The low point regulator on the interceptor is used in addition to one other regulator which is very large in size and flow.
WI(B)	67	x	Bronx East	
WI(M)	23	x	Manh South	The low point regulator on the South interceptor was used. The low point regulator on the North could not be used (access issue, in MTA yard).
WI(M)	38		Manh North	

*PR-35E will be temporarily monitored as part of the pilot until repairs to the telemetry for PR-13E and PR-06W are completed

Regulator Location	Weir Length (ft)	Weir Elev. (ft)	Hydraulic Capacity (mgd)	Peak Flow (mgd)	SPDES Outfall No.	Outfall Locations	Outfall Dimensions
TIDE GATE (26 WARD WPCP)				27.71	26-004		
WILLIAMS & FLATLANDS AVES.	68'-0"	-6.00	32.85	13.00	26-003	FRESH CREEK BASIN & WILLIAMS AVENUE	72BL 7'6" X 2'5"
CRESENT ST. & FLATLANDS AVE.	76'-0"	-6.85	29.72	0.34	26-005		
45th ST. & PLANT	9'-0"	-3.50	N/A	89.08	BB-002	RIKER'S ISLAND CHANNEL & 45th STREET	9' X 9'
108th ST. & DITMARS BLVD.	4'-0"	+9.00	94.94		BB-008	Flushing Bay and Creek	
47th AV. BETW. 28th & 29th ST.	9'-0"	-2.50	24.46	9.57	BB-026	DUTCH KILLS BETW. 28TH & 29TH STREET	9' X 4'6"
VRNON BLVD. & BROADWAY	12'-0"	-5.00	19.72	12.18	BB-029	East River and Open Waters	
WHITE PL. RD. s/o RIVER AVE	26'-0"	-4.50	1.87		HP-011	EAST RIVER & WHITE PLAINS ROAD	DBL 11'6" X 6'6"
METCALF AVE. & SOUNDVIEW PARK	21'-0"	-5.00	51.37	44.07	HP-009		
WHITE PL. RD. & O'BRIEN AVE.	8'-0"	-5.00	150.13	81.41	HP-011	East River and Open Waters	
HUNTS POINT AVE. & RYAWA AVE.	15'-0"	-3.65	56.38	18.01	HP-003	EAST RIVER & FARRAGUT STREET	DBL 12' X 9'6"
JFK AIRPORT	12'-0"	+1.00			JA-006		
LINDEN BLVD. & SPRINGFIELD BLVD.	22'-0"	+27.77			JA-005		
123rd. PLACE & 150th AVE.	16'-3"	+3.15	40.97	14.20	JA-003	BERGEN BASIN & 123rd STREET	DBL 8' X 9'
124th ST. & N.CONDUIT AVE.	30'-0"	-1.35		3.7	JA-003a		
JOHNSON AVE. W/O PORTER AVE.		-4.68	157.45	44.53	NC-015	ENGLISH KILLS & JOHNSON AVENUE	15'8" X 10'
KENT AVE. & TAYLOR ST.	12'-3"	-8.57	41.08	47.68	NC-014	WALLABOUT CHANNEL & KENT AVENUE	DBL 17' X 11'
FDR DR. & E.49th ST.	12'-0"	-0.85	49.82	34.73	NC-036	EAST RIVER & E. 49th STREET	8'6" X 7'6"
CLARKSON ST. & WEST ST.	14'-0"	-3.75	14.49	17.89	NC-076		
SOUTH ST. N/O DOVER ST.	75'-0"	-6.10	14.53		NC-078		
DYKMAN ST. & HENRY HUDSON PKWY.	18'-0"	-1.28	22.19	9.51	NR-006	HUDSON RIVER & DYCKMAN STREET	DBL 7' X 5'
ST. CLAIR PLACE & 12th AVE.	18'-0"	-3.40	50.04	53.32	NR-043	HUDSON RIVER & SAINT CLAIR PLACE	DBL 8'8" X 7'6"
TWELFTH AVE. & W.48th ST.	9'-0"	-2.41	96.25	29.24	NR-033	HUDSON RIVER & 48TH STREET	2'8" X 4'
92nd ST. & BELT PKWY	18'-0"	-1.34	116.79	46.11	OH-017	UPPER NEW YORK BAY & 92nd STREET	3BL 7'4" X 7'4"
64th ST. IN RR YARD			151.70	118.28	OH-002	UPPER NEW YORK BAY & 64th STREET	3BL 15' X 7'6"
RICHMOND TERR. & NICHOLAS AVE.	24" DIA	3.35	26.37	10.90	PR-029	NEWARK BAY & NICHOLAS STREET	DBL 8'6" X 6'
CANAL ST. & FRONT ST	21'-0"	-4.35	34.85		PR-031	UPPER NEW YORK BAY & CANAL STREET	DBL 3'1" X 3'6"
BODINE ST. & RICHMOND TERR.	18" DIA	-0.58	57.47	30.87	PR-035	KILL VAN KULL & BODINE STREET	18" DIA
WOLCOTT ST. & CONOVER ST.	11'-0"	-2.74	37.85	17.67	RH-028	BUTTERMILK CHANNEL & WOLCOTT STREET	72" DIA
GOLD ST. & PLYMOUTH ST.		-5.67	437.00		RH-004	EAST RIVER & GOLD STREET	168" DIA
LINDEN PL & 32nd AVE.	15'-9"	+4.75	103.40	41.74	TI-011	FLUSHING BAY & 32nd AVENUE	DBL 8' X 8'
144th ST. & 7th AVE.	5'-0"	+8.50	30.34	9.89	TI-003	POWELLS COVE n/o 7th AVENUE	8'0" X 8'0"
BRUCKNER BLVD. & BROOK AVE.	25'-0"	-7.42	248.67	62.39	WI-068	BRONX KILLS & BROOK AVENUE	12' X 9'10"
E.192nd ST. W/O BAYLEY AVE.	28'-0"	-3.55	57.85	49.05	WI-056	HARLEM RIVER R. W. 192nd STREET	DBL 15' X 9' 2-1/8"
E.106th ST. & FDR DR.	15'-0"	-3.82	16.84	10.17	WI-023	EAST RIVER & E. 106th STREET	DBL 7'6" X 6'
E.135th ST. & E/O HARLEM R. DR.	5'-0"	-4.30	15.36	13.38	WI-038		

Appendix B

List of 20 Inclinometer Regulators

ATTACHMENT 2

WWTP	Regulator No.	Regulator Location	Weir Length (ft)	Weir Elev. (ft)	Hydraulic Capacity (mgd)	SPDES Outfall No.	Outfall Locations	Outfall Dimensions
26W	02	WILLIAMS & FLATLANDS AVES.	68'-0"	-6.00	32.85	26-003	FRESH CREEK BASIN & WILLIAMS AVENUE	72BL 7'6" X 2'5"
BBH	02	45th ST. & PLANT	9'-0"	-3.50	N/A	BB-002	RIKER'S ISLAND CHANNEL & 45th STREET	9' X 9'
BBL	L-22	VERNON BLVD. & BROADWAY	12'-0"	-5.00	19.72	BB-029	EAST RIVER & BROADWAY	16' X 7'
HP	05	WHITE PL. RD. s/o RIVER AVE.	26'-0"	-4.50	150.13	HP-011	EAST RIVER & WHITE PLAINS ROAD	DBL 11'6" X 6'6"
HP	10	HUNTS POINT AVE. & RYAWA AVE.	15'-0"	-3.65	56.38	HP-003	EAST RIVER & FARRAGUT STREET	DBL 12' X 9'6"
JA	03	123rd. PLACE & 150th AVE.	16'-3"	+3.15	40.92	JA-003	BERGEN BASIN & 123rd STREET	DBL 8' X 9'
NC(B)	B-01	JOHNSON AVE. W/O PORTER AVE.			157.45	NC-015	ENGLISH KILLS & JOHNSON AVENUE	15'8" X 10'
NC(B)	B-04	KENT AVE. & TAYLOR ST.	12'-3"	-8.57	41.08	NC-014	WALLABOUT CHANNEL & KENT AVENUE	DBL 17' X 11'
NC(M)	M-47	FDR DR. & E.49th ST.	12'-0"	-0.85	49.82	NC-036	EAST RIVER & E. 49th STREET	8'6" X 7'6"
NR	N-23	ST.CLAIR PLACE & 12th AVE.	18'-0"	-3.40	50.04	NR-043	HUDSON RIVER & SAINT CLAIR PLACE	DBL 8'8" X 7'6"
NR	N-16	DYKMAN ST. & HENRY HUDSON PKWY.	18'-0"	-1.28	22.19	NR-006	HUDSON RIVER & DYCKMAN STREET	DBL 7' X 5'
OH	06	64th ST. IN RR YARD			151.70	OH-002	UPPER NEW YORK BAY & 64th STREET	3BL 15' X 7'6"
OH	01	92nd ST. & BELT PKWY	18'-0"	-1.34	116.79	OH-017	UPPER NEW YORK BAY & 92nd STREET	3BL 7'4" X 7'4"
PR	R-13E	CANAL ST. & FRONT ST	21'-0"	-4.35	34.85	PR-031	UPPER NEW YORK BAY & CANAL STREET	DBL 3'1" X 3'6"
PR	R-06W	RICHMOND TERR. & NICHOLAS AVE.	24" DIA	3.35	26.37	PR-029	NEWARK BAY & NICHOLAS STREET	DBL 8'6" X 6'
RH	R-20	GOLD ST. & PLYMOUTH ST.		-5.67	437.00	RH-004	EAST RIVER & GOLD STREET	168" DIA
TI	10A	144th ST. & 7th AVE.	5'-0"	+8.50	30.34	TI-003	POWELLS COVE n/o 7th AVENUE	8'0" X 8'0"
WI(B)	53	BRUCKNER BLVD. & BROOK AVE.	25'-0"	-7.42	248.67	WI-068	BRONX KILLS & BROOK AVENUE	12' X 9'10"
WI(B)	67	E.192nd ST. W/O BAYLEY AVE.	28'-0"	-3.55	57.85	WI-056	HARLEM RIVER & W. 192nd STREET	DBL 15' X 9' 2-1/8"
WI(M)	23	E.106th ST. & FDR DR.	15'-0"	-3.82	16.84	WI-023	EAST RIVER & E. 106th STREET	DBL 7'6" X 6'

Appendix B

ATTACHMENT 3

Summary of 101 Telemetered Regulators											
No.	WPCP	Reg. No.	Regulator Location	Outfall DPDES No.	Reg. Type	Flow Compartment	Weir Data		Hydraulic Capacity (mgd)	Flow Data	
							Length (ft)	Elev. (ft)		Peak (mgd)	Mean DWF (mgd)
= 27 Key Regulators* = 3 additional Key Regulators											
											01/13/14
1	26W	01	TIDE GATE (26 WARD WPCP)	004	TG.	S.G./72"x56"			N/A	21.71	19.15
2	BBL	02	WILLIAMS & FLATLANDS AVES.	003	HYD.	S.G./48"x36"	68'-0"	-6.00	32.85	11.34	9.80
3	26W	03	CRESENT ST. & FLATLANDS AVE.	005	HYD.	S.G./48"x36"	76'-0"	-6.85	38.53	29.72	24.64
3 Subtotal											
1	BBL	L-04	47th AV. BETW. 28th & 29th ST.	026	HYD	SG/36"x30"	9'-0"	-2.50	24.46	9.57	6.67
2	BBL	L-21	37th AVE. & VERNON BLVD.	028	HYD	SG/30"x24"	22'-6"	-4.00	20.00	14.50	11.19
3	BBL	L-22	VRNON BLVD. & BROADWAY	029	HYD	SG/30"x24"	12'-0"	-5.00	19.72	12.18	9.06
4	BBL	L-23	30th RD. & VERNON BLVD.	030	DC/TG	FO/12"DIA.	2'-0"	-1.75	1.36	N/A	0.21
5	BBL	L-30	ASTORIA PARKS E/O SHORE BLVD.	034	HYD	SG/24"x24"	13'-0"	-0.25	12.67	15.48	12.28
6	BBH	02	45th ST. & PLANT	002	DC/TG	AT THE PLANT	9'-0"	-3.50	N/A	89.08	61.32
7	BBH	03	HAZEN ST. & 19th ST. AVE.	003	DC/TG	FO/18" DIA.	5'-6"	+4.00	7.45	2.16	1.54
8	BBH	06	108th ST. & DTMARS BLVD.	008	DC	FO,DP	4'-0"	+9.00	94.94	N/A	33.29
9	BBH	09	108th ST. & 43rd AVE.	008	DC	FO,DP	5'-0"	+14.80	99.58	49.71	40.27
9 Subtotal											
1	HP	01	E.177th ST. E/O TIERNEY PL.	022	HYD.	S.G./18"x12"	9'-2"	-5.00	4.35	1.52	0.61
2	HP	02	SHORE DR. S/O PENNYFILL AVE.	021	HYD.	S.G./30"x30"	8'-0"	-4.77	13.17	6.56	5.61
3	HP	03	CALHOUN AVE. S/O SCHURZ AVE.	019	HYD.	S.G./12"x12"	8'-0"	-2.88	2.71	1.84	1.30
4	HP	04	BRUSH AVE. & BRUCKNER BLVD.	016	HYD.	S.G./30"x30"	8'-10"	-4.50	9.84	4.18	3.18
5	HP	05	WHITE PL. RD. S/O RIVER AVE.	011	HYD.	S.G./18"x12"	76'-0"	-4.50	1.87	N/A	0.50
6	HP	06	WHITE PL. RD. & O'BRIEN AVE.	011	HYD.	S.G./2EA.72"x48"	8'-0"	-5.00	150.13	81.41	66.49
7	HP	08	TRUXTON ST. & OAKPOINT AVE.	025	HYD.	S.G./24"x24"	9'-0"	-2.92	15.27	6.86	5.30
8	HP	09	TIFFANY ST. & EAST BAY AVE.	002	HYD.	S.G.48"x36"	12'-0"	-3.60	52.54	15.41	11.94
9	HP	10	HUNTS POINT AVE. & RYAWA AVE.	003	HYD.	S.G./2EA.36"x30"	15'-0"	-3.65	56.38	18.01	15.58
10	HP	11	EMERSON & SCHURZ AVENUES	017	HYD.	S.G.18"x18"	16'-6"	-4.00	5.58	2.33	1.40
11	HP	12	ROBINSON & SCHURZ AVENUES	018	HYD.	S.G./12"x12"	4'-0"	-2.72	3.48	0.17	0.09
12	HP	13	METCALF AVE. & SOUNDVIEW PARK	009	HYD.	S.G./2EA.36"x30"	21'-0"	-5.00	51.37	44.07	21.63
13	HP	14	EDGEWATER PARK	026	TG.	F.O.			N/A	N/A	N/A
13 Subtotal											
1	JA	01	JFK AIRPORT	006	DC/TG.	F.O.	12'-0"	+1.00	N/A	N/A	53.95
2	JA	02	79th ST. N. CONDUIT AVE.	26W-005	HYD.	S.G./36"x24"	5'-0"	-0.21	23.14	N/A	2.82
3	JA	03	123rd PLACE & 150th AVE.	003	HYD.	S.G./36"x48"	16'-3"	+3.15	40.92	14.20	11.06
4	JA	09	LNDEN BLVD. & SPRINGFIELD BLVD.	005	DC	F.O.	22'-0"	+27.77	N/A	N/A	8.30
5	JA	14	124th ST. & N.CONDUIT AVE.	003a	HYD.	S.G./24"x18"	30'-0"	-1.35	N/A	3.70	2.69
5 Subtotal											
1	NC (B)	(B-01	RUST ST. & 56th ST.	077	HYD.	S.G./24"x24"	16'-0"	+1.00	15.14	8.07	4.92
2	NC (B)	(B-01	JOHNSON AVE. W/O PORTER AVE.	015	HYD.	S.G./2ea.48"x36"		-4.68	157.45	44.53	36.57
3	NC (B)	(B-04	KENT AVE. & TAYLOR ST.	014	HYD.	S.G./48"x36"	12'-3"	-8.57	41.08	47.68	40.91
4	NC (B)	(B-05	DIVISION AVE. W/O KENT AVE.	013	HYD.	S.G./48"x36"	12'-0"	-4.59	52.86	20.17	17.27
5	NC (B)	(B-06	S.5th AVE. W/O KENT AVE.	012	HYD.	S.G./36"x24"	16'-6"	-2.59	20.95	15.99	11.98
6	NC (B)	(B-09	N.12th ST. & KENT AVE.	006	HYD.	S.G./36"x24"	22'-0"	-5.84	33.10	17.07	12.07
7	NC (M)	(M-01	CLARKSON ST. & WEST ST.	076	HYD	SG/30"x18"	14'-0"	-3.75	14.49	17.89	13.99
8	NC (M)	(M-02	N/O CANAL ST. & WEST ST.	075	HYD	SG/30"x24"	16'-0"	-3.92	18.99	23.15	21.56
9	NC (M)	(M-10	SOUTH ST. N/O BROAD ST.	069	HYD	SG/24"x24"	7'-6"	-4.50	11.57	6.55	4.64
10	NC(M)	(M-16	SOUTH ST. N/O DOVER ST.	078	TG	AT REG. M-17	25'-0"	-6.10	14.53	N/A	N/A
11	NC(M)	(M-17	SOUTH ST. & ROBERT WAGNER SR. PL.	066	HYD	SG/24"x12"	7'-6"	-3.79	6.37	9.54	6.00
12	NC(M)	(M-19	SOUTH ST. S/O CATHERINE SLIP	050	HYD	SG/24"x24"	5'-6"	-3.13	12.75	15.00	11.50
13	NC(M)	(M-21	SOUTH ST. & JEFFERSON ST.	063	HYD	SG/24"x18"	14'-0"	-3.71	8.71	6.84	5.00
14	NC(M)	(M-36	FDR DR. & E.14th ST.	052	HYD	SG/36"x24"	12'-0"	-3.83	22.61	N/A	7.43
15	NC(M)	(M-37	E.18th ST. & AVE.C	049	HYD	SG/30"x24"	13'-0"	-4.00	19.15	12.22	6.30
16	NC(M)	(M-40	FDR DR. & E.26th ST.	045	HYD	SG/24"x24"	19'-6"	-3.45	15.88	10.82	8.09
17	NC(M)	(M-42	E.33rd ST. E/O 1st AVE.	041	HYD	SG/24"x18"	19'-6"	-4.00	12.96	10.00	6.80
18	NC(M)	(M-44	E.41st ST. E/O 1st AVE.	037	HYD	SG/30"x24"	12'-0"	+2.85	28.82	12.05	6.62
19	NC(M)	(M-47	FDR DR. & E.49th ST.	036	HYD	SG/42"x36"	12'-0"	-0.85	49.82	34.73	15.99
20	NC(M)	(M-50	FDR DR. & E.61st ST.	032	HYD	SG/2ea.36"x24"	18'-0"	-1.35	48.30	26.76	16.65
20 Subtotal											
1	NR	N-03	W.201st ST. & HARLEM RIVER	017	HYD	SG/30"x24"	6'-0"	-2.60	17.82	27.54	11.85
2	NR	N-16	DYKMAN ST. & HENRY HUDSON PKWY.	006	HYD	SG/30"x24"	18'-0"	-1.28	22.19	9.51	3.94
3	NR	N-18	RIVERSIDE DR. & W.172nd ST.	004	HYD	SG/30"x30"	5'-0"	+39.00	26.51	8.84	7.17
4	NR	N-23	ST. CLAIR PLACE & 12th AVE.	043	HYD	SG/36"x24"	18'-0"	-3.40	50.04	53.32	35.11
5	NR	N-26	RIVERSIDE PARK & W.96th ST.	040	HYD	SG/2ea.30"x24"			68.55	7.85	4.82
6	NR	N-28	RIVERSIDE PARK & W.80th ST.	038	HYD	SG/42"x36"	9'-6"	+14.80	45.16	16.82	15.69
7	NR	N-29A	FREEDOM PL. & W.66th ST.	046	HYD	SG/36"x24"	5'-6"	+10.00	32.48	N/A	7.45
8	NR	N-33	TWELFTH AVE. & W.48th ST.	033	HYD	SG/2ea.42"x30"	9'-0"	-2.41	96.75	29.24	23.71
9	NR	N-45	TWELFTH AVE. & W.30th ST.	027	HYD	SG/2ea.30"x24"	25'-6"	-3.90	49.89	N/A	8.47
10	NR	N-50	ELEVENTH AVE. & W.18th ST.	023	HYD	SG/36"x30"	11'-0"	-3.49	31.65	8.95	6.09
10 Subtotal											
1	OH	O1	92nd ST. & BELT PKWY	017	HYD.	S.G./2ea.72"x48"	18'-0"	-1.34	116.79	46.11	36.85
2	OH	O3	79th ST. E/O BELT PKWY (IN PARK)	018	HYD.	S.G./1ea.36"x24"	11'-0"	-3.24	9.89	0.04	0.03
3	OH	O4	71st ST. E/O BELT PKWY (IN PARK)	019	HYD.	S.G./1ea.24"x18"	4'-6"	-3.84	6.07	2.77	1.94
4	OH	O6	64th ST. IN RR YARD	002	HYD.	S.G./2ea.66"x36"			151.70	118.28	70.33
5	OH	O7	49th ST. & 1st AVE.	003	HYD.	S.G./1ea.60"x36"			41.41	22.59	19.35
6	OH	O10	23rd AVE. & 82rd ST.								0.25
7	OH	O11	AVE. V & W.11th ST.	N/A	HYD	S.G./30" x 30"					
8	OH	O7D	43rd ST. & 1st AVE.	004	TG.	F.O.			N/A	N/A	N/A
9	OH	O9A	17th AVE. & BATH AVE.	015	DC.	80" INT. SEWER			N/A	53.03	36.10
10	OH	O9B	17th AVE. & 72nd ST.	015	DC.				N/A	N/A	N/A
10 Subtotal											
1	PR	R-13E	CANAL ST. & FRONT ST	031	HYD.	S.G./30"x30"	21'-0"	-4.35	34.85	N/A	N/A
2	PR	R-35W	BODINE ST. & RICHMOND TERR.	035	MECH.	S.G./12"DIA.	18" DIA	-0.58	57.47	30.87	21.55
3	PR	R-06W	RICHMOND TERR. & NICHOLAS AVE.	029	HYD.	S.G./30"x24"	24" DIA	3.35	26.37	10.90	7.90
3 Subtotal											
1	RH	R-02	WOLCOTT ST. & CONOVER ST.	028	HYD.	S.G./2EA.36"x24"	11'-0"	-2.74	37.85	17.67	11.49
2	RH	R-20	GOLD ST. @ PLYMOUTH ST.	004	HYD.	S.G./2EA.48"x36"	13'-6"	-4.57	109.70	43.70	26.23
3	RH	R-21	HUDSON AV. @ PLYMOUTH ST.	003	HYD.			-2.07	2.84	11.00	6.92
3 Subtotal											
1	RK	O1	B.106th ST. & BEACH CHANNEL DR.	029	MECH.	S.G./2EA.40.75"x24"	5'-6"	-6.00	103.98	13.89	10.99
1 Subtotal											
1	TI	O2	LINDEN PL. & 32nd AVE.	011	HYD.	F.O. 60"DIA.	15'-9"	+4.75	103.40	46.74	32.56
2	TI	10A	144th ST. & 7th AVE.	003	DC.	F.O. 12"DIA.	5'-0"	+6.50	30.34	9.89	N/A
3	TI	13	15th DR. & WILLETTS POINT BLVD.	013	HYD.	S.G./24"x18"	9'-0"	+24.65	12.78	3.87	2.81
4	TI	30	QUINCE AVE. & WISSENA BLVD.	010	MECH.	S.G./19"x33"	10'-0"	+1.88	5.45	5.27	2.10
5	TI	40	FRESH MEADOW LA. & PECK AVE.	010	HYD.	S.G./36"x28"	11'-6"	+19.05	24.31	7.56	5.00
6	TI	46	210th ST. & UE (N.5)	008	DC.	F.O./30"DIA.	12'-0"	+51.10	15.91	4.90	2.54
7	TI	47	218th ST & UE (N.5)	008	DC.	F.O.	7'-6"	+69.40	12.48	0.80	0.61
8	TI	49	220th PL. & 46th AVE.	008	DC.	F.O./12"DIA.	6'-6"	+44.50	1.57	0.43	0.23
8 Subtotal											
1	WI(M)	O2B	N/O E. 74th ST. & FDR DR.	003	HYD.	S.G./30"x24"			26.00	N/A	N/A
2	WI(M)	O7	E.79th ST. & FDR DR.	008	HYD.	S.G./30"x24"	4'-4"	-2.14	22.27	11.98	8.00
3	WI(M)	23	E.106th ST. & FDR DR.	023	HYD.	S.G./30"x24"	15'-0"	-3.82	16.84	10.17	6.81
4	WI(M)	24	E.110th ST. & FDR DR.	024	HYD.	S.G./48"x36"	17'-0"	-4.57	38.28	14.63	10.70
5	WI(M)	38	E.135th ST. & E/O HARLEM R. DR.	038	HYD.	S.G./24"x24"	5'-0"	-4.30	15.36	13.38	10.63
6	WI(M)	45	W.147th ST. & IRT YARD	045	MAN.	S.G./18"x18"	7'-6"	-4.47	7.29	6.88	5.28
7	WI(M)	46	W.151st ST. & PLAYGROUND	046	HYD.	S.G./30"x24"	13'-0"	-3.50	19.36		