Environmental Protection

Caswell F. Holloway
Commissioner

Paul V. Rush, P.E.
Deputy Commissioner
Bureau of Water Supply
prush@dep.nyc.gov

59-17 Junction Blvd.
Flushing, NY 11373
T: (845) 340-7800
F: (845) 334-7175

February 10, 2011

Deborah B. Zwany
U.S. Attorney's Office
USAO File No: 9701387
Civil Division
271 Cadman Plaza East
Brooklyn, New York 11201

Chief, Environmental Enforcement Section
Ref. #90-5-1-1-4429
U.S. Department of Justice -EES
P.O. Box 7611, Ben Franklin Station
Washington, D.C. 20044

United States Environmental Protection Agency
Region 2, Water Compliance Branch
Attn: Doughlas McKenna
Public Water Supply Enforcement Team
290 Broadway, 20th Floor
New York, New York 10007-1866

Deputy Bureau Chief, Environmental Protection Bureau
New York State Attorney General's Office
120 Broadway
New York, New York 10271

Pamela L Young, Ph. D.
New York State Department of Health
Bureau of Water Supply Protection
Flanigan Square
547 River Street
Room 400, 4th Floor
Troy, New York 12180-2216

RE: Croton Water System Consent Decree Monitoring Report: **January 2011**

Dear Sirs/Madam:

Pursuant to the terms of the December 17, 1997 Consent Decree on Croton, the following monthly monitoring information, summarized below, has been enclosed for your review.

Stream and Limnology data has been combined and reported under the heading "Stream Monitoring".

There was no Croton water in NYC distribution this month.

1. *Raw Water Fecal Coliform Concentrations* (Section 141.71 (a)(1)) (Section 141.74 (b)(1)):
Requirements met. There was no Croton water in NYC distribution this month.

2. *Raw Water Turbidity* (Section 141.71(a)(2)) (Section 141.74 (b)(2)):
Requirements met. There was no Croton water in NYC distribution this month.

3. *Raw Water Disinfection/CT Values* (Section 141.71(b)(1)(I)) (Section 141.74 (b)(3) and (4)):
Requirements met. There was no Croton water in NYC distribution this month.

4. *Entry Point Chlorine Residual* (Section 141.72(a)(3)) (Section 141.74 (b)(5)):
Requirements met. There was no Croton water in NYC distribution this month.

5. *Distribution System Disinfection Residuals* (Section 141.72(a)(4)) (Section 141.74 (b)(6)):
Requirements met. There was no Croton water in NYC distribution this month.

6. *Trihalomethane Monitoring* (Section 141.71(b)(6)) / *HAA5 Monitoring* (Section 141.171):
Requirements met. Results for the fourth quarter of 2010 were included in the Report dated December 10, 2010 (for the November 2010 reporting period).

7. *Total Coliform Monitoring* (Section 141.71(b)(5)):
Requirements met. There was no Croton water in NYC distribution this month.

8. *New Croton Reservoir and Jerome Park Reservoir Operations*:
There was no Croton water in NYC distribution this month.

9. *Source Water Pathogen Monitoring* (Decree item VII.A.1): Weekly monitoring at New Croton Reservoir Effluent (CROGH, or alternate) including human enteric viruses. *Giardia* were detected in five (5) samples. *Cryptosporidium* were not detected. Virus data are pending.

10. *Watershed Pathogen Monitoring* (Decree item VII.A.1):
a) Monitoring monthly for *Giardia* and *Cryptosporidium* and annual for human enteric viruses at:

Muscoot Reservoir	Pathogens detected. No virus sample required.
Croton Falls	No pathogens sample required. No virus sample required.
Cross River	No pathogen sample required. No virus sample required.
Haviland Hollow Site 7 (HH7)	Pathogens detected. No virus sample required.
Willow Farm (WF)	Pathogens detected. No virus sample required.

b) Monitoring monthly for *Giardia* and *Cryptosporidium* and bi-monthly for human enteric viruses at:

Downstream from Brewster Sewage Treatment Plant:

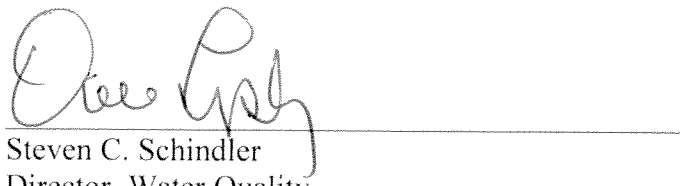
No Pathogens detected.
Virus data are pending.

Stream Monitoring: Stream and release monitoring in January 2011 consisted of East of Hudson Field Operations sampling 40 stream and release sites in the Croton watershed for coliform bacteria. Of these sites, 7 were reservoir release sites and 33 were stream sites. The Boyds Corner Reservoir Release, BOYDR, was unsafe for second sampling due to snow and ice cover, but all other stream and release sites were sampled twice. The alternate site DIVERT2R was sampled in lieu of the regular release site DIVERTR due to dam reconstruction. Reservoir sampling in January was suspended due to ice cover. In comparison with NYS Ambient Water Quality Standards in 6NYCRR§703.4 for coliform bacteria, two (2) samples showed elevated total coliform bacteria levels and four (4) samples showed elevated fecal coliform bacteria levels.

Please feel free to contact me at (845) 340-7701 if you would like to discuss any of this information in greater detail.

CERTIFICATION

I certify, under penalty of law, that the information contained in or accompanying this submission is true, accurate and complete based upon the representations as to accuracy and completeness made to me either orally or through submission of documentation by appropriate personnel with responsibility for the matters contained herein.



Steven C. Schindler
Director, Water Quality

Enclosure

xc: Mr. Philip Sweeney, USEPA
Mr. C. Boyd, NYCDOHMH
Mr. K. Kosinski, NYSDEC
Mr. Eric Goldstein, NRDC

bxc:
Hardcopy cover only:
C. Holloway, Commissioner
D. Lipsky
A. Licata
J. Mueller
Hardcopy cover w/ all attachments:
P. Rush
V. Rao
R. Levine
C.Orr/File
Electronic file and hardcopy w/ all attachments:
O. Larsen
T. Tipa
L. Emery
Electronic file only:
L. Ganson
E. Coleman
L. Janus
J. Morris
C. Glaser
J. Graf
R. Kowalczyk
K. Alderisio
C. Cutietta-Olson
A. Seeley
S. Freud
V. LoMonaco
Carrie Noteboom, NYC Law Dept.
Ms. Susan Amron, NYC Law Dept
Ms. K. Argenti, Croton CAC
T. Johnstone
W. Melendez, P.E.
R. Rossbach
L. Lu
Ms. Gina D'Agrosa, Westchester County Water Agency

RAW WATER FECAL COLIFORM CONCENTRATIONS

Croton System Raw Water Fecal Coliform Report

From: Nov-08 To: Jan-11

Month/Year	Number of Fecal Coliform Samples Examined per Month	Number of Fecal Coliform Samples with >20 cfu/100mL per Month	Percent of Monthly Fecal Coliform Samples with >20 cfu/100mL	Percent of Fecal Coliform Samples with >20 cfu/100mL for Previous Six Months
Nov-08	30	0	0.00	0.00
Dec-08	11	0	0.00	0.00
Jan-09	0	0	0.00	0.00
Feb-09	0	0	0.00	0.00
Mar-09	0	0	0.00	0.00
Apr-09	0	0	0.00	0.00
May-09	0	0	0.00	0.00
Jun-09	0	0	0.00	0.00
Jul-09	0	0	0.00	0.00
Aug-09	0	0	0.00	0.00
Sep-09	0	0	0.00	0.00
Oct-09	0	0	0.00	0.00
Nov-09	0	0	0.00	0.00
Dec-09	0	0	0.00	0.00
Jan-10	0	0	0.00	0.00
Feb-10	0	0	0.00	0.00
Mar-10	0	0	0.00	0.00
Apr-10	0	0	0.00	0.00
May-10	0	0	0.00	0.00
Jun-10	0	0	0.00	0.00
Jul-10	0	0	0.00	0.00
Aug-10	0	0	0.00	0.00
Sep-10	0	0	0.00	0.00
Oct-10	0	0	0.00	0.00
Nov-10	0	0	0.00	0.00
Dec-10	0	0	0.00	0.00
Jan-11	0	0	0.00	0.00

Report by: Dale Borchert title: Section Chief, Kensico WQ Operations 2/8/2011

RAW WATER TURBIDITY

COLIFORMS CODING
Kensico Laboratory, ELAP ID Number 10771
Effective: 5/4/09

CODE	DEFINITION: Appearance of Plate(s)
NO CODE	No code is used when total coliform plates result in colony counts in the ideal (20-80) range (or 20-60 for fecal coliforms) and there are <200 colonies of all types on the plate (i.e., the sum of the sheen plus non-sheen or blue plus non-blue colonies is <200). OR No code is also used when the total or fecal coliform colony counts are above or below ideal (20-80 for total coliform and 20-60 for fecal coliform) range and there are <200 colonies of all types on the plate.
< Dilution Factor	If there are no positive sheen or blue colonies on the plate and there are <200 colonies of all types on the plate the result is reported as "< dilution factor".
GC	Confluent Growth is used to describe the condition in which too many colonies are located so closely together that one colony cannot be distinguished from another. If confluent growth overwhelms the entire plate and there is no indication of the presence of either any sheen or blue colonies, the result will be reported as "GC".
GC+	In the case above if the presence of any sheen or blue colonies is detected, a plus (+) code will be added indicating the presence of total or fecal coliform. These data can be utilized for qualitative purposes only.
TNTC	When colony counts are not in the ideal range and there are >200 colonies of all types on the plate, the result is reported as too numerous to count (TNTC).
TNTC+	In the case above if the presence of any sheen or blue colonies is detected, a plus (+) code will be added indicating the presence of total or fecal coliform. These data can be used for qualitative purposes only.
>=	When colony counts are in the ideal range and there are >200 colonies of all types on the plate, the result will be reported with the greater than or equal to code (>=).
HTE	If samples were not received at the laboratory and analyzed within the 8 hour (for non-potable water samples) or 30 hour (for fully processed drinking water samples) holding time, the result reported as coliform/100mL will be coded with "HTE". The HTE code may be used in conjunction with any other code.

NYC-DEP Bureau of Water Supply — WATER SYSTEMS OPERATION REPORT

Kensico Laboratory, ELAP ID No. 10771 — Unfiltered Surface Water Systems
Name of Public Water System: CROTON — Reporting Month/Year: 01-2011
Location: Gatehouse [CRO1T] — County: Westchester

	RAW WATER TURBIDITY								RAW WATER COLIFORMS	
DATE	Raw Water Turb. Midnt	Raw Water Turb. 4 am	Raw Water Turb. 8 am	Raw Water Turb. noon	Raw Water Turb. 4 pm	Raw Water Turb. 8 pm	AVG 24 hr Turb.	***	Raw Water Total Coli per 100 ml Colonies	Raw Water Fecal Coli per 100 ml Colonies
01	.	.	.	.	.	.	.	***	3	1
02	.	.	.	.	.	.	.	***	7	3
03	.	.	.	.	.	.	.	***	<5	8
04	.	.	.	.	.	.	.	***	20	1
05	.	.	.	.	.	.	.	***	6	2
06	.	.	.	.	.	.	.	***	6	1
07	.	.	.	.	.	.	.	***	1	2
08	.	.	.	.	.	.	.	***	6	4
09	.	.	.	.	.	.	.	***	4	2
10	.	.	.	.	.	.	.	***	4	1
11	.	.	.	.	.	.	.	***	20	1
12	.	.	.	.	.	.	.	***	4	2
13	.	.	.	.	.	.	.	***	9	4
14	.	.	.	.	.	.	.	***	6	<1
15	.	.	.	.	.	.	.	***	4	<1
16	.	.	.	.	.	.	.	***	4	<1
17	.	.	.	.	.	.	.	***	3	2
18	.	.	.	.	.	.	.	***	12	<1
19	.	.	.	.	.	.	.	***	<5	<1
20	.	.	.	.	.	.	.	***	3	1
21	.	.	.	.	.	.	.	***	5	<1
22	.	.	.	.	.	.	.	***	4	2
23	.	.	.	.	.	.	.	***	3	3
24	.	.	.	.	.	.	.	***	<2	1
25	.	.	.	.	.	.	.	***	3	1
26	.	.	.	.	.	.	.	***	2	<1
27	.	.	.	.	.	.	.	***	<1	<1
28	.	.	.	.	.	.	.	***	1	<1
29	.	.	.	.	.	.	.	***	1	<1
30	.	.	.	.	.	.	.	***	2	1
31	.	.	.	.	.	.	.	***	5	1

. = Aqueduct Shutdown, CONF = Confluent Growth, LE = Lab Error, FE = Field Error
All results that fall within the scope of the NELAP program meet that program's requirements unless stated in the comments and methods tables.

Population Served:_____

1. Does a raw water turbidity M & R violation exist? __Yes __No
2. Does the turbidity reading exceed 5 NTU at any time? __Yes __No
   If yes, check for MCL violation, and notify state by end of next business day.
3. Minimum number of microbiological samples required per week_____.
4. A daily microbiological sample is required every day the raw water turbidity exceeds 1 NTU.

COMMENTS: Croton water was not used by NYC during January.
There was a power outage at Croton Gatehouse 1 for most of the month. As a result, Croton samples were collected at site CRO183 on January 4, 11, 15, 18-19, 21 and 24, and at CRO1D on January 1-3, 5-1, 12-14, 16-17, 20 and 23.

Reported By: Dale Borchert Title: Section Chief, Kensico Water Quality Operations Date: 2/8/11
KCS/2011

RAW WATER DISINFECTION/CT VALUES

Croton System

One Segment - Croton Lake Gatehouse to Jerome Reservoir, Gatehouse 5

DATE	Max. Aqueduct Flow (MGD)	Contact Time (minutes)	Free Chlorine Residual (mg/L)	pH	Temp. (Celsius)	Calculated CT	Net Required CT	Inactivation Ratio
1-Jan-11	.	.	.	.	.	.	.	.
2-Jan-11	.	.	.	.	.	.	.	.
3-Jan-11	.	.	.	.	.	.	.	.
4-Jan-11	.	.	.	.	.	.	.	.
5-Jan-11	.	.	.	.	.	.	.	.
6-Jan-11	.	.	.	.	.	.	.	.
7-Jan-11	.	.	.	.	.	.	.	.
8-Jan-11	.	.	.	.	.	.	.	.
9-Jan-11	.	.	.	.	.	.	.	.
10-Jan-11	.	.	.	.	.	.	.	.
11-Jan-11	.	.	.	.	.	.	.	.
12-Jan-11	.	.	.	.	.	.	.	.
13-Jan-11	.	.	.	.	.	.	.	.
14-Jan-11	.	.	.	.	.	.	.	.
15-Jan-11	.	.	.	.	.	.	.	.
16-Jan-11	.	.	.	.	.	.	.	.
17-Jan-11	.	.	.	.	.	.	.	.
18-Jan-11	.	.	.	.	.	.	.	.
19-Jan-11	.	.	.	.	.	.	.	.
20-Jan-11	.	.	.	.	.	.	.	.
21-Jan-11	.	.	.	.	.	.	.	.
22-Jan-11	.	.	.	.	.	.	.	.
23-Jan-11	.	.	.	.	.	.	.	.
24-Jan-11	.	.	.	.	.	.	.	.
25-Jan-11	.	.	.	.	.	.	.	.
26-Jan-11	.	.	.	.	.	.	.	.
27-Jan-11	.	.	.	.	.	.	.	.
28-Jan-11	.	.	.	.	.	.	.	.
29-Jan-11	.	.	.	.	.	.	.	.
30-Jan-11								
31-Jan-11								

Note: the dates associated with these data are for Water Days, which run from 8:00 am to 8:00 am, ending on the date shown.

The Croton System was not used by NYC during the month of January.

Reported By: Dale Borchert Title: Section Chief, Kensico Water Quality Operations Date: 2/8/11

NEW CROTON RESERVOIR AND JEROME PARK RESERVOIR OPERATIONS

New York City Department of Environmental Protection
Bureau of Water Supply
Croton Reservoir Monthly Chemical Use and Flow Report

Public Water System Identification Number (PWSID): NY7003666

Date is 24 hour "Water Day" from 8:00 am of the date specified to 8:00 am of the next day. *Bold italic entry signifies not into distribution.*

Date	Croton Lake Gatehouse			Dunwoodie	
		Chlorination			Fluoridation
	Flow (MG)	Chlorine Gas Added (lbs)	Draft Location	Flow (MG)	Liquid Fluorosilicic Acid Added (lbs)
01/01/11	0	0	CLOSED	0	0
01/02/11	0	0	CLOSED	0	0
01/03/11	0	0	CLOSED	0	0
01/04/11	0	0	CLOSED	0	0
01/05/11	0	0	CLOSED	0	0
01/06/11	0	0	CLOSED	0	0
01/07/11	0	0	CLOSED	0	0
01/08/11	0	0	CLOSED	0	0
01/09/11	0	0	CLOSED	0	0
01/10/11	0	0	CLOSED	0	0
01/11/11	0	0	CLOSED	0	0
01/12/11	0	0	CLOSED	0	0
01/13/11	0	0	CLOSED	0	0
01/14/11	0	0	CLOSED	0	0
01/15/11	0	0	CLOSED	0	0
01/16/11	0	0	CLOSED	0	0
01/17/11	0	0	CLOSED	0	0
01/18/11	0	0	CLOSED	0	0
01/19/11	0	0	CLOSED	0	0
01/20/11	0	0	CLOSED	0	0
01/21/11	0	0	CLOSED	0	0
01/22/11	0	0	CLOSED	0	0
01/23/11	0	0	CLOSED	0	0
01/24/11	0	0	CLOSED	0	0
01/25/11	0	0	CLOSED	0	0
01/26/11	0	0	CLOSED	0	0
01/27/11	0	0	CLOSED	0	0
01/28/11	0	0	CLOSED	0	0
01/29/11	0	0	CLOSED	0	0
01/30/11	0	0	CLOSED	0	0
01/31/11	0	0	CLOSED	0	0
Total	**0**	**0**	**0**	**0**	0
Average	**0**	**0**		**0**	0

Reported by: DANIEL J MASSI Title: Regional Chief Supervisor Operator NYS DOH Operator #: NY 0033258

Signature: Daniel J Massi Date: 2/7/11 Operator Grade Level: 1B-GW

New York City Department of Environmental Protection
Bureau of Water and Sewer Operations
Jerome Park Reservoir Monthly Chemical Use and Flow Report

Month/Year: January 2011

Public Water System Identification Number NY7003666

1	2	3		4	5			6	7	8
	Croton	Gatehouse # 5							Gatehouse # 7	
	Lake Gatehouse	Shaft # 21			East Bronx			Jerome Pump Station	Mosholu Pump Station	
Date	Flow MGD	Flow MGD	Chlorine PPD	36% PO4 GPD	Flow MGD	Chlorine PPD	36% PO4 GPD	Flow MGD	Flow MGD	Chlorine PPD
1/1/11	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown
1/2/11	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown
1/3/11	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown
1/4/11	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown
1/5/11	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown
1/6/11	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown
1/7/11	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown
1/8/11	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown
1/9/11	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown
1/10/11	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown
1/11/11	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown
1/12/11	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown
1/13/11	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown
1/14/11	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown
1/15/11	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown
1/16/11	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown
1/17/11	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown
1/18/11	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown
1/19/11	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown
1/20/11	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown
1/21/11	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown
1/22/11	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown
1/23/11	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown
1/24/11	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown
1/25/11	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown
1/26/11	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown
1/27/11	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown
1/28/11	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown
1/29/11	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown
1/30/11	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown
1/31/11	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown	Shutdown
Total	0	0	0	0	0	0	0	0	0	0
Average	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!	#DIV/0!

(G. Rossbach)

Checked by assistant operator

Print & Sign V. Rao

Reviewed by operator

2/9/11
Date

2/9/11
Date

NY 0037293
WPO License #

NY 0031922
WPO License #

Date is 24 hour "Water Day" from 8:00 am of the date specified to 8:00 am of the next day
CLGH Croton Lake Gatehouse
MGD Million Gallons Per Day
PPD Pounds Per Day
GPD Gallons Per Day
PO4 Phosphoric Acid

Created on 3/5/07

PATHOGEN MONITORING

NEW YORK CITY DEPARTMENT OF ENVIRONMENTAL PROTECTION

GLOSSARY OF TERMS

Pathogen Monitoring Section
Croton Consent Decree Report

1623HV - USEPA Method 1623 variation using higher volume, 50 liters (L), as opposed to 10 liters (L)

ICR - USEPA Information Collection Rule Method

CROGH - New Croton Reservoir effluent; New Croton Gate House

CRO1T - New Croton Reservoir effluent; New Croton Gate House alternate site 1

CRO1B - New Croton Reservoir effluent; New Croton Gate House alternate site 2

BSTP - Brewster Waste Water Treatment Plant Effluent

MUSCOOTR - Muscoot Reservoir Release

HH7 (FORMERLY HHB) - Haviland Hollow Brook

WF (FORMERLY TRTIT) - Agricultural Drainage Basin Stream below Willow Farm

CROFALLSR - Croton Falls Reservoir Release

MPN/100L - Most Probable Number per 100 liters (L)

NI – Non Isolated

Croton Consent Decree Monthly Report - Pathogen Monitoring

Watershed Water Quality Science and Research, Pathogen Planning and Assessment

Environmental Protection

Results for period January 2010 to January 2011

Report Updated on 2/7/2011 - Report generated from WWQO STARLIMS

New Croton Reservoir Effluent

** Alternate site sampled to best represent CROGH during "off line" status.*

Site	Collection Date	Total *Giardia*	Total *Cryptosporidium*	Volume Analyzed for Protozoans (Liters)	Virus Sampling MPN/100L
CROHB*	01/04/2010	1	0	50	NI
CROHB*	01/11/2010	3	0	50	NI
CROHB*	01/19/2010	2	0	50	NI
CROHB*	01/25/2010	3	0	50	NI
CROHB*	02/01/2010	2	0	50	NI
CROHB*	02/08/2010	1	0	50	NI
CROHB*	02/16/2010	1	0	50	NI
CROHB*	02/22/2010	1	0	50	NI
CROH43*	03/01/2010	3	0	50	NI
CROHT*	03/08/2010	3	0	50	1.03
CROHB*	03/15/2010	0	0	50	NI
CROHB*	03/22/2010	3	1	50	NI
CROHB*	03/29/2010	3	0	50	NI
CROHB*	04/05/2010	1	0	50	NI
CROHB*	04/12/2010	2	0	50	NI
CROHB*	04/19/2010	0	0	50	NI
CROHB*	04/26/2010	1	1	50	NI
CROHB*	05/03/2010	0	0	50.0	NI
CROH83*	05/10/2010	1	0	50.0	NI
CROGH	05/17/2010	1	0	50.0	NI
CROGH	05/24/2010	2	0	50.0	NI
CROGH	06/01/2010	1	0	50.0	NI
CROGH	06/07/2010	1	0	50.0	NI
CROGH	06/14/2010	0	0	51.0	NI
CROGH	06/21/2010	0	0	50.0	NI
CROGH	06/28/2010	0	0	50.0	NI
CROGH	07/06/2010	0	0	50.0	NI
CROGH	07/12/2010	1	0	50.0	NI
CROGH	07/19/2010	0	0	50.0	NI
CROGH	07/26/2010	0	0	50.0	NI
CROGH	08/02/2010	0	0	50.0	NI
CROGH	08/09/2010	0	0	50.0	NI
CROGH	08/16/2010	0	0	50.0	NI
CROGH	08/23/2010	1	0	50.0	NI
CROGH	08/30/2010	0	0	50.0	Fail
CROGH	09/07/2010	0	0	50.0	NI
CROGH	09/13/2010	0	0	50.0	NI
CROGH	09/20/2010	0	0	50.0	NI
CROHT*	09/27/2010	0	0	50.0	NI
CROHT*	10/04/2010	0	0	50.2	NI
CROHT*	10/12/2010	0	0	50.0	NI
CROHT*	10/18/2010	0	0	50.0	NI
CROHT*	10/25/2010	2	0	50.0	NI
CROHT*	11/01/2010	1	0	50.0	NI
CROHT*	11/08/2010	1	0	50.0	NI
CROHT*	11/15/2010	1	0	50.0	NI
CROHT*	11/22/2010	1	0	50.0	NI
CROHT*	11/29/2010	0	0	50.0	NI
CROHT*	12/06/2010	1	0	50.0	NI
CROH43*	12/13/2010	4	1	50.0	NI
CROHT*	12/20/2010	0	0	50.0	NI
CROH86*	12/28/2010	0	1	50.0	3.251
CROH83*	01/03/2011	3	0	50.0	Pending
CROH83*	01/10/2011	2	0	50.0	Pending
CROH83*	01/18/2011	1	1	50.0	Pending
CROH83*	01/24/2011	2	0	50.0	Pending
CROH83*	01/31/2011	2	0	50.0	Pending

NSR – No Sample Required

NI – None Isolated

Giardia and *Cryptosporidium* processed using EPA Method 1623 HV

Virus sampling processed using ICR Protocol

As of 8/1/2010 sample volumes will be reported to the nearest tenth of a liter

2/7/11

Brewster Sewage Treatment Plant

Site	Collection Date	Total *Giardia*	Total *Cryptosporidium*	Volume Analyzed for Protozoans (Liters)	Virus Sampling MPN/100L
BSTP	01 12 2010	1	0	50	NI
BSTP	02 09 2010	0	0	50	NSR
BSTP	03 02 2010	1	0	50	NI
BSTP	04 13 2010	0	0	50	NSR
BSTP	05 11 2010	0	0	50 6	NSR
BSTP	06 12 2010	NSR	NSR	NSR	NI
BSTP	06 08 2010	0	0	50 0	NSR
BSTP	07 13 2010	0	0	50 0	NI
BSTP	08 10 2010	0	0	50 0	NSR
BSTP	09 14 2010	215	0	47 0	NI
BSTP	09 53 2010	2	0	50 0	NSR
BSTP	10 19 2010	1	0	50 0	NSR
BSTP	11 09 2010	0	0	50 0	NI
BSTP	12 14 2010	0	0	50 0	NSR
BSTP	01 11 2011	0	0	50 0	Pending

Muscoot Reservoir Release

Site	Collection Date	Total *Giardia*	Total *Cryptosporidium*	Volume Analyzed for Protozoans (Liters)	Virus Sampling MPN/100L
MUSCOOTR	01/11/2010	6	0	50	NSR
MUSCOOTR	02 09/2010	4	0	50	NSR
MUSCOOTR	03 16 2010	10	0	50	NI
MUSCOOTR	04 13 2010	0	0	50	NSR
MUSCOOTR	05 11 2010	0	0	50 0	NSR
MUSCOOTR	06 08 2010	1	0	50 0	NSR
MUSCOOTR	07 13 2010	0	0	50 0	NSR
MUSCOOTR	08 10 2010	0	0	47 0	NSR
MUSCOOTR	09 14 2010	0	0	46 6	NSR
MUSCOOTR	10 19 2010	1	0	50 0	NSR
MUSCOOTR	11 09 2010	1	0	50 0	NSR
MUSCOOTR	12 14/2010	55	0	50 0	NSR
MUSCOOTR	01 11 2011	19	1	50 0	NSR

Haviland Hollow Brook site 7

Site	Collection Date	Total *Giardia*	Total *Cryptosporidium*	Volume Analyzed for Protozoans (Liters)	Virus Sampling MPN/100L
HH7	01/12 2010	24	1	50	NSR
HH7	02/09/2010	24	1	50	NSR
HH7	03/02 2010	12	0	50	5 75
HH7	04 13/2010	6	0	50	NSR
HH7	05 11 2010	4	0	50 0	NSR
HH7	06 08 2010	12	0	50 0	NSR
HH7	07 13 2010	1	0	50 0	NSR
HH7	08 10 2010	3	1	50 0	NSR
HH7	09 14 2010	3	0	50 0	NSR
HH7	10 19 2010	233	0	50 0	NSR
HH7	11 09/2010	20	0	50 0	NSR
HH7	12/14 2010	65	0	50 0	NSR
HH7	01 11/2011	226	0	50 0	NSR

NSR No Sample Required
NI None Isolated

Giardia and *Cryptosporidium* processed using EPA Method 1623 HV
Virus sampling processed using ICR Protocol
As of 5/1/2010 sample volumes will be reported to the nearest tenth of a liter

2/7/11

Willow Farm

Site	Collection Date	Total *Giardia*	Total *Cryptosporidium*	Volume Analyzed for Protozoans (Liters)	Virus Sampling MPN/100L
WF	01 12 2010	8	1	50	NSR
WF	02 09 2010	3	0	50	NSR
WF	03 02 2010	3	0	50	NI
WF	04 13 2010	0	2	50	NSR
WF	05 11 2010	0	1	50.2	NSR
WF	06 08 2010	0	1	50.0	NSR
WF	07 13 2010	Cancel	Cancel	Cancel	NSR
WF	08 11 2010	Cancel	Cancel	Cancel	NSR
WF	09 14 2010	Cancel	Cancel	Cancel	NSR
WF	10 19 2010	2	0	50.0	NSR
WF	11 09 2010	5	2	50.0	NSR
WF	12 14 2010	21	0	50.0	NSR
WF	01 11 2011	Fail	Fail	N A	NSR
WF	01 24 2011	9	0	50.0	NSR

Croton Falls Reservoir Release

Site	Collection Date	Total *Giardia*	Total *Cryptosporidium*	Volume Analyzed for Protozoans (Liters)	Virus Sampling MPN/100L
CROFALLSR	03 16 2010	NSR	NSR	NSR	NI

Cross River Reservoir Release

Site	Collection Date	Total *Giardia*	Total *Cryptosporidium*	Volume Analyzed for Protozoans (Liters)	Virus Sampling MPN/100L
CROSSRVR	03 16 2010	NSR	NSR	NSR	NI

NSR = No Sample Required
NI = None Isolated

Giardia and *Cryptosporidium* processed using EPA Method 1623 HV
Virus sampling processed using ICR Protocol
As of 5 1 2010, sample volumes will be reported to the nearest tenth of a liter

2/4/11

100 organisms were characterized by DIC and Dapi. Remaining organisms were uncharacterized and counted only.

Site	Sample Date	Affect on Sample	Analytes Affected
BSTP	09/14/2010	Warning	Giardia
HH7	10/19/2010	Warning	Giardia
HH7	01/11/2011	Warning	Giardia

EAL Lab comment - Original flasks were examined, and they were positive for bacteria. Confirmation flasks showed no CPE. Conclusion: No virus detected in sample.

Site	Sample Date	Affect on Sample	Analytes Affected
CROGH	08/16/2010	n/a	Virus

Early presumptive positive was confirmed as positive control contamination.

Site	Sample Date	Affect on Sample	Analytes Affected
CROGH	08/30/2010	Fail	Virus

Elution buffer component-Laureth 12 stock- had expired on 5/8/10

Site	Sample Date	Affect on Sample	Analytes Affected
CRO183	05/10/2010	n/a	Cryptosporidium, Giardia
BSTP	05/11/2010	n/a	Cryptosporidium, Giardia
HH7	05/11/2010	n/a	Cryptosporidium, Giardia
MUSCOOTR	05/11/2010	n/a	Cryptosporidium, Giardia
WF	05/11/2010	n/a	Cryptosporidium, Giardia

Insufficient flow for sample. Still no water at this site.

Site	Sample Date	Affect on Sample	Analytes Affected
WF	09/14/2010	Cancel	Cryptosporidium, Giardia

Insufficient flow for sample. Stream was dry all month

Site	Sample Date	Affect on Sample	Analytes Affected
WF	08/11/2010	Cancel	Cryptosporidium, Giardia

lab error

Site	Sample Date	Affect on Sample	Analytes Affected
WF	01/11/2011	Fail	Cryptosporidium, Giardia

Not collected/not delivered. No water at site to sample.

Site	Sample Date	Affect on Sample	Analytes Affected
WF	07/13/2010	Cancel	Cryptosporidium, Giardia

The IR gun was out of calibration when the temps were taken. However, the IR gun is checked daily against a calibrated thermometer and was in range.

Site	Sample Date	Affect on Sample	Analytes Affected
CROGH	08/09/2010	n/a	Cryptosporidium, Giardia
BSTP	08/10/2010	n/a	Cryptosporidium, Giardia
HH7	08/10/2010	n/a	Cryptosporidium, Giardia
MUSCOOTR	08/10/2010	n/a	Cryptosporidium, Giardia
CROGH	08/16/2010	n/a	Cryptosporidium, Giardia
CROGH	08/23/2010	n/a	Cryptosporidium, Giardia

2/2/11

STREAM MONITORING

CODE	DEFINITION: Appearance of Plate(s)
NO CODE	No code is used when total coliform plates result in colony counts in the ideal (20-80) range (or 20-60 for fecal coliforms) and there are <200 colonies of all types on the plate (i.e., the sum of the sheen plus non-sheen or blue plus non-blue colonies is <200). OR No code is also used when the total or fecal coliform colony counts are above or below ideal (20-80 for total coliform and 20-60 for fecal coliform) range and there are <200 colonies of all types on the plate.
< Dilution Factor	If there are no positive sheen or blue colonies on the plate and there are <200 colonies of all types on the plate the result is reported as "< dilution factor".
GC	Confluent Growth is used to describe the condition in which too many colonies are located so closely together that one colony cannot be distinguished from another. If confluent growth overwhelms the entire plate and there is no indication of the presence of either any sheen or blue colonies, the result will be reported as "GC".
GC+	In the case above if the presence of any sheen or blue colonies is detected, a plus (+) code will be added indicating the presence of total or fecal coliform. These data can be utilized for qualitative purposes only.
TNTC	When colony counts are not in the ideal range and there are >200 colonies of all types on the plate, the result is reported as too numerous to count (TNTC).
TNTC+	In the case above if the presence of any sheen or blue colonies is detected, a plus (+) code will be added indicating the presence of total or fecal coliform. These data can be used for qualitative purposes only.
>=	When colony counts are in the ideal range and there are >200 colonies of all types on the plate, the result will be reported with the greater than or equal to code (>=).
HTE	If samples were not received at the laboratory and analyzed within the 8 hour (for non-potable water samples) or 30 hour (for fully processed drinking water samples) holding time, the result reported as coliform/100mL will be coded with "HTE". The HTE code may be used in conjunction with any other code.

NYC-DEP Bureau of Water Supply
Kensico Laboratory, ELAP ID Number 10771
Bacterial Data for Croton Consent Decree - JANUARY 2011

Site	Date Collected	Grab Time	Total Coliform (total coliform/100mL)	Total Coli Code	Fecal Coliform (fecal coliform/100mL)	Fecal Coli Code	Sample Number	Sample Type
ILLINGTON1	31JAN2011	10:39	67		8		1100993	
KISCO3	05JAN2011	9:27	4400		110		1100152	
	20JAN2011	8:55	4200		190		1100687	
KITCHAWAN1	13JAN2011	9:09	<200		8		1100385	
	31JAN2011	10:23	1000		140		1100992	
LEETOWN3	19JAN2011	10:10	580		4		1100623	
	31JAN2011	13:22	130		12		1101022	
LONGPD1	19JAN2011	12:33	1200		300		1100624	
	31JAN2011	14:00	6900		1800		1101025	
MIDBR3	19JAN2011	10:44	83		52		1100632	
	31JAN2011	10:03	67		20		1101018	
MIKE2	19JAN2011	10:08	1400		170		1100633	
	31JAN2011	9:38	11000		1500		1101017	
MUDTRIB1	14JAN2011	10:50	330		10		1100433	
	25JAN2011	12:10	200		58		1100825	
MUSCOOT10	19JAN2011	13:03	1300		72		1100625	
	31JAN2011	14:24	330		20		1101026	
MUSCOOT5	05JAN2011	9:15	920		27		1100141	
	20JAN2011	11:50	1600		82		1100688	
NCBAILEY1	13JAN2011	8:39	430		200		1100383	
	27JAN2011	9:35	600		150		1100872	
PLUM2	05JAN2011	12:22	830		450		1100153	
	20JAN2011	11:20	900		50		1100689	
PURDY1	13JAN2011	8:30	<200		8		1100382	
	27JAN2011	9:24	470		8		1100871	
SAWMILL1	13JAN2011	9:58	570		17		1100388	
	27JAN2011	11:25	330		42		1100877	
STONE5	05JAN2011	10:05	580		36		1100154	
	20JAN2011	9:32	4000		120		1100690	
TITICUS3	14JAN2011	13:21	330		12		1100438	
	25JAN2011	13:09	130		23		1100826	
TITICUSR	14JAN2011	12:50	86		1		1100437	
	25JAN2011	12:39	130		14		1100820	
WESTBR7	19JAN2011	11:42	<100		28		1100626	
	31JAN2011	13:28	<100		16		1101023	
WESTBRR	19JAN2011	12:12	600		1		1100627	
	31JAN2011	13:55	53		<1		1101024	
WHITE2	13JAN2011	11:00	430		8		1100392	
	27JAN2011	12:37	<100		42		1100881	

NYC-DEP Bureau of Water Supply
Kensico Laboratory, ELAP ID Number 10771
Bacterial Data for Croton Consent Decree - JANUARY 2011

Site	Date Collected	Grab Time	Total Coliform (total coliform/100mL)	Total Coli Code	Fecal Coliform (fecal coliform/100mL)	Fecal Coli Code	Sample Number	Sample Type
AMAWALKR	05JAN2011	9:40	14		4		1100142	
	20JAN2011	12:00	<20		1		1100691	
BB5	14JAN2011	10:35	470		<10		1100432	
	25JAN2011	11:30	130		8		1100822	
BOGEASTBRR	14JAN2011	11:26	440		6		1100434	
	25JAN2011	10:27	680		13		1100817	
BOYDR	31JAN2011	12:55	190		21		1101021	
CATHY7	13JAN2011	10:34	290		<10		1100390	
	27JAN2011	11:51	400		<1		1100879	
COLABAUGH1	13JAN2011	10:49	1000		<1		1100391	
	27JAN2011	12:22	470		8		1100880	
CORNELL1	13JAN2011	9:35	290		17		1100386	
	27JAN2011	10:40	600		8		1100875	
CROFALLSR	14JAN2011	12:29	40		17		1100436	
	25JAN2011	12:02	40		5		1100818	
CROSS2	05JAN2011	11:39	170		41		1100151	
	20JAN2011	10:39	1100		32		1100683	
CROSSRVR	05JAN2011	10:46	14		2		1100155	
	20JAN2011	10:02	<20		2		1100692	
DIVERT2R	14JAN2011	12:04	200		30		1100435	
	25JAN2011	11:20	200		12		1100819	
EASTBR	14JAN2011	9:40	1000		5		1100430	
	25JAN2011	10:37	200		3		1100823	
FRENCH5	13JAN2011	10:11	290		<10		1100389	
	31JAN2011	10:58	67		<10		1100994	
GEDNEY3	13JAN2011	9:48	140		120		1100387	
	27JAN2011	11:10	470		25		1100876	
GYPSYTRL1	19JAN2011	13:37	330		12		1100630	
	31JAN2011	12:30	200		12		1101020	
HH7	14JAN2011	10:18	470		5		1100431	
	25JAN2011	11:13	67		7		1100824	
HMILL4	05JAN2011	9:54	580		73		1100138	
	20JAN2011	12:12	2000		200		1100684	
HMILL7	05JAN2011	9:57	580		55		1100139	
	20JAN2011	12:20	1700		170		1100685	
HORSEPD12	19JAN2011	12:08	250		24		1100631	
	31JAN2011	11:29	130		4		1101019	
HUNTER1	05JAN2011	10:41	580		45		1100140	
	20JAN2011	12:53	1800		82		1100686	
ILLINGTON1	13JAN2011	8:54	<200		<10		1100384	