

APPENDIX G

City Directory Report

Reynolds Shipyard

200 Edgewater Street
Staten Island, NY 10304

Inquiry Number: 6939234.5

April 14, 2022

The EDR-City Directory Abstract

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Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Abstract is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Abstract includes a search and abstract of available city directory data. For each address, the directory lists the name of the corresponding occupant at five year intervals.

Business directories including city, cross reference and telephone directories were reviewed, if available, at approximately five year intervals for the years spanning 1928 through 2017. This report compiles information gathered in this review by geocoding the latitude and longitude of properties identified and gathering information about properties within 660 feet of the target property.

A summary of the information obtained is provided in the text of this report.

RECORD SOURCES

EDR's Digital Archive combines historical directory listings from sources such as Cole Information and Dun & Bradstreet. These standard sources of property information complement and enhance each other to provide a more comprehensive report.

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RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. An "X" indicates where information was identified in the source and provided in this report.

<u>Year</u>	<u>Source</u>	<u>TP</u>	<u>Adjoining</u>	<u>Text Abstract</u>	<u>Source Image</u>
2017	Cole Information Services	X	X	X	-
2014	Cole Information Services	X	X	X	-
2009	Cole Information Services	X	X	X	-
2005	Hill-Donnelly Information Services	-	X	X	-
	Hill-Donnelly Information Services	X	X	X	-
2004	Cole Information Services	X	X	X	-
2000	Cole Information Services	-	X	X	-
	Cole Information Services	X	X	X	-
1999	Cole Information Services	X	X	X	-
1995	NYNEX	-	X	X	-

EXECUTIVE SUMMARY

<u>Year</u>	<u>Source</u>	<u>TP</u>	<u>Adjoining</u>	<u>Text Abstract</u>	<u>Source Image</u>
1995	NYNEX	X	X	X	-
1994	Cole Information Services	X	X	X	-
1990	NYNEX Information Resource Company	-	X	X	-
	NYNEX Information Resource Company	X	X	X	-
1984	New York Telephone	-	X	X	-
1979	New York Telephone	-	X	X	-
1975	New York Telephone Company	-	X	X	-
	New York Telephone Company	X	X	X	-
1970	New York Telephone	-	X	X	-
	New York Telephone	X	X	X	-
1965	New York Telephone Company	-	X	X	-
	New York Telephone Company	X	X	X	-
1960	New York Telephone Company	X	X	X	-
1934	R. L. Polk & Co.	-	X	X	-
	R. L. Polk & Co.	X	X	X	-
1928	New York Telephone	-	X	X	-
	New York Telephone	X	X	X	-

EXECUTIVE SUMMARY

SELECTED ADDRESSES

The following addresses were selected by the client, for EDR to research. An "X" indicates where information was identified.

<u>Address</u>	<u>Type</u>	<u>Findings</u>
Edgewater Street	Client Entered	
Sylva Lane	Client Entered	
Church Lane	Client Entered	
Wiman Pl	Client Entered	
Clifton Ave	Client Entered	

FINDINGS

TARGET PROPERTY INFORMATION

ADDRESS

200 Edgewater Street
Staten Island, NY 10304

FINDINGS DETAIL

Target Property research detail.

EDGEWATER

200 EDGEWATER

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	Reynolds Launch Svce inc	NYNEX
1990	CABERT CO INC	NYNEX Information Resource Company
	REYNOLDS SHIPYARD CORP	NYNEX Information Resource Company
1975	CABERT CO INC	New York Telephone Company
	REYNOLDS SHIPYARD CORP	New York Telephone Company
	REYNOLDS JAS E INC	New York Telephone Company
	REYNOLDS LAUNCH SVCE INC	New York Telephone Company
1970	CABERT CO INC	New York Telephone
	REYNOLDS JAS E INC	New York Telephone
	REYNOLDS SHIPYARD CORP	New York Telephone
1965	CABERT CO INC	New York Telephone Company
	O BRIEN BROS SHIPYARD CORP	New York Telephone Company
	REYNOLDS JAS E INC	New York Telephone Company
1960	NATL BULK CARRIERS INC	New York Telephone Company
	O BRIEN BROS SHIPYARD CORP	New York Telephone Company
	REYNOLDS JAS E INC	New York Telephone Company
1928	FRASER BRACE & CO	New York Telephone

EDGEWATER ST

200 EDGEWATER ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2017	REYNOLDS SHIPYARD CORP	Cole Information Services

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2017	SANDY HOOK PILOTS	Cole Information Services
2014	REYNOLDS SHIPYARD CORP	Cole Information Services
	REYNOLDS SHIPYARD CORPORATION	Cole Information Services
2009	JPR LIGHTING GROUP INC	Cole Information Services
	REYNOLDS LAUNCH SERVICE INC	Cole Information Services
	REYNOLDS SHIPYARD CORP	Cole Information Services
2005	Cymeon Ship Supply	Hill-Donnelly Information Services
	Reynolds Shipyard Corp	Hill-Donnelly Information Services
2004	OCCUPANT UNKNOWN	Cole Information Services
	UNITOR SHIPS SERVICE INC	Cole Information Services
	WEST HAVEN SPECIALTY	Cole Information Services
2000	Cymeoa Ship Supply	Cole Information Services
	Reynolds Jas E Inc	Cole Information Services
	Rynlds Launch Svc	Cole Information Services
	Rynlds Shpyrd Crp	Cole Information Services
	W Haven Specialty	Cole Information Services
1999	CABERT COMPANY INCORPORATED	Cole Information Services
	CYMEON SHIP SUPPLY	Cole Information Services
	REYNOLDS SHIPYARD CORPORATION	Cole Information Services
	WEST HAVEN SPECIALTY	Cole Information Services
1994	REYNOLDS JAS E INC	Cole Information Services
	REYNOLDS LAUNCH SVCE INC	Cole Information Services
	REYNOLDS SHIPYARD CORP	Cole Information Services
1934	OBrian Jos J pres OBrien Bros Shipyard Corp	R. L. Polk & Co.
	OBrien Bros Shipyard Corp NY Jos J OBrien pres Harold F OBrien v pres Thos F OBrien jr sec J Vincent OBrien treas marine reprs	R. L. Polk & Co.
	OBrien Harold F v pres OBrien Bros Shipyard Corp	R. L. Polk & Co.
	OBrien J Vincent treas OBrien Bros Shipyard Corp	R. L. Polk & Co.
	OThos F jr sec OBrien Bros Shipyard Corp	R. L. Polk & Co.

FINDINGS

Edgewater Street

Edgewater Street

Year

Uses

Source

EDGEWATER STREET

200 EDGEWATER STREET

Year

Uses

Source

1960

CABERT COLNC

New York Telephone Company

FINDINGS

ADJOINING PROPERTY DETAIL

The following Adjoining Property addresses were researched for this report. Detailed findings are provided for each address.

BAY

1071 BAY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1990	PROMPT MAILERS INC	NYNEX Information Resource Company
	R P M COURIER SYSTEMS INC	NYNEX Information Resource Company
1984	THE CAR SPA	New York Telephone
1979	TORT TRUCKING CORP	New York Telephone
	STERLING TRANSMISSION CENTER INC	New York Telephone
1975	WONDER MUFFLER EMISSION CONTROL CENTERS	New York Telephone Company
	JO PAR LEASING CORP	New York Telephone Company
	INTERSTATE TRUCKING CORP	New York Telephone Company
	EXPRESS S D Z INC	New York Telephone Company
	ANDY S MOTOR TRUCKING CORP	New York Telephone Company
1970	ST GEORGE TRUCKG CORP	New York Telephone
1965	ST GEORGE TRUCKG CORP	New York Telephone Company
	FEDERAL ADVANCE INC	New York Telephone Company
	MERCER STORAGE CO INC	New York Telephone Company

1078 BAY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1990	KNELL RICHARD	NYNEX Information Resource Company
	DARAGJATI LORO	NYNEX Information Resource Company
	MONSEN KAREN	NYNEX Information Resource Company
1979	DARAGJATI GASPER	New York Telephone
1975	DARAGJATI GASPER	New York Telephone Company
	DARAGJATI LORO	New York Telephone Company
1970	DARAGJATI TISH	New York Telephone
1965	BRYAN ALBERT A	New York Telephone Company
	BOYKIN CHAS L	New York Telephone Company

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1960	CERICOLA MICHL	New York Telephone Company
	MAZZUCCO DANL	New York Telephone Company
1928	MATTHEWS & ATTANASIO AUTO SERVICE	New York Telephone
	MATTHEWS & ATTANASIO AUTO SERVICE	New York Telephone

1080 BAY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1990	REYES OMAR	NYNEX Information Resource Company
1970	D ANGEIOLLIO LOUIS	New York Telephone
1965	CORRELL WM J	New York Telephone Company
1960	GRIMALDI S FLORIST	New York Telephone Company
1928	GRIMALDI JOHN FLORIST	New York Telephone

1082 BAY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	Illusions Glazing Corp	NYNEX
1990	GRIMALDI S FLORIST	NYNEX Information Resource Company
1984	GRIMALDI S FLORIST	New York Telephone
1979	GRIMALDI S FLORIST	New York Telephone
	GRIMALDI S FLORIST	New York Telephone
1975	GRIMALDI S FLORIST	New York Telephone Company
	GRIMALDI S FLORIST	New York Telephone Company
1970	GRIMALDIS FLORIST	New York Telephone
	GRIMALDIS FLORIST	New York Telephone
1965	GRIMALDIS FLORIST	New York Telephone Company
	GRIMALDIS FLORIST	New York Telephone Company
1934	Grimaldi Josephine florist	R. L. Polk & Co.

1083 BAY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1934	Foreiter Saml Rachael tailor h	R. L. Polk & Co.

1084 BAY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	Reigl Emil J Jr lw yr	NYNEX

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1990	AMER ELEC SVCE MOTRREPRS	NYNEX Information Resource Company
	SYNCHRO ELECTRIC MOTOR REPR	NYNEX Information Resource Company
1984	AMER ELEC SVCE MOTR REPRS	New York Telephone
1979	AMER ELEC SVCE MOTR REPRS	New York Telephone
1975	AMER ELEC SVCE MOTR REPRS	New York Telephone Company
1970	AMER ELEC SVCE MOTR REPRS	New York Telephone
1965	AMER ELEC SVCE MOTR REPRS	New York Telephone Company
1960	AMER ELEC SVCE MOTR REPRS	New York Telephone Company
1934	Dalbero Jos Virginia gas sta	R. L. Polk & Co.

1085 BAY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1960	LINGLE MILDRED E	New York Telephone Company
1928	RIGALI M RESTRNT	New York Telephone

1086 BAY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	A 1 Travel Service	NYNEX
	A 1 Travel Service	NYNEX
	Barber Shop Travel	NYNEX
	ALVAREZ Luz Marina	NYNEX
1990	BARBER SHOP TRAVEL	NYNEX Information Resource Company
	SALAZAR G	NYNEX Information Resource Company
1979	LARGO DOMINICK W	New York Telephone
1975	ARAYA ANTONIO	New York Telephone Company
1970	LOVETRO BARBER SHOP	New York Telephone
	GOELZE JOHN	New York Telephone
1965	GOELZE JOHN	New York Telephone Company
	HILDAS BEAUTY SHOP	New York Telephone Company
1960	GOELZE JOHN	New York Telephone Company
	HILDA S BEAUTY SHOP	New York Telephone Company
1934	Farrara Guy Mary mech r	R. L. Polk & Co.
	Dalbero Clara clk r	R. L. Polk & Co.
	Dalbero Jos Jr auto garage	R. L. Polk & Co.

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1934	h	R. L. Polk & Co.
	Dalbero Virginia gro	R. L. Polk & Co.
1928	LENZ HERBERT J DRGGST	New York Telephone

1088 BAY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	Bay Marina	NYNEX
	OSTASHEV A	NYNEX
1990	NAPOLI PIZZERIA	NYNEX Information Resource Company
1984	NAPOLI PIZZERIA	New York Telephone
1970	BAY ST PUB INC	New York Telephone
1965	PEGE S TAVERN	New York Telephone Company
1960	BERTS TAVERN	New York Telephone Company
1934	Harbor Lunch John Stein	R. L. Polk & Co.

1089 BAY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	Nicks Luncheonette	NYNEX
	Nexcom Naval Station	NYNEX

1090 BAY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	SERRANO Kenneth	NYNEX
	Stacey Anastos	NYNEX
1990	SEFERSHAYAN J	NYNEX Information Resource Company
	STACEY ANASTOS	NYNEX Information Resource Company
1984	POWERS MICHAEL	New York Telephone
	STACEY ANASTOS	New York Telephone
1979	ROSEBANK PHARMCY	New York Telephone
1975	COSCIA FRANK DRUGS	New York Telephone Company
	IOMMI A	New York Telephone Company
	ROSEBANK PHARMCY	New York Telephone Company
	ROSEBANK PHARMCY PRSCRIPTNS	New York Telephone Company
	WELSH E	New York Telephone Company

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	COSCIA FRANK DRUGS	New York Telephone
	ROSEBANK PHARMCY	New York Telephone
	ROSEBANK PHARMCY PRSCRIPTNS	New York Telephone
1965	ROSEBANK PHARMCY PRSCRIPTNS	New York Telephone Company
	STRAUBE HAROLD E	New York Telephone Company
	ROSEBANK PHARMCY	New York Telephone Company
	MILLER CHAS J	New York Telephone Company
	COSCIA FRANK DRUGS	New York Telephone Company
1960	VAN PELT WILLENE	New York Telephone Company
	ROSEBANK PHARMCY PRSCRIPTNS	New York Telephone Company
	ROSEBANK PHARMACY	New York Telephone Company
	MILLER CHAS J	New York Telephone Company
	COSCIA FRANK DRUGS	New York Telephone Company
1934	Lenz Herbert J Ethel retail drugs	R. L. Polk & Co.
	Lenz Herbert J Jr student r	R. L. Polk & Co.

1100 BAY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1934	Fago Ralph h	R. L. Polk & Co.
1928	MEADOW BROOK DAIRY MAIN OFFICE	New York Telephone
	SANDER LEO MILK CREAM MAIN OFFICE	New York Telephone

1101 BAY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	Saint Marys Church	NYNEX
1990	PARAMBI SERAPHIN FATHER	NYNEX Information Resource Company
	ST MARYS CHURCH	NYNEX Information Resource Company
	SHINE RAYMOND M REV	NYNEX Information Resource Company
1984	PARAMBI SEREPHIN FATHER	New York Telephone
	ST MARYS CHURCH	New York Telephone
	SHINE RAYMOND M REV	New York Telephone
1979	ST MARYS CHURCH	New York Telephone
	SHINE RAYMOND M REV	New York Telephone
1975	LINGAO FATHER DEO	New York Telephone Company

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	ST MARY S CEMETERY	New York Telephone Company
	ST MARY S CHURCH	New York Telephone Company
1970	ST MARYS CEMETERY	New York Telephone
	ST MARYS CHURCH	New York Telephone
1965	ST MARY S CHURCH	New York Telephone Company
1960	MEEHAN EDMUND T REV	New York Telephone Company
1934	Clinton Vera hsekpr r	R. L. Polk & Co.
	Hanretty Francis T pastor St Marys RC Ch h	R. L. Polk & Co.
	Kellenberg Walter asst pastor St Marys R C Ch r	R. L. Polk & Co.
	Kinelski Maude maid r	R. L. Polk & Co.
1928	HANRETTY F T REV R	New York Telephone

1102 BAY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1934	Hulnick Isaac Katie confr ret	R. L. Polk & Co.
	Hulnick Anna bkpr r	R. L. Polk & Co.
	Hulnick Alvin student r	R. L. Polk & Co.
	Goad Kate w id Steph h	R. L. Polk & Co.
	Hulnick Jos student r	R. L. Polk & Co.

1105 BAY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1934	St Marys R C Church Rev Francis Hanretty pastor	R. L. Polk & Co.
	ST GEORGE HOTEL John Kirschner Mgr	R. L. Polk & Co.

1106 BAY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	Bay Dental Office	NYNEX
	Gorelsky Allan R MD ofc	NYNEX
1990	GORETSKY ALLAN R MD OFC	NYNEX Information Resource Company
	LANE JULES V DDS	NYNEX Information Resource Company
1984	CAHN JEFFREY DM	New York Telephone
	GORETSKY ALLAN R MD OFC	New York Telephone

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1984	GORETSKY JOHN DR DNTST	New York Telephone
1979	DUGAN KEVIN DR DNTST	New York Telephone
	GORETSKY JOHN DR DNTST	New York Telephone
1975	DUGAN KEVIN DR DNTST	New York Telephone Company
	GORETSKY ALLAN R MD OFC	New York Telephone Company
	GORETSKY JOHN DR DNTST	New York Telephone Company
1970	GORETSKY ALLAN R MD OFC	New York Telephone
	GORETSKY JOHN DR DNTST	New York Telephone

1108 BAY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1965	CORRELL BENJ STATNRY	New York Telephone Company
1960	ROSENBA TT GEO STATNRY	New York Telephone Company
1934	Delechiae Jas Margt concrete w kr h	R. L. Polk & Co.
	Delechiae Anthony concrete w kr r	R. L. Polk & Co.
	Delechiae Margt Mrs dry gds h	R. L. Polk & Co.

1110 BAY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1965	LOVETRO BARBR SHOP	New York Telephone Company
1960	ANGONE JAS	New York Telephone Company
1934	Curlay Nora dom r	R. L. Polk & Co.
	Giannandrea Frank Flora barber	R. L. Polk & Co.
	Curlay John sexton h	R. L. Polk & Co.

1116 BAY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1934	Aloyious Sister prin St Marys Parochial Sch r	R. L. Polk & Co.
	ST GEORGE HOTEL John Kirschner Mgr	R. L. Polk & Co.
	St Marys Parochial School Sister Aloyious prin	R. L. Polk & Co.

1124 BAY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	Saint Marys Schl	NYNEX

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1990	ST MARY S SCHL	NYNEX Information Resource Company
1984	ST MARYS SCHL	New York Telephone
1979	ST MARYS SCHL	New York Telephone
1975	ST MARY S SCHL	New York Telephone Company
1970	ST MARYS SCHL	New York Telephone
1965	ST MARY S SCHL	New York Telephone Company
1960	ST MARYS PAROCHIAL SCHL	New York Telephone Company
1928	ST MARYS PAROCHIAL SCHOOL	New York Telephone

1130 BAY

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1990	BAGELICIOUS NUMBER FIVE	NYNEX Information Resource Company
	CHAMBER OF COMMERCE S	NYNEX Information Resource Company
	PICCIOTTO RUDOLPH J	NYNEX Information Resource Company
1984	PICCIOTTO RUDOLPH J	New York Telephone
1979	PICCIOTTO RUDOLPH J	New York Telephone
1975	PICCIOTTO ANGELA MRS	New York Telephone Company
	PICCIOTTO RUDOLPH J	New York Telephone Company
1970	SANGENITO R	New York Telephone
	PICCIOTTO ANGELA MRS	New York Telephone
	PICCIOTTO RUDOLPH J	New York Telephone
1965	PICCIOTTO RUDOLPH J	New York Telephone Company
	PICCIOTTO ANGELA MRS	New York Telephone Company
1960	PIZZO ANIELLO	New York Telephone Company
	PICCIOTTO ANGELA MRS	New York Telephone Company
	PICCIOTTO RUDOLPH J	New York Telephone Company

BAY ST

1071 BAY ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2017	TOP TOMATOE	Cole Information Services
	SEABREEZE FISH & SEAFOOD OF STATEN I	Cole Information Services
2014	TOP TOMATOE	Cole Information Services

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2009	LC AUTOMOTIVE REPAIR INC	Cole Information Services
	UNIQUE TECHNOLOGIES ASSOCIATES	Cole Information Services
2004	MIKHAIL SHIFRIN	Cole Information Services
	UNIQUE TECHNOLOGIES ASSOCS	Cole Information Services
1999	RICHARD MONTALBANO	Cole Information Services
	BOBS RADIATOR REPAIR	Cole Information Services
	UNIQUE TECHNOLOGIES ASSOCIATE	Cole Information Services
	TONYS FOREIGN CAR REPR	Cole Information Services
	J S MANUFACTURING	Cole Information Services
	TONYS FORIEGN CAR REPAIR	Cole Information Services
	BOBS RADIATOR REPR	Cole Information Services
	GARY BAYDAL TILE INDUSTRIES INCORPORATED	Cole Information Services
	BAY TRANSMISSIONS	Cole Information Services
	TONY'S FOREIGN CAR REPR	Cole Information Services
1994	GARY BAYDAL TILE INDUSTRIES INC	Cole Information Services
	BAY MATERIAL HANDLING EQUIP	Cole Information Services

1077 BAY ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2017	WINDOWRAMA	Cole Information Services
	UNIVERSAL MARINE MEDICAL	Cole Information Services
	UNIVERSAL MARINE MEDICAL SUPPLY CO	Cole Information Services
	PRONTO PIZZA & PASTA	Cole Information Services
2014	UNIVERSAL MARINE MEDICAL SUPPLY COMP	Cole Information Services
	FIRE GRILLED BURGERS	Cole Information Services
	WINDOWRAMA	Cole Information Services
	UNIVERSAL MARINE MEDICAL	Cole Information Services

1080 BAY ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2017	OMAR REYES	Cole Information Services
2014	OMAR REYES	Cole Information Services
2009	OMAR REYES	Cole Information Services

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2004	OMAR REYES	Cole Information Services

1082 BAY ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2014	LIAN BO ZOU	Cole Information Services
2004	OCCUPANT UNKNOWN	Cole Information Services
1999	ISLAND GLASS & MIRROR COMPANY	Cole Information Services
	ISLAND WIDE GLAZING CORPORATION	Cole Information Services
	OCCUPANT UNKNOWN	Cole Information Services

1084 BAY ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2005	Nemeth C L	Hill-Donnelly Information Services
2004	EMIL REIGI	Cole Information Services
2000	Reigi E J Jr Lw yr	Cole Information Services
1999	REIGI EMIL J JR LAWYER	Cole Information Services
1994	REIGI, EMIL J, JR, LWYR	Cole Information Services

1086 BAY ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2017	TOP NOTCH BOUTIQUE ACCESSORIES INC	Cole Information Services
2014	JIMMYS HAIR GROUP	Cole Information Services
2009	JIMMYS HAIR GROUP	Cole Information Services
2005	Jimmys Heir Group i s	Hill-Donnelly Information Services
	Dea Music School I G	Hill-Donnelly Information Services
2004	AFS CONTRACTING CORP	Cole Information Services
	FROM RAGS TO STITCHES	Cole Information Services
2000	A 1 Travel Svc	Cole Information Services
	Travelstop Inc	Cole Information Services
	Carison Wgnlt Trvl	Cole Information Services
1999	OCCUPANT UNKNOWN	Cole Information Services
	A 1 TRAVEL SERVICE	Cole Information Services
1994	A-1 TRAVEL SERVICE	Cole Information Services
	BARBER SHOP TRAVEL	Cole Information Services

FINDINGS

1088 BAY ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2017	PRONTO PIZZA	Cole Information Services
2014	PRONTO PIZZA & PASTA	Cole Information Services
2009	PRONTO	Cole Information Services
2005	Pronto Pizza Cafe 2 R	Hill-Donnelly Information Services
2004	PRONTO PIZZA CAFE	Cole Information Services
	OCCUPANT UNKNOWN	Cole Information Services
2000	Pronto Pizza Cafe	Cole Information Services

1090 BAY ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2017	MILDRED RODRIGUEZ	Cole Information Services
	BAY STREET THRIFT	Cole Information Services
2014	BAY STREET THRIFT	Cole Information Services
	MARK RIVERA	Cole Information Services
	ANASTOS STACEY	Cole Information Services
	EBONY VENNEY	Cole Information Services
	MILDRED RODRIGUEZ	Cole Information Services
2009	EBONY VENNEY	Cole Information Services
	D SAMPSON	Cole Information Services
	ALTHEA JOSEPH	Cole Information Services
	ANASTOS STACEY	Cole Information Services
	DAVID PINA	Cole Information Services
	STACEY ANASTOS	Cole Information Services
2005	Stacey Anastos Woodw orking	Hill-Donnelly Information Services
	h Pina David v	Hill-Donnelly Information Services
	Joseph Althea	Hill-Donnelly Information Services
	Anastos Stacey vo o	Hill-Donnelly Information Services
2004	STACEY ANASTOS	Cole Information Services
	CHIA CHEN	Cole Information Services
	DAVID PINA	Cole Information Services
2000	Ronald Jarvis	Cole Information Services
	SYLVATON TER INTS	Cole Information Services

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2000	SAINT MARYS AVE INTS	Cole Information Services
	CHURCH LN INTS	Cole Information Services
	Stacey Anastos	Cole Information Services
	David Pina	Cole Information Services
	VIRGINIA AVE INTS	Cole Information Services
1999	STACEY ANASTOS	Cole Information Services
1994	STACEY ANASTOS	Cole Information Services

1101 BAY ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2017	ST MARYS CHURCH	Cole Information Services
	ST MARYS CEMETERY	Cole Information Services
2014	ST MARYS CHURCH	Cole Information Services
	ST MARYS CEMETERY	Cole Information Services
2009	ST MARYS CHURCH	Cole Information Services
	CHURCH SAINT MARY ROMAN CATHLC	Cole Information Services
2005	St Marys Church	Hill-Donnelly Information Services
	h Buebendorf Victor J A0	Hill-Donnelly Information Services
2004	ST MARYS CHURCH	Cole Information Services
	VICTOR BUEBENDORF	Cole Information Services
2000	St Marys Church	Cole Information Services
	Peter Selvaraj	Cole Information Services
	V J Buebendorf	Cole Information Services
1999	ST MARYS CHURCH	Cole Information Services
1994	ST MARY'S CHURCH	Cole Information Services
	BUEBENDORF, VICTOR J	Cole Information Services

1106 BAY ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2005	Passariello Dee 4v	Hill-Donnelly Information Services
	Castellano Chiropractic I P	Hill-Donnelly Information Services
	Bay Dental Office	Hill-Donnelly Information Services
	Passariello Dee MD	Hill-Donnelly Information Services
2004	BAY DENTAL OFFICE	Cole Information Services

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2004	DEE PASSARIELLO	Cole Information Services
2000	Bay Dental Office	Cole Information Services
1999	BAY DENTAL OFFICE	Cole Information Services
	GORETSKY ALLAN R MD OFFICE	Cole Information Services
	GORETSKY ALLAN R MD	Cole Information Services
1994	GORETSKY, ALLAN R, MD OFC	Cole Information Services
	BAY DENTAL OFFICE	Cole Information Services

1124 BAY ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2017	ST MARYS SCHL	Cole Information Services
2014	ST MARYS SCHL	Cole Information Services
2009	ARCHDIOCESE OF NEW YORK	Cole Information Services
	SAINT MARYS SCHOOL	Cole Information Services
2005	St Marys School	Hill-Donnelly Information Services
2004	ST MARY PARISH ELEMENTARY SCHL	Cole Information Services
2000	St Marys Schl	Cole Information Services
1999	ST MARYS SCHOOL	Cole Information Services
1994	ST MARY'S SCHL	Cole Information Services

1125 BAY ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2017	SERVICIOS DE PUERTA DE GERAJE 24 7	Cole Information Services
	REDBOX	Cole Information Services
2004	CVS PHARMACY	Cole Information Services
	CVS	Cole Information Services
1999	DISCOVER GENERAL CONTRACTING CORPORATION	Cole Information Services

1130 BAY ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2017	JACOB GIANNELLI	Cole Information Services
2014	JACOB GIANNELLI	Cole Information Services
2009	CATHERINE PICCIOTTO	Cole Information Services
	MICHAEL GRICHINE	Cole Information Services

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2009	RUDINA DARAGIATI	Cole Information Services
2004	PUPPY PLAY GROUND INC	Cole Information Services
1999	BAY ST BAGEL	Cole Information Services
1994	PICCIOTTO, RUDOLPH J	Cole Information Services
	NDOKAJ, ALFONS	Cole Information Services
	BAY ST BAGEL	Cole Information Services

1131 BAY ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2017	CVS PHARMACY	Cole Information Services
	DUNKIN DONUTS	Cole Information Services
2014	CVS PHARMACY	Cole Information Services
2009	DUNKIN DONUTS	Cole Information Services
	TONY NADER INC	Cole Information Services
2005	CVS Pharmacy 2 R	Hill-Donnelly Information Services
2004	A NEW YORK RENT A CAR	Cole Information Services
2000	CVS Pharm Rosebank	Cole Information Services
	CVS Pharm Rosebank	Cole Information Services

1145 BAY ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2017	NAILS 21	Cole Information Services
	SUBWAY	Cole Information Services
2014	SUBWAY SANDWICHES	Cole Information Services
	NAILS TWENTY ONE	Cole Information Services
	DUNKIN DONUTS	Cole Information Services
2009	OCCUPANT UNKNOWN	Cole Information Services
	NAILS 21 2 INC	Cole Information Services
2004	NAILS 21 INC	Cole Information Services
	ROSEBANK REST CORP	Cole Information Services

FINDINGS

BAY ST G

1075 BAY ST G

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1934	Deagon Margt Mrs h	R. L. Polk & Co.

CHURCH LN

20 CHURCH LN

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2004	GAJA HANNA	Cole Information Services

21 CHURCH LN

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2017	BESART GJOKAJ	Cole Information Services
2014	BESART GJOKAJ	Cole Information Services
2009	BESART GJOKAJ	Cole Information Services
	MARJORIE RAMOS	Cole Information Services
	HIPOLITO BATISTA	Cole Information Services
	K ZBIGNIEW	Cole Information Services
	JOSE BERROA	Cole Information Services
	JAKVIS POUEJOWSKI	Cole Information Services
2005	Koldysv Zblgniew V	Hill-Donnelly Information Services
	Pociejow ski Bart AC	Hill-Donnelly Information Services
	Pociejow sl Zblgnlew	Hill-Donnelly Information Services
2004	ZBIGNIEW POCEJOWSKI	Cole Information Services
	HOME MAGIC CONTRACTING INC	Cole Information Services
2000	Frantisek Schader	Cole Information Services
	Apartments	Cole Information Services
	Bart Pociejow ski	Cole Information Services
	Z Pociejow ski	Cole Information Services

23 CHURCH LN

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2017	CHRISTOPHER MORAFIA	Cole Information Services
	JEANETTE REYES	Cole Information Services

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2014	LILLIAN MORAFA	Cole Information Services
	EVGARDO REYES	Cole Information Services
	ANNA JAROCKA	Cole Information Services
2009	OLATOKUNBO MORAFA	Cole Information Services
	LOLA SUMMERS	Cole Information Services
	TODD BOUCHER	Cole Information Services
2005	h Basklewicz Bogumi	Hill-Donnelly Information Services
	h Burba Marek	Hill-Donnelly Information Services
2004	LOLA SUMMERS	Cole Information Services
	MAREK BURBA	Cole Information Services
	BOGUMIL BASKIEWICZ	Cole Information Services
2000	Bogumi Baskiewicz	Cole Information Services
	Joanna Lula	Cole Information Services

25 CHURCH LN

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2017	WIESLAW GRZELEWSKI	Cole Information Services
	KALA ZBIGNIEW	Cole Information Services
	LECH KRUCZYNSKI	Cole Information Services
	ANDRZEY RAK	Cole Information Services
	ELIZ KRUCZYNSKA	Cole Information Services
2014	ELIZA KRUCZYNSKA	Cole Information Services
	KALA ZBIGNIEW	Cole Information Services
	ANDRZEY RAK	Cole Information Services
2009	KALA ZBIGNIEW	Cole Information Services
	ELIZA KRUCZYNSKA	Cole Information Services
	ANDRZEY RAK	Cole Information Services
2005	h Kala Zbigniew	Hill-Donnelly Information Services
	Rak Andrzej	Hill-Donnelly Information Services
2004	ANDRZEY RAK	Cole Information Services
	ZBIGNIEW KALA	Cole Information Services
2000	Andrzej Rak	Cole Information Services

FINDINGS

27 CHURCH LN

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2017	JORDAN KIMBROUGH	Cole Information Services
	KENNETH STOCKMAN	Cole Information Services
	YVETTE ASHTON	Cole Information Services
2014	JORDAN KIMBROUGH	Cole Information Services
2009	KENNETH STOCKMAN	Cole Information Services
2005	Phillips James V os	Hill-Donnelly Information Services
	Locasto Janine	Hill-Donnelly Information Services
2004	BOGUSLAW GABREL	Cole Information Services
	JAMES PHILLIPS	Cole Information Services
	JOSEPH LINKIEWICZ	Cole Information Services
	KRYSTYNA MOSCZYNSKA	Cole Information Services
2000	Hanna Tokarczyk	Cole Information Services
	Mark Mastalerz	Cole Information Services

29 CHURCH LN

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	Ditti Corp	NYNEX

32 CHURCH LN

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1984	KISSINGER A	New York Telephone
1979	KISSINGER G	New York Telephone
1975	KISSINGER G	New York Telephone Company
1970	KISSINGER G	New York Telephone
1960	KURING VICTOR	New York Telephone Company

CLIFTN AVE

23 CLIFTN AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1990	AUGUSTYNE JOHN J	NYNEX Information Resource Company
1984	AUGUSTYNE JOHN J	New York Telephone
1979	AUGUSTYNE JOHN J	New York Telephone

FINDINGS

40 CLIFTN AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1990	RIGALI FRITZ A	NYNEX Information Resource Company
1984	RIGALI FRITZ A	New York Telephone
1979	RIGALI FRITZ A	New York Telephone

41 CLIFTN AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1979	LUPINACCI LOUIS	New York Telephone

56 CLIFTN AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1984	COLLERATO SYLVESTER	New York Telephone
1979	COLLERATO SYLVESTER	New York Telephone

58 CLIFTN AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1965	CAPPASOLA MARGARET MRS	New York Telephone Company

64 CLIFTN AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1984	FAIR JOS A	New York Telephone
1979	FAIR JOS A	New York Telephone

CLIFTON

16 CLIFTON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1990	DELBAGNO H M	NYNEX Information Resource Company
1984	DELBAGNO H M	New York Telephone
1979	DELBAGNO H M	New York Telephone
1975	DELBAGNO H M	New York Telephone Company
1970	DEL BAGNO GERALD J	New York Telephone
1965	DELBAGNO GERALD J	New York Telephone Company

FINDINGS

23 CLIFTON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1934	Klanksieck Louis C Isabel pdlr h	R. L. Polk & Co.

24 CLIFTON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	BANASKY THEO	New York Telephone Company
1970	BANASKY THEO	New York Telephone
1965	BANASKY THEO	New York Telephone Company

38 CLIFTON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	MCNERNEY T	New York Telephone
1965	NEBBIA ROSE MRS	New York Telephone Company
1960	NEBBIA ROSE MRS	New York Telephone Company
	NEBBIA EDW	New York Telephone Company

41 CLIFTON

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1990	DAWOUD NAGUIB A	NYNEX Information Resource Company
	NASR ADEL	NYNEX Information Resource Company
1979	VIATAKIS PAUL	New York Telephone
1975	VLASTAKIS PAUL	New York Telephone Company
1965	LENOX JOS W	New York Telephone Company
1960	FILKINS DELBERT	New York Telephone Company
	FILKINS LORRAINE	New York Telephone Company

CLIFTON AV ROSEBANK SI TEL SAI

35 CLIFTON AV ROSEBANK SI TEL SAI

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1934	VAN FRANK WM A Esther Marine Salvage Diver and Rigger	R. L. Polk & Co.

FINDINGS

CLIFTON AVE

1 CLIFTON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2005	HRivas RG	Hill-Donnelly Information Services
	III HAKopyan V	Hill-Donnelly Information Services
2000	Oais Hussein	Cole Information Services
	R Abdo	Cole Information Services

2 CLIFTON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2000	Christopher Blair	Cole Information Services

4 CLIFTON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	GIL EDWARD	New York Telephone Company

16 CLIFTON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	DELBAGNO H M	NYNEX

17 CLIFTON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2017	LOPE CAPO	Cole Information Services
2014	JEFFREY GONZALEZ	Cole Information Services
	CHRISTOPHER ADESHOTE	Cole Information Services
	JOSEPH PELLICANO	Cole Information Services
2009	CHRISTOPHER ADESHOTE	Cole Information Services
	JAMES MOMOH	Cole Information Services
2005	No Current Listing	Hill-Donnelly Information Services
2004	CHRISTOPHER ADESHOTE	Cole Information Services
	JULIA KNIGHT	Cole Information Services

19 CLIFTON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2017	HARRIS ATTEBERRY	Cole Information Services
2014	S ROBINSON	Cole Information Services

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2009	HILTON PEARCE	Cole Information Services
2005	h Coney Monique v 7 oo	Hill-Donnelly Information Services
2004	HILTON PEARCE	Cole Information Services
	PEARCE HILTON	Cole Information Services
	MONIQUE CONEY	Cole Information Services

20 CLIFTON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2017	ICP INC	Cole Information Services
2014	ICP INCORPORATED	Cole Information Services
2009	ISLAND COMPUTER PRODUCTS INC	Cole Information Services
	STRADA SOFT INC	Cole Information Services
	ICP INC	Cole Information Services
	ICP INC AS AGENT FOR NYTF	Cole Information Services
2005	Wassmuth James H	Hill-Donnelly Information Services
	Icp Microage 3 R	Hill-Donnelly Information Services
2004	ICP INC	Cole Information Services
2000	Admiral Marine Co	Cole Information Services
1994	ADMIRAL MARINE CO INC	Cole Information Services
1984	ADMIRAL MARINE CO INC	New York Telephone
1979	ADMIRAL MARINE CO INC	New York Telephone
1975	ADMIRAL MARINE CO INC	New York Telephone Company
1970	PICTURE COVER BINDINGS INC	New York Telephone
	J B SCHAEFER INDUSTRIES INC	New York Telephone
1965	PICTURE COVER BINDINGS INC	New York Telephone Company
	CHIVERS BK BNDG CO	New York Telephone Company
1960	PICTURE COVER BINDINGS INC	New York Telephone Company
	CHIVERS BK BNDG CO	New York Telephone Company
1934	Edwards Jannie dom r	R. L. Polk & Co.

21 CLIFTON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2017	ALYCIA ZIMEZICI-SANCHEZ	Cole Information Services
2014	BARBARA HUSSEY	Cole Information Services

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2014	ALYCIA ZIMEZICI-SANCHEZ	Cole Information Services
	OCCUPANT UNKNOWN	Cole Information Services
2009	OCCUPANT UNKNOWN	Cole Information Services
2005	H Cunningham W 3 VO	Hill-Donnelly Information Services
2000	William N Caputo H	Cole Information Services

23 CLIFTON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2017	BOBBY VOLPE	Cole Information Services
2014	BOBBY VOLPE	Cole Information Services
2009	BOBBY VOLPE	Cole Information Services
2005	H Knauf Marlene	Hill-Donnelly Information Services
2004	MARLENE KNAUF	Cole Information Services
2000	B Volpe	Cole Information Services
1994	AUGUSTYNE, JOHN J	Cole Information Services
1975	AUGUSTYNE JOHN J	New York Telephone Company
1970	AUGUSTYNE JOHN J	New York Telephone
1965	AUGUSTYNE JOHN J	New York Telephone Company
1960	CORNELL A MRS	New York Telephone Company
1934	Cornell Dorothy sten	R. L. Polk & Co.
1928	CORNELL A MRS R	New York Telephone

25 CLIFTON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2017	ELISEA SALAZAR	Cole Information Services
2014	ELISEA SALAZAR	Cole Information Services
2009	JOSE SALAZAR	Cole Information Services
2005	H Salazar El Bseao	Hill-Donnelly Information Services
2004	JOSE SALAZAR	Cole Information Services
2000	Rorence Pecorino	Cole Information Services
1995	VALENTINE Kenneth	NYNEX
1994	VALENTINE, KENNETH	Cole Information Services
	PECORINO, B	Cole Information Services
1990	PECORINO B	NYNEX Information Resource Company

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1990	PECORINO CHARLES	NYNEX Information Resource Company
1984	PECORINO B	New York Telephone
1975	SHELLER CHAS	New York Telephone Company
1970	SHELLER CHAS	New York Telephone
1965	SHELLER CHAS	New York Telephone Company
1960	SHELLER CHAS	New York Telephone Company
1934	Hemmon John carp r	R. L. Polk & Co.
	Hemmes Robt Lilly blmkr h	R. L. Polk & Co.
	Hemmes Walter lab r	R. L. Polk & Co.
1928	HEMMES J R	New York Telephone

29 CLIFTON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2017	PATRICIA POTES	Cole Information Services
2014	JOSEPH NICELLI	Cole Information Services
	PATRICIA POTES	Cole Information Services
	NICELLI ALEYDA	Cole Information Services
2009	AYBEE POTES	Cole Information Services
2005	H Nicelli Joseph a 00oo	Hill-Donnelly Information Services
	Villegas Vivian AV	Hill-Donnelly Information Services
	Nicelli Joseph	Hill-Donnelly Information Services
2004	JOSEPH NICELLI	Cole Information Services

31 CLIFTON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2017	JOHN CONNORS	Cole Information Services
2014	OCTAVIO COLLADO	Cole Information Services
2009	OCTAVIO COLLADO	Cole Information Services
2005	h Collado T v	Hill-Donnelly Information Services
	Morales Judith AV	Hill-Donnelly Information Services
	HConnors John a	Hill-Donnelly Information Services
2004	JOHN CONNORS	Cole Information Services

FINDINGS

33 CLIFTON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2004	JUNG MOON	Cole Information Services

35 CLIFTON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2017	NATASHA CABAIN	Cole Information Services
	JOSEPH TROCCI	Cole Information Services
2014	JOSEPH TROCCI	Cole Information Services
	LACEY REYES	Cole Information Services
	CHARLES GALLO	Cole Information Services
	THERESA MAZZA	Cole Information Services
	OCCUPANT UNKNOWN	Cole Information Services
	NATASHA CABAIN	Cole Information Services
2009	JOSEPH PROCCI	Cole Information Services
	JOHN CONNORS	Cole Information Services
	OCCUPANT UNKNOWN	Cole Information Services
2004	JOHN CONNORS	Cole Information Services
2000	Raymond Collins	Cole Information Services
1994	COLLINS, RAYMOND	Cole Information Services
1990	COLLINS RAYMOND	NYNEX Information Resource Company
1984	COLLINS RAYMOND	New York Telephone
1979	VAN FRANK WM	New York Telephone
1975	VAN FRANK SALVAGE INC	New York Telephone Company
1970	VANFRANK SALVAGE INC	New York Telephone
1965	VAN FRANK SALVAGE INC	New York Telephone Company
1960	VAN FRANK SALVAGE INC	New York Telephone Company
1928	VAN FRANK WMA RIGGEI	New York Telephone

37 CLIFTON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2017	KAREN TOZARO	Cole Information Services
	CINDY WU	Cole Information Services
	GLADYS MASTRION	Cole Information Services
	SAMANTHA REDA	Cole Information Services

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2014	RICHARD ACCA	Cole Information Services
	OCCUPANT UNKNOWN	Cole Information Services
	GLADYS MASTRION	Cole Information Services
	SAMANTHA REDA	Cole Information Services
2009	BURKLEY CINEUS	Cole Information Services
	CINDY WU	Cole Information Services
	OCCUPANT UNKNOWN	Cole Information Services
	STIX INTERNATIONAL	Cole Information Services
2005	Acca R	Hill-Donnelly Information Services

40 CLIFTON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2017	INNA KOCH	Cole Information Services
2014	INNA KOCH	Cole Information Services
2009	OCCUPANT UNKNOWN	Cole Information Services
2005	H Smith Gilbert AV	Hill-Donnelly Information Services
2004	GILBERT SMITH	Cole Information Services
2000	Fritz A Rigali	Cole Information Services
1995	RIGALI Fritz A	NYNEX
1994	RIGALI, FRITZ A	Cole Information Services
1975	RIGALI FRITZ A	New York Telephone Company
1970	RIGALI FRITZ A	New York Telephone
1965	RIGALI FRITZ A	New York Telephone Company

41 CLIFTON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2017	WAYNE YARBROUGH	Cole Information Services
2014	YARBROUGH LOUISE	Cole Information Services
2009	JOSEF MANGINO	Cole Information Services
2005	h Mangino J AV	Hill-Donnelly Information Services
	H Yarbrough Sam Av	Hill-Donnelly Information Services
2004	YARBROUGH WAYNE	Cole Information Services
	ROBERT YARBROUGH	Cole Information Services
	JOSEF MANGINO	Cole Information Services

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2000	Sam Yarbrough	Cole Information Services
1995	YARBROUGH Sam	NYNEX
1994	YARBROUGH, SAM	Cole Information Services
	FAIR, JOS A	Cole Information Services
1990	YARBROUGH SAM	NYNEX Information Resource Company
1984	YARBROUGH SAM	New York Telephone
	YARBROUGH D	New York Telephone
1975	LUPINACCI LOUIS	New York Telephone Company
	YARBROUGH SAM	New York Telephone Company
1970	LUPINACCI LOUIS	New York Telephone
1965	YARBROUGH LOUISE D MRS	New York Telephone Company
	LUPINACCI LOUIS	New York Telephone Company
1960	YARBROUGH LOUISE D MRS	New York Telephone Company

49 CLIFTON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	EVANS W L R	New York Telephone

50 CLIFTON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2017	LOUIS DAILEY	Cole Information Services
	FIONA BALLUGERA	Cole Information Services
2014	HENRY TANCREDI	Cole Information Services
	BALLUGERA INES	Cole Information Services
2009	BALLUGERA INES	Cole Information Services
	INES BALLUGERA	Cole Information Services
	BRIAN HORRACE	Cole Information Services
2005	HTancredi HTAO	Hill-Donnelly Information Services
	Ballugera I IF	Hill-Donnelly Information Services
	H Ballugera I v	Hill-Donnelly Information Services
	Ballugeral	Hill-Donnelly Information Services
2004	INES BALLUGERA	Cole Information Services
	BRADY HORRACE	Cole Information Services
	BALLUGERA INES	Cole Information Services

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2004	INES BALLUGERA	Cole Information Services
2000	I Ballugera	Cole Information Services
1995	BALLUGERA I	NYNEX
1994	BALLUGERA, I	Cole Information Services
	DILLON, MICHAEL	Cole Information Services
1990	BALLUGERA I	NYNEX Information Resource Company
	HAGEMANN JOHN	NYNEX Information Resource Company
1984	BALLUGERA I	New York Telephone
1979	BALLUGERA I	New York Telephone
	TANCREDI TERRENCE	New York Telephone
1975	TANCREDI TERRENCE	New York Telephone Company
	BALLUGERA I	New York Telephone Company
1970	PFLEGING KENNETH J	New York Telephone
1965	PFLEGING KENNETH J	New York Telephone Company
1934	Elwood Thos J Mary E police h	R. L. Polk & Co.
	Elwood Thos B clk r	R. L. Polk & Co.
	Elwood Julia J clk r	R. L. Polk & Co.
	Elwood Gladys M sten r	R. L. Polk & Co.
1928	ELWOOD G M MISS R	New York Telephone

56 CLIFTON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2017	JOSEPH CARDONE	Cole Information Services
2014	JOSEPH CARDONE	Cole Information Services
2009	JOSEPH CARDONE	Cole Information Services
2005	H Cardone 3oseph A Jr a	Hill-Donnelly Information Services
2004	JOSEPH CARDONE	Cole Information Services
2000	Jos A Cardone Jr	Cole Information Services
1975	COLLERATO SYLVESTER	New York Telephone Company
1970	COLLERATO SYLVESTER	New York Telephone
1965	COLLERATO SYLVESTER	New York Telephone Company

FINDINGS

58 CLIFTON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2017	IAN SEAGRIFF	Cole Information Services
2014	IAN SEAGRIFF	Cole Information Services
2009	TARA COONEY	Cole Information Services
2005	H Cooney George 3 AV	Hill-Donnelly Information Services
2004	GEORGE COONEY	Cole Information Services
2000	George J Cooney	Cole Information Services
1994	COONEY, GEO J	Cole Information Services
1990	COONEY GEO J	NYNEX Information Resource Company
1984	COONEY GEO J	New York Telephone
1979	COONEY GEO J	New York Telephone
1975	COONEY GEO J	New York Telephone Company

60 CLIFTON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2017	ROBERT ALBARAVO	Cole Information Services
2014	ARMANDO ARZUAGA	Cole Information Services
2009	OCCUPANT UNKNOWN	Cole Information Services
2005	HArzuaga A AA	Hill-Donnelly Information Services
2004	ARMANDO ARZUAGA	Cole Information Services
2000	62 NP	Cole Information Services
1970	KENNEY EUGENE R	New York Telephone
1965	KENNEY EUGENE R	New York Telephone Company

62 CLIFTON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2014	JAMES FOSTER	Cole Information Services
2009	JAMES FOSTER	Cole Information Services
2005	H Foster 3 P J	Hill-Donnelly Information Services
2004	OCCUPANT UNKNOWN	Cole Information Services

64 CLIFTON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	FAIR JOS A	New York Telephone Company

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	FAIR JOS A	New York Telephone
1965	FAIR JOS A	New York Telephone Company
1928	DE MOLL J F R	New York Telephone

65 CLIFTON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1934	Padovano Gluseppe Lillian junk dlr h	R. L. Polk & Co. R. L. Polk & Co.

29L CLIFTON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1960	CANGRO NICHOLAS	New York Telephone Company

CLIFTONS AVE

20 CLIFTONS AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1990	ADMIRAL MARINE CO INC	NYNEX Information Resource Company

CLLIFTON AVE

64 CLLIFTON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	SULLIVAN H R	New York Telephone

EDGEWATER

125 EDGEWATER

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	ATLANTIC BLDG PROD CO INC	New York Telephone Company

135 EDGEWATER

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1990	NARROWS MARINA & REPAIR BARRON CHARLES	NYNEX Information Resource Company NYNEX Information Resource Company
1975	MURPHY PACIFIC MARINE SALVAGE CO RAYMOND INTERNATIONAL	New York Telephone Company New York Telephone Company

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	RAYMOND INTERNATIONAL INC DERRICK & SALVAGE DIV	New York Telephone
	MURPHY PACIFIC MARINE SALVAGE CO	New York Telephone
	CHAPMAN DERRICK DIV RAYMOND INTERNATL	New York Telephone
1965	MERRITT-CHAPMAN & SCOTT CORP	New York Telephone Company
1960	MERRITT CHAPMAN & SCOTT CORP	New York Telephone Company
1928	MERRITT CHAPMAN & SCOTT CORP	New York Telephone
	MERRITT CHAPMAN & SCOTT CORP	New York Telephone

191 EDGEWATER

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	CON-RAY TRUCKING CORP	New York Telephone Company
	PIER 23 CORP	New York Telephone Company
	HOC-HULZ WAREHOUSE TERMINL CORP	New York Telephone Company

198 EDGEWATER

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	Submarine Tool Co Inc	NYNEX
1960	SINAPP CO CONTRS	New York Telephone Company

201 EDGEWATER

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1990	UNITED NY & NJ SANDY HOOK PILOTS BENEVOLENT ASSOC	NYNEX Information Resource Company

244 EDGEWATER

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	O NEILL JOS MRS R	New York Telephone

250 EDGEWATER

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	NARROWS HOTEL	New York Telephone

288 EDGEWATER

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1990	RUDOLPH M J STEVEDORING CORP	NYNEX Information Resource Company

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1970	BERGEN MARTIN J	New York Telephone
1965	LOMBARDI DOMINICK	New York Telephone Company
1960	LOMBARDI DOMINICK	New York Telephone Company

EDGEWATER ROSEBANK TELS PORT R

169 EDGEWATER ROSEBANK TELS PORT R

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1934	RICHMOND ICE CO THE C L Solomon Supt Ice Coal and Wood Dealers For Coal and Wood Call Main Office	R. L. Polk & Co.
	For Ice Call Yard and Plant	R. L. Polk & Co.

EDGEWATER ST

125 EDGEWATER ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2017	HELLMAN ELECTRIC CORP	Cole Information Services

135 EDGEWATER ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2009	JUNIOR SEA KNIGHTS OF AMERICA	Cole Information Services
2004	SEA KNIGHTS OF AMERICA	Cole Information Services
1999	SEA KNIGHTS OF AMERICA	Cole Information Services
	JUNIOR SEA KNIGHTS OF AMERICA	Cole Information Services
1994	SEA KNIGHTS OF AMERICA	Cole Information Services
	JUNIOR SEA KNIGHTS OF AMERICA	Cole Information Services

171 EDGEWATER ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2004	EDGEWATER DEPOT	Cole Information Services

180 EDGEWATER ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2004	OCCUPANT UNKNOWN	Cole Information Services

FINDINGS

187 EDGEWATER ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1934	National Assn of Chew ing Gum Mfrs Ellsworth B Buck sec	R. L. Polk & Co.

198 EDGEWATER ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2005	Submarine Tool Co IR	Hill-Donnelly Information Services
2004	SUBMARINE TOOL CO	Cole Information Services
2000	Sbnam Tool Co Inc	Cole Information Services
1999	SUBMARINE TOOL COMPANY INCORPORATED	Cole Information Services
1994	SUBMARINE TOOL CO INC	Cole Information Services

201 EDGEWATER ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2017	A PLUS LOCKSMITH	Cole Information Services
	SANDY HOOK PILOTS	Cole Information Services
2014	UNITED N Y & N J SANDY HOOK PILOTS B	Cole Information Services
	SANDY HOOK PILOTS	Cole Information Services
	N Y & N J SANDY HOOK PILOTS	Cole Information Services
2009	UNITED NEW NY SANDY HOOK PILOTS ASSN	Cole Information Services
	SANDY HAWK PILOTS ASSOCIATION	Cole Information Services
	UNITED NEW JERSEY SANDY HOK	Cole Information Services
	UNITED NJ SNDY HOOK PLTS BN/LT	Cole Information Services
2005	Pilots Of Sandy Hook o	Hill-Donnelly Information Services
	Hudson River Pilots Assoc	Hill-Donnelly Information Services
	New York Sandy Hook	Hill-Donnelly Information Services
2004	UNITED NEW YORK SANDY HOOK PLT	Cole Information Services
	JPR LIGHTING GROUP INC	Cole Information Services
	EDWARD SWEENEY	Cole Information Services
2000	United NY & N Assc	Cole Information Services
	Hudson River Pits	Cole Information Services
	Jpr Light Grp Inc	Cole Information Services

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1999	UNITED N Y & N J SANDY HOOK PILOTS BENEVOLENT	Cole Information Services
	J P R LIGHTING GROUP INCORPORATED	Cole Information Services
	HUDSON RIVER PILOTS ASSOCIATES	Cole Information Services
	N Y & N J SANDY HOOK PILOTS	Cole Information Services
1995	UNITED NY & NJ SANDY HOOK PILOTS BENEVOLENT ASSOC	NYNEX
1994	UNITED NY & NJ SANDY HOOK PILOTS BENEVOLENT ASSOC	Cole Information Services

205 EDGEWATER ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2009	BARWELL AGENCIES	Cole Information Services
2005	A & R Electrical Cntrctng Inc	Hill-Donnelly Information Services
2004	OCCUPANT UNKNOWN	Cole Information Services
	A & R ELECTRICAL CONTRACTING INC	Cole Information Services

210 EDGEWATER ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2017	WILHELMSEN SHIPS SERVICE	Cole Information Services
2014	WILHELMSEN SHIPS SERVICE INCORPORATE	Cole Information Services
2009	WILHELMSEN SHIPS SERVICE	Cole Information Services

232 EDGEWATER ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1934	Maughan John Ela slsmn h	R. L. Polk & Co.

234 EDGEWATER ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1934	Wright Wm Charlotte iron w kr h	R. L. Polk & Co.

242 EDGEWATER ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2017	JOHN SHORT	Cole Information Services
2014	FRANK WEST	Cole Information Services
	JOHN SHORT	Cole Information Services

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2009	JOHN SHORT	Cole Information Services
2005	H Mazella J	Hill-Donnelly Information Services
	HShort JM AV	Hill-Donnelly Information Services
2004	PAT BERTHIAUME	Cole Information Services

244 EDGEWATER ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2017	RONALD LEONCINI	Cole Information Services
2014	ANTHONY MAIORANO	Cole Information Services
2009	ANTHONY MAIORANO	Cole Information Services
2005	I Leoncini RA AO	Hill-Donnelly Information Services
2000	Ester McInnis	Cole Information Services
1934	Kuver Bertha wid John hsekpr h	R. L. Polk & Co.

246 EDGEWATER ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2017	GEORGE LADEAS	Cole Information Services
2014	GEORGE LADEAS	Cole Information Services
	MICHAEL DEANE	Cole Information Services
	RICHARD HAMPLE	Cole Information Services
2009	GEORGE LADEAS	Cole Information Services
	R HAMPLE	Cole Information Services
	HERMAN SAHADEO	Cole Information Services
	THOMAS HENRIGHT	Cole Information Services
	CARMINE QUINTEROS	Cole Information Services
2005	Quinteros Carmine	Hill-Donnelly Information Services
2004	R COLLINS	Cole Information Services

248 EDGEWATER ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2017	REBECCA BURKE	Cole Information Services
2014	THOMAS FLYNN	Cole Information Services
	TOM ZHANG	Cole Information Services
	MICHAEL COOK	Cole Information Services

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2014	AMY CHENG	Cole Information Services
2009	PEI LI	Cole Information Services
	SHAO ZHANG	Cole Information Services
	AMY CHENG	Cole Information Services
2005	h Cheng A A	Hill-Donnelly Information Services
	Zhang Shao Lian	Hill-Donnelly Information Services
	h Zhang Shao Jie V	Hill-Donnelly Information Services
2004	SHAO ZHANG	Cole Information Services
	BICAI	Cole Information Services
	KOON CHUNG	Cole Information Services
	JAY YOO	Cole Information Services
	WEN ZHOU	Cole Information Services
2000	Shao J Zhang	Cole Information Services
	Cheuk K Mak	Cole Information Services

250 EDGEWATER ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2017	WANDA SPYCHALA	Cole Information Services
	MATEUSZ KASICKI	Cole Information Services
2014	OCCUPANT UNKNOWN	Cole Information Services
	ANNA KONASZEWSKA	Cole Information Services
	PATRICIA JACOBS	Cole Information Services
2009	WANDA SPYCHALA	Cole Information Services
2005	H Spychala A AO	Hill-Donnelly Information Services
2004	ALEKSANDER SPYCHALA	Cole Information Services
2000	Eui S Park	Cole Information Services
1934	Edgewater Tavern RTN	R. L. Polk & Co.

252 EDGEWATER ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2017	SUSANA VELEZ	Cole Information Services
2014	OCCUPANT UNKNOWN	Cole Information Services
2009	SUSANA VELEZ	Cole Information Services
2005	Velez Susana	Hill-Donnelly Information Services

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2005	HPerez NR AO	Hill-Donnelly Information Services
2004	OCCUPANT UNKNOWN	Cole Information Services
2000	Maria I Ruiz	Cole Information Services

254 EDGEWATER ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2017	AARON GREY	Cole Information Services
	RAYMOND AYALA	Cole Information Services
2014	RAYMOND AYALA	Cole Information Services
2009	DANNY JORDAN	Cole Information Services
	RAYMOND AYALA	Cole Information Services
	FELICIA CARRASCO	Cole Information Services
2005	Jordan Danny	Hill-Donnelly Information Services
	Ayala RJ	Hill-Donnelly Information Services
2004	STEPHEN McDONALD	Cole Information Services
2000	Raymond Ayala	Cole Information Services
	S G Mc Donald	Cole Information Services

256 EDGEWATER ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2017	JOHN JAMES	Cole Information Services
2014	JOHN JAMES	Cole Information Services
2009	JOHN JAMES	Cole Information Services
2005	James John AO	Hill-Donnelly Information Services
2000	Tiesha Laspina	Cole Information Services

258 EDGEWATER ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2017	JULIE BLUMER	Cole Information Services
2014	OCCUPANT UNKNOWN	Cole Information Services
2009	CESAR LARRIVA	Cole Information Services
	OCCUPANT UNKNOWN	Cole Information Services
2005	H Dergounova Oksana	Hill-Donnelly Information Services
2004	DERGOUNOVA OKSA	Cole Information Services

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2004	OKSANA DERGOUNOVA	Cole Information Services
2000	Yuk C Sing	Cole Information Services
	Marci Rado	Cole Information Services

260 EDGEWATER ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2017	PAUL GIBILISCO	Cole Information Services
2014	PAUL GIBILISCO	Cole Information Services
2009	PAUL GIBILISCO	Cole Information Services
2005	H Gibilisco Paul A Ao	Hill-Donnelly Information Services
2004	PAUL GIBILISCO	Cole Information Services
2000	Florence Gibilisco	Cole Information Services
	Paul A Gibilisco	Cole Information Services

262 EDGEWATER ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2017	MARLENE OTALORA	Cole Information Services
	DAINE CARLSEN	Cole Information Services
2014	OTALORA MARLENE	Cole Information Services
	DANIEL OTALORA	Cole Information Services
2009	MARLENE OTALORA	Cole Information Services
2005	h Otalora Marlene AO	Hill-Donnelly Information Services
2004	OTALORA MARLENE	Cole Information Services
	MARLENE OTALORA	Cole Information Services

264 EDGEWATER ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2017	ASHOUN BUTTS	Cole Information Services
2014	NANCY SANTANA	Cole Information Services
	HAKEEM BUTTS	Cole Information Services
	JORDAN LUIS	Cole Information Services
2009	WU YAO	Cole Information Services
	TIMMY NG	Cole Information Services
	EBONY SANTANA	Cole Information Services

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2009	HAKEEM BUTTS	Cole Information Services
	NEPHTALI LEWIS	Cole Information Services
2005	NGPatti	Hill-Donnelly Information Services
2004	YAO TANG	Cole Information Services
	ANO LEE	Cole Information Services
	WU YAO	Cole Information Services
	YEK HENG	Cole Information Services
2000	Kai L Tang	Cole Information Services

266 EDGEWATER ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2017	JIAN CAI	Cole Information Services
2014	HELEN LEUNG	Cole Information Services
2009	KENNETH KOLONKOWSKI	Cole Information Services
2005	n Kolonkow ski Kenneth 3 o	Hill-Donnelly Information Services
	HLeung HY v	Hill-Donnelly Information Services
2004	KENNETH KOLONKOWSKI	Cole Information Services
2000	K J Kolonkow ski	Cole Information Services

288 EDGEWATER ST

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2005	M 3 Rudolph Stevedoring Corp	Hill-Donnelly Information Services
	Rudolph J A A	Hill-Donnelly Information Services
2000	Rudolph M Stvdrng 84 713 273 65 C	Cole Information Services
1995	Rudolph M J Stevedoring Corp	NYNEX

N CLIFTON AVE

33 N CLIFTON AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1934	Mangino Margt clk r	R. L. Polk & Co.

FINDINGS

SAINT MARYS AVE

2 SAINT MARYS AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1999	OCCUPANT UNKNOWN	Cole Information Services

ST MARYS AV H109 DO

5 ST MARYS AV H109 DO

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1934	Briguglio Anthony Nancy tailor h	R. L. Polk & Co.

ST MARYS AVE

1 ST MARYS AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2000	Martin Ndokaj	Cole Information Services
	Alfons Ndokaj	Cole Information Services
	N Palaj	Cole Information Services

SYLVA LN

0 SYLVA LN

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2000	NAGSTROM MAP LOC 27 M	Cole Information Services

2 SYLVA LN

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2014	CHARLENE NICKOLAN	Cole Information Services

12 SYLVA LN

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2017	LISA GUASTAFESTE	Cole Information Services
	LILISA JABONILLO	Cole Information Services
	NANCY MARTIRE	Cole Information Services
	RAMONITO JABONILLO	Cole Information Services
2014	LISA GUASTAFESTE	Cole Information Services
	JOSEPH PAONE	Cole Information Services

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2014	NANCY MARTIRE	Cole Information Services
2009	NANCY MARTIRE	Cole Information Services
2005	Martire Nancy A 0 o	Hill-Donnelly Information Services
2004	JOHN RAGGI	Cole Information Services
	OCCUPANT UNKNOWN	Cole Information Services
	JAMIE PICCININI	Cole Information Services
2000	Apartments	Cole Information Services
	Anthony Brutto	Cole Information Services
	B Chris Stocker	Cole Information Services
	RESIDENCE	Cole Information Services

14 SYLVA LN

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2017	AKL FATHELBAB	Cole Information Services
	MARIE CHIARELLO	Cole Information Services
	ALYSSA MIRAGLIA	Cole Information Services
2014	MARIE CHIARELLO	Cole Information Services
	A OUALIM	Cole Information Services
	OCCUPANT UNKNOWN	Cole Information Services
2009	OCCUPANT UNKNOWN	Cole Information Services
	MARIANA ABDEL SHAHEID	Cole Information Services
	JOSEPH MARTUCCI	Cole Information Services
	MARIE CHIARELLO	Cole Information Services
2005	h Martucci Joseph J A 7 as	Hill-Donnelly Information Services
	Chiarello Marie v o	Hill-Donnelly Information Services
2004	OCCUPANT UNKNOWN	Cole Information Services
	JOSEPH MARTUCCI	Cole Information Services

15 SYLVA LN

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2004	CAMILLE MANNING	Cole Information Services

FINDINGS

16 SYLVA LN

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2017	PEDRO ENRIQUEZ	Cole Information Services
	MICHAEL GROSSMAN	Cole Information Services
2014	OCCUPANT UNKNOWN	Cole Information Services
	PEDRO ENRIQUEZ	Cole Information Services
	SUNSIERRE NEWSOME	Cole Information Services
	THOMAS FINNERTY	Cole Information Services
2009	DONNA PAGAN	Cole Information Services
	OCCUPANT UNKNOWN	Cole Information Services
	GLORIA ESTUDILLO	Cole Information Services
	JESSICA FINNERTY	Cole Information Services
2005	No Current Listing	Hill-Donnelly Information Services
2004	OCCUPANT UNKNOWN	Cole Information Services
	GLORIA ESTUDILLO	Cole Information Services

18 SYLVA LN

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2017	MICKEY SHEKDAR	Cole Information Services
2014	BARBARA PANZA	Cole Information Services
	OCCUPANT UNKNOWN	Cole Information Services
	MARIA VAZQUEZ	Cole Information Services
	PRISCILLA NELSON	Cole Information Services
	AMERICO MICHEL	Cole Information Services
2009	DONALD BURRELL	Cole Information Services
	INGRID VASQUEZ	Cole Information Services
	OCCUPANT UNKNOWN	Cole Information Services
	PRISCILLA NELSON	Cole Information Services
2004	ROBERT LAMBIASI	Cole Information Services
	JOHN DEPALMA	Cole Information Services
	FRANK ROTELLA	Cole Information Services
	OCCUPANT UNKNOWN	Cole Information Services

FINDINGS

20 SYLVA LN

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2017	CHRISTOPHER TUCCIO	Cole Information Services
	MASON LOGIE	Cole Information Services
	LARRY ATHERTON	Cole Information Services
	JASON CRAGAN	Cole Information Services
2014	LARRY ATHERTON	Cole Information Services
	JASON CRAGAN	Cole Information Services
	OCCUPANT UNKNOWN	Cole Information Services
2009	LANEZ CRAGEN	Cole Information Services
	LANEZ CRAGAN	Cole Information Services
2005	No Current Listing	Hill-Donnelly Information Services
2004	CAROLLYNNE DELFINI	Cole Information Services

21 SYLVA LN

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2004	PETER POLIZZI	Cole Information Services

22 SYLVA LN

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2017	KRISTIN KILLEA	Cole Information Services
	CHARLENE NICKOLAN	Cole Information Services
	JUANITA BROWN	Cole Information Services
	ANNETTE MARINO	Cole Information Services
2014	VINCENT PIACENTI	Cole Information Services
	MARISOL HERNANDEZ	Cole Information Services
	CHARLENE NICKOLAN	Cole Information Services
	STEPHONE BROWN	Cole Information Services
	JANET REUHL	Cole Information Services
	OCCUPANT UNKNOWN	Cole Information Services
2009	OCCUPANT UNKNOWN	Cole Information Services
	MARISOL HERNANDEZ	Cole Information Services
	ROBERT MEEHAN	Cole Information Services
2005	No Current Listing	Hill-Donnelly Information Services
1984	LEAKE HELEN	New York Telephone

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1979	LEAKE HELEN	New York Telephone

24 SYLVA LN

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2017	GUY PAONE	Cole Information Services
	ZENA KHAN	Cole Information Services
	DOMINICK PRETE	Cole Information Services
2014	DOMINICK PRETE	Cole Information Services
	GUY PAONE	Cole Information Services
	ZENA KHAN	Cole Information Services
	OCCUPANT UNKNOWN	Cole Information Services
2009	ZENA KHAN	Cole Information Services
	GUY PAONE	Cole Information Services
	DIANE PRETE	Cole Information Services
	OCCUPANT UNKNOWN	Cole Information Services
2005	Prete Diane v	Hill-Donnelly Information Services
	H Russo Tom C III	Hill-Donnelly Information Services
2004	TOM RUSSO	Cole Information Services
	OCCUPANT UNKNOWN	Cole Information Services
	DIANE PRETE	Cole Information Services
2000	A Tom C Russo III	Cole Information Services
	Apartments	Cole Information Services
1984	PHILLIPS A	New York Telephone
1979	MORRIS WM	New York Telephone

26 SYLVA LN

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2017	ANTHONG RIERA	Cole Information Services
2014	YAN ROZIN	Cole Information Services
	OCCUPANT UNKNOWN	Cole Information Services
2009	OCCUPANT UNKNOWN	Cole Information Services
	ANTHONY PIACENTI	Cole Information Services
	STEVE SURIANI	Cole Information Services
2005	Myrickes Erica v	Hill-Donnelly Information Services

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2004	ANITA KANE	Cole Information Services
	OCCUPANT UNKNOWN	Cole Information Services
	VITO TRUGLIO	Cole Information Services
	JANE SUSINO	Cole Information Services
2000	Vito Truglio	Cole Information Services
	Frank Mc Erlean	Cole Information Services
	Anita Kane	Cole Information Services

27 SYLVA LN

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2004	JOHN CALLEGARI	Cole Information Services

28 SYLVA LN

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2017	MARIA IBRAHAM	Cole Information Services
	CHASTITY CALVANICO	Cole Information Services
	LOUIS CALVANICO	Cole Information Services
	BARBARA PANZA	Cole Information Services
	IMA CHY	Cole Information Services
2014	MARIA IBRAHAM	Cole Information Services
	ABDELHAK CHAYAT	Cole Information Services
	ERIC MOREIRA	Cole Information Services
	OCCUPANT UNKNOWN	Cole Information Services
	SAMANTHA CHESNEY	Cole Information Services
	GARY PILINSKI	Cole Information Services
2009	GARY PILINSKI	Cole Information Services
	ABDELHAK CHAYAT	Cole Information Services
	OCCUPANT UNKNOWN	Cole Information Services
2005	Corraglo Gerard v	Hill-Donnelly Information Services
2004	OCCUPANT UNKNOWN	Cole Information Services
	LARRY ATHERTON	Cole Information Services
	GERARD CORRAGIO	Cole Information Services
2000	David Psaroudis	Cole Information Services
	Ketty Toll	Cole Information Services

FINDINGS

30 SYLVA LN

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2017	FLORINE SIMPSON	Cole Information Services
	KERRI CURCI	Cole Information Services
	JENNIFER JENSEN	Cole Information Services
2014	GIOVE LARRY	Cole Information Services
	LARRY GIOVE	Cole Information Services
	JENNIFER JENSEN	Cole Information Services
	LOUIS MINUNNI	Cole Information Services
	KERRI CURCI	Cole Information Services
2009	OCCUPANT UNKNOWN	Cole Information Services
	CATHERINE ARCURIA	Cole Information Services
2005	Suriani Steve	Hill-Donnelly Information Services
2004	ELAINE VANDERNEUT	Cole Information Services
	OCCUPANT UNKNOWN	Cole Information Services
	STEVE SURIANI	Cole Information Services
2000	Eddie Calla	Cole Information Services

32 SYLVA LN

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2017	STEVE SURIANI	Cole Information Services
	MICHELE BYNOE	Cole Information Services
	JOSE MORALES	Cole Information Services
	JOHN SURIANI	Cole Information Services
	NICHOLAS SURIANI	Cole Information Services
2014	MICHELE BYNOE	Cole Information Services
	JOSE MORALES	Cole Information Services
	JOHN SURIANI	Cole Information Services
	MICHAEL GARZONE	Cole Information Services
2009	MICHAEL GARZONE	Cole Information Services
	MICHELE BYNOE	Cole Information Services
	PATRICIA MAJESKI	Cole Information Services
	JOHN SURIANI	Cole Information Services
	OCCUPANT UNKNOWN	Cole Information Services

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2005	Majeski Patricia 0 4h Suriani John Av 9s	Hill-Donnelly Information Services
2004	ANNETT HECKL	Cole Information Services
	JOHN SURIANI	Cole Information Services
	WILLIAM STROMNES	Cole Information Services
2000	John Suriani John Sujani H	Cole Information Services
	A Hecki	Cole Information Services
	Pat Berthiaume	Cole Information Services

33 SYLVA LN

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2004	THOMAS CERBONE	Cole Information Services

35 SYLVA LN

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2004	SALVATORE TADDEO	Cole Information Services

39 SYLVA LN

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2004	JAYSON JACKNOW	Cole Information Services

40 SYLVA LN

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2009	HELEN TZIVAS	Cole Information Services

41 SYLVA LN

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2009	DARA BENEDETTO	Cole Information Services
2004	DARA BENEDETTO	Cole Information Services

47 SYLVA LN

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2004	MICHAEL GATTO	Cole Information Services

53 SYLVA LN

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2004	MICHAEL BALESTRIERI	Cole Information Services

FINDINGS

59 SYLVA LN

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2004	LISA TASCA	Cole Information Services

69 SYLVA LN

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2004	LOUIS IZZO	Cole Information Services

SYLVAN LN

22 SYLVAN LN

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	LEAKE HELEN	New York Telephone Company

24 SYLVAN LN

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1975	MORRIS WM	New York Telephone Company

SYLVATN TER

32 SYLVATN TER

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1990	DE ANGELIS A	NYNEX Information Resource Company
1984	DEANGELIS A	New York Telephone
1979	DEANGELIS A	New York Telephone
1975	DEANGELIS A	New York Telephone Company
1970	DE ANGELIS A	New York Telephone
1965	DE ANGELIS A	New York Telephone Company

SYLVATON TER

1 SYLVATON TER

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2000	HAGSTROM MAP LOC	Cole Information Services
	SOCT 6 EP	Cole Information Services

FINDINGS

10 SYLVATON TER

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2000	RESIDENCE	Cole Information Services

20 SYLVATON TER

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1934	Neumuller Henry electn r	R. L. Polk & Co.
	Neumuller Ernest clk r	R. L. Polk & Co.
	Neumuller Edith r	R. L. Polk & Co.
	Neumuller Chas Marie r	R. L. Polk & Co.
	Neumuller Carl chemist r	R. L. Polk & Co.
	Neumuller Albert chauf r	R. L. Polk & Co.
1928	NEUMULLER E R	New York Telephone

28 SYLVATON TER

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2017	DIETER GNYP	Cole Information Services
2014	DIETER GNYP	Cole Information Services
2009	ALEXANDER ONETTO	Cole Information Services
2005	HTang W L VA	Hill-Donnelly Information Services
2004	WU TANG	Cole Information Services
2000	Barara Cisluycis	Cole Information Services
1995	CISLUYCIS Ronald	NYNEX
1994	CISLUYCIS, RONALD	Cole Information Services
1934	De Adeangells Frank clk r	R. L. Polk & Co.
	De Adeangells Alphonse Sarah lab h	R. L. Polk & Co.

32 SYLVATON TER

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2017	CARMELLA SEEGITZ	Cole Information Services
2014	CARMELLA SEEGITZ	Cole Information Services
2009	HENRY SEEGITZ	Cole Information Services
2005	Seegltz H 0 4 H Seegltz Henry o	Hill-Donnelly Information Services
2004	HENRY SEEGITZ	Cole Information Services
2000	Henry Seegitz	Cole Information Services

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	SEEGITZ Henry	NYNEX
1994	DEANGELIS, A	Cole Information Services
	SEEGITZ, HENRY	Cole Information Services
1975	HENRY S T V	New York Telephone Company
1934	Erb Vincent uphol	R. L. Polk & Co.
	Fischer Louis T h	R. L. Polk & Co.
1928	ERB VINCENT R	New York Telephone

36 SYLVATON TER

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2017	TERESA LIGAMMARI	Cole Information Services
	RONY PAR	Cole Information Services
2014	TERESA LIGAMMARI	Cole Information Services
	JOSE ORDONEZ	Cole Information Services
	MARINO RALPH	Cole Information Services
	RONY PAR	Cole Information Services
2009	MARINO RALPH	Cole Information Services
	JAG MEHTA	Cole Information Services
	JOSE ORDONEZ	Cole Information Services
	MARIBEL OLIVERA	Cole Information Services
2005	h Mehta Jagmohan v	Hill-Donnelly Information Services
	Gluchow ski Andrzel V	Hill-Donnelly Information Services
2004	RALPH MARINO	Cole Information Services
	ANDRZEJ GLUCHOWSKI	Cole Information Services
	JAG MEHTA	Cole Information Services
	MARINO RALPH	Cole Information Services
2000	J Mehta	Cole Information Services
	Andrzej Gluchw ski	Cole Information Services
	Apartments	Cole Information Services

38 SYLVATON TER

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2017	JUAN GARCIA	Cole Information Services
2014	LORRAINE CORBETT	Cole Information Services

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2014	JUAN GARCIA	Cole Information Services
2009	JUAN GARCIA	Cole Information Services
2005	Wylezek Katrzyna	Hill-Donnelly Information Services
2004	STEVEN CORBETT	Cole Information Services
	SONA HRUBCINOVA	Cole Information Services
2000	Patrivk Kana H	Cole Information Services

40 SYLVATON TER

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2017	TRACY HYTER-SUFFERN	Cole Information Services
	IWONA PEZACKA	Cole Information Services
	ANGIE SUFFERN	Cole Information Services
	ANTHONY RUCANO	Cole Information Services
2014	TRACY HYTER-SUFFERN	Cole Information Services
	TOMASZ MACH	Cole Information Services
2009	GIANNA MICELI	Cole Information Services
	MARGARET REES	Cole Information Services
	SONIA MACH	Cole Information Services
2005	h Mach Sonia AV	Hill-Donnelly Information Services
2004	IWONA PEZACKA	Cole Information Services
	STANISLAW MACH	Cole Information Services
2000	Sonia Mach	Cole Information Services

42 SYLVATON TER

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2017	MARIBEL OLIVERA	Cole Information Services
	IEISHA WHITE	Cole Information Services
	JOHN RIVERA	Cole Information Services
	BRIAN GREGORY	Cole Information Services
	SAMUEL VELAZQUEZ	Cole Information Services
	LISA PELLICANO	Cole Information Services
2014	FRANKY BLANDINO	Cole Information Services
	WILLIAM DIAZ	Cole Information Services
	MARIBEL OLIVERA	Cole Information Services

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2009	WILLIAM DIAZ	Cole Information Services
	DEIDRA THELPS	Cole Information Services
2005	No Current Listing	Hill-Donnelly Information Services
2004	SUSAN BRIFFA	Cole Information Services
	GUILLERMO VEGA	Cole Information Services

44 SYLVATON TER

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2017	IZABELA KRUCZYNSKA	Cole Information Services
	TAWAKALITU SHOFUYI	Cole Information Services
	AYAD SHARHAN	Cole Information Services
	EILEEN MUNIZ	Cole Information Services
2014	AYAD SHARHAN	Cole Information Services
	EDGARDO REYES	Cole Information Services
	NICOLE TYSON	Cole Information Services
	IZABELA KRUCZYNSKA	Cole Information Services
	EILEEN MUNIZ	Cole Information Services
2009	NICOLE TYSON	Cole Information Services
	VINCENT LOIA CONO	Cole Information Services
	EDGARDO REYES	Cole Information Services
2005	h Sikora Anna v	Hill-Donnelly Information Services
	Sikora Eugeniusz	Hill-Donnelly Information Services
2004	MALGORZATA SZAROWECZ	Cole Information Services
	EUGENIUSZ SIKORA	Cole Information Services
2000	Anna Skora	Cole Information Services
	Eugeniusz Sikora	Cole Information Services
	M Sarow ecz	Cole Information Services

SYLVTN TER

28 SYLVTN TER

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1990	CISLUYCIS RONALD	NYNEX Information Resource Company
1984	CISLUYCIS RONALD	New York Telephone

FINDINGS

32 SYLVTN TER

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1990	SEEGITZ HENRY	NYNEX Information Resource Company
1984	SEEGITZ HENRY	New York Telephone
1979	SEEGITZ HENRY	New York Telephone

VIRGINIA AVE

2 VIRGINIA AVE

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2000	All American Home	Cole Information Services
	Dennis A Kelly	Cole Information Services

WIMAN PL

1 WIMAN PL

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2000	HAGSTROM MAP LOC 27 P	Cole Information Services
	W CT 6 EP	Cole Information Services

20 WIMAN PL

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2014	OCCUPANT UNKNOWN	Cole Information Services
2009	PAT CULLEN	Cole Information Services
2005	H Holman Karen AO	Hill-Donnelly Information Services
2004	OCCUPANT UNKNOWN	Cole Information Services
2000	Henry G Holman	Cole Information Services
1995	HOLMAN Henry G	NYNEX
1994	HOLMAN, HENRY G	Cole Information Services
1990	HOLMAN HENRY G	NYNEX Information Resource Company
1984	HOLMAN HENRY G	New York Telephone
1979	HOLMAN HENRY G	New York Telephone
1975	HOLMAN HENRY G	New York Telephone Company
1970	MCNAMARA KATHRYN C	New York Telephone
1965	MCNAMARA KATHRYN C	New York Telephone Company
1960	MCNAMARA KATHRYN C	New York Telephone Company

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1934	Mc Namara John J Kathryn formn S I PO h	R. L. Polk & Co.
1928	SCHAEFER N O R	New York Telephone

28 WIMAN PL

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2017	MATTHEW SOZIO	Cole Information Services
2014	MATTHEW SOZIO	Cole Information Services
2009	MATTHEW SOZIO	Cole Information Services
2005	Sozio LA AV	Hill-Donnelly Information Services
2004	MATTHEW SOZIO	Cole Information Services
2000	32 NP	Cole Information Services
1970	SOZIO MARIO CWO	New York Telephone
1965	SOZIO MARIO CWO	New York Telephone Company
1960	CORSON FLORENCE MRS	New York Telephone Company
1934	Corson Melvin Florence cond h	R. L. Polk & Co.
	Pecoraro Jos r	R. L. Polk & Co.
	Corson Ruth clk r	R. L. Polk & Co.
	Corson Ella M clk r	R. L. Polk & Co.

32 WIMAN PL

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2017	IRWIN WENGER	Cole Information Services
2014	DOREEN SALZILLO	Cole Information Services
2009	DOREEN SALZILLO	Cole Information Services
2005	h Savino Frank AV	Hill-Donnelly Information Services
	H Salzillo D AV	Hill-Donnelly Information Services
2004	LUCILLE SALZILLO	Cole Information Services
	FRANK SAVINO	Cole Information Services
1995	DRURY Daniel	NYNEX
1994	DRURY, DANIEL	Cole Information Services
1990	GREENBLATT HENRY	NYNEX Information Resource Company
1984	GREENBLATT HENRY	New York Telephone
1960	RODGERS THOS G	New York Telephone Company
1934	Wardlaw Geo Flora surveyor r	R. L. Polk & Co.

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1934	Rodgers Thos Mary pipeftr r	R. L. Polk & Co.
	Weldon Mary r	R. L. Polk & Co.
	Wardlaw Wm clk r	R. L. Polk & Co.
	Wardlaw Juliana Mrs h	R. L. Polk & Co.
1928	WARDLAW GEO R	New York Telephone

36 WIMAN PL

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2017	PETER LEPORE	Cole Information Services
2014	PETER LEPORE	Cole Information Services
2009	PETER LEPORE	Cole Information Services
	JOANNE GALLO	Cole Information Services
2005	H Lepore Peter A	Hill-Donnelly Information Services
2004	OCCUPANT UNKNOWN	Cole Information Services
2000	P Padvano	Cole Information Services
1994	PADOVANO, P	Cole Information Services
1990	PADOVANO P	NYNEX Information Resource Company
1984	PADOVANO P	New York Telephone
1979	PADOVANO P	New York Telephone
1975	PADOVANO P	New York Telephone Company
1970	PADOVANO P	New York Telephone
1965	PADOVANO P JUNK	New York Telephone Company
1960	PADOVANO P JUNK	New York Telephone Company
1934	Padovano Philip Carrie junk dlr h	R. L. Polk & Co.

38 WIMAN PL

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2009	GOOD COUNSEL INC	Cole Information Services
2005	No Current Listing	Hill-Donnelly Information Services
2004	GOOD COUNSEL INC	Cole Information Services
	COUNSEL HOME	Cole Information Services
2000	Counsel G Home	Cole Information Services
	Good Home	Cole Information Services
1999	HOME COUNSEL GOOD	Cole Information Services

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1995	NICHOLSON C	NYNEX
	BELL Christopher	NYNEX
1994	BELL, CHRISTOPHER	Cole Information Services
	NICHOLSON, C	Cole Information Services
1990	GOOD COUNSEL	NYNEX Information Resource Company
	BELL CHRISTOPHER	NYNEX Information Resource Company
	NICHOLSON C	NYNEX Information Resource Company
1960	SISTER MARITA DOLORES	New York Telephone Company
1934	ST GEORGE HOTEL John Kirschner Mgr	R. L. Polk & Co.
	St Marys Convent Sister of Charity	R. L. Polk & Co.
	Sisters of Charity	R. L. Polk & Co.
1928	SISTERS OF CHARITY R	New York Telephone

41 WIMAN PL

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2005	Transcontinental Gas Pipeline	Hill-Donnelly Information Services
2004	TRANSCONTNLT GAS PIPE LINE CORP	Cole Information Services
1999	TRANSCONTNLT GAS PIPE LINE CORPORATION	Cole Information Services
1994	TRANSCONTNLT GAS PIPE LINE CORP	Cole Information Services
1990	TRANSCOTITNLT GAS PIPE LINE CORP	NYNEX Information Resource Company
1984	TRANSCONTNLT GAS PIPE LINE CORP	New York Telephone
1979	TRANSCONTNLT GAS PIPE LINE CORP	New York Telephone
1975	TRANSCONTNLT GAS PIPE LINE CORP	New York Telephone Company
1970	TRANSCONTNLT GAS PIPE LINE CORP	New York Telephone
1965	TRANSCONHTLT GAS PIPE LINE CORP	New York Telephone Company

44 WIMAN PL

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2017	KIM ARAGONA	Cole Information Services
2014	VINCENT RIZZUTO	Cole Information Services
2009	ARAGONA KIM	Cole Information Services
	VINCENT RIZZUTO	Cole Information Services
	JOHN PANARELLA	Cole Information Services

FINDINGS

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2009	GUY IZZO	Cole Information Services
2005	Rinzzuto Vincent	Hill-Donnelly Information Services

46 WIMAN PL

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2014	OCCUPANT UNKNOWN	Cole Information Services
2009	WILLIAM PETERSON	Cole Information Services
2005	h De Young J t	Hill-Donnelly Information Services

48 WIMAN PL

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2017	JANICE SCIBILIA	Cole Information Services
2014	SCIBILIA JOE	Cole Information Services
2009	EMMETT BOYD	Cole Information Services
	MERLE SCIBILIA	Cole Information Services
2005	H Sdbilla Joe A	Hill-Donnelly Information Services
	Boyd David tv Scib J 4v	Hill-Donnelly Information Services

50 WIMAN PL

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2014	WAI KEUNG	Cole Information Services
	XIU ZHANG	Cole Information Services
	BRIAN CHINN	Cole Information Services
2009	OCCUPANT UNKNOWN	Cole Information Services
2005	Zhang Xlu Zhen	Hill-Donnelly Information Services

52 WIMAN PL

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2005	No Current Listing	Hill-Donnelly Information Services

54 WIMAN PL

<u>Year</u>	<u>Uses</u>	<u>Source</u>
2005	Ashe Latoya v 0	Hill-Donnelly Information Services

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WYMAN PL

28 WYMAN PL

<u>Year</u>	<u>Uses</u>	<u>Source</u>
1928	CORSON M E R	New York Telephone

FINDINGS

ADJOINING PROPERTY: ADDRESSES NOT IDENTIFIED IN RESEARCH SOURCE

The following Adjoining Property addresses were researched for this report, and the addresses were not identified in research source.

<u>Address Researched</u>	<u>Address Not Identified in Research Source</u>
Church Lane	2017, 2014, 2009, 2005, 2004, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
Clifton Ave	2017, 2014, 2009, 2005, 2004, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
Sylva Lane	2017, 2014, 2009, 2005, 2004, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
Wiman Pl	2017, 2014, 2009, 2005, 2004, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
0 SYLVA LN	2017, 2014, 2009, 2005, 2004, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
1 CLIFTON AVE	2017, 2014, 2009, 2004, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
1 ST MARYS AVE	2017, 2014, 2009, 2005, 2004, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
1 SYLVATON TER	2017, 2014, 2009, 2005, 2004, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
1 WIMAN PL	2017, 2014, 2009, 2005, 2004, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
10 SYLVATON TER	2017, 2014, 2009, 2005, 2004, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
1071 BAY	2017, 2014, 2009, 2005, 2004, 2000, 1999, 1995, 1994, 1960, 1934, 1928
1071 BAY ST	2005, 2000, 1995, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
1075 BAY ST G	2017, 2014, 2009, 2005, 2004, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1928
1077 BAY ST	2009, 2005, 2004, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
1078 BAY	2017, 2014, 2009, 2005, 2004, 2000, 1999, 1995, 1994, 1984, 1934
1080 BAY	2017, 2014, 2009, 2005, 2004, 2000, 1999, 1995, 1994, 1984, 1979, 1975, 1934
1080 BAY ST	2005, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
1082 BAY	2017, 2014, 2009, 2005, 2004, 2000, 1999, 1994, 1960, 1928
1082 BAY ST	2017, 2009, 2005, 2000, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
1083 BAY	2017, 2014, 2009, 2005, 2004, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1928
1084 BAY	2017, 2014, 2009, 2005, 2004, 2000, 1999, 1994, 1928

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Address Researched

Address Not Identified in Research Source

1084 BAY ST	2017, 2014, 2009, 2004, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
1084 BAY ST	2017, 2014, 2009, 2005, 2000, 1995, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
1085 BAY	2017, 2014, 2009, 2005, 2004, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1934
1086 BAY	2017, 2014, 2009, 2005, 2004, 2000, 1999, 1994, 1984
1086 BAY ST	2017, 2014, 2009, 2004, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
1086 BAY ST	2005, 2000, 1995, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
1088 BAY	2017, 2014, 2009, 2005, 2004, 2000, 1999, 1994, 1979, 1975, 1928
1088 BAY ST	2017, 2014, 2009, 2004, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
1088 BAY ST	2005, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
1089 BAY	2017, 2014, 2009, 2005, 2004, 2000, 1999, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
1090 BAY	2017, 2014, 2009, 2005, 2004, 2000, 1999, 1994, 1928
1090 BAY ST	2017, 2014, 2009, 2004, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
1090 BAY ST	2005, 2000, 1995, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
1100 BAY	2017, 2014, 2009, 2005, 2004, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960
1101 BAY	2017, 2014, 2009, 2005, 2004, 2000, 1999, 1994
1101 BAY ST	2017, 2014, 2009, 2004, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
1101 BAY ST	2005, 2000, 1995, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
1102 BAY	2017, 2014, 2009, 2005, 2004, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1928
1105 BAY	2017, 2014, 2009, 2005, 2004, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1928
1106 BAY	2017, 2014, 2009, 2005, 2004, 2000, 1999, 1994, 1965, 1960, 1934, 1928
1106 BAY ST	2017, 2014, 2009, 2004, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
1106 BAY ST	2017, 2014, 2009, 2005, 2000, 1995, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
1108 BAY	2017, 2014, 2009, 2005, 2004, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1928
1110 BAY	2017, 2014, 2009, 2005, 2004, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1928
1116 BAY	2017, 2014, 2009, 2005, 2004, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1928

FINDINGS

Address Researched

Address Not Identified in Research Source

1124 BAY	2017, 2014, 2009, 2005, 2004, 2000, 1999, 1994, 1934
1124 BAY ST	2017, 2014, 2009, 2004, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
1124 BAY ST	2005, 2000, 1995, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
1125 BAY ST	2014, 2009, 2005, 2000, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
1130 BAY	2017, 2014, 2009, 2005, 2004, 2000, 1999, 1995, 1994, 1934, 1928
1130 BAY ST	2005, 2000, 1995, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
1131 BAY ST	2005, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
1131 BAY ST	2017, 2014, 2009, 2004, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
1145 BAY ST	2005, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
12 SYLVA LN	2005, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
12 SYLVA LN	2017, 2014, 2009, 2004, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
125 EDGEWATER	2017, 2014, 2009, 2005, 2004, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1970, 1965, 1960, 1934, 1928
125 EDGEWATER ST	2014, 2009, 2005, 2004, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
135 EDGEWATER	2017, 2014, 2009, 2005, 2004, 2000, 1999, 1995, 1994, 1984, 1979, 1934
135 EDGEWATER ST	2017, 2014, 2005, 2000, 1995, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
14 SYLVA LN	2005, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
14 SYLVA LN	2017, 2014, 2009, 2004, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
15 SYLVA LN	2017, 2014, 2009, 2005, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
16 CLIFTON	2017, 2014, 2009, 2005, 2004, 2000, 1999, 1995, 1994, 1960, 1934, 1928
16 CLIFTON AVE	2017, 2014, 2009, 2005, 2004, 2000, 1999, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
16 SYLVA LN	2017, 2014, 2009, 2004, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
16 SYLVA LN	2005, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
169 EDGEWATER ROSEBANK TELS PORT R	2017, 2014, 2009, 2005, 2004, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1928
17 CLIFTON AVE	2017, 2014, 2009, 2004, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928

FINDINGS

Address Researched

Address Not Identified in Research Source

17 CLIFTON AVE	2005, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
171 EDGEWATER ST	2017, 2014, 2009, 2005, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
18 SYLVALN	2005, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
180 EDGEWATER ST	2017, 2014, 2009, 2005, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
187 EDGEWATER ST	2017, 2014, 2009, 2005, 2004, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1928
19 CLIFTON AVE	2017, 2014, 2009, 2004, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
19 CLIFTON AVE	2005, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
191 EDGEWATER	2017, 2014, 2009, 2005, 2004, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1970, 1965, 1960, 1934, 1928
198 EDGEWATER	2017, 2014, 2009, 2005, 2004, 2000, 1999, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1934, 1928
198 EDGEWATER ST	2017, 2014, 2009, 2004, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
198 EDGEWATER ST	2017, 2014, 2009, 2005, 2000, 1995, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
2 CLIFTON AVE	2017, 2014, 2009, 2005, 2004, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
2 SAINT MARYS AVE	2017, 2014, 2009, 2005, 2004, 2000, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
2 SYLVALN	2017, 2009, 2005, 2004, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
2 VIRGINIA AVE	2017, 2014, 2009, 2005, 2004, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
20 CHURCH LN	2017, 2014, 2009, 2005, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
20 CLIFTON AVE	2005, 2000, 1999, 1995, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
20 CLIFTON AVE	2017, 2014, 2009, 2004, 1999, 1995, 1994, 1990, 1928
20 CLIFTONS AVE	2017, 2014, 2009, 2005, 2004, 2000, 1999, 1995, 1994, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
20 SYLVALN	2017, 2014, 2009, 2004, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
20 SYLVALN	2005, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
20 SYLVATON TER	2017, 2014, 2009, 2005, 2004, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960
20 WIMAN PL	2017, 2014, 2009, 2004, 1999, 1994

FINDINGS

<u>Address Researched</u>	<u>Address Not Identified in Research Source</u>
20 WIMAN PL	2017, 2005, 2000, 1999, 1995, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
201 EDGEWATER	2017, 2014, 2009, 2005, 2004, 2000, 1999, 1995, 1994, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
201 EDGEWATER ST	2017, 2014, 2009, 2004, 1999, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
201 EDGEWATER ST	2005, 2000, 1995, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
205 EDGEWATER ST	2017, 2014, 2005, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
205 EDGEWATER ST	2017, 2014, 2009, 2004, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
21 CHURCH LN	2017, 2014, 2009, 2004, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
21 CHURCH LN	2005, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
21 CLIFTON AVE	2005, 2004, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
21 CLIFTON AVE	2017, 2014, 2009, 2004, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
21 SYLVA LN	2017, 2014, 2009, 2005, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
210 EDGEWATER ST	2005, 2004, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
22 SYLVA LN	2005, 2004, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
22 SYLVA LN	2017, 2014, 2009, 2004, 2000, 1999, 1995, 1994, 1990, 1975, 1970, 1965, 1960, 1934, 1928
22 SYLVAN LN	2017, 2014, 2009, 2005, 2004, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1970, 1965, 1960, 1934, 1928
23 CHURCH LN	2017, 2014, 2009, 2004, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
23 CHURCH LN	2005, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
23 CLIFTON AVE	2017, 2014, 2009, 2005, 2004, 2000, 1999, 1995, 1994, 1975, 1970, 1965, 1960, 1934, 1928
23 CLIFTON	2017, 2014, 2009, 2005, 2004, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1928
23 CLIFTON AVE	2017, 2014, 2009, 2004, 1999, 1995, 1994, 1990, 1984, 1979
23 CLIFTON AVE	2005, 2000, 1999, 1995, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
232 EDGEWATER ST	2017, 2014, 2009, 2005, 2004, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1928
234 EDGEWATER ST	2017, 2014, 2009, 2005, 2004, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1928

FINDINGS

<u>Address Researched</u>	<u>Address Not Identified in Research Source</u>
24 CLIFTON	2017, 2014, 2009, 2005, 2004, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1960, 1934, 1928
24 SYLVA LN	2017, 2014, 2009, 2004, 1999, 1995, 1994, 1990, 1975, 1970, 1965, 1960, 1934, 1928
24 SYLVA LN	2005, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
24 SYLVAN LN	2017, 2014, 2009, 2005, 2004, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1970, 1965, 1960, 1934, 1928
242 EDGEWATER ST	2017, 2014, 2009, 2004, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
242 EDGEWATER ST	2005, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
244 EDGEWATER	2017, 2014, 2009, 2005, 2004, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934
244 EDGEWATER ST	2017, 2014, 2009, 2004, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1928
244 EDGEWATER ST	2005, 2004, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
246 EDGEWATER ST	2005, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
246 EDGEWATER ST	2017, 2014, 2009, 2004, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
248 EDGEWATER ST	2017, 2014, 2009, 2004, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
248 EDGEWATER ST	2005, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
25 CHURCH LN	2005, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
25 CHURCH LN	2017, 2014, 2009, 2004, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
25 CLIFTON AVE	2017, 2014, 2009, 2004, 1999, 1994, 1979
25 CLIFTON AVE	2005, 2000, 1999, 1995, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
250 EDGEWATER	2017, 2014, 2009, 2005, 2004, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934
250 EDGEWATER ST	2017, 2014, 2009, 2004, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1928
250 EDGEWATER ST	2005, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
252 EDGEWATER ST	2005, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
252 EDGEWATER ST	2017, 2014, 2009, 2004, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
254 EDGEWATER ST	2017, 2014, 2009, 2004, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928

FINDINGS

<u>Address Researched</u>	<u>Address Not Identified in Research Source</u>
254 EDGEWATER ST	2005, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
256 EDGEWATER ST	2005, 2004, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
256 EDGEWATER ST	2017, 2014, 2009, 2004, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
258 EDGEWATER ST	2017, 2014, 2009, 2004, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
258 EDGEWATER ST	2005, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
26 SYLVA LN	2005, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
26 SYLVA LN	2017, 2014, 2009, 2004, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
260 EDGEWATER ST	2017, 2014, 2009, 2004, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
260 EDGEWATER ST	2005, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
262 EDGEWATER ST	2005, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
262 EDGEWATER ST	2017, 2014, 2009, 2004, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
264 EDGEWATER ST	2017, 2014, 2009, 2004, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
264 EDGEWATER ST	2005, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
266 EDGEWATER ST	2005, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
266 EDGEWATER ST	2017, 2014, 2009, 2004, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
27 CHURCH LN	2017, 2014, 2009, 2004, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
27 CHURCH LN	2005, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
27 SYLVA LN	2017, 2014, 2009, 2005, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
28 SYLVA LN	2005, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
28 SYLVA LN	2017, 2014, 2009, 2004, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
28 SYLVATON TER	2017, 2014, 2009, 2004, 1999, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1928
28 SYLVATON TER	2005, 2000, 1999, 1995, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
28 SYLVTON TER	2017, 2014, 2009, 2005, 2004, 2000, 1999, 1995, 1994, 1979, 1975, 1970, 1965, 1960, 1934, 1928

FINDINGS

<u>Address Researched</u>	<u>Address Not Identified in Research Source</u>
28 WIMAN PL	2017, 2014, 2009, 2004, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1928
28 WIMAN PL	2005, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
28 WYMAN PL	2017, 2014, 2009, 2005, 2004, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934
288 EDGEWATER	2017, 2014, 2009, 2005, 2004, 2000, 1999, 1995, 1994, 1984, 1979, 1975, 1934, 1928
288 EDGEWATER ST	2017, 2014, 2009, 2004, 1999, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
29 CHURCH LN	2017, 2014, 2009, 2005, 2004, 2000, 1999, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
29 CLIFTON AVE	2017, 2014, 2009, 2004, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
29 CLIFTON AVE	2005, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
29L CLIFTON AVE	2017, 2014, 2009, 2005, 2004, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1934, 1928
30 SYLVA LN	2017, 2014, 2009, 2004, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
30 SYLVA LN	2005, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
31 CLIFTON AVE	2005, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
31 CLIFTON AVE	2017, 2014, 2009, 2004, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
32 CHURCH LN	2017, 2014, 2009, 2005, 2004, 2000, 1999, 1995, 1994, 1990, 1965, 1934, 1928
32 SYLVA LN	2017, 2014, 2009, 2004, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
32 SYLVA LN	2005, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
32 SYLVATN TER	2017, 2014, 2009, 2005, 2004, 2000, 1999, 1995, 1994, 1960, 1934, 1928
32 SYLVATON TER	2017, 2014, 2009, 2004, 1999, 1994, 1990, 1984, 1979, 1970, 1965, 1960
32 SYLVATON TER	2005, 2000, 1999, 1995, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
32 SYLVTN TER	2017, 2014, 2009, 2005, 2004, 2000, 1999, 1995, 1994, 1975, 1970, 1965, 1960, 1934, 1928
32 WIMAN PL	2017, 2014, 2009, 2004, 2000, 1999, 1994, 1979, 1975, 1970, 1965
32 WIMAN PL	2005, 2000, 1999, 1995, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
33 CLIFTON AVE	2017, 2014, 2009, 2005, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
33 N CLIFTON AVE	2017, 2014, 2009, 2005, 2004, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1928
33 SYLVA LN	2017, 2014, 2009, 2005, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928

FINDINGS

Address Researched

Address Not Identified in Research Source

35 CLIFTON AV ROSEBANK SI TEL SAI	2017, 2014, 2009, 2005, 2004, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1928
35 CLIFTON AVE	2017, 2014, 2009, 2005, 2004, 1999, 1995, 1994, 1934
35 CLIFTON AVE	2005, 2000, 1999, 1995, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
35 SYLVA LN	2017, 2014, 2009, 2005, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
36 SYLVATON TER	2005, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
36 SYLVATON TER	2017, 2014, 2009, 2004, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
36 WIMAN PL	2017, 2014, 2009, 2004, 1999, 1995, 1994, 1928
36 WIMAN PL	2005, 2000, 1999, 1995, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
37 CLIFTON AVE	2005, 2004, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
37 CLIFTON AVE	2017, 2014, 2009, 2004, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
38 CLIFTON	2017, 2014, 2009, 2005, 2004, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1934, 1928
38 SYLVATON TER	2017, 2014, 2009, 2004, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
38 SYLVATON TER	2005, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
38 WIMAN PL	2017, 2014, 2005, 2000, 1995, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
38 WIMAN PL	2017, 2014, 2009, 2004, 1999, 1994, 1984, 1979, 1975, 1970, 1965
39 SYLVA LN	2017, 2014, 2009, 2005, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
4 CLIFTON AVE	2017, 2014, 2009, 2005, 2004, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1970, 1965, 1960, 1934, 1928
40 CLIFTN AVE	2017, 2014, 2009, 2005, 2004, 2000, 1999, 1995, 1994, 1975, 1970, 1965, 1960, 1934, 1928
40 CLIFTON AVE	2017, 2014, 2009, 2004, 1999, 1994, 1990, 1984, 1979, 1960, 1934, 1928
40 CLIFTON AVE	2005, 2000, 1999, 1995, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
40 SYLVA LN	2017, 2014, 2005, 2004, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
40 SYLVATON TER	2005, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
40 SYLVATON TER	2017, 2014, 2009, 2004, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
41 CLIFTN AVE	2017, 2014, 2009, 2005, 2004, 2000, 1999, 1995, 1994, 1990, 1984, 1975, 1970, 1965, 1960, 1934, 1928
41 CLIFTON	2017, 2014, 2009, 2005, 2004, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1970, 1965, 1960, 1934, 1928

FINDINGS

<u>Address Researched</u>	<u>Address Not Identified in Research Source</u>
41 CLIFTON	2017, 2014, 2009, 2005, 2004, 2000, 1999, 1995, 1994, 1984, 1975, 1970, 1934, 1928
41 CLIFTON AVE	2017, 2014, 2009, 2005, 2004, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1970, 1965, 1960, 1934, 1928
41 CLIFTON AVE	2005, 2000, 1999, 1995, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
41 CLIFTON AVE	2017, 2014, 2009, 2004, 1999, 1994, 1979, 1934, 1928
41 SYLVA LN	2017, 2014, 2005, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
41 WIMAN PL	2017, 2014, 2009, 2005, 2000, 1995, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
41 WIMAN PL	2017, 2014, 2009, 2004, 2000, 1999, 1995, 1994, 1960, 1934, 1928
42 SYLVATON TER	2017, 2014, 2009, 2004, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
42 SYLVATON TER	2005, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
44 SYLVATON TER	2005, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
44 SYLVATON TER	2017, 2014, 2009, 2004, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
44 WIMAN PL	2017, 2014, 2009, 2004, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
44 WIMAN PL	2005, 2004, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
46 WIMAN PL	2017, 2005, 2004, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
46 WIMAN PL	2017, 2014, 2009, 2004, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
47 SYLVA LN	2017, 2014, 2009, 2005, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
48 WIMAN PL	2005, 2004, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
48 WIMAN PL	2017, 2014, 2009, 2004, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
49 CLIFTON AVE	2017, 2014, 2009, 2005, 2004, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934
5 ST MARYS AV H109 DO	2017, 2014, 2009, 2005, 2004, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1928
50 CLIFTON AVE	2017, 2014, 2009, 2004, 1999, 1994, 1960
50 CLIFTON AVE	2005, 2000, 1999, 1995, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
50 WIMAN PL	2017, 2005, 2004, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
50 WIMAN PL	2017, 2014, 2009, 2004, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928

FINDINGS

Address Researched

Address Not Identified in Research Source

52 WIMAN PL	2017, 2014, 2009, 2004, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
53 SYLVA LN	2017, 2014, 2009, 2005, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
54 WIMAN PL	2017, 2014, 2009, 2004, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
56 CLIFTN AVE	2017, 2014, 2009, 2005, 2004, 2000, 1999, 1995, 1994, 1990, 1975, 1970, 1965, 1960, 1934, 1928
56 CLIFTON AVE	2017, 2014, 2009, 2004, 1999, 1995, 1994, 1990, 1984, 1979, 1960, 1934, 1928
56 CLIFTON AVE	2005, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
58 CLIFTN AVE	2017, 2014, 2009, 2005, 2004, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1960, 1934, 1928
58 CLIFTON AVE	2017, 2014, 2009, 2004, 1999, 1995, 1994, 1970, 1965, 1960, 1934, 1928
58 CLIFTON AVE	2005, 2000, 1999, 1995, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
59 SYLVA LN	2017, 2014, 2009, 2005, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
60 CLIFTON AVE	2005, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
60 CLIFTON AVE	2017, 2014, 2009, 2004, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1960, 1934, 1928
62 CLIFTON AVE	2017, 2014, 2009, 2004, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
62 CLIFTON AVE	2017, 2005, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928
64 CLIFTN AVE	2017, 2014, 2009, 2005, 2004, 2000, 1999, 1995, 1994, 1990, 1975, 1970, 1965, 1960, 1934, 1928
64 CLIFTON AVE	2017, 2014, 2009, 2005, 2004, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1960, 1934
64 CLIFTON AVE	2017, 2014, 2009, 2005, 2004, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934
65 CLIFTON AVE	2017, 2014, 2009, 2005, 2004, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1928
69 SYLVA LN	2017, 2014, 2009, 2005, 2000, 1999, 1995, 1994, 1990, 1984, 1979, 1975, 1970, 1965, 1960, 1934, 1928

TARGET PROPERTY: ADDRESS NOT IDENTIFIED IN RESEARCH SOURCE

The following Target Property addresses were researched for this report, and the addresses were not identified in the research source.

Address Researched

200 Edgewater Street

Address Not Identified in Research Source

1984, 1979

APPENDIX H

Photograph Log

PHOTO LOG

Site: New York Oceangrid Project, Reynold's Shipyard

Date: 5/19/22

Matrix Project No. 20-0298

Photographer: S. Rosenberg



Photo 1: Entrance to the Reynold's Shipyard from Edgewater Street.



Photo 2: View of the Reynold's Shipyard looking northeast.



Photo 3: Entrance to Warehouse 1.



Photo 4: USDA waste drum storage outside of Warehouse 1.

PHOTO LOG

Site: New York Oceangrid Project, Reynold's Shipyard

Date: 5/19/22

Matrix Project No. 20-0298

Photographer: S. Rosenberg



Photo 5: Drum storage inside Warehouse 1.



Photo 6: Compressed gas storage outside of Warehouse 1.



Photo 7: Compressed gas and chemical storage outside of Warehouse 1, and evidence of spilled paint on asphalt.



Photo 8: Miscellaneous storage inside Warehouse 2.

PHOTO LOG

Site: New York Oceangrid Project, Reynold's Shipyard

Date: 5/19/22

Matrix Project No. 20-0298

Photographer: S. Rosenberg



Photo 9: Evidence of spilled paint near chemical storage outside Warehouse 1.



Photo 10: Dock at Reynold's Shipyard, looking east.



Photo 11: Scrap metals bin and roll-off container in the shipyard.



Photo 12: Reynold's Shipyard main building warehouse space.

PHOTO LOG

Site: New York Oceangrid Project, Reynold's Shipyard

Date: 5/19/22

Matrix Project No. 20-0298

Photographer: S. Rosenberg



Photo 13: Contractor storage in former machine shop.



Photo 14: Flammable storage cabinet in former machine shop containing diesel canisters.



Photo 15: View of Wilhelmsen warehouse from Edgewater Street.



Photo 16: Chemical storage inside Wilhelmsen warehouse.

PHOTO LOG

Site: New York Oceangrid Project, Reynold's Shipyard

Date: 5/19/22

Matrix Project No. 20-0298

Photographer: S. Rosenberg



Photo 17: Chemical storage inside Wilhelmsen warehouse.



Photo 18: Compressed gas storage at loading dock of Wilhelmsen warehouse.



Photo 19: Compressed gas storage outside Wilhelmsen warehouse.



Photo 20: Dumpster for solid waste outside of Wilhelmsen warehouse.

PHOTO LOG

Site: New York Oceangrid Project, Reynold's Shipyard

Date: 5/19/22

Matrix Project No. 20-0298

Photographer: S. Rosenberg



Photo 21: Storm drain outside of Wilhelmsen warehouse.



Photo 22: Vacant office space on south side of Wilhelmsen building.



Photo 23: Inside vacant building on the southwest side of the Site where former fire extinguisher testing was performed.



Photo 24: Slop sink inside southwest building where former fire extinguisher testing was performed.

PHOTO LOG

Site: New York Oceangrid Project, Reynold's Shipyard Date: 5/19/22 Matrix Project No. 20-0298 Photographer: S. Rosenberg



Photo 25: Contractor storage yard at the northwest corner of the Site.



Photo 26: Vacant lot adjoining the Site to the north.



Photo 27: Sandy Hook Pilots adjoining the Site to the north.



Photo 28: Natural gas pipeline meter house.

PHOTO LOG

Site: New York Océangrid Project, Reynold's Shipyard

Date: 5/19/22

Matrix Project No. 20-0298

Photographer: S. Rosenberg



Photo 29: Church adjoining Site to the west.



Photo 30: Upgradient dry cleaner at 1140 Bay Street.



Photo 31: Upgradient dry cleaner at 1169 Bay Street.



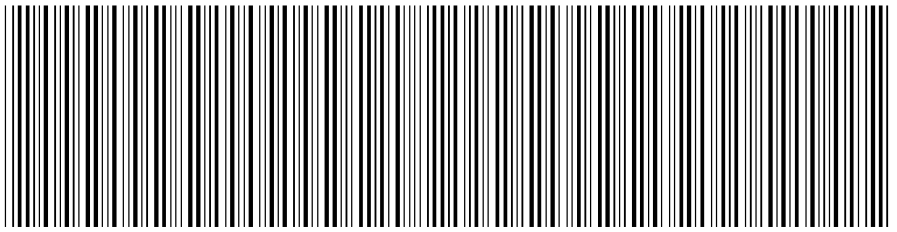
Photo 32: Upgradient auto repair shop at 1074 Bay Street.

APPENDIX I

Other Reference Information

**NYC DEPARTMENT OF FINANCE
OFFICE OF THE CITY REGISTER**

This page is part of the instrument. The City Register will rely on the information provided by you on this page for purposes of indexing this instrument. The information on this page will control for indexing purposes in the event of any conflict with the rest of the document.



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RECORDING AND ENDORSEMENT COVER PAGE

PAGE 1 OF 1

Document ID: 2020092200572001

Document Date: 07-02-2020

Preparation Date: 09-22-2020

Document Type: NYC REAL PROPERTY TRANSFER TAX

Document Page Count: 0

PRESENTER:

CITY REGISTER
3030 3RD AVENUE
BRONX, NY 10455

RETURN TO:

CITY REGISTER
3030 3RD AVENUE
BRONX, NY 10455

PROPERTY DATA

Borough	Block	Lot	Unit	Address
STATEN ISLAND	2820	140	Entire Lot	200 EDGEWATER STREET

Property Type: COMMERCIAL REAL ESTATE

Borough	Block	Lot	Unit	Address
STATEN ISLAND	2827	59	Entire Lot	200 EDGEWATER STREET

Property Type: COMMERCIAL REAL ESTATE

CROSS REFERENCE DATA

STATEN ISLAND **File Number:** 08/20/2020

PARTIES

GRANTOR/SELLER:

REYNOLDS SHIPYARD CORPORATION
200 EDGEWATER STREET
STATEN ISLAND, NY 10305

GRANTEE/BUYER:

NEW YORK OCEANGRID LLC
C/O: ANBARIC DEVELOPMENT PARTNERS LLC, 401
EDGEWATER PLACE, STE. 680
WAKEFIELD, MA 01880

FEES AND TAXES

Mortgage :

Mortgage Amount:	\$	0.00
------------------	----	------

Taxable Mortgage Amount:	\$	0.00
--------------------------	----	------

Exemption:

TAXES: County (Basic):	\$	0.00
------------------------	----	------

City (Additional):	\$	0.00
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Spec (Additional):	\$	0.00
--------------------	----	------

TASF:	\$	0.00
-------	----	------

MTA:	\$	0.00
------	----	------

NYCTA:	\$	0.00
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Additional MRT:	\$	0.00
-----------------	----	------

TOTAL:	\$	0.00
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Recording Fee:	\$	0.00
----------------	----	------

Affidavit Fee:	\$	0.00
----------------	----	------

Filing Fee:

\$	0.00
----	------

NYC Real Property Transfer Tax:

\$	0.00
----	------

NYS Real Estate Transfer Tax:

\$	0.00
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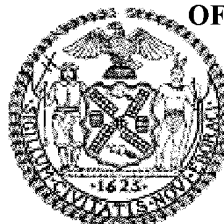
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Environmental Quality Outdoor Activity

Permits and Registrations

☒ Check / Uncheck all

Layer Information

☐ Municipal Separate Storm Sewer System (MS4)

☐ MS4 Extended

☒ Hazardous Waste Treatment, Storage & Disposal Facilities

☒ Air Facility Registrations

Environmental Cleanup

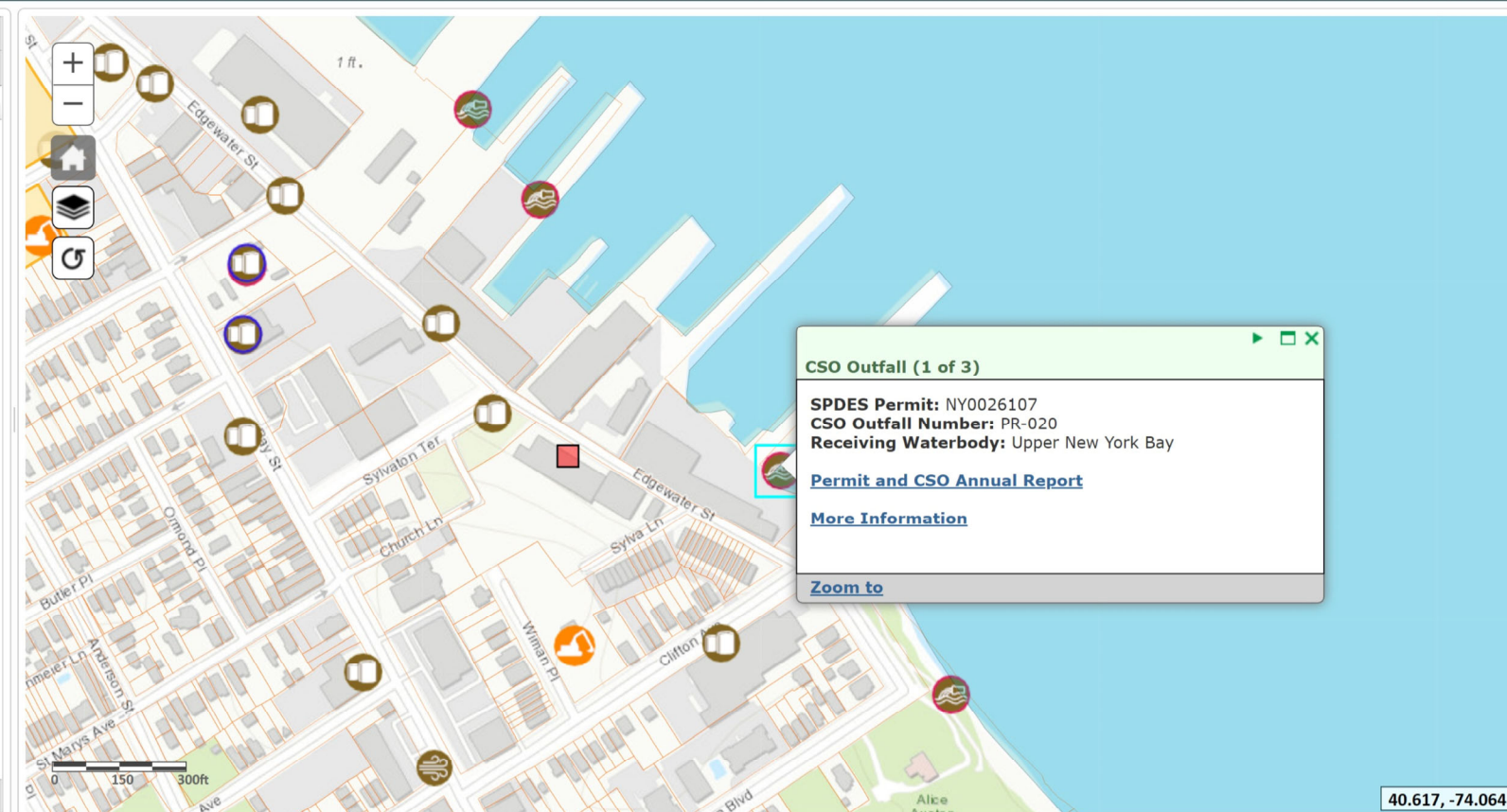
Environmental Monitoring

Public Involvement

Environmentally Sensitive Areas

Legal Information

Reference Layers





Vincent Sapienza, P.E.
Commissioner

Pam Elardo, P.E.
Deputy Commissioner

**Bureau of Wastewater
Treatment**

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Expressway-2nd Floor
Corona, NY 11368

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April, 30, 2021

Edward Hampston, P.E.
Director, Bureau of Water Compliance
New York State Department of Environmental Conservation
Division of Water
625 Broadway, 4th Floor
Albany, NY 12233-3506

Selvin Southwell, P.E.
Region 2 Acting Water Engineer
New York State Department of Environmental Conservation
Division of Water, Region 2
47-20 21st Street
Long Island City, NY 11101-5407

Re: SPDES Permit No's: NY0026131, NY0026247, NY0026191,
NY0026212, NY0026182, NY0026166, NY0026204, NY0027073,
NY0026115, NY0026239, NY0026158, NY0026221, NY0026174,
NY0026107

Best Management Practices Annual Report

Dear Mr. Hampston and Mr. Southwell:

Attached is the eighteenth annual Best Management Practices Report (BMP Report) for the New York City Department of Environmental Protection's (DEP) 14 Wastewater Resource Recovery Facilities (WRRFs) for the period January 1, 2020 - December 31, 2020.

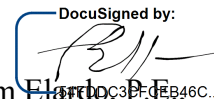
This report addresses DEP's ongoing implementation of the Combined Sewer Overflow Best Management Practices (CSO BMPs) (equivalent to the EPA National CSO Policy's Nine Minimum Controls), and is submitted per the requirements of DEP's WRRF SPDES permits. The Report summarizes implementation of the CSO BMPs and provides documentation of that implementation (see Appendices to the Report).

Attached also are the following:

- 1) Completed BMP Checklist
- 2) Attachment A – Summary of preventive and corrective maintenance performed during 2020 on all regulators tributary to each treatment plant
- 3) Floatables Monitoring Program Progress Report
- 4) Summary of CSO Total Nitrogen Loading, CY 2020

Because of the COVID-19 pandemic, we are unable to provide paper copies of the reports as in previous years; the reports are accessible via the link provided in the email that transmits this correspondence.

Very truly yours,

DocuSigned by:


Pam Elardo, P.E.
Deputy Commissioner
Bureau of Wastewater Treatment

cc: NYSDEC
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Scott Crisafulli, Esq.
Linda Allen

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Matthew Ruderman, Assistant Counsel, Bureau of Legal Affairs
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Eileen Alter, Public Affairs

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Diane Hammerman BWSO

Angela Licata, BEC
Charles Sturcken, BEC
John McLaughlin, BEC

Christopher Smith, OIT

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Frank Loncar, Director, Collections and Resources Recovery Operations, BWT
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Theresa Tam, Division Chief, Operations Support, BWT
Frances Leung, Acting Division Chief, Pollution Prevention & Monitoring, BWT

Jorge Villacis, Section Chief, Compliance Monitoring, BWT
Beau Ranheim, Section Chief, Marine Sciences, BWT

James Mueller, Deputy Commissioner, OACE
Keith Mahoney, Director, Wastewater Integrated Planning & Modeling, OACE



**14 WASTEWATER RESOURCE RECOVERY FACILITIES' SPDES
PERMITS
COMBINED SEWER OVERFLOWS
BEST MANAGEMENT PRACTICES
ANNUAL REPORT**

**FOR THE PERIOD
JANUARY 1, 2020 - DECEMBER 31, 2020**

**CITY OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL PROTECTION**

**BUREAU OF WASTEWATER TREATMENT
APRIL 2021**

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EXECUTIVE SUMMARY

The waters surrounding New York City are cleaner and healthier than they have been in more than a century. Over the past decade, the New York City Department of Environmental Protection (DEP) has invested approximately \$10 billion in projects such as sewer system and wastewater treatment plant upgrades to improve the health of these critical ecosystems. This investment has produced many ecological successes, ushering in the return of a variety of plant and animal species to our waters. It has also supported the redevelopment of vast swaths of our waterfront and numerous recreational opportunities for residents and visitors alike.

Although we continue to make great strides in improving the health of our waterbodies, we still face challenges. New York City, along with hundreds of other American communities, is largely served by a combined sewer system (CSS) where stormwater that falls on roofs, streets, and sidewalks, and wastewater from homes and businesses are carried together through a single sewer pipe to treatment plants. The City's 14 treatment plants can manage and treat to federal Clean Water Act standards all the wastewater created in New York City on a dry weather day, or about 1.3 billion gallons on average. On a rainy day, they have the capacity to partially treat and fully disinfect up to 3.7 billion gallons per day. However, during intense precipitation events, the stormwater that falls on the City's impervious surfaces can exceed that capacity and can cause overflows, otherwise known as combined sewer overflows (CSOs), to be discharged into local waterways.

According to the National Weather Service's annual measurements, 42.3 inches of precipitation fell across NYC in CY2020 based on NOAA Qualitative Precipitation Estimates (QPE).. DEP implements three distinct strategies aimed at creating additional capacity in our wastewater system to reduce the number of CSOs during wet weather: grey infrastructure, green infrastructure and CSO Best Management Practices (BMPs).

GREY INFRASTRUCTURE

DEP has spent approximately \$2.9 billion on baseline grey projects to date and has forecasted costs of about \$6.43 billion for CSO Long Term Control Plan (LTCP) recommended projects and for construction of 2 CSO retention tanks in the Gowanus Canal, as required by the Superfund Record of Decision. To reduce CSOs, DEP has utilized a variety of grey infrastructure controls such as improvements to the headworks of wastewater resource recovery facilities (WRRFs), expanding the storm sewer system, separating storm sewers, sewer system and regulator optimization, and constructing large CSO retention tanks. The CSO LTCPs expand upon past successes and have

proposed additional CSO controls and ecological improvement projects. To learn more about the CSO Program visit nyc.gov/dep/ltcp.

GREEN INFRASTRUCTURE

DEP has constructed thousands of green infrastructure assets around the City such as rain gardens, green roofs, and porous surfaces to absorb stormwater runoff where it lands, thereby reducing the amount of stormwater entering the sewer system. In order to achieve this reduction, the Green Infrastructure Program has maintained critical partnerships with the Departments of Transportation (DOT), Parks and Recreation (DPR) and Education (DOE), the New York City Housing Authority (NYCHA), and other city agencies to implement green infrastructure on city-owned property. We are also continuing to develop private incentives to encourage New Yorkers to join us in managing stormwater and improving water quality. To date, more than 10,000 green infrastructure assets have been constructed or are in construction. See additional information in section 16.5.

CSO BEST MANAGEMENT PRACTICES

DEP has also continued implementation of CSO BMPs to optimize existing facilities to capture and convey more wet-weather flow to the City's WRRFs. The State Pollutant Discharge Elimination System (SPDES) permits for the City's treatment plants list fifteen different CSO BMPs, which amplify EPA's national CSO Control Policy. This 18th Annual Report describes DEP's ongoing program to advance those BMPs and provides statistics for calendar year 2020. The report is divided into seventeen sections covering each of the BMPs and the additional Special Conditions listed in the SPDES permits.

Notable CSO BMP achievements during 2020 include:

- DEP inspected 147,840 feet of intercepting sewers citywide and removed 4,035 cubic yards of sediment. An additional 3,545 cubic yards of sediment were removed from non-interceptor assets such as treatment plants, pumping stations, regulators, and other sewer appurtenances.
- DEP's in-house forces cleaned over 191.37 miles of sewer in response to 11,066 customer service requests, and 148.6 miles of sewer as a proactive measure to combat buildup from fats, oils, and grease (FOG).

MORE INFORMATION ABOUT WATER QUALITY

Beaches (see also Section 1.1): During the summer months, DEP works closely with the NYC Department of Health and Mental Hygiene (DOHMH), which oversees bathing water

quality at City beaches. DOHMH has an extensive beach monitoring program and posts wet-weather advisories if local waterways are affected by CSOs or faulty septic systems. DOHMH's 2019 Beach Surveillance and Monitoring report can be found online at: <https://www1.nyc.gov/assets/doh/downloads/pdf/beach/beach-report-2019.pdf>. For information on beaches, visit the NYC Beach Water Quality website at <https://maps.nyc.gov/beach/>

Other Waterbodies: DEP regularly posts additional monitoring data on our website, including non-beach waterbody advisories. In 2020, DEP launched an updated Waterbody Advisory System that the public can use when planning recreational activities in locations other than beaches; the advisories are based on water quality models and real-time rainfall data.

The new Waterbody Advisory System also:

- Expands from 28 to 45 the number of waterbodies that could receive an advisory
- Utilizes and displays rainfall data from rain gauges at all 14 WRRFs
- Provides more detailed advisory durations based on measured rainfall
- Uses primary contact recreation standards

New Yorkers can visit DEP's website for up-to-date information or register for daily alerts at NotifyNYC.

http://www.nyc.gov/html/dep/html/stormwater/combined_sewer_overflow.shtml

1 CSO MAINTENANCE AND INSPECTION PROGRAM

“The permittee shall develop and implement a written maintenance and inspection program for all CSOs listed beginning on page 3 of this permit. This program shall include all regulators tributary to these CSOs. This is to ensure that no discharge or leakage occurs during dry weather and that the maximum amount of wet weather flow is conveyed to the WWTP for treatment. This program shall consist of scheduled inspections with required repair, cleaning and maintenance performed as needed to prevent dry weather overflow and leakage and ensure maximum wet weather flow is conveyed in accordance with CSO BMP #4. Inspection reports shall contain a record of visual inspections, any observed flow, incidence of rain or snowmelt, condition of equipment and work required.”

DEP submitted the CSO Maintenance and Inspection Program to DEC on August 14, 2003. See Appendix 1.1, Exhibit 1.

A summary of preventive and corrective maintenance performed during 2020 on all regulators tributary to each treatment plant, being submitted under separate cover, is attached as Attachment A. The table shows the regulator number, the date when preventive maintenance (PM) was performed at each site and whether any corrective actions were completed (designated on the table by an ‘x’).

PM of a regulator consists of a physical inspection of the regulator and diversion chambers as well as of the branch interceptors or drop pipes. It also includes exercising or lubrication of sluice gates and any other maintenance not considered corrective.

Corrective Maintenance (CM) of a regulator includes the clearing or cleaning of all blockages within the diversion chamber, regulator, branch interceptor or drop pipe. It also consists of any replacement of manhole rungs and the cleaning of all sensors within the chambers.

All inspections performed in 2020 are listed in Attachment A.

1.1 BEACH PROTECTION

During the Enhanced Beach Protection period from May 15 through September 30, DEP performed inspections of beach-sensitive regulators through telemetry twice per day. Shift engineers from the Bureau of Wastewater Treatment (BWT) Collection Facilities Operations (CFO) monitor these locations at the beginnings of their shifts and at the ends of their shifts. If telemetry is inoperable, field crews perform site inspections until the

telemetry is corrected. See Attachment A for locations DEP inspected when the telemetry was inoperable (designated by an 'x' in the column EBPP).

(b) For all plants except Rockaway: "The permittee shall include in the maintenance and inspection program a plan to maintain CSO tide gates to prevent infiltration of seawater into the collection system such that the WWTP influent concentration of chlorides does not exceed a twelve month rolling average of 400 mg/l. The maintenance and inspection program shall specify corrective actions to be taken within twelve months of the influent chloride exceedance of 400 mg/l."

Treatment plant and process personnel notify CFO if they measure elevated chloride levels and flow at their respective treatment plants. CFO personnel initiate a "chloride run" in response to the elevated chloride levels and extra flow. A "chloride run" is a visual inspection of the tide gates within the drainage area experiencing the high chlorides, followed by removal of debris, as needed, and closing of any gates found to be open. DEP performs chloride inspections in addition to the standard regulator maintenance and inspection of regulators. Please refer to Attachment A for the results of those inspections (table column designated CI).

Attachment A contains a summary of PM and CM performed during 2020 on all tide gates tributary to each WRRF. The table sets forth the Regulator Numbers, the dates when the corresponding facility performed PM (designated by an 'x' in the column TG PM) and whether any corrective actions were completed (designated on the table by an 'x' in the column TG CM).

PM of a tide gate consists of the physical inspection and exercising of the tide gate as well as any other maintenance not considered corrective.

CM of a tide gate includes removal of debris from the gate, cleaning of the rubber seals and rebuilding and refurbishing of all hardware as well as of the flap itself (which includes stop planking, gate removal, hardware cleaning, tap and chase adjusting bolts and new seals if required).

Chloride Levels decreased at the following facilities:

Hunts Point, 26th Ward, Red Hook, Jamaica, Oakwood Beach

Chloride Levels increased at the following facilities:

Wards Island, North River, Coney Island, Owls Head, Newtown Creek, Tallman Island, Bowery Bay, Rockaway, Port Richmond

Analysis for calendar year 2020 shows that the following four WRRFs exceeded the twelve-month rolling average of influent chlorides concentrations of 400 mg/l:

Wards Island, Hunts Point, Coney Island, and Port Richmond

For more information regarding chloride levels at all 14 WRRFs see Appendix 1, Table 1.

Comparative yearly analysis of CY 2019 and CY 2020 average tidal inflow (Appendix 1, Table 2) indicates:

A decrease in estimated tidal inflow occurred at seven WRRFs:

- North River, Hunts Point, Coney Island, Newtown Creek, Bowery Bay, Rockaway, Port Richmond.

An increase in estimated tidal inflow occurred at seven WRRFs:

- Wards Island, 26th Ward, Owls Head, Red Hook, Jamaica, Tallman Island, Oakwood Beach.

(b) For Rockaway only: "The permittee shall include in the maintenance and inspection program a plan to maintain CSO tide gates to prevent infiltration of seawater into the collection system such that the WWTP influent concentration of chlorides does not exceed a twelve month rolling average of 3,000 mg/l. Should the twelve-month rolling average be exceeded, the permittee shall conduct an inspection of the tide gates and submit a report to the Department within 3 months describing the inspection findings, remedies taken and, if necessary, a schedule for completing repairs that cannot be completed by the time of the report submission. If the elevated concentrations persist upon completion of the repairs, the permittee shall initiate a chloride source investigation Infiltration & Inflow (I&I) Study within 12 to 24 months of the chloride exceedance. The Permittee shall complete the I & I study and submit an approvable report within 36 months of determining that the elevated chloride concentrations persist, describing the findings of the I&I study and providing a schedule for collection system repairs."

As per the 2015 SPDES permit for Rockaway WRRF, the requirements included in CSO BMP No. 1(b) have changed as described above. Analysis for calendar year 2020 shows that Rockaway did not exceed the twelve-month rolling average of influent chlorides concentration of 3,000 mg/l.

(c) "The permittee shall include in the maintenance and inspection program a schedule for telemetering regulators and a plan to report the telemetering results. Within six months after completion of the telemetering of regulators required in the NYSDEC/NYCDEP Omnibus IV Consent Order Compliance Schedule (as noted in the outfall description page), the permittee shall record and report the number and duration of events that cause a discharge at an outfall during dry weather conditions. "

DEP completed the installation of the telemetering equipment at 102 regulators in May 2001 pursuant to the Compliance Schedule set forth in the Omnibus IV Consent Order, DEC Case # R2-0045-93-05. At present, DEP maintains the upgraded system at 100

regulators through a service contract. The contractor is responsible for all maintenance issues and for providing monthly reports detailing all significant events.

The successful implementation of the regulator telemetry system has had a significant impact on the reduction of raw sewage bypasses. The system has allowed CFO field personnel to respond to problems in a timely manner and to reduce or prevent dry weather bypassing.

In calendar year 2020, Collections Operations field personnel responded to a total of 197 pump station and regulator-related alarms sent by the SCADA Telemetry System. All alarms that resulted in call-outs were either false or resulted in elimination of a bypass event.

(d) "CSO maintenance and inspection program reports shall be available for DEC review no later than 9 AM on the day following the day the inspection was conducted and shall be available for DEC review at the associated WWTP no later than 30 days following the inspection."

DEP keeps the CSO maintenance and inspection program reports, log sheets and inspection forms at each respective crew quarters, and the documents are available for DEC review upon request.

2 MAXIMUM USE OF COLLECTION SYSTEM FOR STORAGE

“The permittee shall optimize the collection system by operating and maintaining it to minimize the discharge of pollutants from CSOs. It is intended that the maximum amount of in-system storage capacity be used (without causing service backups) to minimize CSOs and convey the maximum amount of combined sewage to the treatment plant in accordance with BMP #4 below. This shall be accomplished by an evaluation of the hydraulic capacity of the system but should also include a program of flushing or cleaning to prevent deposition of solids and the adjustment of regulators and weirs to maximize storage.”

Interceptors that deliver wet weather flow to the WRRFs have the ability to provide in-line storage during wet weather. The following conditions induce this storage: when (a) the influent wet weather flow exceeds the WRRF capacity and the facility must throttle, (b) the WRRF wet well operates above the invert of the influent sewers, or (c) other site-specific circumstances occur. Generally, in these cases, in-line storage of a few hundred thousand to a few million gallons (MG) will be induced in the system.

The SPDES permits also contain management practices for maximizing use of the collection system to reduce CSOs. In May 2011, DEP initiated a pilot program in which the Stationary Electric Engineer (SEE) at the BWT Communication Center monitors approaching storms and notifies the plant Operations SEEs to begin reducing their wet-well elevations immediately, prior to the onset of rain. This action helps increase available capacity in the interceptor, which can reduce CSO volumes. Each plant has established low-well elevation set points for impending rain events and has documented them in its Wet Weather Operating Plan (WWOP).

In-line storage upstream of CSO Control Facilities induces storage within the barrels upstream from the CSO facilities when operated in accordance with their WWOPs, as described below.

- Paerdegat Basin CSO Retention Facility – DEP certified completion of construction of this facility in May 2011 in accordance with the CSO Order on Consent entered into by NYC and DEC on January 14, 2005, (DEC # CO2-2000107-8, as modified) (hereinafter, the “CSO Order”), and placed the facility into service at that time. The Paerdegat Basin CSO retention facility induces 20 MG of tank storage in conjunction with 10 MG of in-line storage in the influent sewers and another 20 MG in the upstream combined sewers.
- Flushing Bay CSO Retention Facility – DEP certified completion of construction of this facility in January 2011 in accordance with the CSO Order, and placed the facility into service at that time. The Flushing Bay CSO retention facility induces 28.7 MG of tank storage in conjunction with 15.1 MG of in-line storage in the upstream sewers.

- Spring Creek CSO Retention Facility – DEP certified completion of construction of this facility in July 2009 in accordance with the CSO Order, and placed the facility into service at that time. The Spring Creek CSO Retention Facility induces 13.8 MG of tank storage in conjunction with 6.2 MG of in-inline storage.
- Gowanus Canal CSO Facilities Upgrade – DEP certified completion of upgrades to this facility in February 2015 pursuant to the CSO Order. The RH-034 CSO outfall screens include a combination of fixed weirs and hydraulically operated outfall gates that direct flow through the CSO screens and induce inline storage within the combined sewers upstream of the outfall. DEP estimates, using InfoWorks models, that this inline storage may reduce CSOs by about 16 MG/yr.
- Newtown Creek Bending Weirs – DEP certified completion of the bending weirs and floatables control on November 22, 2017 and these modifications have resulted in about a 310 MGY reduction in CSO discharges. Flushing Bay High Level Interceptor Regulator Modifications – These modifications to the Flushing Bay regulators were certified complete on June 8, 2018 and resulted in approximately a 347 MGY reduction in CSO discharges.
- Westchester Creek Regulator Modifications and Parallel Sewer – DEP certified construction completion for these two projects on September 21, 2020 and March 2, 2020, respectively. These two projects resulted in an approximately 440 MGY reduction of CSO discharges into Westchester Creek.

2.1 SCADA/COLLECTION FACILITIES TELEMETRY SYSTEM PROJECT

BWT completed the upgrade work on the SCADA project in 2013. The overall project involved the upgrade of the SCADA software, communication hardware to dual wireless and installation of additional instrumentation for the computerized data collection system. On February 18, 2013, DEP declared the Citywide Collection Facilities SCADA System (CCFISS) upgrade contract REG-027 “substantially complete” at all Pump Stations, 102 regulators and CSO Overflow facilities.

During 2020, DEP serviced the system through a maintenance contract. The contractor is responsible for the maintenance of the monitoring hardware to ensure continuous operation of the telemetry system. As per the SPDES Permit Requirement, CSO BMP Special Conditions, Appendix B.5 (b) – Key Regulator(s) Monitoring Reporting, DEP submitted to DEC monthly reports of potential CSO discharges outside the period of critical wet weather events, using the data from the telemetry system at key regulators.

The list of regulators under the SCADA project is in Appendix 2 (DEP BWT), Table 1.

2.2 TIDE GATES

A program is in place to repair defective tide gates in order to prevent tidal waters from entering the system. Below is an update of tide gate locations completed and those under reconstruction:

Regulator/Tide Gate Report Status

Reg. #	Status	Schedule	Scope	Comments
NR-34	Complete	August 2012	New Gate	Contract REG-025L
NC(M)-48	Complete	September 2011	New Gate	Contract REG-025L
NC(M)-21	Complete	September 2011	New Gate	Contract REG-025L
NC(M)-23	Complete	September 2011	New Gate	Contract REG-025L
NC(M)-33	Complete	September 2011	New Gate	Contract REG-025L
WI(M)-24	Complete	April 2013	New pull box	Contract REG-025L
Oakwood Beach Flume	Canceled			DEC instructed not to install this gate
BBLL1,3,4,8, 9,11,17,18,21,22, 23,30, HL-2, L-2	Complete	December 2017	21 New Gates	JOC Contract
NCB-1,6,7,9,14	Complete	January 2013	15 New Gates	JOC Contract
RH-9,11,15	Complete	January 2013	4 New Gates	JOC Contract
PR-9E,11E,13E, 16E,36	Complete	January 2013	8 New Gates	JOC Contract
WIM-14,15,16,50	Complete	3/ 14/ 2013	4 New Gates	JOC Contract
NCM-18,31,51A	Complete	2/ 26 / 2013	3 New Gates	JOC Contract
WIB-67	Complete	2 /22 / 2013	4 New Gates	JOC Contract
JAM-14	Complete	9 /5/ 2013	4 New Gates	JOC Contract
26W- 01	Complete	6/7/2018	6 New Gates	JOC Contract

26W-02	In Construction	Estimated completion – 09/30/2021	16 New Gates	JOC Contract
WIB -68	Completed	March 14, 2018	2 New Gates	JOC Contract
TI-1	Completed	Done by CFN in 2017	Cover & Frame	CFN
TI-2	Completed	Tide gate is no longer needed.	1 gate	CFN
TI-4	Completed	May 11, 2017	1 New Gate	JOC Contract
TI- 5	Completed	June 7, 2019	1 New Gate	JOC Contract
HP-14	Completed	June 7, 2019	4 New Gate	JOC Contract
PR -4E, 8E, 17E, 29E, 31E, 34E, 37E, 6W	In Design	Estimated Completion – August 2021	12 New Gate	JOC Contract
NCM-1	In Design	Estimated Completion – June 2021	1	JOC Contract

2.3 INTERCEPTOR IMPROVEMENT PROGRAM

In 2020, BWT continued with its intercepting sewer inspection, cleaning, and rehabilitation program.

2.3.1 Scope of Work Completed in 2020

In 2020, DEP's Interceptor Improvement Program proceeded with inspections, cleaning, and rehabilitation of large intercepting sewers. During 2020, DEP inspected 147,840 feet of intercepting sewers citywide and removed 4,035 cubic yards of sediment. An additional 3,545 cubic yards of sediment were removed from non-interceptor assets such as treatment plants, pumping stations, regulators, and other sewer appurtenances, for a total of almost 7,580 cubic yards.

Table 1: Interceptor Inspected Pipe Summary and Sediments Removed by Drainage Area (2020)

Drainage Area	Inspected Length (ft)	Sediment Removed (cubic yards)
26th Ward	5,672.80	-
Bowery Bay		215.02
Coney Island		1,827.90
Hunts Point		-
Jamaica	37,179.50	46.78
Newtown Creek		2.97
North River	49,913.60	-
Oakwood Beach	48,923.00	66.78
Owls Head		769.66
Port Richmond		636.15
Red Hook	6,150.90	3.49
Rockaway		75.36
Tallman Island		1,134.57
Wards Island		2,800.71
Total	147,839.80	7,579.39

Using the Pipeline Assessment Certification Program (PACP) defect coding and condition scoring rating system developed by National Association of Sewer Service Companies (NASSCO) along with sound engineering judgment, DEP prioritized work such as repairs and cleaning of intercepting sewers. As a screening tool, the PACP system allows for quantitative identification of differences in pipe condition between one CCTV/sonar

(inspection) and subsequent inspections, and prioritization based on significance of the defects in the different pipe segments.

The PACP grades two categories of defects: 1) structural and 2) operation and maintenance (O&M). Each condition defect code is assigned a grade from 1 to 5 (with 5 being the worst condition), based on significance of the defect. For each category an overall pipe index/rating is calculated from a summation of all of the defects and the total number of defects. A rank from 1 to 5 (with a 1 being the highest priority) is then assigned to the pipe, depending on the severity of the defects over the entire pipe (manhole to manhole).

Pipes with priority ranking of 1 in the O&M category will be cleaned. Pipes with priority ranking of 1 in the structural category (those with the highest PACP grades) will be subject to a detailed engineering investigation to determine whether their rehabilitation and inclusion in the capital program are necessary. DEP will track the condition of pipes with lower ranks (and lower priority) over time to follow their structural degradation and impact on flow and storage capacity; closer attention will be given to those with a priority ranking of 2.

Other important information to note Appendix 2.2.3 contains Table 3 – Intercepting Sewer Inspections 2020 – Pipe Rating Index and Ranking. Additionally, the 2020 Map of Intercepting Sewers inspected (CCTV/Sonar) and the locations cleaned are shown in Appendix 2.2.5

2.4 SEWER CLEANING AND INSPECTION

2.4.1 Introduction:

DEP maintains its sewers through a program of inspections and cleaning. DEP does inspections either in person or via camera (CCTV, zoom camera, or push cams). Sewer cleaning methods include hydraulic (flushing), mechanical (e.g., dragging, rodding, vactoring) and chemical (degreasing) procedures. DEP personnel and various contractors perform this work. Table 2-1 summarizes cleaning activities performed in calendar year (CY) 2020. Maps of the cleaning activities, by Community Board, for the Collection Systems Investigation (CSI) Section and NYC Department of Design and Construction (DDC) are in Appendix 2.

2.4.2 Sewer Maintenance – Complaint-based Inspection and Response:

The Bureau of Water & Sewer Operations (BWSO), Division of Field Operations, has personnel including construction laborers, supervisors, and technical staff whose primary

functions are operation, maintenance, and repair of the sewer collection and water distribution systems. For the sewer collection system, this Division performs investigations and responds to all sewer complaints received by the City's 311 call center, including sewer back-ups (SBUs), catch basin flooding, and street flooding. The Division also performs programmatic work involving sewer cleaning, and catch basin survey inspections and cleaning. The group works in conjunction with the BWT Industrial Waste section to investigate grease conditions, to perform programmatic degreasing to ensure proper operation, and to perform routine inspections with the engineering-based CSI section. Maintenance and repair yard facilities are located throughout the five boroughs of NYC; they are equipped with heavy duty and light duty construction vehicles, including truck-mounted crane vehicles (catch basin cleaning trucks), power jet flushing vehicles, power rodding auger trucks, and combined flusher/vacuum trucks.

During CY 2020, there were 11,066 customer service requests that resulted in sewer inspections. Of those requests, DEP determined that 9,193 were unrelated to the DEP infrastructure. In response to each request, the sewer maintenance division performs an initial inspection. This initial inspection includes inspecting the downstream and upstream manholes nearest the complaint location and collecting all data relevant to the incident. If the manhole inspection determines that the complaint was unconfirmed, meaning that the sewer was functioning as designed, crews are directed to perform hydraulic cleaning for at least two sections of sewer. If the sewer complaint is confirmed, meaning that there was evidence that the sewer was overtaxed, the crews are directed to initially perform hydraulic cleaning; if hydraulic cleaning does not alleviate the condition, crews perform mechanical cleaning to remove material obstructing flow in the sewer in order to resolve the condition.

In response to these complaints, DEP's in-house forces cleaned over 191.37 miles of sewer. This number either represents actual footage, or, when there was no report of an actual footage, represents an estimate of 150 linear feet between two manholes. As indicated, DEP performed the inspections and cleaning in response to service requests, and some of the footages may overlap with requests made at different times.

2.4.3 Sewer Maintenance – Proactive Inspection and Response

BWSO performs proactive sewer inspections and response through a program called the Sewer Operations and Analysis Program (SOAP), initiated by DEP in 2011. Quarterly, areas of the City associated with recurring, confirmed SBU complaints are assigned to each of the sewer yards for inspection.

Using its Geospatial Information System (GIS), DEP has divided the City into more than 157,700 sewer segments. A sewer segment is defined as a city block, street center line to street center line. Analysis has shown that approximately 0.62% of the overall sewer segments experienced a confirmed SBU, while only 0.19% of the overall sewer segments

experienced more than 1 SBU event. Locations with recurring service issues are the focal point of the SOAP program. Under the SOAP program, in-house staff inspects and investigates each street segment. The inspections may lead to cleaning, as warranted, spot repair, if necessary, or referral for capital replacement, as appropriate.

DEP manages FOG issues of varying severity to ensure effective resolution and future maintenance. DEP's Programmatic Degreasing List addresses recurring FOG conditions. DEP tracks and visits the locations on the List, and cleans them mechanically, hydraulically, or chemically according to an established programmatic schedule. During CY 2020, under this program, DEP proactively cleaned 148.6 miles of sewer. Some of these lengths may overlap depending on the frequency warranted by the FOG condition.

2.4.4 CSI Sewer Inspections

At times, field crews identify sewer conditions that require cleaning beyond the crews' capabilities. For example, the size and condition of the sewer or a record of recent, repeated cleanings may limit a crew's ability to take effective action. In these instances, DEP transfers the work to its CSI Section. The CSI staff then delineates the specific needs and boundaries of the work via more robust field inspection. Once staff defines the scope, DEP can assign the work to DEP's citywide contractors for cleaning and debris removal. Appendix 2 lists the locations and the activities, mapped by Community Board, including details of the areas and associated dates of cleaning activities.

DEP's CSI Section is also responsible for performing internal, visual inspections of sewers. Field crew initial responders identify the majority of the areas that require inspection. Other agencies, such as the New York City Department of Transportation (NYCDOT) and DDC, identify the balance of the inspection work when it is required to support their capital planning work. DEP's CSI Section, through in-house personnel and citywide contracting, inspected 418,448 linear feet (or 79.25 miles) of sewers at 830 locations throughout the city during CY 2020. Some of this footage overlaps with areas addressed by field crews. As explained above and further below, this overlap occurs because the visual inspection is done prior to cleaning activities, as it is necessary to determine the extent of cleaning needed. DEP also conducts post-cleaning inspections to verify that the contractor has completed the work in an acceptable manner.

2.4.5 Citywide Sewer Cleaning Contracts

As discussed above, after DEP inspects the sewers to determine the scope of cleaning required, it assigns the work to a contractor who performs the work for DEP at various locations citywide. The contractor has equipment capable of cleaning sewers with diameters up to and including 204". Using the citywide sewer cleaning contractor

resources, DEP cleaned 380,359 linear feet or approximately 72.04 miles of sewers in CY 2020. The cost of this work was \$8,437,850.

2.4.6 Sewer Cleaning for Lining and Guniting Activities

DEP also rehabilitates sewers with the use of lining and guniting methods. For both lining and guniting, the first step is to remove all debris, grease, and silt from within the sewer. Upon completion of the rehabilitation, the sewers are either TV-inspected or visually inspected. In CY 2020, DEP lined 39,261 linear feet (or 7.44 miles) of sewer at a cost of \$3,911,049. In CY 2020, DEP gunited 4,752 linear feet (or 0.99 miles) of sewers at a cost of \$4,048,701.

2.4.7 Sewer Cleaning and Inspection: Capital Project Design

DDC also performed sewer maintenance work associated with its capital project design program. Specifically, when DEP plans capital work for a specific location, DDC inspects the sewer infrastructure in the street via TV camera and then cleans as necessary. DDC inspected and cleaned 70,830 linear feet or 13.41 miles, as shown in detail in Appendix 2. (See Table 2-1)

Table 2-1: Summary of Sewers Inspected & Cleaned by DEP BWSO & DDC in CY 2020

METHOD	INSPECTED & CLEANED (miles)
In-House (Reactive)	191.37
In-House (Proactive)	405.8
CSI Unit	79.25
Lining	7.44
Guniting	0.99
DDC Inspections & Cleaning	13.41
TOTALS:	698.17

3 MAXIMIZE FLOW TO POTW

“Factors cited in BMP #2 above, shall also be considered in maximizing flow to the WWTP. Maximum delivery to the WWTP is particularly critical in treatment of “first-flush” flows. For each wet weather event, the treatment plant shall be physically capable of: receiving and treating a minimum of (plant specific wet weather capacity) through the plant headworks; a minimum of (plant specific wet weather capacity) through the primary treatment works (and disinfection works if applicable); and a minimum of (plant specific secondary system wet weather capacity) through the secondary treatment works during wet weather. The actual process control set points may be established by the Wet Weather Operating Plan required in BMP #4. The sewer collection system and associated regulating devices shall be optimized to the extent practicable to minimize the release of combined sewer overflows. In satisfying this BMP, the Permittee shall also comply with the Additional CSO BMP Special Conditions section of this permit.”

DEP’s WRRFs and associated interceptor sewers have been designed and constructed to deliver and treat approximately two times dry weather flow during wet weather. In order to protect the WRRFs’ biological process to ensure effective treatment, as well as to guard against homes being flooded during wet weather events, conveyance structures called “regulators” were incorporated into the City’s combined sewer system to regulate the flows that reach the interceptors and the WRRFs. As the City’s sewer system was constructed since the early 1900s, almost five hundred regulators were installed to regulate the flow to 135 miles of interceptors and 14 WRRFs. Regulators allow all dry-weather sewage and some stormwater runoff to enter the interceptor. During times when the amount of flow due to wet weather exceeds the design capacity of the sewer system, combined sewage spills over a fixed weir inside the regulator, and into a local water body. These discharges, subject to certain conditions, are permitted under DEP’s SPDES permits.

Most of the regulators are located along waterways. The outfall pipes from the regulators are only a short distance from the waterbody, while the tributary WRRF may be miles away. Consequently, depending on the length and/or intensity of the wet weather event, and consistent with the design of the collection system, overflows from regulators during storms can occur at outfall pipes some distance from the WRRF and long before the wastewater in a regulator’s catchment area reaches the WRRF.

DEP has completed a number of CSO projects to convey more flow to the WRRFs as part of its CSO Program, and these projects include:

- Avenue V Pump Station – DEP certified completion in June 2012 of a project which increased the capacity of the pump station from 30 MGD to 80 MGD in conjunction with constructing a wet weather force main to convey this additional flow;

- Gowanus Pump Station – DEP certified completion in February 2015 of a project which increased the capacity of the pump station from 20 MGD to 30 MGD and constructed a new force main to convey the additional flow directly into the Columbia Street interceptor;
- Jamaica Bay Bending Weirs – DEP certified completion in June 2016 of the construction of bending weirs that reduce CSO discharges into Thurston and Bergen Basins and convey additional wet weather flow to the Jamaica WRRF upon completion of the new Bergen Basin lateral sewer.
- Newtown Creek Bending Weirs – DEP certified completion of the Newtown Creek Bending Weirs in November 2017; these bending weirs will reduce CSO discharges into Newtown Creek and will convey additional wet weather flow to the Newtown Creek WRRF.
- Bergen Basin Parallel Interceptor – DEP certified completion of the new Bergen Basin Parallel Interceptor in December 2017; this interceptor in conjunction with previously certified Jamaica Bay Bending Weirs will reduce CSOs into the Bergen and Thurston Tributaries and convey additional wet weather flow to the Jamaica WRRF.
- Flushing Bay Weir Modifications – DEP certified completion of the weir modifications of the high level weirs in June 2018; these modifications will reduce CSO discharges into Flushing Bay and convey more wet weather flow to the Bowery Bay WRRF
- Westchester Creek Weir Modifications – DEP certified construction completion for these two projects on September 21, 2020 and March 2, 2020, respectively. These modifications will convey more wet weather flow to the Hunts Point WRRF.

3.1 KEY REGULATOR MONITORING

Pursuant to the 2014 CSO BMP Order and 2015 SPDES permits, DEP undertook the Key Regulator Monitoring Program. Beginning in June 2014, DEP began submitting reports of all known or suspected CSO discharges from key regulators outside the period of a critical wet weather event. These reports provide itemized lists of such CSO discharges, the approximate start time and end time for each discharge, the corresponding WRRF flow rate, and the start time and end time of the critical wet weather event. Table 3.1 summarizes the observations of Key Regulators during CY2020.

Appendix 3.1 includes the Key Regulators Monitoring Report CY2020 Summary, which includes the details reported in the monthly reports sorted by regulator. Additionally, quarterly engineering analysis report submittals were required for the first year after the effective date of the Order and then, for each calendar year, as part of the Annual CSO BMP Report (see Section 14).

On February 1, 2016, DEP submitted the deliverable “Regulator(s) with CSO Monitoring Equipment Identification Program Report” to DEC. To generate that report, DEP undertook a 12-month Regulator Monitoring Program, from August 2014 through July 2015, of all regulators with CSO monitoring equipment. This requirement appears in the DEP WRRF SPDES permits, Additional CSO BMP Special Conditions, Appendix B, Item 5.c.

Table 3-1: Key Regulators with Potential CSO Discharges outside the Period of a Critical Wet Weather Event, January through December 2020

Key Regulator	2020 Number of Occurrences													Total Duration (hours)	Analysis Category
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	To Date		
26W-01	0	0	0	0	0	0	0	0	0	0	3	0	3	1.25	A
26W-02	0	1	2	0	1	1	2	0	2	0	5	1	15	26.25	A
BBH-02	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	B
BBH-06	1	5	1	2	1	0	2	4	1	1	2	1	21	4.25	C
BBL-04	0	2	2	4	0	4	4	5	5	1	5	2	34	18.25	C
BBL-22	0	0	1	1	0	1	0	3	1	0	0	0	7	2.25	B
HP-05	1	1	0	2	2	1	3	4	2	3	4	0	23	42.25	A
HP-10	1	0	0	2	1	1	2	0	1	0	1	0	9	7.25	B
HP-13	1	3	4	4	1	1	4	5	3	2	4	2	34	66.50	C
JA-03	1	0	1	0	1	0	4	3	4	1	2	0	17	10.50	A
NCB-01	0	1	0	2	1	3	2	2	2	2	5	1	21	9.75	C
NCB-04	0	2	2	1	1	5	2	3	2	2	2	1	23	33.25	C
NCM-47	0	0	0	0	1	1	1	4	2	2	4	1	16	27.75	C
NR-16	0	0	0	1	0	2	2	4	2	1	1	0	15	7.00	C
NR-23	0	0	0	1	0	1	4	4	1	0	0	0	11	5.25	B
NR-33	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	B
OH-01	1	1	1	0	0	0	0	0	2	0	0	0	5	6.25	B
OH-06	0	0	0	0	1	0	1	0	1	0	0	0	3	4.00	B
PR-06W	1	0	2	4	2	1	7	2	2	3	2	2	28	50.75	C
PR-13E	1	3	3	6	2	3	6	5	4	4	5	2	44	104.50	C
RH-02	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	B
RH-20	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	B
TI-09	1	3	3	3	1	0	2	4	2	2	6	3	30	48.50	C
TI-10A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	B
WIB-53	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	B
WIB-67	0	0	0	2	2	0	3	1	1	1	1	0	11	32.50	B
WIM-23	0	0	0	0	0	1	2	0	0	0	0	1	4	2.75	B
Count**	9	10	11	14	14	14	18	15	19	13	16	11	21		

**Count of regulators with at least one event

Analysis Categories:

- Category A: Key Regulators that may be influenced by planned capital improvements (Projects are currently in design or construction that may result in CSO reductions and additional wet weather capture);
- Category B: Key Regulators averaging one or fewer potential discharge outside the period of a critical wet weather event per month
- Category C: All other Key Regulators with an average of more than one potential discharge outside the period of a critical wet weather event per month

3.2 CRITICAL WET WEATHER EVENTS

The 2014 CSO BMP Order and the 2015 SPDES permits define a critical wet weather event as “a wet weather event which causes or would cause the influent flow at the WRRF to exceed the wet weather flow identified in the associated SPDES permit.” Generally, the wet weather flow identified in the associated SPDES permit of the WRRF is two times the design dry weather flow (2xDDWF), but it may be less than 2xDDWF under certain operational limitations (e.g., when DEP reports critical equipment is out of service and submits a reduced capacity request to DEC). CSO discharges from key regulators that occurred outside of a critical wet weather event were determined based on inference from synoptic data collected from the city telemetry system, meteorological and tidal observations, and plant operational data. Using InfoWorks CS models of the city’s collection system, DEP performs analysis of mitigation strategies to reduce the occurrence of discharges outside the critical wet weather periods.

Included in Appendix 3.2 is the CY2020 Critical Wet Weather Event Summary for each plant (January to December.) The summary tables include details related to the critical wet weather events for each plant, including: the event-specific wet weather capacity, plant throttling information, and the start and end times of the critical event with its corresponding maximum and average flows.

Additionally, DEP continued reporting, within the required two-hour time frame, events in which the WRRF throttled but never achieved the applicable SPDES-permitted wet weather capacity at any point during the period the WRRF throttled, except in instances when the WRRF was at reduced capacity in accordance with the Wet Weather Operating Plan and with prior approval by the DEC. DEP reported these events with Bypass Item Nos.

3.3 CRITICAL EQUIPMENT NOTIFICATIONS

In accordance with the 2015 SPDES permits, DEP continued notifying DEC whenever 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. Upon receipt of such notice, and on a case-by-case basis, DEC may adjust the flow that must pass through the WRRF in consideration of the recommendations contained within an approved WWOP. DEP based all subsequent required reporting, including determination of critical wet weather events, on the reduced wet weather capacity levels submitted in these critical equipment notifications.

3.4 WRRF ENGINEERING ANALYSIS

As per the 2014 CSO BMP Order, on August 6, 2014, DEP submitted to DEC Engineering Analyses of WRRF influent flow throttling operations. These analyses provided specific recommendations for initiation and cessation of wet weather flow throttling operations designed to maximize flow through the WRRF. Based on comments received from DEC, on December 12, 2014, DEP submitted supplements to the WRRF Engineering Analyses. These supplements included a brief summary of throttling protocol set points and indicators used to determine how and when throttling occurs at each WRRF.

3.5 COMBINED SEWER OVERFLOWS ANNUAL REPORT CHECKLIST PART III – CSO BMP's

Checklist Part III, Section 4, Maximize Flow to WRRF, Question 3 asks whether a plan and schedule have been submitted to DEC for addressing any inability during the past year of the headworks, primary treatment works, secondary treatment works and disinfection works to pass the flows specified in the permit for all wet weather flows. In 2014, DEP submitted Engineering Analyses of WRRF influent flow throttling operations and updated WWOPs pursuant to Appendix B, sections 2 and 4 of the CSO BMP Order, which provide recommendations for maximizing flow through the WRRFs.

For 26th Ward, interim wet weather flow limits were approved to facilitate completion of work required under the CSO Order, Appendix A, Section XII.K which includes rehabilitation of the existing four primary settling tanks and construction of a new primary settling tank.

3.6 COMBINED SEWAGE AND FLOATABLES PERCENT CAPTURE AT NYC WRRFs

DEP uses a calibrated InfoWorks Hydraulic Model in conjunction with NOAA rain gauge data, and plant operating and rain gauge information to calculate the annual percent wet weather capture. A detailed report on Combined Sewage and Floatables Percent Capture at DEP WRRFs is included in Appendix 3.

4 WET WEATHER OPERATING PLAN

“The permittee shall maximize treatment 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 WWOP requirements are provided in the Additional CSO BMP Conditions section of this permit.”

“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 station 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, submitted on December 12, 2014.”

A Wet Weather Operating Plan (WWOP) is required for each WRRF and CSO retention facility. Appendix 4 summarizes the most recent submittal to DEC of the WWOP for each WRRF. In accordance with the SPDES permit and the 2014 CSO BMP Order on Consent, in December 2014, DEP submitted to DEC an updated WWOP for each WRRF (see Appendix 4). Additionally, in accordance with the CSO Order on Consent, DEP re-submitted the WWOP for 26th Ward WRRF in October 2015 and again in March 2016 in response to DEC comments. DEP re-submitted the WWOP for Bowery Bay in March 2016 in accordance with the then-draft Omni Order. There were no modifications to the WWOPs submitted in 2020.

4.1 COMBINED SEWER OVERFLOWS ANNUAL REPORT CHECKLIST

Question 2, Section 5 Wet Weather Operating Plan (WWOP)

“In the past year, did treatment of wet weather flows cause any effluent violations or destabilize treatment upon return to normal service?”

DEP answer: Yes, there have been instances when wet weather flows have caused effluent violations; however, there have been no instances when wet weather flows have destabilized treatment upon return to normal service. Specifically, in the past year, DEP has reported effluent violations for parameters such as daily maximum total suspended solids (TSS) concentration at various WRRFs. Elevated flows due to wet weather can result in solids washout from the final clarifiers which can contribute to elevated fecal coliform counts or effluent TSS concentrations. Please refer to the monthly Discharge Monitoring Report submittals for specific information.

Question 7, Section 5 Wet Weather Operating Plan (WWOP)

“Does the plant identify the maximum flows through preliminary, primary, secondary treatment, tertiary, and disinfection units?”

DEP answer: “No.” The WWOPs identify the minimum flow capacity rates through the treatment units, not the maximum flow capacity.

5 PROHIBITION OF DRY WEATHER OVERFLOW

“Dry weather overflows from the combined sewer system are prohibited. The occurrence of any dry weather overflow shall be promptly abated and reported to the NYSDEC Region 2 Office within 24 hours. A written report shall also be submitted within fourteen (14) days of the time the permittee becomes aware of the occurrence. Such reports shall contain the information listed in 6 NYCRR Part 750-2.7.”

Dry weather overflows from the combined sewer system are prohibited and DEP’s goal is to reduce and eliminate dry weather bypasses. As a result of DEP’s continuing efforts in this regard, in CY 2020, pump station and regulator bypasses continue to remain at low levels.

DEP promptly abates any dry weather overflow and reports it to DEC through the NY-Alert notification system within two hours of confirmation of the discharge. DEP also submits a written report to DEC within five (5) days of the confirmed time of occurrence.

A yearly comparison of regulators, pump stations and WRRFs’ dry weather bypassing is attached in Appendix 5.

Dry weather bypasses from the NYC collection system during the reporting period totaled 0.49 MG, as listed in Appendix 5. This total includes discharges from other locations including outfalls and street locations. Bypasses from pump stations and regulators was 0.000030% (0.14 MG) of the total 454 billion gallons (BG) of dry weather flow treated by NYC’s 14 WRRF’s in CY2020.

Pump station and regulator failures that resulted in dry weather bypassing during CY 2020 were categorized by cause and grouped by cause code. Major causes were further sub-coded and identified in more detail. These bypasses were analyzed for trends at particular locations and, as a result, DEP is studying specific locations for improvements or modifications to reduce future bypassing.

5.1 PUMP STATION DRY WEATHER BYPASSING AND ANALYSIS

On May 9, 2020, DEP personnel responded to a feeder failure alarm indicating a loss of power to the 154th Street Pumping Station feeder. The power outage was determined to be caused by a downed powerline. A backup Godwin pump, located onsite started automatically and continuously pumped during the event. DEP personnel adjusted the pump speed to improve efficiency; however, the pump was unable to handle all of the flow entering the station, resulting in a partial bypass. Approximately 3,800 gallons of raw sewage were discharged into Powells Cove.

On June 20, 2020, there was a raw sewage bypass caused by a programmable logic controller (PLC) failure at the Hannah Street Pumping Station, resulting in a discharge from Regulator PR-13E into the Upper New York Bay. The incident caused a bypass of approximately 50,000 gallons.

On August 4, 2020, during Tropical Storm Isaias, DEP personnel responded to a feeder failure alarm indicating a loss of power to the Canterbury Avenue Pump Station. Con Edison (Con Ed) had multiple power lines down in Staten Island due to high winds and fallen trees. DEP personnel dispatched an emergency generator to the pump station and placed it into operation at approximately 3:00 PM. However, once the pump station was powered up, the main sewage pumps (MSPs) would not restart. Electricians were deployed to the pump station to troubleshoot the problem. The Canterbury Avenue Pump Station is a sanitary station and does not have an emergency overflow. As the wet well level increased, a 4" hydraulic pump from a nearby site was brought in to pump out the elevated wet well in order to prevent sewer backups into area homes. There were no sanitary sewers in the area to pump into, so the 4" hydraulic pump had to be temporarily connected to a nearby storm sewer. The incident caused a bypass of approximately 225 gallons.

5.2 REGULATOR DRY WEATHER BYPASSING AND ANALYSIS

On May 16, 2020, DEP personnel from Tallman Island Collections Facility North discovered a raw sewage bypass during an inspection of TI-Regulator No. 57, located at 127-01 134th Street, College Point, NY. They determined that this bypass was caused by a blockage due to a large amount of grease buildup in the branch interceptor line. Approximately 64,800 gallons of raw sewage were discharged into Flushing Bay.

On September 22, 2020, DEP personnel responded to a 311 report of a possible dry weather discharge at South 8th Street and Kent Avenue in Brooklyn. Upon investigation, Regulator NCB-05A was found to be partially blocked by a piece of asphalt, which caused a raw sewage bypass to outfall NCB-082 discharging into the East River. Approximately 9,640 gallons of raw sewage were discharged into the East River.

On September 29, 2020, DEP personnel responded to a manhole overflow complaint and upon arrival on site, Collections confirmed that there was a dry weather discharge at South 8th Street and Kent Avenue in Brooklyn. Upon investigation, the channel in regulator NCB-05A was found to be blocked by large pieces of asphalt, which caused a raw sewage bypass to outfall NCB-082 discharging into the East River. Approximately 1,100 gallons of raw sewage were discharged into the East River.

On December 11, 2020, DEP personnel discovered a blockage at Regulator TI-57 that caused a raw sewage bypass to Outfall TI-57 discharging into the Flushing Bay. Approximately 4,360 gallons of raw sewage were discharged into Flushing Bay.

5.3 WRRF DRY WEATHER BYPASSING AND ANALYSIS

There were no raw sewage bypasses from the WRRFs during FY2020.

5.4 OTHER LOCATIONS DRY WEATHER BYPASSING AND ANALYSIS

On January 26, 2020, DEP personnel discovered the 6-inch pump in the pump-around system located at the intersection of 146th Street and Sutter Avenue was activated. Upon investigation, it was determined that a malfunctioning level sensor was the cause of the pump activation whereby approximately 90,000 gallons of untreated sewage entered Bergen Basin.

On March 19, 2020, DEP's sewer maintenance crew responded to a homeowner complaint of a sewer backup at the location. The backup was caused by a grease blockage in the city sewer. The homeowner pumped the sewage from a 1.5-inch pipe in his basement into the street which ran along the curbside and into a 54-inch storm sewer catch basin located on the northeast corner of 58th avenue and Kissena Boulevard. The incident caused a bypass of approximately 100 gallons.

On April 20, 2020, in response to call from a citizen, DEP discovered water flowing onto the Grand Central Parkway Eastbound Exit 12 ramp. Upon discovery, a crew began to check for the source of water. Upon investigation it was determined that a longitudinal break on the bottom of a 10-foot length of the force main pipe from the 70th Road Pumping Station was the source of the leak. Untreated sewage was flowing onto the roadway and into a storm catch basin, which ultimately discharges to Willow Lake/Flushing Creek. DEP personnel confirmed with a dye test that sewage was flowing to the storm catch basin. The incident caused a bypass of approximately 233,000 gallons.

On June 25, 2020, DEP responded to a complaint of potential sewage runoff into the Ravine Trail in Udall Cove Park Preserve. Upon inspection, DEP staff identified runoff into Gabler's Creek from a sewer manhole that appeared to be cemented over. Gabler's Creek flows to Little Neck Bay. DEP staff took samples of the discharge from the side of the concrete structure to test for fecal coliform. At the time when the crew identified the flow, the runoff type was not determined. The sampling results were received on June 29, 2020; confirming the presence of untreated sewage in the flow from the manhole. The incident caused a bypass of approximately 26,000 gallons. Appendix 5 provides additional details on the events, yearly comparisons and Reports of Non-Compliance Events.

6 INDUSTRIAL PRETREATMENT

“The approved Industrial Pretreatment Program shall consider the impacts of discharges of toxic pollutants from unregulated, relocated, or new SIUs tributary to CSOs that were not identified in the report entitled, ‘CSO Abatement in the City of New York: Report on Meeting the Nine Minimum CSO Control Standards’. The approved Industrial Pretreatment Program shall consider CSOs in the calculation of local limits for indirect discharges. Discharge of persistent toxics upstream of CSOs will be in accordance with guidance under (NYSDEC Division of Water Technical and Operational Guidance Series (TOGS) 1.3.8, New Discharges to POTWs. For industrial operations characterized by use of batch discharge, consideration shall be given to the feasibility of a schedule of discharge during conditions of no CSO. For industrial discharges characterized by continuous discharge, consideration must be given to the collection system capacity to maximize delivery of waste to the treatment plant. Non-contact cooling water should be excluded from the combined system to the maximum extent practicable. Direct discharges of cooling water must apply for a SPDES permit. To the maximum extent practicable, consideration shall be given to maximize the capture of industrial waste containing toxic pollutants and this wastewater should be given priority over residential/commercial service areas for capture and treatment by the POTW. These factors shall be considered in the location and siting of new industrial users with preference to service by areas not tributary to CSOs or having sufficient capacity to deliver all industrial wastewater during all conditions to the POTW. These provisions apply to both new and existing industrial users”

This program continues as described in last year’s Report. During 2020, DEP performed 303 inspections of regulated industries, and issued 29 summonses.

Attached in Appendix 6, Exhibit 1 is a copy of the letter sent to industrial users (IU) informing them that their permits had been amended, and a graph of annual trends in discharges to NYC WRRFs that contain metals. The total amount of metal being discharged by regulated industries remains very low. In 2020, the average daily discharge containing metals by all regulated industries to the NYC WRRFs was 8.7 lb/day. This amount corresponds to a trend of declining IU discharges. If the same percentage of CSO bypass (1.5%) from the CSO report is applied to the 2020 data, then on average approximately 0.12 lb./day of total metal would be included in CSO dry weather overflows.

Between 1997 and 2020, the total amount of metal being discharged by regulated industries in the City has been reduced by more than two orders of magnitude, due primarily to the relocation to Asia of the electroplating industry. The total metals loadings for 1997–2009 and 2012 were calculated based on monthly metal sampling, and the remaining years were calculated based on annual priority pollutant scans. For a complete

description please see CY2009 CSO BMP Annual Report. A list of regulated industries, with average daily wastewater discharge flows and average pollutant loadings is summarized in the 2020 IPP Progress Report.

6.1 Requirement for Significant Industrial Users to Hold Their Process Wastewater and Non-contact Cooling Water to the Maximum Extent Practicable During Heavy Rains

As an alternative means to reduce the likelihood of CSOs during storm events, DEP requires regulated industries to hold their process wastewater and non-contact cooling water to the maximum extent practicable during heavy rains. In 2020, DEP continued to implement this requirement for Significant Industrial Users (SIUs). Please see the CY2009 CSO BMP Annual Report for more details about this program. Additional information may be found in Appendix 6.

7 CONTROL OF FLOATABLE AND SETTLEABLE SOLIDS

The discharge of floating solids, oil and grease, or solids which cause deposition in the receiving waters, is a violation of the NYS Narrative Water Quality Standards. The permittee shall implement the following best management practices in order to eliminate or minimize the discharge of these substances:

7a. Catch Basin Repair and Maintenance - *The permittee shall inspect each catch basin in the tributary collection system a minimum of once every 36 months in accordance with a schedule to be outlined in the first annual CSO BMP report. Catch basins will be cleaned as required based on these inspections and in accordance with the permittee's criteria for catch basin cleaning. The permittee shall replace missing or damaged catch basin hoods within 90 days after the date of inspection for basins known to be hooded upon completion of the catch basin hooding program. For all future catch basins in the tributary collection system found by inspection to require extensive repairs before a hood can be installed, the permittee shall repair and install a hood within 24 months.*

7b. Booming, Skimming and Netting - *"The permittee shall operate and maintain the floatable containment boom (or floatable containment netting) as applicable for the CSO outfalls listed in this permit. The in-water containment boom shall be inspected within 48 hours of a confirmed CSO event and, if necessary, cleared of floating debris. The permittee shall visually inspect floatable containment netting on a weekly basis and shall replace damaged or full netting bags as necessary."*

7c. Institutional, Regulatory, and Public Education – *The permittee shall continue to implement the City-Wide Floatables Plan.*

The permittee may submit an application to the Department for an alternative implementation schedule for Items 7. a and b. for combined sewer areas that are tributary to a permanent land based CSO abatement and treatment facility designed and permitted by the Department for control of floatables.

7.1 CATCH BASIN REPAIR AND MAINTENANCE

Catch basin maintenance and repair work is a major focus of DEP's daily activities. DEP devotes significant resources to these tasks both as part of its three-year programmatic inspection cycle in compliance with the SPDES permits, and in response to complaints received from the public.

DEP now tracks catch basin maintenance and repair activities through Infor Public Sector (IPS), a complaint and work order management system. DEP performed 59,489 programmatic catch basin inspections in 2020. Table 7.1-1: “CY 2020 Catch Basin Inspection & Cleaning” presents a summary of catch basin cleaning as a result of the inspection program and other routine maintenance activities for each borough.

Catch basin hooding, one of EPA’s Nine Minimum Controls, is an important element of DEP’s CSO floatables control program and can significantly reduce the discharge of street litter to combined sewers, storm sewers and receiving waters. In 2020, DEP hooded 2,124 catch basins; 765 of those were found to require extensive repairs before a hood could be installed and the work took on average 75 days. The rest (1,359) were installed within an average of 53 days, with 81% being completed within the 90 days. Table 7.1-2: CY 2020 Catch Basin Hooding, summarizes catch basin hooding during 2020 for each WRRF drainage area. The status of these basins is monitored through DEP’s IPS system to ensure compliance within the allotted time period.

7.2 BOOMING, SKIMMING AND NETTING

BWT maintains 22 permanent floatable containment facilities and 1 temporary for a total of 23, corresponding to storm water and combined sewer drainage areas totaling approximately 60,000 acres. The temporary CSO boom at the Gowanus Canal is also handled by BWT. Floatable containment site locations and offloading facilities are depicted in Figure 7-2. The off-loading facility for floatables at Whale Creek is back in service.

The floatable materials contained by the boom and net sites are retrieved by three, City-owned skimmer vessels. Offloading currently occurs at three DEP WRRFs. The skimmer vessels are operated by BWT marine title personnel. The personnel also provide containment site inspections, maintenance and repair. Skimmer vessel maintenance and repair services are handled either by in-house personnel or, when necessary, via a marine services contract.

Skimmer vessels are dispatched to retrieve collected floatables from booms and nets based on inspections conducted with small vessels within 24 to 48 hours of significant rain events. The small, inspection vessels are also equipped with hand netting tools in order to retrieve small accumulations of floatables, so that the skimmer vessel use is more focused on containment sites with large amounts of floatables. In dry weather, boom and net inspections occur at least weekly and may occur more often for certain sites where specific tide and wind conditions may cause debris to accumulate outside of rain events.

In 2020, about 444.75 cubic yards of floatable material were retrieved from the 23 containment facilities and some minor open water skimming (see Table 7.2-C). Total

floatable recovery per each year is provided in Figure 7.2-B and in Appendix 7.2.1, Table 7.2-A. Floatable recovery totals for 2020 per each of the boom and net sites are included in Appendix 7.2.2, Table 7.2-B.



Figure 7-4. DEP Skimmer Vessel "Shearwater"

DEP currently has two self-propelled skimmer vessels (Aquarius Systems Custom Model HSTH235 - High Speed Trash Hunter) and one old vintage skimmer vessel which must be towed. DEP relinquished 1 vessel in April 2019 and is currently procuring a new vessel.

Table 7.2-D reflects NYCDEP CSO Floatable Removal Program via Skimmer Vessels – Collection Summary (Cubic Yards).

7.3 INSTITUTIONAL, REGULATORY, AND PUBLIC EDUCATION CONTROLS

In 2020, DEP continued, in partnership with other City agencies, to implement a variety of institutional, regulatory, and public education controls. For a detailed description and history of the City's work to reduce trash and settleable debris on a citywide basis, please refer to prior CSO BMP Reports available at <https://www1.nyc.gov/site/dep/water/combined-sewer-overflows.page> and the NYC Stormwater Management Program available at www.nyc.gov/dep/ms4.

7.3.1 Public Engagement - 2020 Activities

In 2020, DEP continued to educate the public and raise awareness about the New York City wastewater treatment and water supply systems, stormwater management (including the MS4 permit, floatables reduction, litter reduction, the proper disposal of grease, and water conservation). DEP developed and implemented through its Bureau of Public Affairs & Communication (BPAC), a comprehensive education and outreach program featuring in-person and virtual formats:

- Public meetings for the East River/Open Waters Long Term Control Plan
- School programs (grades pre-K-college graduate)
- Education programs for professional organizations
- Visitor Center at Newtown Creek programs
- Professional learning opportunities for formal and non-formal educators
- Special education programs and events
- Public exhibitions
- Volunteer Programs
- Multi-media distribution
- Publications
- Promotional items
- Website updates

In 2020, the City continued its annual “Clean Streets = Clean Beaches” Campaign, which featured an informational poster with the slogan “Don’t Mess up Summer” for display at area beaches, on Department of Sanitation fleet vehicles and on City agency social media.

Through coordination with other city agencies, including the New York City Departments of Sanitation and Parks & Recreation, the public engagement program not only increased the public’s awareness of the impact of littering, but also directly reduced litter through community cleanups and reduced rainfall runoff through tree planting, all of which work to reduce CSOs and their impacts on New York Harbor

7.3.2 Development of BMPs for the Automotive Industries

DEP completed the automotive booklet in 2013. For a full description of this work, please see the CY 2012 CSO BMP Annual Report.

7.3.3 Control of Floatables in Bluebelts



Development of a New Creek, South Beach, and Oakwood Beach Bluebelt: In 2020, DEP construction continued at New Creek BMPs NC-11 and NC-12. Negotiations with the US Army Corps of Engineers were nearly completed in 2020, and it is anticipated that the remaining Mid-Statens Island BMPs in the Oakwood Beach, New Creek, and South Beach areas will be constructed within the next three years as part of the South Shore Staten Island Coastal Storm Risk Management program.

BMPs at Mill Creek (MC-3) and Jack's Pond (JP-1, JP-2, JP-3, and JP-4) were completed in 2020.

Adopt-a-Bluebelt – This program continued in 2020. The total number of sites adopted and maintained by local community groups, companies, or individuals is 46, covering an area of 46,000 square feet.

Volunteer Cleanups – In 2020, there were no volunteer cleanups due to constraints imposed by the pandemic.

Catch Basin Outreach and Education – All existing and newly-installed catch basins that are tributary to Bluebelts are marked with the “No dumping – flows to Bluebelt” message.

Floatables Control – New dynamic detention weirs with trash capturing devices have been installed in the New Creek Bluebelt. These weirs have eliminated the need for floating booms.

Illegal Dumping Enforcement – DEP Bluebelt division continues to utilize and manage a debris removal contract for the purposes of removing illegal dumping and other debris found on existing and newly-acquired DEP-owned Bluebelt properties. During the reporting period, Bluebelt staff and contractors removed 482 cubic yards of dumped trash and 195 cubic yards of sediment within and adjacent to regulated wetlands.

7.3.4 School and Visitor Center Programs, Professional Development, Special Events and Exhibitions

DEP manages an extensive education and outreach program that targets NYC students, teachers, parents, school administrators, curriculum specialists, non-formal educators, residents, community organizations, businesses, and visitors and internet users. The program is supported through education programs at the Visitor Center at Newtown Creek and the Newtown Creek Nature Walk, education classes taught at schools and public events, digital resources and print material, multi-media public service campaigns, exhibitions, publications, promotional item distribution, and the DEP website.

BPAC's education programs and resources continued to reach thousands of young people and adults in 2020. Some specific examples of these programs that occurred in 2020 are presented below.

7.3.4.1 Other Education Programs and Resources

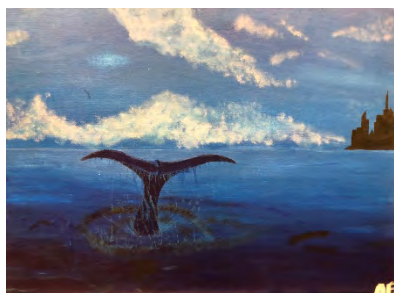


In 2020, DEP conducted hundreds of educational programs with young people and adults through both in-person and virtual school visits, field trips, Visitor Center at Newtown Creek presentations, teacher professional learning opportunities, and other educational programs and events. DEP developed and distributed to thousands of recipients throughout NYC educational materials, including information about NYC's wastewater treatment and water supply systems and about harbor water quality; teacher lessons and student activities; and educational resource guides. Of particular interest to teachers was a new educational brochure with graphics depicting the wastewater treatment process, stormwater management, and wastewater resource recovery in NYC. DEP, in collaboration with the NYC Mayor's Offices of Resiliency and Sustainability, also developed a new Climate Change Education Module, featuring a comprehensive set of lessons, activities, and resources on climate science and impacts in NYC. . Detailed

information about these programs and resources is available from BPAC's Education Office and on DEP's website.

The Visitor Center at Newtown Creek, located at the Newtown Creek WRRF in Greenpoint, Brooklyn, provides an important venue for students, educators, professionals working in the field, and the general public to learn about NYC's wastewater and water supply systems and stewardship opportunities. Exhibitions and programs focus on the city's vital, but hidden, infrastructure; green solutions to stormwater management, including bluebelts, rain gardens, green and blue roofs, and rain barrels; the NYC sewer system, including its MS4; harbor water monitoring, including the role of NYC's fleet of vessels and scientific monitoring; and ways to become more effective stewards of the environment by disposing of litter and grease properly and by conserving water. The Visitor Center provides the ideal setting for DEP educators to present hands-on, multi-disciplinary lessons for grades pre-K through college, aligning with New York State and City standards, and STEM and humanities initiatives. The Visitor Center (and the Newtown Creek Nature Walk), open year-round, is a popular destination for school field trips and teacher professional learning opportunities. In 2020, DEP continued to engage students and educators through virtual tours and presentations at the Visitor Center at Newtown Creek WRRF using video interviews, in-the-field footage, and interactive remote learning activities.

In May 2020, DEP conducted its 34th annual Water Resources Art & Poetry award ceremony to recognize student's knowledge of the city's valuable water resources through their creative expression using art and poetry. Approximately 1,700 NYC and watershed students from 2nd through 12th grade attending public, charter, independent, and parochial schools, and home-schooled, participated in this special program; their poetry, photographs, digital art, paintings, and crafts were judged based on knowledge and creativity. Winning entries are featured on DEP's website. DEP hosted a virtual celebration to honor the outstanding efforts of all of the participating students.



In 2020, DEP continued to collaborate with Trout Unlimited on the Trout in the Classroom (TIC) program, an upstate/downstate watershed environmental education initiative for elementary through high-school students. In October, educators from NYC and NYC's watersheds east and west of the Hudson River attended the annual TIC teacher

conference, where they received trout eggs, distributed by the NYS Department of Environmental Conservation (DEC), to raise in their classrooms. Throughout the eight-month program, eggs hatched in classroom tanks and trout were raised by approximately 20,000 students in more than 150 schools in NYC and its watersheds. In the spring, NYC students and teachers released their trout into watershed streams and participated in in-person and virtual hands-on activities focused on the importance of forests in helping to protect water quality and in water stewardship.

DEP also participated with DEC during the annual statewide Citizen Science “A Day in the Life of the Hudson and Harbor” program. Because of COVID-19, this event took place remotely. DEP and other harbor water educators filmed in-the-field footage, making environmental observations, collecting and analyzing water samples, and assessing water quality along the East River at Gantry Plaza State Park. Videos were shared with hundreds of students and educators to support their learning of field techniques used to track the river’s tides and currents, examine the water’s chemistry and identify local aquatic species.

Throughout the year, DEP conducted professional learning opportunities (PLO) for formal and non-formal educators. Topics included harbor water quality, watersheds, stormwater management, wastewater resource recovery, and the history of the New York City water supply system. Partners included the NYC Department of Education’s (DOE) Science and STEM units and Office of Sustainability, DOE Genovesi Environmental Study Center, New York City DPR, New York City Department of Sanitation (DSNY), New York City Mayor’s Offices of Resiliency and Sustainability, Watershed Agricultural Council, NYC H2O, National Wildlife Federation, and many other cultural and environmental organizations. Participants learned about creative ways to incorporate into the curriculum teaching and learning about water. Some 2020 highlights include DEP’s popular Wastewater Resource Recovery in NYC PLO for more than 50 educators at the Visitor Center at Newtown Creek, a NYC Watershed Virtual Tour attended by more than 40 non-formal educators, and a Climate Change Education Virtual Workshop Series hosted for more than 30 educators over three sessions. As a Continuing Teacher and Leader Education (CTLE) sponsor, as approved by the New York State Education Department, DEP continued to support New York State teachers who participated in our PLOs by providing credit towards their required training hours.

7.4 FLOATABLES MONITORING PROGRAM PROGRESS REPORT

DEP has been tasked through its SPDES permit requirements to implement and maintain a floatables control program and a monitoring program to provide a means to assess and measure the effectiveness of the programs. These control and monitoring programs are embodied in the City-Wide Comprehensive CSO Floatables Plan Modified Facility Planning Report (Floatables Plan, July 2005) inclusive of Addendum 1 – Pilot Floatables Monitoring Program Work plan (December 2005)

The Floatables Plan contains a conceptual framework for the monitoring of floatables conditions in the waters of New York Harbor. A pilot program was conducted over the course of 2006 and 2007 to develop and test the monitoring methodology envisioned in the framework, and the full program began in 2008. A progress report, presented in conjunction with the CSO BMP Annual Report under separate cover, describes the progress that DEP has made.

The floatables monitoring program is based on observations of the presence/absence of floatables from monitoring stations throughout the harbor and has developed into one of a number of methods to assess floatables control programs. These basic monitoring data have been used to prioritize and select sites for more comprehensive site-specific investigations focused on priority sites with persistent poor ratings. The site-specific investigations characterize floatables, identify sources of floatables, correlate rating trends to floatables control programs where applicable, and, in conjunction with CSO LTCP processes, provide the first steps for appropriate remediation planning where feasible.

In addition to the floatables controls listed in BMP 7a through 7d, the City engages in a street sweeping program to reduce floatables' entry into catch basins and the combined sewer system. The program is administered by DSNY and evaluated through systematic street litter monitoring, known as the "Scorecard Program," conducted by the Mayor's Office of Operations. According to the Scorecard Program, City-wide street litter levels have improved somewhat since 2003 with clear improvements in the percent acceptable and percent filthy ratings. Scorecard Program results for the past forty four years are summarized in Appendix 7.4.

8 COMBINED SEWER SYSTEM REPLACEMENT

“Replacement of combined sewers shall not be designed or constructed unless approved by NYS Department of Health and specified in the NYCDEP Master Plan for Sewers and Drainage. When replacement of a combined sewer is necessary it shall be replaced by separate sanitary and storm sewers to the greatest extent possible. These separate sanitary and storm sewers shall be designed and constructed simultaneously but without interconnections to maximum extent practicable. When combined sewers are replaced, the design should contain cross sections which provide sewage velocities which prevent deposition of organic solids during low flow conditions.”

Private Drains are constructed in conformance with Drainage Proposals. Any sewers built by private developers are in conformance with their Drainage Proposals and do not extend combined sewers beyond the combined sewer area.

9 COMBINED SEWER/EXTENSION

“Combined sewer/extension, when allowed should be accomplished using separate sewers. These sanitary and storm sewer extensions shall be designed and constructed simultaneously but without interconnections. No new source of storm water shall be connected to any separate sanitary sewer in the collection system. If separate sewers are to be extended from combined sewers, the permittee shall demonstrate the ability of the sewerage system to convey, and the treatment plant to adequately treat, the increased dry-weather flows. Upon written notification by the Regional Water Engineer, the permittee shall assess the effects of the increased flow of sanitary sewage or industrial waste, on the frequency, flow and pollutant loading on the CSOs including the impacts on the receiving water quality and usage. This assessment should use techniques such as collection system and water quality modeling contained in the Water Environment Federation Manual of Practice FD-17 Combined Sewer Overflow Pollution Treatment.”

In 2020, eight private combined sewer extensions were reviewed and approved and one previously approved private combined sewer extensions in Brooklyn completed construction. Sewer extensions are reviewed and approved in accordance with the City drainage plan.

10 SEWER CONNECTION & EXTENSION PROHIBITIONS

"If, there are documented, recurrent instances of sewage backing up into house(s) or discharges of raw sewage onto the ground surface from surcharging manholes, the permittee shall, upon letter notification from DEC, prohibit further connections that would make the surcharging/back-up problems worse. Wastewater connections to the combined sewer system downstream of the last regulator or diversion chamber are prohibited."

For the calendar year 2020, DEP received no letter notification from DEC concerning chronic sewer backups or manhole overflows that would prompt DEP to prohibit additional sewer connections or sewer extensions

11 SEPTAGE AND HAULED WASTE

“The discharge or release of septage or hauled waste upstream of a CSO is prohibited.”

The septage and hauled waste program continued unchanged since the 2019 Annual BMP Report issued in 2020.

12 CONTROL OF RUN-OFF

“All sewer certifications for new development shall be consistent with NYCDEP rules and regulations and shall require on-site detention or retention to not exceed the capacity of the existing sewers fronting the property. Only allowable flow will be permitted to discharge into the combined or storm sewer system.”

Connecting to or repairing/relaying an existing connection to any combined, storm or sanitary sewer requires a permit from DEP. A new connection is conditioned upon the submission of a Certification of a Site Connection Proposal (SCP) or a House Connection Proposal (HCP). A NYC Licensed Master Plumber can apply for a sewer connection permit provided there is a certified HCP/SCP submitted by a NYS Licensed Professional Engineer or Registered Architect.

BWSO oversees the sewer permitting process and inspects and approves water and sewer connections performed by licensed plumbers and/or authorized contractors. This oversight and the review of certifications of SCPs and HCPs allow DEP to ascertain whether the volume of sewage entering the collection system conforms to the City's Drainage Plan and will be conveyed to WRRFs without causing sewage back-ups.

DEP administers this program pursuant to the Clean Water Act and State and local laws regulating the treatment and disposal of wastewater. The City's "Rules Governing House/Site Connections to the Sewer System" are set forth in Title 15 of the Rules of the City of New York, Chapter 31.

Connections to any City sewer require DEP (BWSO) inspection, generating a "connection card" or "Certificate of Inspection." Such certification is a prerequisite to the property owner's receiving a Certificate of Occupancy from the NYC Department of Buildings (DOB). BWSO's Borough Water & Sewer Records Office maintains records of all connections.

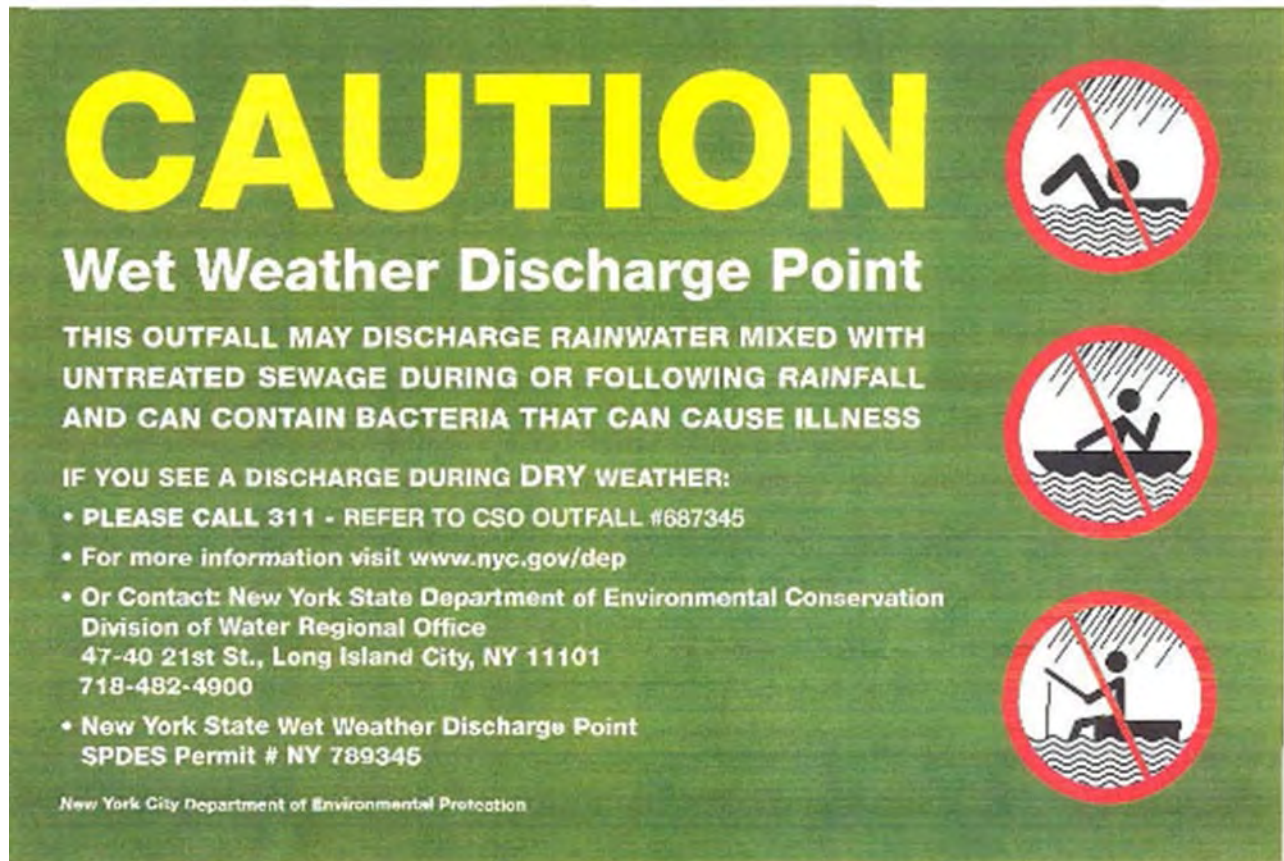
The Chapter 31 rule to "reduce the release rate of storm flow to combined sewers from new developments to 10% of the drainage plan allowable or 0.25 cfs, whichever is higher (for cases when the allowable storm flow is more than 0.25 cfs)," was promulgated on January 4, 2012, and has been in effect since July 4, 2012.

A copy of the Sewer Certification Form and Site Connection Proposal Form that must be filed for new development are attached in Appendix 8.

13 PUBLIC NOTIFICATION

a. *“ The permittee shall install and maintain identification signs at all CSO outfalls owned and operated by the permittee as listed on the Additional Combined Sewer Outfall page(s) of this permit. The permittee shall place the signs at or near the CSO outfalls and ensure that the signs are easily readable by the public. The signs shall have minimum dimensions, information and appearance as specified in the Discharge Notification Requirements page of this permit.”*

DEP installed signs at all CSO outfalls in 2003. Under the project "Signs Installation Plant-Wide," initiated in November 2005, DEP installed signs at all WRRF outfalls in 2007. The sign panels are 24" x 36" and the plaques are 6" x 9" with white letters on a green background. Each notification sign and plaque asks the public to contact DEP with the depicted Outfall number and SPDES number if they observe dry weather discharge from the outfall.



In 2010, DEP changed the design of the outfall signs at the recommendation of the Floatables Citizens Advisory Committee which requested that we include specific information about the water quality at these locations. The new design was approved by DEC, the Arts Commission and DPR, as well as Community Boards in the five boroughs. Recommendations were made to include warnings about recreational activities such as swimming, boating and fishing at the outfall locations. The new design emphasizes the word "Caution" in order to alert the public to the fact that the location is a point of release of wastewater into surface water during wet weather. The signs also provide graphics of non-recommended activities. The replacement of the signs was completed in May of 2011 with the newly designed CSO signs; see Appendix 10 for the list of installed CSO sign locations.

The signs also provide contact numbers people can call to report discharges during dry weather. The ID number can help a 311 operator or a DEP employee to recognize the location from which someone is reporting discharges and to take immediate action. DEP has received calls prompted by these signs. These calls are handled by a trained group of employees who are aware of related response actions. Calls are evaluated and forwarded to responsible staff who will take the appropriate action.

The knowledge of New York's citizens about their water environment is being expanded with posting of DEP's educational signs. The notice depicts a typical CSO sewer regulator, explains its purpose, and alerts the public to action to be taken in the event of a release of wastewater from an outfall into surface waters during dry weather. The sign also serves a secondary purpose: it involves the citizen in community environmental actions.

Communication with Community Boards was essential to inform them that DEP would be working in their areas in response to the "Fisherman's Right to Know" mandate. The purpose of the Act was explained and specific contact points within DEP were established.



“Waterwalk” Educational Signage

b. “The permittee shall implement a public notification program to inform citizens of the location and occurrence of CSO events. As long as the Department of Health and Mental Hygiene provides a “Your location” public notification program, the permittee may submit a summary of the program in the annual BMP report, rather than developing their own program. The program shall include a mechanism (public media broadcast, standing beach advisories, newspaper notice etc.) to alert potential users of the receiving waters affected by CSOs and a system to determine the nature and duration of conditions that are potentially harmful to users of these receiving waters due to CSOs. ”

The DOHMH 2020 NYC Beach Surveillance and Monitoring Report can be accessed at:

<https://www1.nyc.gov/assets/doh/downloads/pdf/beach/beach-report-2020.pdf>

13.1 SUMMARY OF DOHMH REPORT:

13.1.1 Routine Monitoring and Surveillance Procedures

The routine beach monitoring and surveillance procedures consist of the following three major components:

- Routine beach water quality monitoring;
- Compliance inspections; and
- Regulatory surveillance.

DOHMH monitors and samples each beach weekly with the exception of the Rockaway and Breezy Point beaches, which are sampled biweekly. Additional samples may be collected when necessary. The determining factors for additional sampling may include:

- Proximity to suspected pollution sources;
- Extent of pollution;
- Beach use;
- Historical water quality data; and
- Other health risk factors.

Prior to sample collection, a visual inspection is performed to identify any existing and/or potential sources of pollution that are likely to affect beach water quality. During a sample event, three samples are collected at each beach. At larger beaches, such as Coney Island and Rockaway, additional samples are taken at multiple locations to ensure adequate representation and reliable data results. Water samples are collected at knee-depth (18 inches) in three feet of water, at the middle of a typical or most highly used area of the beach, or near a potential source of pollution. The collected samples are delivered to the DOHMH Office of Public Health Laboratories (PHL) for analysis. The analytical turnaround time for Enterococci is 24 hours.

13.1.2 Public Notification and Risk Communication

There are 8 public beaches, all of which were issued at least one swimming advisory warning notice during the 2020 bathing season. However, there were only two warnings issued as a result of water quality exceedances. Fourteen notification days were a result of preemptive wet weather or tropical storm conditions. The length of notification ranged from 1 to 2 days.

Of the 17 private beaches in NYC, 13 were open in 2020. Nine were issued at least one swimming advisory warning notice during the bathing season. Of the private beaches that exceeded water quality standards, there were 139 warning days, 72 of which were a result of a contamination advisory on Douglaston Manor beach only. The other 67 warning days were a result of wet weather conditions, when the length of the notifications ranged from 1 to 2 days. See Appendix B on pages 18 to 20 of the Beach Report 2020.

In response to storm warnings from the National Weather Service, all eight public beaches were preemptively closed to swimming on Tuesday, August 4, ahead of the landfall of Tropical Storm Isaias. All public beaches were closed for the season on September 7 (Labor Day), 2020.

13.1.3 Water Quality and Illness Reporting

Routine water quality monitoring and sample collection were performed at all 25 permitted beaches. Over 300 samples were collected and analyzed from these beaches between April and September 2020. In 2020, the Department received two complaints in July regarding a potential illness caused by beach recreation activity at the Bronx private beach, Schuyler Hill Civic Association. These complaints were referred to the Bureau of Communicable Disease epidemiologists for follow-up investigation. After multiple attempts the complainants could not be contacted, and as a result, the exposure and/or cause could not be verified.

Due to the shortened bathing season and modified beach monitoring plan, DOHMH collected fewer total samples than during a normal beach season. A normal beach season would have run from May 25, 2020 to September 13, 2020, with some pre-season sampling occurring too. The shortened season ran from July 1, 2020 to September 7, 2020, with some variable and extended pre-season sampling occurring due to the uncertainty around COVID-19 timelines. Additionally, DOHMH reduced the frequency of sampling events at certain beaches from weekly to biweekly. Further, DOHMH reduced the number of sampling locations per beach sampling event, resulting in fewer samples collected per monitoring period. These changes were made due to COVID-19 staffing precautions and safety measures. In 2020 DOHMH collected roughly 300 samples, compared to over 1,000 samples in a normal beach season. Given the limitations of this beach season, DOHMH interpreted sample results conservatively, and in most cases did not initiate resampling events to use resample information to reduce notification periods.

13.1.4 Inspections

During the 2020 beach season, inspections of all 21 open, public and private beaches were successfully conducted by the Department. One facility was cited for violations at the time of inspection (during a Coney Island inspection, minor disrepair of parts of the boardwalk was observed) as indicated in Appendix C of the Beach Report 2020.

14 CHARACTERIZATION AND MONITORING

“The permittee shall characterize the combined sewer system, determine the frequency of overflows, and identify CSO impacts in accordance with Combined Sewer Overflows, Guidance for Nine Minimum Controls, EPA, 1995, Chapter 10. These are minimum requirements, more extensive characterization and monitoring efforts which may be required as part of the Long Term Control Plan.”

Because DEP maintains many regulator structures that have very complex geometry and are tidally influenced, it is not feasible to monitor all CSO outfalls. DEP does have a SCADA system that helps provide some information pertaining to water levels in the regulator structures and provides some indication of whether or not a CSO is occurring, but SCADA does not provide a direct flow measurement and is influenced by factors such as tidal elevations. DEP has also conducted some very comprehensive and intense interim flow monitoring using specialized vendors at a number of representative locations to calibrate and validate the InfoWork sewer system models. These calibrated InfoWork models are used to estimate the annual CSO volume and frequency for all the CSO outfalls.

There are four (4) NOAA rain gauges at the area airports, and DEP maintains rain gauges at all fourteen (14) WRRFs.

For additional details, refer to the CY 2020 Projected CSO Discharges table in Appendix 11.

DEP also regularly posts additional monitoring data on its website, including waterbody advisories. Information on the City’s waterbody advisory application can be found here:

https://www1.nyc.gov/html/dep/html/harborwater/nyc_waterbody_advisory.shtml

15 ADDITIONAL CSO BMP SPECIAL CONDITIONS

5. 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 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.*

First year quarterly reports have been submitted and annual reports to be submitted hereafter with the Annual CSO BMP Reports.”

DEP includes this section pursuant to Item 5.c. in Appendix B of Additional CSO BMP Special Conditions in the SPDES Permits. Item 5.b requires DEP to submit reports of all known or suspected CSO discharges from key regulators outside the period of a critical wet weather event. For the first year after the effective date of the 2014 CSO BMP Order, Item 5.b also required DEP to quarterly “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.” DEP is to provide subsequent updates of the engineering analyses in the CSO BMP Annual Reports, and this section fulfills that requirement.

DEP’s SPDES permits define a critical wet weather event as “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.” Generally, the wet weather flow identified in the associated SPDES permit of the WRRF is two times the design dry weather flow (2xDDWF), but it may be less than 2xDDWF under certain operational limitations (e.g., when DEP has reported critical equipment to be out of service and has submitted a reduced capacity notice to DEC). CSO discharges from key regulators that occurred outside of a critical wet weather event were determined based on inference from

synoptic data collected from the city telemetry system, meteorological and tidal observations, and plant operational data. Analysis of mitigation strategies to reduce the occurrence of discharges outside the critical wet weather periods is being performed using InfoWorks CS models of the city's collection systems.

This submission evaluates observations from January 2020 through December 2020 of all known or suspected CSO discharges from key regulators outside the period of a critical wet weather event. A discussion of the methodology, calculations and analysis, and potential limitations to mitigation strategies can be found in the quarterly report submittals provided for the first year of analysis.

15.1 ENGINEERING ANALYSIS

The SPDES permit requires DEP to evaluate and report on Key Regulators, and stipulates that 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.” It should be noted that DEP implemented an extensive Regulator Improvement Program in the 1990s, through which low-cost upgrades were made to dozens of regulators.

As discussed in previous report submittals, several strategies were identified that may alter the timing of regulator discharges so that such discharges occur less frequently. We considered the following strategies to have the greatest potential for success:

- **Capital Improvements Already in Development.** Capital projects in various stages of planning and development are expected to alter the timing of CSO discharges. These include not only projects directly at the regulator, but also other projects that may influence regulator performance, such as new force mains, the operation of a regional CSO facility, or downstream conveyance enhancements.
- **Removal of Existing Elbow in Drop Pipe.** In certain locations, vertical pipes convey flow from the regulator to the interceptor. As a result of the historical practice of installing elbows as a means of energy dissipation, vertical pipes are known to have chronic clogging that could contribute to early tipping.
- **Enhanced Operations & Maintenance.** Regulators can be influenced by the performance of the downstream interceptor, which may be influenced by, among other things, sedimentation or wet well operation at the WRRF.
- **Flow Transference.** The City sewers are divided into several mostly independent service areas. This division suggests there may be potential for diverting flow from an area of limited wet weather capacity to a nearby area with excess wet weather capacity.
- **Continued Monitoring.** Monitoring over a longer period of time is prescribed where regulator performance is not yet clearly understood, or where a regulator yields a

small number of events compared to other Key Regulators. Limited sample sizes increase the risk of misinterpretation of data, and resultant ineffective mitigation strategy or inappropriate action taken at a regulator that is not actually significantly discharging early. A larger data set will allow for more accurate interpretation and better decision-making on future capital commitments.

- Citywide / Open Waters LTCP. As part of the Open Waters / Citywide LTCP all category A and B regulators discharging into the open waters were evaluated to assess alternatives to reduce hours of CSO discharges outside of the critical period. These alternatives included raising and lengthening of weir structures, opening of orifices, enlargement of branch interceptors, and in some locations expanding pump station capacities.

15.2 RESULTS

Potential mitigation strategies were not analyzed for those Key Regulators that are expected to be hydraulically influenced by capital projects already developed to reduce CSO discharges and increase flow to the WRRF, as required by enforceable milestones under the CSO Order. Examples of potential, cost-effective mitigation strategies that were evaluated include weir modifications, flow transference, enhanced operation and maintenance, and resizing branch interceptors. After consideration of the cause(s) of their discharging outside of a critical wet weather event, any possible system limitations and a number of approaches that might be expected to reduce the occurrence of such discharges, no reasonable options that could be completed within two years were evaluated. The results of the open waters regulator evaluations were included in the Citywide / Open Waters LTCP that was submitted on October 1, 2020. See Appendix 12.2 for a summary of the status of all telemetered regulators. The Citywide CSO LTCP proposed the following projects to further reduce CSO discharges and convey additional wet weather flow to the WRRFs:

- Gravity flow diversion structure at Hannah Street Pump Station (PR WRRF)
- Automated gate for Regulator OH-9C, CSO Outfall OH-015 (OH WRRF)
- Bending weir and regulator modifications at CSO Outfalls TI-003 and TI-023 (TI WRRF)
- Optimization of regulators at CSO Outfalls RH-005 and RH-014 (RH WRRF)
- Optimization of regulators at CSO Outfalls NR-038, NR-040, and NR-046 (NR WRRF)

Table 15.1 summarizes the observations of Key Regulators during the period of analysis, which includes data from January 2020 through December 2020. Of the locations where no capital improvements are currently planned, six (6) regulators had no occurrences and seven (7) locations had an average of one or fewer occurrences per month.

Table 15.1 Key Regulators with Potential CSO Discharges outside the Period of a Critical Wet Weather Event, January through December 2020

Key Regulator	2020 Number of Occurrences													Total Duration (hours)	Analysis Category
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	To Date		
26W-01	0	0	0	0	0	0	0	0	0	0	3	0	3	1.25	A
26W-02	0	1	2	0	1	1	2	0	2	0	5	1	15	26.25	A
BBH-02	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	B
BBH-06	1	5	1	2	1	0	2	4	1	1	2	1	21	4.25	C
BBL-04	0	2	2	4	0	4	4	5	5	1	5	2	34	18.25	C
BBL-22	0	0	1	1	0	1	0	3	1	0	0	0	7	2.25	B
HP-05	1	1	0	2	2	1	3	4	2	3	4	0	23	42.25	A
HP-10	1	0	0	2	1	1	2	0	1	0	1	0	9	7.25	B
HP-13	1	3	4	4	1	1	4	5	3	2	4	2	34	66.50	C
JA-03	1	0	1	0	1	0	4	3	4	1	2	0	17	10.50	A
NCB-01	0	1	0	2	1	3	2	2	2	2	5	1	21	9.75	C
NCB-04	0	2	2	1	1	5	2	3	2	2	2	1	23	33.25	C
NCM-47	0	0	0	0	1	1	1	4	2	2	4	1	16	27.75	C
NR-16	0	0	0	1	0	2	2	4	2	1	1	0	15	7.00	C
NR-23	0	0	0	1	0	1	4	4	1	0	0	0	11	5.25	B
NR-33	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	B
OH-01	1	1	1	0	0	0	0	0	2	0	0	0	5	6.25	B
OH-06	0	0	0	0	1	0	1	0	1	0	0	0	3	4.00	B
PR-06W	1	0	2	4	2	1	7	2	2	3	2	2	28	50.75	C
PR-13E	1	3	3	6	2	3	6	5	4	4	5	2	44	104.50	C
RH-02	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	B
RH-20	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	B
TI-09	1	3	3	3	1	0	2	4	2	2	6	3	30	48.50	C
TI-10A	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	B
WIB-53	0	0	0	0	0	0	0	0	0	0	0	0	0	0.00	B
WIB-67	0	0	0	2	2	0	3	1	1	1	1	0	11	32.50	B
WIM-23	0	0	0	0	0	1	2	0	0	0	0	1	4	2.75	B
Count**	9	10	11	14	14	14	18	15	19	13	16	11	21		

*Count of regulators with at least one event

Analysis Categories

Category A: Key Regulators that may be influenced by planned capital improvements (Projects are currently in design or construction that may result in CSO reductions and additional wet weather capture);

Category B: Key Regulators averaging one or fewer potential discharge outside the period of a critical wet weather event per month

Category C: All other Key Regulators with an average of more than one potential discharge outside the period of a critical wet weather event per month.

15.2.1 Key Regulators that may be influenced by planned capital improvements (projects are currently in design or construction that may result in CSO reductions and additional wet weather capture)

26W-01

Regulator 26W-01 had three (3) potential discharge outside the period of a critical wet weather event; the total duration of this period was 1.25 hours. Note, 26th Ward WRRF operated at a reduced interim wet weather capacity for the duration of 2020. In addition, there are several planned capital improvements scheduled at the 26th Ward WRRF proceeding pursuant to the CSO Order that may influence the performance of regulator 26W-01:

Installation of a new primary settling tank under Contract 26W-20, currently in construction and scheduled to be completed in 2022; milestone date has been modified as a result of a Force Majeure claim that has been submitted and approved. Once the new facilities are in service, DEP will commence a 12-month monitoring period, and provide an engineering analysis in the applicable CSO BMP Annual Report following that 12-month monitoring period.

26W-02

Regulator 26W-02 had fifteen (15) potential discharges outside the period of a critical wet weather event; the total duration of these periods was 26.25 hours. Note, 26th Ward WRRF operated at a reduced interim wet weather capacity for all of 2020 due to ongoing construction. Pursuant to the CSO Order, there is a high-level storm sewer project underway in this drainage area, which was scheduled to be completed by December 2022 but has been delayed due to an ongoing Force Majeure. This work, in conjunction with construction of a fifth primary settling tank, may impact wet weather performance. Once the new facilities are in service, DEP will commence a 12-month monitoring period, and provide an engineering analysis in the applicable CSO BMP Annual Report following that 12-month monitoring period.

HP-05

Regulator HP-05 had twenty-three (23) potential discharges outside the period of a critical wet weather event; the total duration of these periods was 42.25 hours. Regulator HP-05 had a planned capital improvement, the installation of the Pugsley Parallel Interceptor upstream of this regulator under Contract CS-ER-WCP, which was completed in February 2020. There is also additional work planned at regulator HP-09 and at regulator HP-05 under the approved Bronx River LTCP that will impact performance; the current construction completion milestone is September 2026. Once the new facilities are in

service, DEP will commence a 12-month monitoring period, and provide an engineering analysis in the applicable CSO BMP Annual Report following that 12-month monitoring period.

JA-03

Regulator JA-03 had seventeen (17) potential discharges outside the period of a critical wet weather event. The total duration of these periods was 10.50 hours. There are capital improvement projects that were recently completed that may influence the performance of regulator JA-03. Bending weirs were installed at Regulators JA-03 & JA-14 along with a parallel interceptor to convey additional flow to the plant. As of June 2020, a new lateral Bergen Basin sewer was constructed enabling the sluice gate at Regulator JA-14 to be fully opened to maximize wet weather flow to the Jamaica WRRF. Now that the new facilities are in service, DEP will commence a 12 month monitoring period, and will provide an engineering analysis in the next CSO BMP Annual Report.

15.2.2 Key Regulators Averaging One Discharge or Fewer per Month

BBH-02

Regulator BBH-02 did not have any potential discharges outside the period of a critical wet weather event. However, DEP will continue to monitor it and report in accordance with DEP's SPDES permits. . Regulator BBH-02 had previously been in Category A prior to 2019, as a regulator potentially influenced by planned capital improvements that included work at regulator BBH-02 to raise the weir.

BBL-22

Regulator BBL-22 had seven (7) potential discharges outside the period of a critical wet weather event; the total duration of these periods was only 2.25 hours. Regulator BBL-22 had previously been in Category A prior to 2019, as a regulator potentially influenced by planned capital improvements. Regulator BBL-22 was further evaluated as part of the Citywide / Open Waters LTCP but no viable alternative was identified.

HP-10

Regulator HP-10 had nine (9) potential discharges outside the period of a critical wet weather event; the total duration of these periods was 7.25 hours. The evaluation for Regulator HP-10 was previously submitted to DEC in the Quarterly Key Regulator Monitoring Reports; it was identified as requiring further consideration as part of the LTCP

process. Regulator HP-13 was further evaluated as part of the Citywide / Open Waters LTCP but no viable alternative was identified.

NR-23

Regulator NR-23 had eleven (11) potential discharges outside the period of a critical wet weather event; the total duration of these events was 5.25 hours. Regulator NR-23 was further evaluated as part of the Citywide/Open Waters LTCP but no viable alternative was identified.

NR-33

Regulator NR-33 did not have any potential discharges outside the period of a critical wet weather event. However, DEP will continue to monitor it and report in accordance with DEP's SPDES permits.

OH-01

Regulator OH-01 had five (5) potential discharges outside the period of a critical wet weather event; the total duration of these periods was 6.25 hours. The evaluation for Regulator OH-01 was previously submitted to DEC in the Quarterly Key Regulator Monitoring Reports and it was further evaluated as part of the Citywide/Open Waters LTCP but no viable alternative was identified.

OH-06

Regulator OH-06 had three (3) potential discharges outside the period of a critical wet weather event; the total duration of these periods was 4.00 hours. The evaluation for Regulator OH-06 was previously submitted to DEC in the Quarterly Key Regulator Monitoring Reports. Regulator OH-06 was further evaluated as part of the Citywide/Open Waters LTCP.

RH-02

Regulator RH-02 did not have any potential discharges outside the period of a critical wet weather event. However, DEP will continue to monitor it and report in accordance with DEP's SPDES permits.

RH-20

Regulator RH-20 did not have any potential discharges outside the period of a critical wet weather event. However, DEP will continue to monitor it and report in accordance with DEP's SPDES permits.

TI-10A

Regulator TI-10A did not have any potential discharges outside the period of a critical wet weather event. However, DEP will continue to monitor it and report in accordance with DEP's SPDES permits.

WIB-53

Regulator WIB-53 did not have any potential discharges outside the period of a critical wet weather event. WIB-53 had previously been in Category A prior to 2020, as a regulator potentially influenced by planned capital improvements. WIB-53 is about 1,000 feet from the Bronx Grit Chamber, where all four bar screens have been replaced. In addition, the main sewage pumps at the Wards Island WRRF were replaced with construction completion certified in August 2019. The bar screen replacement work was completed in January 2017.

WIB-67

Regulator WIB-67 had eleven (11) potential discharges outside the period of a critical wet weather event; the total duration of these periods was 32.50 hours. WIB-67 had previously been in Category A prior to 2020, as a regulator potentially influenced by planned capital improvements. WIB-67 was influenced by the Bronx Grit Chamber and by the main sewage pump work at the Wards Island WRRF. Regulator WIB-67 was further evaluated as part of the Citywide/Open Waters LTCP and there is a proposal to daylight Tibbett's Brook that will take a significant portion of wet weather flow that is currently being discharged into the combined sewers and divert it directly to the Harlem River. This effort will result in considerably less wet weather flow going to regulator WIB-67.

WIM-23

Regulator WIM-23 had four (4) potential discharges outside the period of a critical wet weather event; the total duration of these periods was 2.75 hours. WIM-23 had previously been in Category A prior to 2020, as a regulator potentially influenced by planned capital improvements. Regulator WIM-23 was influenced by the Manhattan Grit Chamber and by the main sewage pump work at the Wards Island WRRF. Regulator WIM-23 was further evaluated as part of the Citywide/Open Waters LTCP but no viable alternative was identified.

15.2.3 Key Regulators Averaging More than One Discharge per Month

BBH-06

Regulator BBH-06 had twenty-one (21) potential discharges outside the period of a critical wet weather event; the total duration of these periods was 4.25 hours. Regulator BBH-06 had previously been in Category A prior to 2019, as a regulator potentially influenced by planned capital improvements. The Flushing Bay LTCP recommended construction of a CSO Storage Tunnel that would capture overflow from this regulator.

BBL-04

Regulator BBL-04 had thirty-four (34) potential discharges outside the period of a critical wet weather event; the total duration of these periods was 18.25 hours. Regulator BBL-04 had previously been in Category A prior to 2019, regulators potentially influenced by planned capital improvements. The Newtown Creek LTCP recommended diversion of wet weather flow to the Borden Avenue Pump station and increasing capacity of this pump station.

HP-13

Regulator HP-13 had thirty-four (34) potential discharges outside the period of a critical wet weather event; the total duration of these periods was 66.50 hours. A review of the inclinometer data has been used to confirm the accuracy of the reported number of discharges. The Bronx River LTCP recommended regulator modifications and a parallel sewer at this regulator that is currently anticipated to be completed in 2026.

NCB-01

Regulator NCB-01 had twenty-one (21) potential discharges outside the period of a critical wet weather event; the total duration of these periods was 9.75 hours. Since its 12-month monitoring period was completed in CY 2018, it has had an average of more than one critical event per month. The Newtown Creek LTCP recommended a CSO Storage Tunnel that would capture overflow from this regulator.

NCB-04

Regulator NCB-04 had twenty-three (23) potential discharges outside the period of a critical wet weather event; the total duration of these periods was 33.25 hours. A review of the inclinometer data has been used to confirm the accuracy of the reported number

of discharges. Regulator NCB-04 was further evaluated as part of the Citywide/Open Waters LTCP but no viable alternative was identified.

NCM-47

Regulator NCM-47 had sixteen (16) potential discharges outside the period of a critical wet weather event; the total duration of these was 27.75 hours. Regulator NCM-47 was further evaluated as part of the Citywide/Open Waters LTCP.

NR-16

Regulator NR-16 had fifteen (15) potential discharges outside the period of a critical wet weather event; the total duration of these periods was 7.00 hours. Regulator NR-16 was further evaluated as part of the Citywide/Open Waters LTCP but no viable alternative was identified.

PR-06W

Regulator PR-06W had twenty-eight (28) potential discharges outside the period of a critical wet weather event; the total duration of these periods was 50.75 hours. The evaluation for Regulator PR-06W was previously submitted to DEC in the Quarterly Key Regulator Monitoring Reports; it was further evaluated as part of the Citywide/Open Waters LTCP but no viable alternative was identified.

PR-13E

Regulator PR-13E had forty-four (44) potential discharges outside the period of a critical wet weather event; the total duration of these periods was 104.50 hours. The evaluation for Regulator PR-13E was previously submitted to DEC in the Quarterly Key Regulator Monitoring Reports; it was further evaluated as part of the Citywide/Open Waters LTCP but no viable alternative was identified.

TI-09

Regulator TI-09 had thirty (30) potential discharges outside the period of a critical wet weather event; the total duration of these periods was 40.50 hours. The Flushing Creek LTCP recommended floatables control and disinfection at this regulator.

16 SUSTAINABILITY AND POLLUTION PREVENTION ACTIVITIES

16.1 WATER CONSERVATION

DEP values the role of water conservation and demand management in the responsible long-term management of New York City's water supply. As a result, actual water demand is down more than 30% since the 1990s, despite increasing population. However, DEP must consider the increasing uncertainty of climate change — predictions of warmer temperatures and greater precipitation variability — in its management of the City's water supply and the demand for this resource. Further, the leaking of the Delaware Aqueduct and its planned shutdown and repair in 2022 as part of DEP's Water for the Future Program is a near-term certain event that provides an imperative not only to proactively manage, but also to explicitly reduce, existing water demand to ensure adequate water supply through this period.

16.1.1 Program Description

DEP's water conservation efforts aim to reduce water use in New York City and upstate communities by 20 million gallons per day (MGD) by 2022. This goal is detailed in the 2018 Water Demand Management Plan, accessible here

<https://www1.nyc.gov/assets/dep/downloads/pdf/water/drinking-water/2018-water-demand-management-plan.pdf>. The plan sets forth six major strategies DEP continues to implement to reduce water use. Below are the plan's six strategies:

- Municipal Water Efficiency Program: Involves retrofits of city-owned properties.
- Residential Water Efficiency Program: Focuses primarily on the Toilet Replacement Program for multi-family buildings.
- Non-Residential Water Efficiency Program: Collaboration with private sector organizations including restaurants, hotels, hospitals, and universities.
- Water Distribution System Optimization: Entails system repairs and upgrades, managing water pressure, and refining water meter accuracy and leak detection.
- Water Supply Shortage Management: Encompasses the review and revision of plans to prepare for a drought and other water shortages.
- Wholesale Customers Water Demand Management Program: Targets demand management planning and implementation for wholesale customers north of the City.

The following is a summary of DEP's 2020 progress in implementing the above-listed strategies.

16.1.2 Municipal Water Efficiency Program

DEP has established partnerships and completed several projects with key municipal agencies and entities to support water efficiency measures in their facilities. Partners include DOE, DPR, the New York City Fire Department (FDNY), the City University of New York (CUNY), New York City Health and Hospitals Corporation (HHC), New York City Department of Citywide Administrative Services (DCAS), and New York City Department of Cultural Affairs - Cultural Institutions Group (CIG).

Through its ongoing partnership with DOE, DEP funded the replacement of over 34,600 toilets and urinals with high-efficiency models in 402 school facilities across all five boroughs through 2018. In 2020, DEP continued its partnership with DOE and worked to execute a Memorandum of Understanding to retrofit up to an additional 200 school facilities beginning in 2021.

In 2020, DEP continued partnering with DPR on two projects. In Central Park, DEP is partnering with Central Park Conservancy (CPC) and DPR to connect the Park's northern waterbodies, including the Harlem Meer, to recirculate stormwater. The project will allow for use of recirculated water rather than potable water, and is anticipated to result in a savings of 0.83 MGD. In fall 2020, a major milestone was achieved when project design commenced. In addition to the potable water reduction, other benefits include a CSO reduction of up to 4 million gallons per year in the East River, and improved water quality in the Park's northern waterbodies.

In Prospect Park, DEP is partnering with Prospect Park Alliance (PPA) and DPR to replace a valve on the make-up water line for the Park's lake system. This project is anticipated to result in a savings of 0.80 MGD. In December 2020, DEP and DPR executed an MOU for this project and completed the funding transfer from DEP to DPR. As an integrated, One Water project, this valve replacement is expected to reduce CSOs during rain events to Gravesend Bay and the Upper Bay by up to 12 million gallons per year.

In December 2019, DEP launched a one-year fifth Water Challenge to all 14 Wastewater Resource Recovery Facilities (WRRFs) to encourage water reduction in DEP's own facilities. All plants were encouraged to reduce demand by 10% over a two-year baseline average (calendar years 2018 and 2019). DEP's fifth Water Challenge concluded in December 2020 and resulted in a total savings of 0.9 MGD. Of the 14 WRRFs, eight were able to reduce water consumption by at least 10%. Red Hook achieved a total savings of 89,073 GPD (the most savings for WRRFs with dewatering facilities), which is a 45 percent reduction from its baseline consumption. Coney Island achieved a total savings

of 132,079 GPD (the most savings for WRRFs without dewatering facilities), which is a 41 percent reduction from its baseline. Additionally, DEP is currently working to replace inefficient equipment at our treatment facilities with high-efficiency models, e.g., water pumps and water hoses used to clean equipment at each WRRF.

In March 2020, DEP and HHC executed a Memorandum of Understanding to implement water efficiency fixture upgrades at Jacobi Hospital, Woodhull Hospital, Elmhurst Hospital, Bellevue Hospital, and North Central Bronx Hospital. HHC's contractor began surveying these facilities in early 2020 to identify the precise count and type of fixtures that are eligible for replacement or upgrade. The surveys were paused in spring 2020 and the project overall remains on hold due to the COVID-19 pandemic. DEP and HHC will resume their partnership after the pandemic subsides and when HHC's resources allow.

DCAS's portfolio includes approximately 50 public buildings throughout the city, including courts and City office buildings. Partnering with DEP, DCAS surveyed 10 buildings in DCAS's direct portfolio of public buildings throughout the city. In June 2020, DCAS completed this partnership project by implementing 268 restroom fixture replacements in four of these buildings: DCAS offices (2 Lafayette Street), City Planning Building (22 Reade Street), Queens Criminal Court (125-01 Queens Boulevard), and Manhattan Civil Courthouse (111 Centre Street). These replacements achieve an estimated water savings of 17,200 gallons per day, or approximately 6.3 million gallons per year.

The City University of New York (CUNY) is part of New York State's public university system and is comprised of 25 colleges across the five boroughs, making it the largest urban public university in the United States. In 2020, DEP and CUNY extended their partnership and anticipate executing an Interagency Agreement in 2021 to replace inefficient fixtures at Queens College. In total, DEP and CUNY anticipate replacing over 600 fixtures across four campus buildings at Queens College, for an anticipated savings of 0.03 MGD. DEP and CUNY anticipate beginning these upgrades in 2021.

16.1.3 Residential Water Efficiency Program

In 2019, DEP concluded the Toilet Replacement Program, after five years of successful implementation. The program provided eligible residential building owners with \$125 vouchers to replace old, inefficient toilets with high-efficiency, WaterSense-certified models. DEP managed contracts with four toilet wholesale vendors to accept the vouchers and provide the toilets to consumers through the program's online application tool. Through the program, approximately 13,300 toilets were retrofitted citywide, for a savings of 0.63 MGD.

In addition to the Toilet Replacement Program, DEP directed its contractor, Honeywell, to provide building owners with complimentary household water conservation surveys.

The surveys assist building owners with identifying opportunities for water savings and detecting leaks.

16.1.4 Non-Residential Water Efficiency Program

DEP successfully launched three Water Challenges to different commercial sectors: hotels, restaurants, and hospitals. Modeled after the Mayor's Carbon Challenge, the program encourages participants to reduce their annual water consumption by an average of 5% from their baseline year (measured as the 12-month period prior to the beginning of the Challenge). DEP prepares monthly reports to help participants track their consumption and their performance against the other participants. DEP also hosts quarterly workshops to help participants learn how to make their facilities more water efficient.

DEP completed its two-year Water Challenge to Universities in August 2020. Collectively, the six participants (Fordham University, Lincoln Center Campus; The New School; Long Island University, Brooklyn Campus; Pace University; St. John's University; and Weill Cornell Medicine) reduced their monthly average water consumption by 11 percent, or 3.4 million gallons – a total annual average savings of 41,400,000 gallons. Because of the COVID-19 pandemic and the campus closures that followed, reductions in water consumption were only considered and calculated toward the Challenge goal for the period of August 2018 to February 2020.

Like other Challenges, the Water Challenge to Universities was a voluntary Challenge effort by participants to reduce their water consumption by at least 5 percent. The participating universities ranged in size, type, and resource availability. Through routine monitoring, knowledge sharing during quarterly workshops, and reflection through the annual reporting process, participants identified projects to implement on their campuses that resulted in considerable water savings. Examples of implemented projects included replacement of inefficient, older HVAC equipment; using water-intensive equipment only when most needed; and retrofitting older toilets. In addition to focusing on facility-level water savings, several of the participants developed water conservation campaigns to engage their students, faculty, and staff.

DEP's Water Conservation and Reuse Grant Pilot Program provides commercial, industrial, and multi-family residential property owners with incentives to install fixture retrofits and other water efficiency technologies, such as on-site water reuse systems, totaling \$50,000 or more on a single private property. In 2020, DEP received over 20 applications. After ranking these applications by their estimated water savings, cost effectiveness, feasibility, and additional metrics, DEP offered grant funding to the top five ranked projects. Of these projects, one applicant has accepted and is currently in the process of confirming its funding and legal agreements. The project includes a 400,000

gallon per day water reuse system that contributes not only water conservation benefits, but also CSO reductions.

After a successful first round, DEP launched a second round from July to October 2020 and subsequently shifted to a rolling basis application process. Primed for new applications, DEP continues to coordinate administration of logistics for the selected grantee in moving its water conservation project forward. While the goal of the program is primarily to conserve potable water, the projects also offer the potential co-benefit of reducing flows to the sewer system and wastewater facilities. In reducing flow to sewers, on-site water reuse could also contribute to reducing CSOs. As an additional co-benefit, there is a potential reduction in greenhouse gas emissions from reduced flows to DEP's WRRFs.

16.1.5 Water Distribution System Optimization

Water distribution system optimization includes system repairs and upgrades, water pressure management, refining water meter accuracy, and leak detection.

DEP has a large service area with approximately 7,000 miles of pipes that distribute water to end users. As water travels through these underground pipes, undetected leaks can occur; therefore, constant maintenance, leak detection, and metering optimization are key to efficient management of New York City's water supply. DEP's goal is to increase leak survey efforts by modernizing the leak detection program to detect, locate, and stop water leakage by leveraging best-in-class technology to pinpoint hard to find and unreported leaks. Additionally, DEP's goal is to increase the number of miles surveyed by increasing staffing to reinstitute multiple, proactive surveys of high-risk mains. In 2020, DEP surveyed 455 miles of water mains.

New York City has more than 109,500 hydrants located throughout the five boroughs. These critical fire suppression assets can discharge up to 1,000 gallons per minute. When New Yorkers open hydrants in the summer to cool off and fail to use an approved spray cap, local water pressure can be negatively impacted. Therefore, DEP sponsors the Hydrant Education Action Team (HEAT) to educate New Yorkers about the risks of illegally opening hydrants.

DEP ensures proper maintenance by performing assessments, testing pressure, and repairing hydrants when necessary. In 2020, DEP repaired 7,841 hydrants, replaced 1,018, and provided other maintenance services to 20,431 additional hydrants.

DEP's efforts to achieve universal metering of all DEP water and sewer accounts is motivated by the need to reduce non-revenue water use and to promote conservation among water users by providing accurate consumption information. The universal metering initiative is also critical to DEP's measuring the success of many other demand management strategies. Accurate consumption data enable DEP to determine whether

target consumer groups have achieved projected consumption reductions or how demand management strategies may be adapted to improve their effectiveness. Because of the COVID-19 pandemic, DEP paused meter replacement operations for seven months. In the remaining active five months in 2020, DEP replaced 708 large meters (i.e., those over 1.5 inches in diameter).

16.1.6 Water Supply Shortage Management

In December 2016, the Mayor's Office of Operations and the City Law Department certified DEP's revisions to the "Emergency Drought Rules." The proposed, revised title is "Water Shortage Rules," replacing the narrower focus of the previous title. The proposed revisions address water shortage emergencies due to circumstances other than natural conditions, such as planned and unplanned infrastructure outages and repairs that the City may face over the next several years. The proposed revisions also add, remove, and change certain water-use prohibitions during the different stages of water shortage emergencies to better reflect DEP's understanding of City water use. DEP anticipates formal adoption of the revised rules prior to the 2022 shutdown.

16.1.7 Upstate Wholesale Customers Demand Management Program

In 2014, DEP launched the Wholesale Customer Demand Management Program to extend demand reduction strategies to its wholesale customers (Utility Partners). The goal of this program is to have Utility Partners implement demand management projects to reduce demand, by October 2022, by 5 percent from their 2013 baseline demand. To achieve this, DEP partnered with some of its largest utility partners to develop custom Water Demand Management Plans (WDMP) tailored to each Utility Partner's water system. These Utility Partners include the Town of Greenburgh, the Village of Ossining, the Village of Scarsdale, the Village of Tarrytown, Westchester Joint Water Works (WJWW), the City of White Plains, and the City of Yonkers.

Because of the COVID-19 pandemic, anticipated funding for this program was reallocated to help offset fiscal impacts brought on by the pandemic. As such, DEP and its Utility Partners have agreed to pause current plans to implement projects under this program until funding becomes available. Utility Partners were encouraged to continue utilizing tools that were introduced and discussed during prior collaborations, including continuing to improve their efforts to address non-revenue water. DEP's outreach and engagement, coupled with the determination and initiative of the Utility Partners, has resulted in considerable demand savings, despite the pandemic-related impacts. In total, the two-year sustained water demand savings achieved by these 7 Utility Partners is 5.21 MGD, a 9 percent decrease from their 2013 baseline.

16.1.8 Drinking Water Supply and Quality Statement

In 2020, DEP continued efforts to notify the public of the availability of the 2019 Drinking Water Supply and Quality Statement. The agency sent bill inserts to 710,000 bill-paying customers notifying them of the report's availability on the DEP website; another 98,000 customers were notified electronically, and 32,000 customers were sent postcards. Additionally, outreach to all customers included:

- Prominently displaying information about the Report on the DEP homepage beginning February 24, 2020.
- Highlighting and mentioning the Report in the March 10, 2020 and June 9, 2020 issues of *Pipeline*, the DEP newsletter which is distributed weekly to all 6,000 DEP employees and to over 1,500 members of the public.
- Posting about the publication of the Report on Twitter and Facebook on March 4, 2020. DEP has about 19,700 Twitter followers, and 12,800 "NYC Water" Facebook followers.
- Promoting the publication of the Report in a Facebook ad campaign that ran from June 1-30, 2020, and had over 177,000 impressions.
- Running an advertising campaign on various platforms across New York City, including:
 - On 100 bus shelter sites throughout New York City from June 1-28,.
 - On the NYC Ferry system from August 1-30, 2020.
 - At over 3,500 kiosks City-wide, through LinkNYC, resulting in over 1 million impressions from June 6-30, 2020.
 - As a public service announcement (PSA) on the NYC Life television channel from June 8, 2020 to September 8, 2020, on Taxi TV from June 6, 2020 to August 31, 2020, on radio station WNYE 91.5 FM June 6, 2020 to August 21, 2020, and on 311 from June 1-30, 2020.
- Contacting large housing complexes across New York City by phone and email to ask that they spread the word about the Report. The total populations reached in private large housing complexes is over 226,000 tenants; additionally NYCHA distribution reached 600,000 residents.

Regular outreach to New York City's libraries; at community and civic association meetings, outreach events (including trade shows, Greenmarkets, health fairs and street fairs), town halls, project tours, and tabling events; and at DEP speaking engagements throughout the five boroughs and the entire watershed were hampered by the COVID19 pandemic. Therefore, only 5,000 hard copies were distributed.

16.1.9 Rain Barrel Program

Because of the COVID-19 pandemic, DEP did not host any barrel giveaways in 2020. The rain barrel program will resume when city, state, and federal health and safety regulations allow.

16.2 GREASE OUTREACH

16.2.1 Development of an Expanded Grease Interceptor Program

DEP continues to develop the Expanded Grease Trap Program. The following summarizes activities during calendar year 2020:

- 67 initial inspections performed;
- 298 follow-ups/maintenance inspections performed;
- 242 Commissioner's Orders issued;
- 101 Notices of Violation issued;
- 273 new grease interceptor installations required.

The Bureau of Public Affairs & Communication's Environmental Compliance Outreach (ECO) Unit completed the following activities in 2020 relating to grease compliance and BMPs for the handling and disposal of grease and oils:

- Conducted 2 workshops for property owners and/or tenants
- Handled general inquiries from businesses (such as how to obtain a licensed, used cooking oil hauler by way of the NYC Business Integrity Commission).

Grease outreach has transitioned to the "Trash It, Don't Flush It" campaign, which has a more encompassing message on trash issues citywide and includes continued outreach to residents and businesses on proper grease disposal.

See below also for specific activities regarding DEP's ongoing SE Queens (Community Boards 12 & 13) and South Brooklyn (community Boards 13 & 15) projects:

DEP continued to distribute "Cease the Grease" posters and flyers (in various languages) and promotional products such as jar openers, sponges, grease recycling bags, and sink strainers, all of which contain proper grease management messaging. ECO also attended 2 trade shows and spoke to hundreds of businesses.

Because of the pandemic, consultative-type visits regarding commercial grease requirements (e.g., grease trap sizing, grease trap configuration, recycling of used cooking oil, etc.) were suspended. DEP continued to distribute information and grease logs to businesses through the established business hotline.

16.2.2 Environmental Compliance Outreach to Business Community

In 2020, DEP's ECO Unit continued, on a limited basis, to administer its core programs on compliance. ECO continued to work with its primary partners including local business groups and trade associations, and provided assistance by way of answering inquiries and attending trade shows. ECO also continued to do outreach to NYC property owners on DEP's grease requirements.

16.2.3 Southeast Queens Outreach

In 2020, ECO suspended door-to-door outreach but was able to distribute materials to 276 households. Door hangers were produced with "Trash It, Don't Flush It" information and were left at the residences.

16.2.4 South Brooklyn Outreach

In 2020, ECO continued outreach, to the extent allowed by the pandemic, to Brooklyn Community Boards 13 & 15, and held workshops for both those Community Boards. ECO focused on the Coney Island Creek area, performing outreach to 1448 households, including 634 NYCHA residences, with an estimated total population of 3663. Seventy-five businesses were also visited for grease outreach.

16.2.5 Staten Island Outreach

In 2020, ECO performed outreach and education in the Seaview area and was able to distribute "Trash It, Don't Flush It" materials to 374 households.

16.3 STORMWATER REGULATIONS AND ACTIVITIES

16.3.1 Stormwater Rule (see also Section 13 below)

DEP's stormwater performance standard ("Stormwater Rule"), enables the City to manage stormwater runoff more effectively and to maximize the capacity of the City's combined sewer systems to the maximum extent practicable. Promulgated in July 2012, the Stormwater Rule requires any new connections to the City's combined sewer system to comply with stricter stormwater release rates, effectively requiring greater on-site detention. The Stormwater Rule applies to new development and to alterations of existing development in the City's combined sewer area. For a new development, the stormwater release rate (RCNY Title 15, § 31-01(b)) cannot exceed 0.25 cubic feet per second (cfs) or 10% of the drainage plan allowable flow, whichever is greater (allowable flow is defined as the storm flow from developments that can be released into an existing storm or combined sewer based on existing sewer design criteria). If allowable flow is less than 0.25 cfs, the stormwater release rate cannot be greater than that flow. For alterations of

existing development, the stormwater release rate for the altered area is directly proportional to the ratio of the altered area to the total site area, and no new points of discharge are permitted (RCNY Title 15, § 31-03(a)(2)).

In conjunction with the implementation of the Stormwater Rule, DEP published a companion document, Guidelines for the Design and Construction of Stormwater Management Systems, to assist NYC's development community and licensed professionals in the selection, planning, design and construction of compliant on-site source controls.

DEP is currently developing a package of stormwater regulation revisions, referred to as the Unified Stormwater Rule, to update the 2012 Stormwater Rule requirements and provide alignment between the Stormwater Rule and the City's new Construction and Post-Construction Program (C/PC), which was launched in 2019. The City's C/PC Program complements the NYSDEC General Permit for Stormwater Discharges from Construction Activity (CGP) program in the NYC MS4 area by requiring DEP review and approval of stormwater pollution prevention plans (SWPPPs), and DEP inspection of construction sites both for stormwater impacts and for operation of post-construction stormwater management practices (SMPs). Legislation was approved in August 2020 to expand the C/PC Program citywide to CSO areas to further advance water quality objectives. The draft Unified Stormwater Rule package and a new citywide stormwater management manual are anticipated to be released in second quarter 2021.

DEP provides regular updates on the 2012 Stormwater Rule and forthcoming rule changes as part of its Green Infrastructure Annual Reports available on its website here <https://www1.nyc.gov/site/dep/water/green-infrastructure.page>.

16.3.2 Green Roof Tax Abatement

In 2019, the New York State legislature renewed the Green Roof Property Tax Abatement available to property owners installing green roofs. It reauthorized the reimbursement of \$5.23 per square foot of installed green roof, and allowed the City to designate up to five community districts that would receive an enhanced abatement of \$15 per square foot. The list of priority districts and the final rule were released in January 2021 and can be found on the NYC Mayor's Office of Sustainability website.

16.3.3 Local Laws 92 and 94 of 2019

As part of the New York City Climate Mobilization Act passed in 2019, New York City Council passed Local Laws 92 and 94, which require new and substantially renovated or enlarged rooftops to incorporate sustainable roofing on all available roof space. Owners can choose to install solar photovoltaics or green roofs to reduce energy costs and the urban heat island effect.

The City anticipates that these laws will help buildings manage up to 1 million additional gallons of stormwater per year, and help manage water quality and urban flooding.

16.3.4 Parking Lot Stormwater Pilot Program

First initiated in 2011, DEP's Parking Lot Stormwater Pilot Program generates revenue for operation and maintenance of the City's wastewater system. The program applies a stormwater discharge fee to stand-alone parking lots that contribute runoff to the City's wastewater system, but do not receive (or pay for) City water service. Effective July 1, 2020, DEP's stormwater discharge fee is currently \$0.0678 per square foot. On July 1, 2020, DEP billed 488 accounts for \$307,068.05. Parking lot owners who implement green infrastructure practices are exempt from the stormwater discharge fee. To date, no parking lot owners have implemented green infrastructure practices to become exempt from the stormwater discharge fee.

16.4 ONENYC INITIATIVES

The Mayor's Offices of Sustainability (MOS) and Resiliency (MOR) lead the City's sustainability planning efforts, leveraging and expanding upon many DEP programs. In 2020, the Mayor's Office issued the OneNYC 2020 Progress Report, detailing progress on 30 strategic initiatives for the City's future to address critical challenges such as climate change and increasing unaffordability. OneNYC pledges to protect and preserve the City from the risks of aging infrastructure and the impacts of climate change. Initiatives include committing to carbon neutrality by 2050, and strengthening communities, buildings, infrastructure, and the waterfront to be more resilient. DEP is implementing these initiatives in conjunction with its goals of reducing greenhouse gas emissions, eliminating solid waste sent to landfills, realizing the best air quality of all large cities in the U.S., mitigating neighborhood flooding, and creating useful, accessible, and beautiful open spaces. The OneNYC 2020 Progress Report included several DEP highlights, many of which are further described in this Report: expansion of green infrastructure implementation, drainage improvements in Southeast Queens, and implementation of water recirculation projects.

16.5 NYC GREEN INFRASTRUCTURE PROGRAM

Released in September 2010, the NYC Green Infrastructure Plan sets forth a comprehensive strategy to use green infrastructure, together with water conservation, and cost-effective grey infrastructure, to improve the quality of the City's waterways. In

March 2012, DEC and DEP modified the CSO Order to incorporate green infrastructure into the regulatory framework. The resulting Green Infrastructure Program includes a citywide goal of managing the equivalent of one inch of stormwater runoff from 10% of impervious surfaces or a corresponding estimated volume of 1.67 billion gallons of capture within combined sewer areas by 2030 as approved by DEC in the 2017 Performance Metric Report. The Program primarily implements green infrastructure in three areas – within the City’s streets and sidewalks through right-of-way (ROW) retrofits, within parks, schools and housing properties through public on-site retrofits, and on private property through stormwater incentives and regulations. To date, the Program is tracking over 10,000 green infrastructure assets constructed or currently in construction, managing over 1,200 greened acres.¹

Despite the hurdles imposed by the COVID-19 pandemic, 2020 was still a tremendous year for the Program, with over 3,000 new ROW assets constructed through construction contracts bid across the Westchester Creek, Bronx River, Newtown Creek, Flushing Creek, and Jamaica Bay watersheds; continued construction on schoolyard retrofits; and design advancement on more than a hundred public properties. In 2021, the Program will advance construction on 36 DPR and NYCHA projects and will bid out green infrastructure construction at 30 DPR and 1 NYCHA sites. The Program will also launch its \$53 million Private Property Retrofit Incentive Program in 2021.

More information on these initiatives and other updates on the Green Infrastructure Program can be found in the Green Infrastructure Annual Reports published on the DEP website every year on April 30 <https://www1.nyc.gov/site/dep/water/green-infrastructure.page>.

16.6 CLIMATE CHANGE RESILIENCY PLANNING

DEP continues to study climate change and to prepare for its impacts by modeling the potential effect of various climate scenarios on the City’s water supply system through the Climate Change Integrated Modeling Project; protecting wastewater treatment plants from storm surge as part of the Wastewater Resiliency Program; and reducing urban flooding through cost-effective investments in grey and green infrastructure. Nine projects from DEP’s Wastewater Resiliency Plan have been initiated as part of a portfolio of strategies to flood-proof critical equipment at treatment facilities. These projects will harden the infrastructure at the Bowery Bay, Hunts Point, Red Hook, Newtown Creek, Owl’s Head, Port Richmond, Tallman Island, and Wards Island wastewater treatment plants. These investments enhance resiliency against future storms and include a buffer for sea level rise.

¹ A greened acre is the equivalent of one inch of stormwater runoff over one impervious acre

Based on the initial success of its “Cloudburst Resiliency Planning Study” in Southeast Queens, which leveraged a partnership with the City of Copenhagen, DEP has also been working with partners at the Department of Transportation (DOT), Department of Design and Construction (DDC), and New York City Housing Authority (NYCHA) to initiate design of two pilot projects. These “cloudburst” projects will help manage extreme rainfall events in St Albans and the South Jamaica Houses, both in Southeast Queens, by capturing rainfall of up to 2.3 inches per hour—a storm with a 10% chance of occurring in any given year by the middle of the century. In addition to providing a proof-of-concept for using green infrastructure to mitigate the effects of cloudbursts, the pilot projects will help reduce nuisance flooding in Southeast Queens and enhance the local landscape. As DEP continues to better understand future flood risk from extreme rain events, the Department will coordinate with its partner agencies to expand upon these initial cloudburst projects.

Most recently, DEP has begun to work with NYCHA on a feasibility study for a cloudburst project at the Clinton Houses in East Harlem. The feasibility study is partially funded by the Federal Emergency Management Agency (FEMA) and will include conceptual design and cost-benefit analysis to determine the eligibility of the project for FEMA hazard mitigation funding.

17 ANNUAL REPORT

“The permittee shall submit an annual report summarizing implementation of the above BMPs. The report shall list existing documentation of implementation of the BMPs and shall be submitted by May 1st of each year to the offices listed on the Recording, Reporting and Additional Monitoring page of this permit.

Examples of recommended documentation of the BMP's are found in Combined Sewer Overflows, Guidance for Nine Minimum Controls, EPA, 1995. The permittee may obtain an electronic copy of the NMC guidance at <http://www.epa.gov/npdes/pubs/owm0030.pdf>. For guidance on developing the annual report, a BMP checklist is available from DEC on-line at http://www.dec.ny.gov/docs/water_pdf/csobmp.pdf. The permittee must submit a completed copy of this checklist along with the annual report. The actual documentation shall be stored at a central location and be made available to DEC upon request.”

This report is the 18th annual report summarizing the implementation of the BMPs performed by DEP in calendar year 2020.

Field inspection logs, maintenance and repair schedules, summaries and analysis of performance are stored at DEP's Lefrak City office and respective crew quarters and are available to DEC upon request.

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- Exhibit 1 – CSO Maintenance Program
- Exhibit 2 – Rockaway Sanitary and Storm Sewer Projects
- Table 1 – CY'17 Chloride Concentrations Rolling Average Summary
- Table 2 – Yearly Average Tidal Inflow Comparison for CY'19-'20

Appendix 1.1: EXHIBIT 1 - CSO MAINTENANCE PROGRAM

August 14, 2003

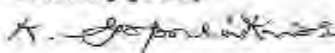
Mr. Robert Elburn
Regional Water Engineer
New York State Department of
Environmental Conservation, Region 2
Division of Water
47-40 21st Street - 2nd Floor
Long Island City, New York 11101

Re: NY0026131 NY0026115
NY0026191 NY0026239
NY0026204 NY0026158
NY0026182 NY0026221
NY0026166 NY0026107
NY0026212 NY0026247
NY0027073

Dear Mr. Elburn:

The attached CSO Maintenance and Inspection Program is submitted in compliance with the CSO Best Management Practice #1 contained in the SPDES permits for the following New York City WPCPs: Bowery Bay (Section XV(e)), Coney Island (Section XV(d)), Tallman Island (Section XV(e)), Jamaica (Section XIV(d)), Newtown Creek (Section XIV(e)), 26th Ward (Section XIV(e)), Hunts Point (Section XIV(e)), Rockaway (Section XIV(e)), Owls Head (Section XIII(e)), Port Richmond (Section XIII(e)), Red Hook (Section XIII(e)), Wards Island (Section XIII(c)) and North River (Section XII(e)).

Sincerely yours,


/s/ Alfonso R. Lopez, P.E.
Deputy Commissioner

SR/flc

cc: Quinn/Sapienza/Rozolman/Volgendo/Eckels/Hammerman/Kuloser

CSO MAINTENANCE & INSPECTION PROGRAM BEST MANAGEMENT PRACTICE #1 SPDES PERMIT

Section VIII (26W, HP, JA, NC, RK);

Section IX (BB, CI, TI);

Section VI (NR);

Section VII (OH, PR, RH, WT)

- (a) *The permittee shall develop and implement a written maintenance and inspection program for all CSO's listed beginning on page 3 of this permit. This program shall include all regulators tributary to these CSOs. This is to insure that no discharge or leakage occurs during dry weather and that the maximum amount of wet weather flow is conveyed to the WPCP for treatment. This program shall consist of scheduled inspections with required repair, cleaning and maintenance performed as needed to prevent dry weather overflow and leakage and ensure maximum wet weather flow is conveyed in accordance with CSO BMP#4. Inspection reports shall contain a record of visual inspections, any observed flow, incidence of rain or snowmelt, condition of equipment and work required.*

Regulator / Tide Gate Maintenance Inspection Schedule

High priority regulators shall be inspected four times per month.

High Priority Regulators are regulators that convey at least five million gallons per day and / or inherently require high maintenance, or pose a threat to beaches because of their locations.

Normal priority regulators shall be inspected once per month.

Items of Inspection

The field crews inspect the entire regulator including, tide gates, sluice gates, access ways, electrical controls and any mechanical equipment and instrumentation located within each site. An inspection report must be completed for each CSO facility. This form is attached in appendix A.

During the inspection, the crews are responsible for correcting any conditions that they encounter which may have adverse effects on the proper operation of the regulator. Examples of these conditions include blockages or obstructions caused by debris that may result in partial or full dry weather bypassing.

Any blockage that the crew is not capable of removing is referred to an emergency Contractor, who is retained by the NYC DEP for such cases. The contractor is required to respond to the site within twenty-four hours of notification.

Furthermore, any structural damage noticed during the inspections upstream of the

regulators is referred to the appropriate group within DEP for repairs.

- (b) *The permittee shall include in the maintenance and inspection program a plan to maintain CSO tide gates to prevent infiltration of seawater into the collection system such that the WPCP influent concentration of chlorides does not exceed a twelve-month rolling average of 400 mg/l. The maintenance and inspection program shall specify corrective actions to be taken within twelve months of the influent chloride exceedance of 400 mg/l.*

CSO Tide Gate Maintenance Program

All tide gates are maintained and inspected on the same schedule as regulators. Antiquated tide gates are earmarked for replacement or reconstruction.

The maximum twelve-month rolling average of influent chloride concentration in the SPDES permits at all the applicable WPCPs except North River is 400-mg/L. The influent chloride concentration in the SPDES permit for North River WPCP is 250-mg/L.

In order to maintain CSO tide gates to prevent inflow of seawater into collection system the crews are responsible for correcting any conditions that they encounter during the inspections that may have adverse effects on the proper operation of the tide gates.

DEP is responsible for developing a drainage area evaluation program to identify possible sources of seawater infiltration. Chloride sampling and tide gate repairs are performed immediately by the CFO crews when seawater inflow is discovered and result in elevated levels of chlorides at the WPCPs. Corrective actions are taken within twelve months of influent chloride exceedance of 400 mg/l.

- (c) *The permittee shall include in the maintenance and inspection program a schedule for telemetering regulators and a plan to report the telemetering results. Within six months after the completion of the telemetering of regulators required in the NYSDEC/NYCDEP Omnibus IV Consent Order Compliance Schedule (as noted in the outfall description page) the permittee shall record and report the number and duration of events that cause a discharge at an outfall during dry weather conditions.*

Regulator Telemetering

The installation of the telemetering equipment at one hundred and two regulators was completed in May, 2001 in accordance with the compliance schedule in Schedule B to the Omnibus IV Order on Consent.

The system is currently maintained through a service contract. The contractor is responsible for all maintenance work.

DEP records and reports the number and duration of events that cause a discharge during dry weather conditions.

- (d) *CSO maintenance and inspection program reports shall be available for DEC review no later than 9 AM on the day following the day of the inspection was conducted and shall be available for DEC review at the associated WPCP no later than 30 days following the inspection*

Maintenance and Inspection Reports

The CSO maintenance and inspection program reports are kept at each respective crew quarters and are available for DEC by 9:00 AM on the day following an inspection. Rather than store these reports at WPCP's where they may get misplaced, we have centralized the storage into 5 collection crew quarters.

These crew quarters are located as follows:

Tallman Island WPCP
 Wards Island WPCP
 Paedergat Pump Station
 Gowanus Pump Station
 Oakwood Beach WPCP

We believe this record storage policy is more conducive to record retention and retrieval than storing at WPCP's, many of which are undergoing massive upgrades.

Regulator Truck # : _____

REGULATOR and TIDE GATE Inspection Log

Backup Truck # : _____

DATE: _____

RUN: _____

WEATHER: _____

Reporting System for Regulator and Tide Gate Locations

INSPECTION LEVEL :

LEVEL 1) : Deviation, Regulator and Tide Gate Manhole Inspections performed from above ground which DO NOT involve entry into regulator or tide gate chambers

LEVEL 2) : FULL ENTRY Regulator and Tide Gate inspections which DO NOT involve the use of back - up trucks

LEVEL 3) : FULL ENTRY Regulator and Tide Gate inspections which DO involve the use of back - up trucks

REGULATOR CHAMBERS :

A 1) : Regulator flow O.K. No visible flow obstruction through regulator. Gate operational in automatic mode.

A 2) : Regulator flow O.K. No visible flow obstruction through regulator. Gate operational in manual mode ONLY ! Explanation of problem required on log sheet

A 3) : Regulator flow O.K. No visible flow obstruction through regulator. Gate NOT OPERATIONAL ! Explanation of problem required on log sheet

A 4) : Partial Blockage in Regulator. When flow through regulator is partially obstructed by debris, which may result in dry weather by-passing Explanation required

A 5) : Blockage in Regulator causing partial or full dry weather by-passing. Explanation of problem required on log sheet

TIDE GATE CHAMBERS :

B 1) : No leak from TIDE GATE. When the gate is properly closed and there is no tidal flow

B 2) : Minor leak from TIDE GATE. When tidal inflow is small and acceptable.

B 3) : Mild leak from TIDE GATE. When tidal inflow is noticeably higher than a minor leak.

B 4) : MAJOR LEAK from TIDE GATE. When tidal inflow is significantly high and may impact treatment plant processes with high chlorides

INSPECTIONS DURING LOW TIDE :

C 1) : No leak from TIDE GATE. When the gate is properly closed and there is no evidence of any potential tidal inflow problem.

C 2) : TIDE GATE is visibly need open by DEBRIS or FROZEN HINGES etc. Explanation of problem required on log sheet

C 3) : TIDE GATE Vulnerable to inflow. When gate is closed, damaged seals, warping or other factors likely to allow leakage. Explanation of problem required on log sheet

Regulator Tide Gate Number	Inspection Level 1 / 2 / 3 ?	Diversion y / n	Inspection Of Regulator	Inspection Of Tide Gate y / n
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				

S.S.T.W. : _____

S.E.E. : _____

S.S.E.E. : _____

CHIEF : _____

Appendix A

Appendix 1.2: EXHIBIT 2 -ROCKAWAY SANITARY AND STORM SEWER PROJECTS

Appendix 1.2.1: Completed Projects

Project No. Locations Status

PS-312Q Beach Channel Completed in Sept-2017

SEQ-002516/ 200352 Cornaga Ave. Completed in Jun-2006, part of QED965

SE-196/372 Camp Road, etc. Completed in Jun-1991

SE-378A/379A B. 130th Street, etc. Completed in Mar-1989

SE-378B/379B Rockaway Beach Blvd. etc. Completed in Nov-1998

SE-422A/423A B. 121st Street, etc. Completed in Jun-1989

SE-422B/423B B. 123rd Street, etc. Completed in Apr-1990

SE-422C/423C B. 127th Street, etc. Completed in Apr-1991

SE-424A/425A B. 132nd Street, etc. Completed in Apr-1993

SE-426A/427A B. 135th Street, etc. Completed in Dec-1990

SE-426B/427B B. 138th Street, etc. Completed in Nov-1990

SE-426C/427C B. 140th Street, etc. Completed in Jun-2003

SE-424B/425B B. 134th Street, etc. Completed in Aug-1999

SE-426C/427C Beach 69th St. Completed in Jan-2003

SE-772/87HW Formerly SEQ-200350 Beach 71st Str. Completed in Dec-2004

SE-789 / HWQ631B1 Sommerville Area. Completed in May-2014

SE-795 Chandler St. Completed in Jun-2017

SE-817 Beach 29th St. Completed in Aug-2015

SEQ- 002546/ 200425 Grandview Terrace. Completed in Mar-2004

SEQ- 200358 Beach 87th St. Completed in Sep-2002

SEQ- 200368 Redfern Ave. Completed in Jun-2006

SEQ-002348 Rockaway Blvd., etc. Completed in May-1997

SEQ-002355 Beach 43rd Street, etc. Completed in Apr-1991

SEQ-002363 Beach 37th Street, etc. Completed in Apr-1996

SEQ-002380 Rockaway Beach Blvd. Completed in Nov-1996

SEQ-002402 Beach 45th Street, etc. Completed in Sep-1997

SEQ-002413/ 200275 R. Collier Avenue, etc. Completed in Mar-2005

SEQ-002426 Bay 25th Street, etc. Completed in Sep-1998

SEQ-002427 Cold Spring Road, etc. Completed in May-1998

SEQ-002428 Healy Avenue, etc. Completed in Jan-2000

SEQ-002460 West Bourne Ave, etc. Completed in Nov-2000

SEQ-002499 Beach 61st St. Completed in Sep-2000

SEQ-002511/ 200347 Beach 36th St. Completed in Jan-2003

SEQ-002538/ 200371 Beach 18th St. Completed in Aug-2003

SEQ-002550/ 200390 Beach 40 St. (Edgemere Phase HD153B) Completed in Nov-2005

SEQ-002551/ 200398 (HD153B1) Edgemere Phase B1. Completed in Jun-2007

SEQ-002571/ 200412 Hope VI Phase A. Completed in Apr-2004

SEQ-02479/ QED-983/ SEQ-200341 Rockaway Beach Blvd. Completed in Sep-2014

SEQ-200239 Rockaway Freeway, etc. Completed in Aug-1996

SEQ-200240 Rockaway Freeway, etc. Completed in Aug-1996

SEQ-200251 Rockaway Beach Blvd. Completed in May-1997

SEQ-200254 Beach 108th Street, etc. Completed in Nov-1998

SEQ-200305 Amstel Blvd, etc. Completed in May-2000

SEQ-200311 Beach 35th St. Edgemere Completed in Apr-2002

SEQ-200378 Seagirt Blvd. Completed in Sep-2002

SEQ-200453 Thursby Ave. Completed in Jun-2007

SEQ-200508 Beach 32nd St. Completed in Jun-2015

SEQ-200523 New Haven Avenue, etc. Completed in Aug-2013

SEQ-200524 Beach 21st St. Completed in April-2020

SEQ-200533 Beach 42nd St. Completed in Jun-2012

HD153C1/ SEQ002562/ SEQ200406 Edgemere C1. Completed in Nov-2016

HD153C2/ SE-Q200421/ SEQ-002576 Edgemere C2. Completed in Sep-2014

HD153C1/ SEQ-200406/ 2562 Edgemere C1. Completed in Apr-2009

HWQ-631 Beach 72 St. Completed in Dec-2004

SEQ-002442 Burchell Ave. Completed in Jun-2000

SEQ-002443 Beach 87 St. Completed in Apr-2000

SEQ-200251 Rockaway Beach Blvd. Completed in May-1997

SEQ-0201A6 Burchell Ave. Completed in May-2001

SEQ-0201A7 Beach 67 St. Completed in Aug-2002

SEQ-0201B3 Beach 86 St. Completed

SE-569U Thursby Ave. Completed in May-2004

SE-569V Alameda Ave. Completed in May-2005

SE-569W Shore Front Parkway. Completed in May-2006

SE-569Y Beach 80 St. Completed

SEQ-0201B5 Beach 113 St. Completed

SEQ-201BS4 Beach 87th St. Completed

SEQ-201BS2 Beach 114 St. Completed

SEC-20004I Seaside Ave. Completed

SEQ-200381R Beach 53 St. Completed in Mar-2004

HWQ-230GR Cornaga Ave. Completed in Sep-2005

HWQ-1126A Alameda Ave. Completed in Apr-2004

SEQ-002413R Collier Ave. Completed in Mar-2005

QED-973 Rockaway Turnpike. Completed in Jul-2002

SE-196B Camp Road. Completed in Jun-1998

SE-610 Granada Place. Completed in Dec-1996

SEQ-200364 Edgemere Ave. Completed in Apr-2003

QED-988 Channing Road. Completed in Jan-2007

SEQ-002623 Nameoke St. Completed in Jun-2007

SEQ-200550 Beach 99th St. Completed in May-2018

SEQ-002453 B. 47th Street, etc. Cancelled Dec-1997

SEQ-002507 Beach 69th St. Cancelled, included SEQ-200356 in HWQ641 completed Dec-2004

SEQ-200381 Beach 53th St. Cancelled due to LIPA issues, was scheduled for FY 2002

HWQ1682/SE-884 Shore Front Parkway. Cancelled Mar-2015

QED982/ SANDHW13 Rockaway Beach Blvd. & B. 73rd St. Completed in June-2020

SEQ-200524 B. 21st St. Completed in June-2020

SEQ-200582/HWQ1182A Broad Channel Phase I. Completed in May-2020

Appendix 1.2.2: Active Projects

Project No. Locations Status

HWQ-1126C Rockaway Beach - on hold

SEQ-200426/ HWQ1126B Hope VI Phase B - on hold

SEQ-200595 / HWQ1187- Westbourne Norton Drive Reconstruction - Revising CPI, FY22

HD-153C3/ SEQ-002682 Edgemere C3 - on hold

SEQ-200597/ HWQ631B2 Somerville Area - CPI development, FY2023

SEQ-200598/ HWQ631B3 Somerville - CPI development, FY2026

SEQ200599/HWQ631B3 Somerville Area - CPI development, FY2029

SEQ-200586/HWQ1182B Broad Channel Phase II - Construction started 6/15/20, projected completion 6/14/24

QED-1007 Rockaway Beach Blvd. & B. 49 St. - Construction started 8/6/18, projected completion 8/4/21

SANDR02/SE-830 Far Rockaway Business District - Construction started 9/3/19, projected completion 8/17/22

SE-829 Brunswick Ave. - CPI development, FY2026

SE-886/HWQ1079 Beach Channel Dr. area - CPI development, FY2024

SE-887HWQ1079 Cornaga Ave area - CPI development, FY2027

SE-900 Beach 22 Street area – CPI development, FY2029

SANDR04 / QED-1044 Beach 108th Street - Construction started 4/20/20, projected completion 6/18/22

SANDHW11/ QED-1030 Beach Channel - Construction started 3/12/18, projected completion 6/3/21

SANDHW11B/QED1030B Beach Channel Phase 2 – CPI development, FY TBD

Appendix 1.3: TABLE 1 - 2020 12 MONTH ROLLING AVERAGE INFLUENT CHLORIDES (MG/L)

	Jan	Feb	Mar	Apr	Ma	June	July	Aug	Sep	Oct	Nov	Dec
Wards Island	460	450	450	460	480	480	480	470	460	440	450	450
North River	280	270	260	280	290	290	330	330	350	360	370	370
Hunts Point	520	500	500	510	530	510	510	520	540	540	530	530
26th Ward	390	390	370	360	370	370	350	310	290	270	260	240
Coney Island COMB	1,010	1,030	1,050	1,070	1,090	1,100	1,070	1,060	1,050	1,040	990	970
Coney Island CI INT	1,310	1,330	1,370	1,410	1,450	1,470	1,420	1,410	1,380	1,320	1,290	1,290
Owls Head	320	310	310	310	310	300	290	280	280	270	270	240
Newtown Creek	670	690	690	680	710	750	760	780	800	800	790	780
NC BK QNS	310	370	360	360	370	420	420	470	480	490	480	470
NC 13th ST	900	900	900	900	950	990	1010	1000	1040	1050	1040	1040
Red Hook	370	370	350	340	360	360	320	320	320	320	310	290
Jamaica	270	260	240	240	240	240	240	230	230	230	220	210
Tallman Island	330	310	300	310	320	330	330	330	320	310	310	300
Bowery Bay	400	350	360	510	620	670	720	710	710	640	620	600
BB LL	430	400	400	530	610	650	710	700	710	670	660	650
BB HL	380	330	340	490	620	680	730	720	700	620	590	570
Rockaway	2130	2180	2230	2310	2370	2400	2440	2510	2460	2430	2370	2330
Oakwood Beach	270	260	260	250	240	230	230	230	230	240	230	240
Port Richmond	430	450	450	440	450	470	460	460	460	480	490	480

(*) The chloride concentration action level for WRRFs is 400 mg/L with the exception of Rockaway that has a plant specific action level of 3,000 mg/L.

Appendix 1.4: TABLE 2: YEARLY AVERAGE TIDAL INFLOW COMPARISON FOR CY '19-'20

WPCP	JANUARY - DECEMBER 19		JANUARY - DECEMBER 20		VARIANCE (CY20-CY19)		REMARKS*				
	INFLOW (MGD)	% DWF	INFLOW (MGD)	% DWF	INFLOW (MGD)	% DWF					
WARDS ISLAND	4.8	2.6%	4.5	2.5%	-0.22	-0.1%	4.6% Decrease		-4.6%	Decrease	4.6
NORTH RIVER	2.2	2.2%	2.6	2.8%	0.33	0.6%	15% Increase		15.0%	Increase	15.0
HUNTS POINT	2.4	2.1%	2.6	2.1%	0.15	0.0%	6.1% Increase		6.1%	Increase	6.1
26th WARD	0.7	1.7%	0.4	1.0%	-0.28	-0.7%	38.6% Decrease		-38.6%	Decrease	38.6
CONEY ISLAND	3.4	3.6%	3.5	4.2%	0.09	0.6%	2.6% Increase		2.6%	Increase	2.6
OWLS HEAD	0.9	1.1%	0.7	0.9%	-0.20	-0.2%	22.1% Decrease		-22.1%	Decrease	22.1
NEWTOWN CREEK	5.6	2.9%	5.9	3.4%	0.28	0.6%	5% Increase		5.0%	Increase	5.0
RED HOOK	0.4	1.5%	0.3	1.2%	-0.12	-0.3%	31.1% Decrease		-31.1%	Decrease	31.1
JAMAICA	0.9	1.2%	0.7	0.9%	-0.21	-0.2%	22.8% Decrease		-22.8%	Decrease	22.8
TALLMAN ISLAND	0.8	1.3%	0.7	1.2%	-0.11	-0.1%	14.2% Decrease		-14.2%	Decrease	14.2
BOWERY BAY	1.4	1.6%	2.1	2.4%	0.72	0.8%	50.2% Increase		50.2%	Increase	50.2
ROCKAWAY	1.9	8.9%	2.2	10.1%	0.31	1.2%	16.5% Increase		16.5%	Increase	16.5
OAKWOOD BEACH	0.3	1.0%	0.2	0.9%	-0.08	-0.1%	24.5% Decrease		-24.5%	Decrease	24.5
PORT RICHMOND	0.5	2.1%	0.6	2.4%	0.04	0.3%	7.4% Increase		7.4%	Increase	7.4

WRRF Dry Weather Flows (MGD)			
WRRF	CY2019	CY2020	Variance
WARDS ISLAND	182	180	-1.2%
NORTH RIVER	102	91	-10.5%
HUNTS POINT	116	121	4.5%
26th WARD	42	43	2.2%
CONEY ISLAND	95	84	-11.5%
OWLS HEAD	82	82	0.3%
NEWTOWN CREEK	195	172	-12.0%
RED HOOK	26	23	-12.2%
JAMAICA	79	77	-2.6%
TALLMAN ISLAND	59	55	-6.1%
BOWERY BAY	90	90	-0.5%
ROCKAWAY	21	22	2.4%
OAKWOOD BEACH	31	26	-15.2%
PORT RICHMOND	26	24	-6.7%
			-4.88%
WRRF Influent			
WRRF	CY2019	CY2020	Variance
WARDS ISLAND	465	449	-3.4%
NORTH RIVER	284	365	28.4%
HUNTS POINT	523	532	1.6%
26th WARD	391	235	-39.9%
CONEY ISLAND	976	1131	15.9%
OWLS HEAD	309	240	-22.4%
NEWTOWN CREEK	653	779	19.3%
RED HOOK	368	288	-21.5%
JAMAICA	269	213	-20.7%
TALLMAN ISLAND	327	298	-8.7%
BOWERY BAY	396	598	50.9%
ROCKAWAY	2050	2333	13.8%
OAKWOOD BEACH	264	235	-11.0%
PORT RICHMOND	417	480	15.2%
			6.31%

Receiving Waters

WRRF	CY2019	CY2020	East River	Harlem & Hudson	New York Bay	Jamaica Bay	Arthur and Kill Van Kull	Check
WARDS ISLAND	17,800	17,800	40%	60%				100%
NORTH RIVER	13,000	13,000		100%				100%
HUNTS POINT	25,000	25,000	100%					100%
26th WARD	23,000	23,000				100%		100%
CONEY ISLAND	27,000	27,000			80%	20%		100%
OWLS HEAD	28,000	28,000			100%			100%
NEWTOWN CREEK	22,600	22,600	80%	20%				100%
RED HOOK	25,000	25,000	100%					100%
JAMAICA	23,000	23,000				100%		100%
TALLMAN ISLAND	25,000	25,000	100%					100%
BOWERY BAY	25,000	25,000	100%					100%
ROCKAWAY	23,000	23,000				100%		100%
OAKWOOD BEACH	26,400	26,400			80%		20%	100%
PORT RICHMOND	20,000	20,000					100%	100%
Receiving Water Salinity								
Waterbody	WRRF		Salinity					
East River	WI, TI, HP, BB, NC, RH		25,000					
New York Bay	OH, CI, OB		28,000					
Arthur & Kill Van Kull	PR		20,000					
Harlem & Hudson River	NR		13,000					
Jamaica Bay	JA, 26W, RK		23,000					

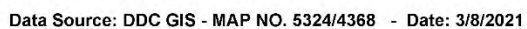
Appendix 2:

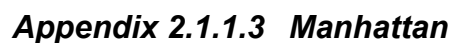
Appendix 2.1: BWSO

- Appendix 2.1.1: Maps of Cleaning Activities for NYC DDC: TV Inspection and Cleaning
- Appendix 2.1.2: Maps of Cleaning Activities for CSI Section by Borough
- Appendix 2.1.3: Maps of Cleaning Activities for CSI Section by Community Board
- Appendix 2.1.4: CSI Sewer Inspection Cleaning List 2020

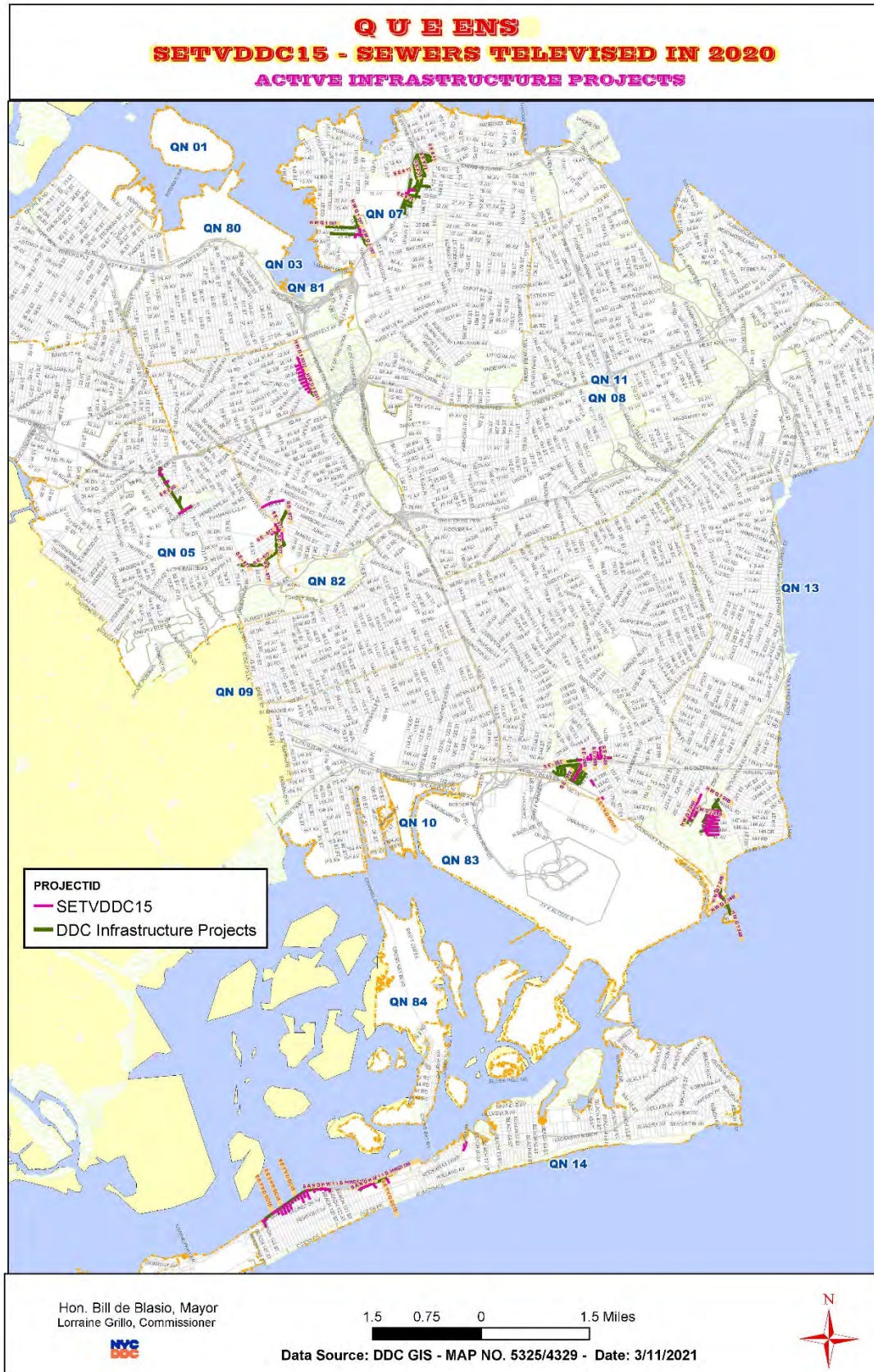
Appendix 2.2: BWT

- Appendix 2.2.1: Table 1 – Summary of 100 Telemetered Regulators
- Appendix 2.2.2: Table 2 – Sediments Removed from Non-Interceptor Assets
- Appendix 2.2.3: Table 3 – Intercepting Sewer Inspections 2019 – Pipe Rating Index and Ranking
- Appendix 2.2.4: Map 1 - 2019 BMP Interceptors and Local Sewers
CCTV/SONAR, Pump Stations, Regulators and Interceptors/Local Sewers
Cleaned Map





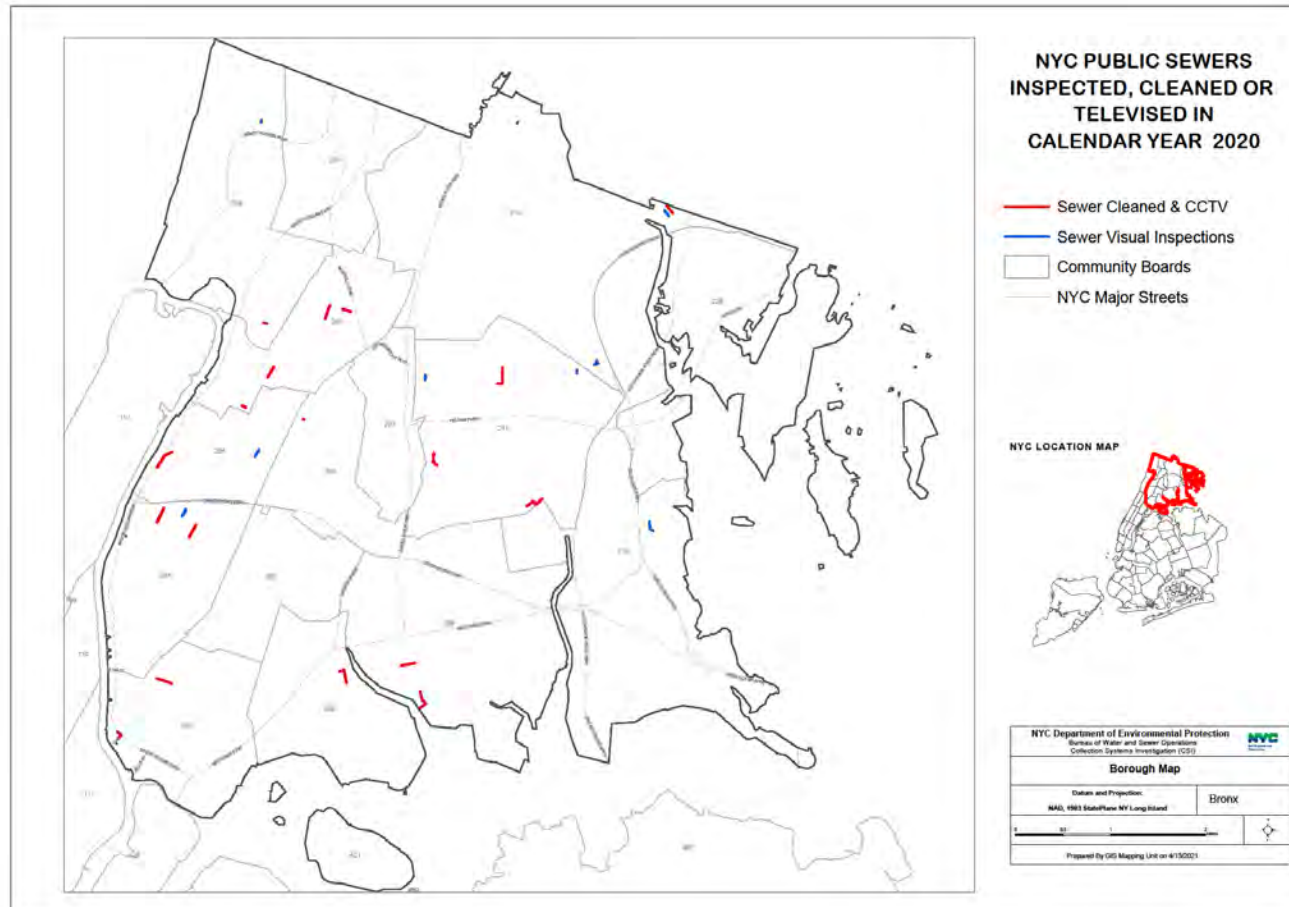
Appendix 2.1.1.4 Queens

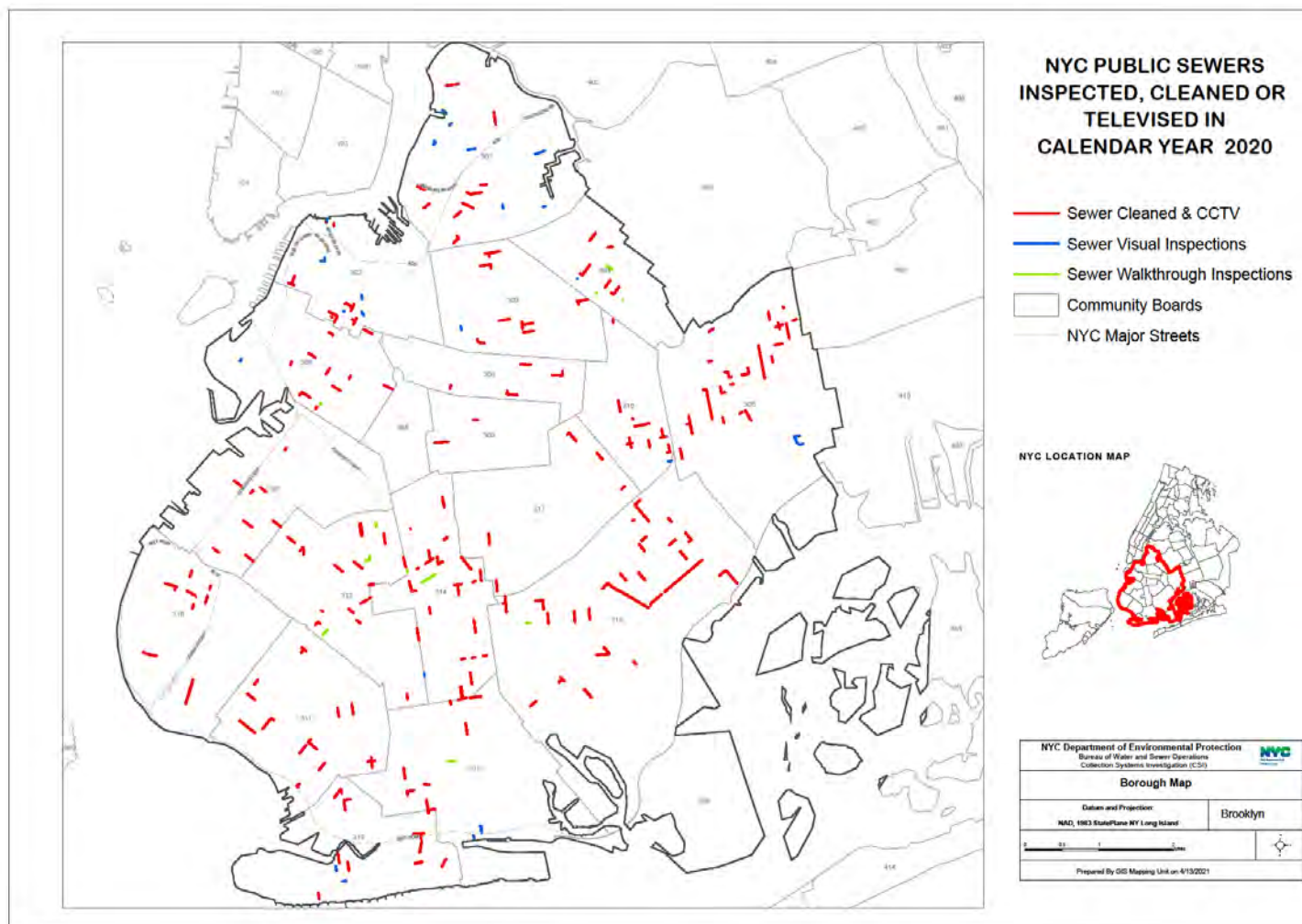


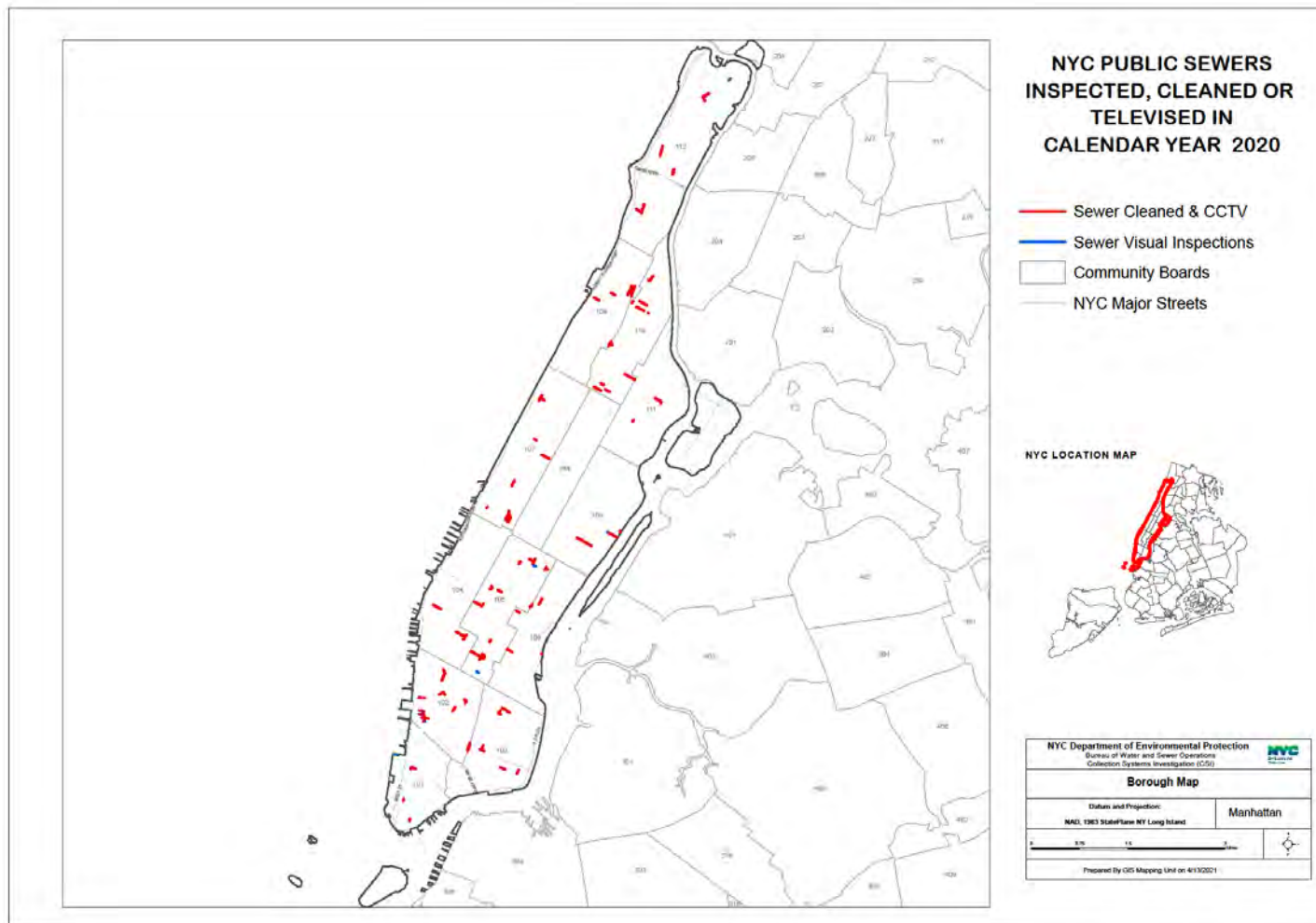
Appendix 2.1.1.5 Staten Island

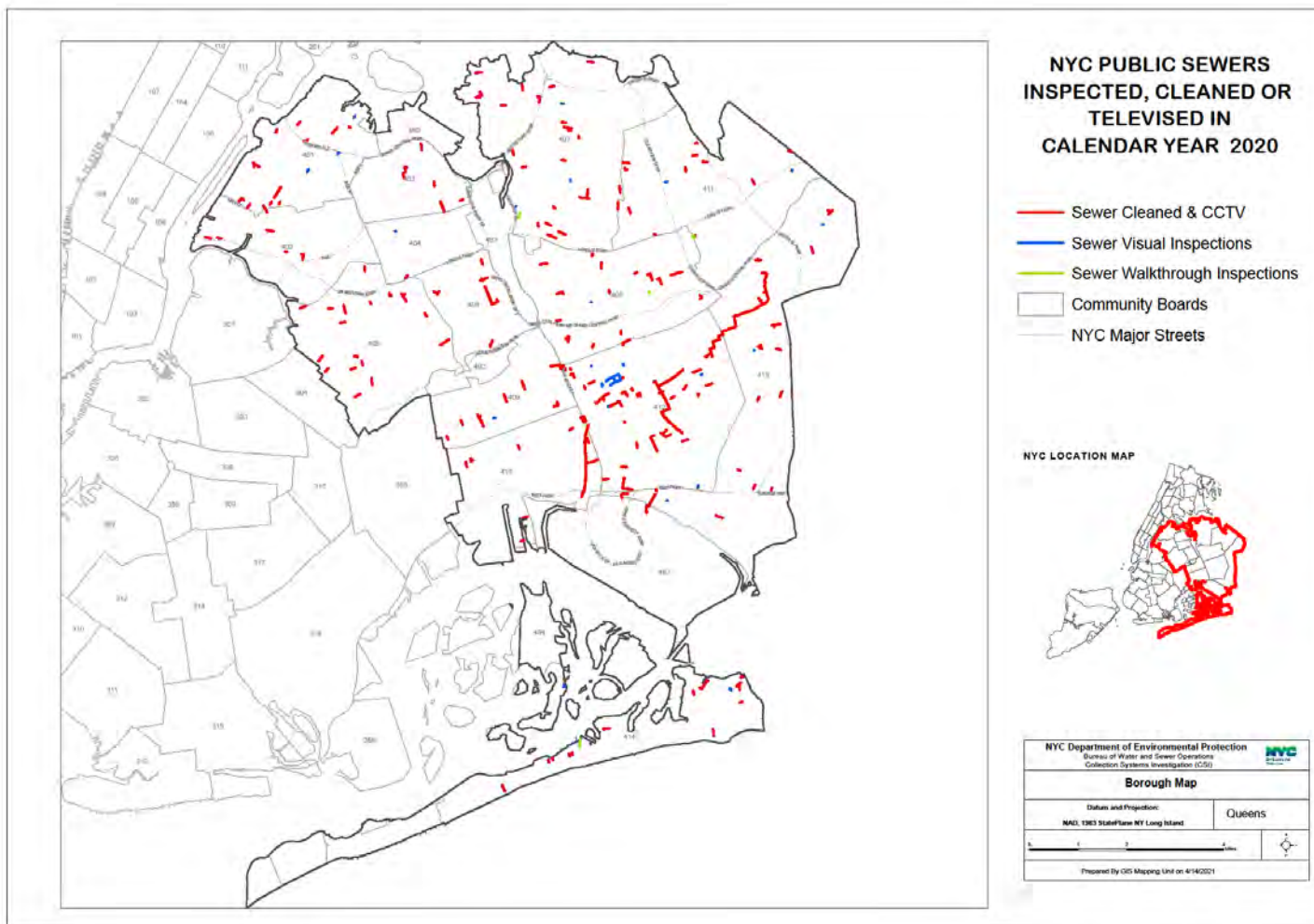


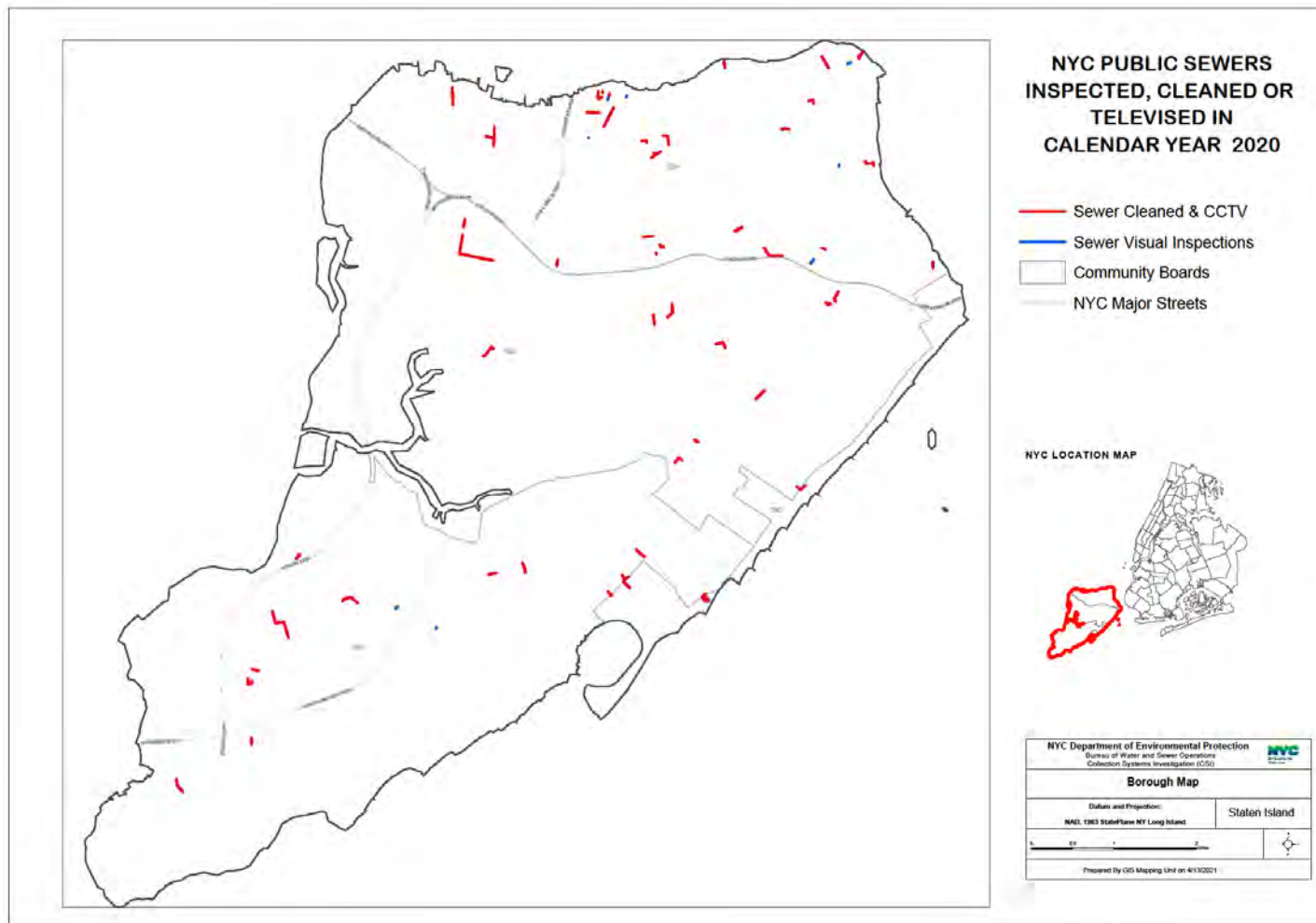
Appendix 2.1.2: Maps of Cleaning Activities for CSI Section by Borough



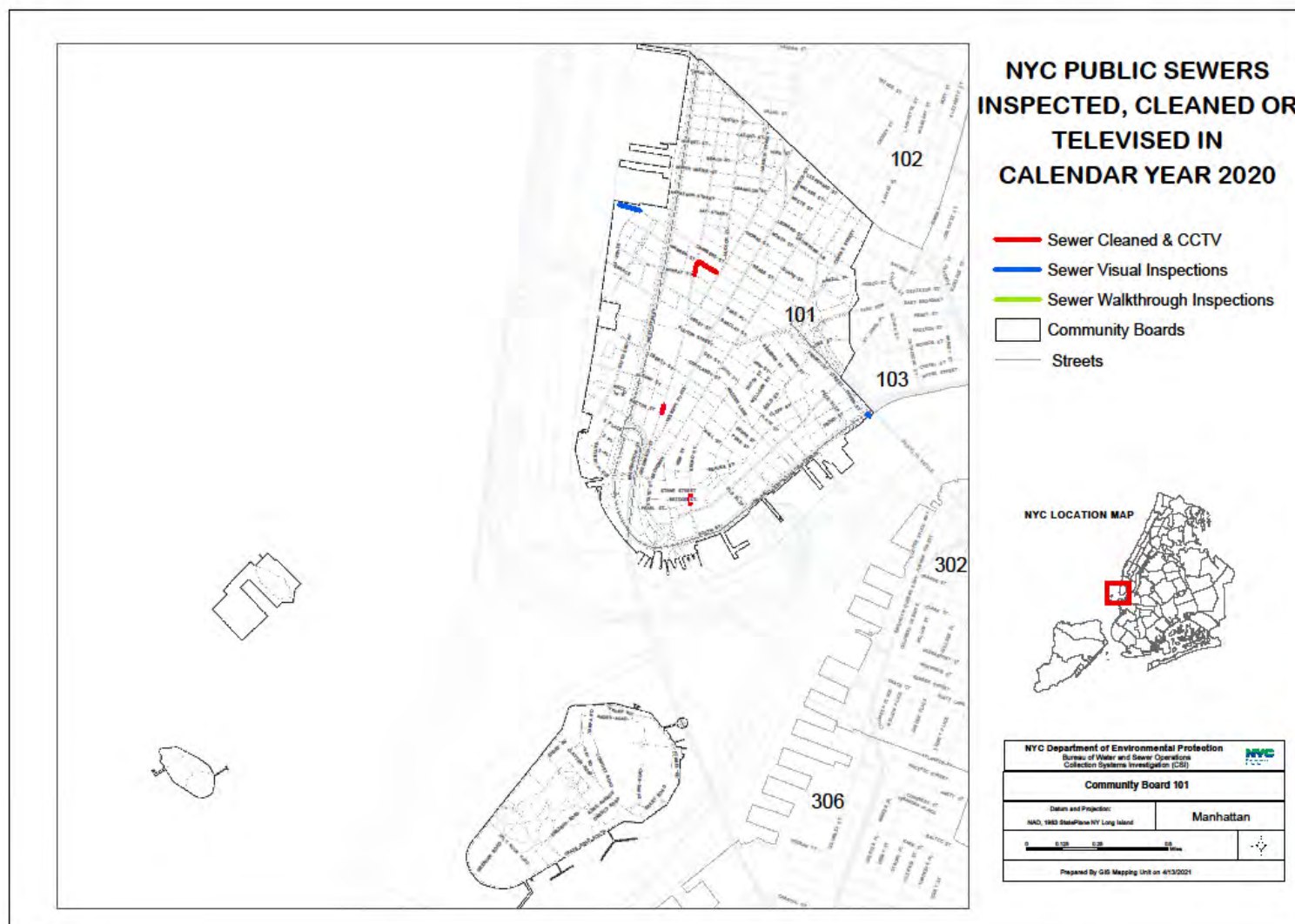


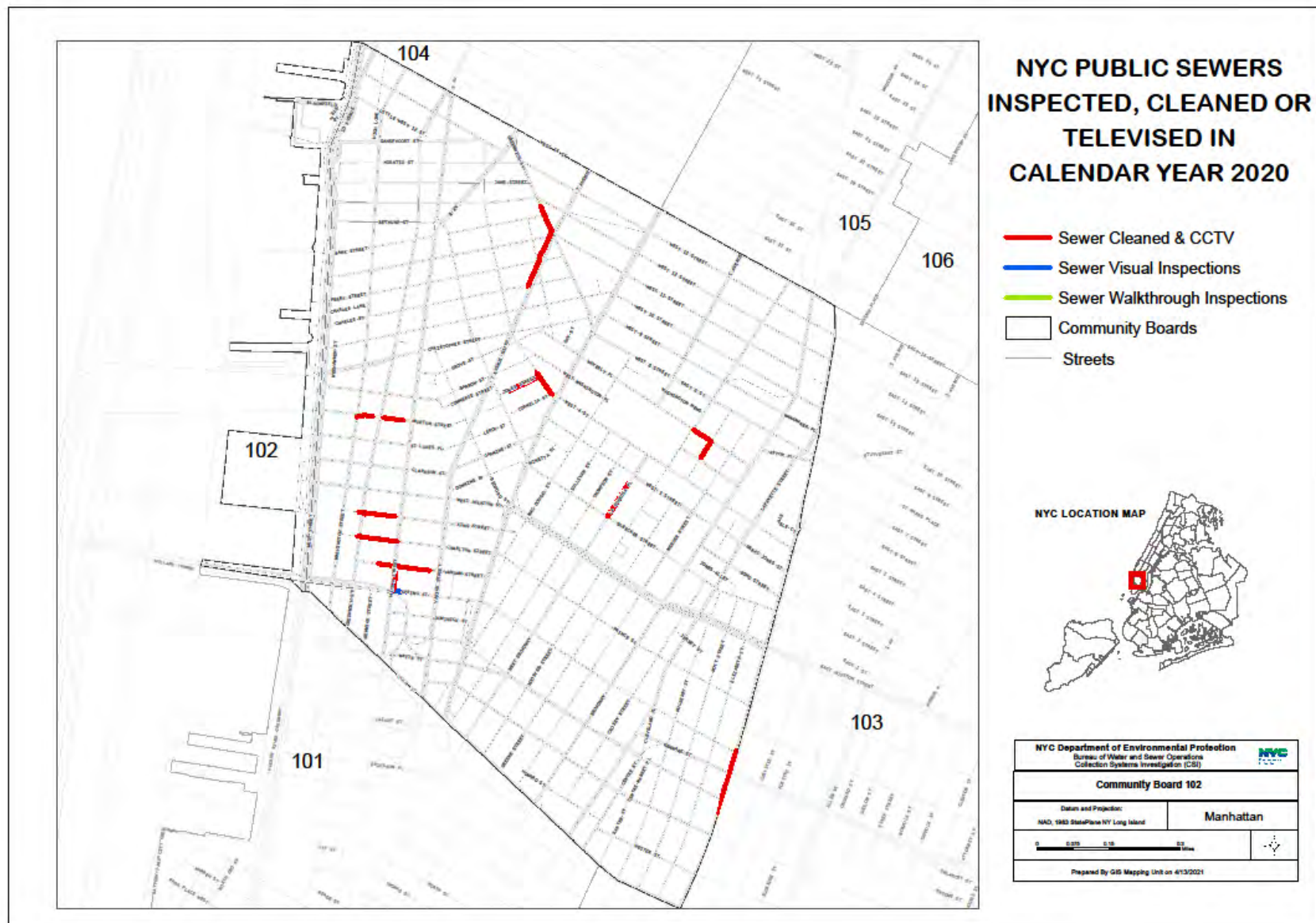


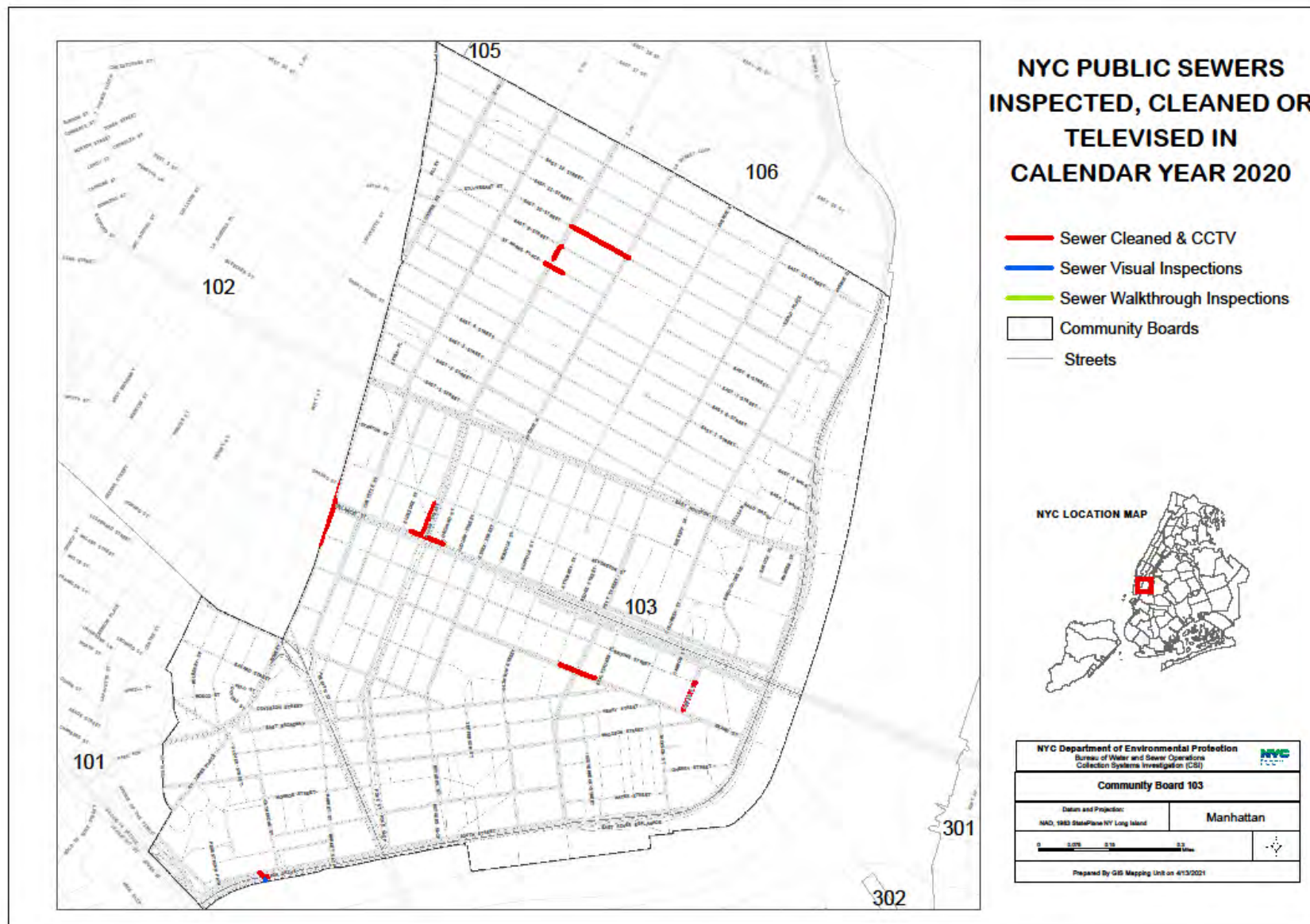


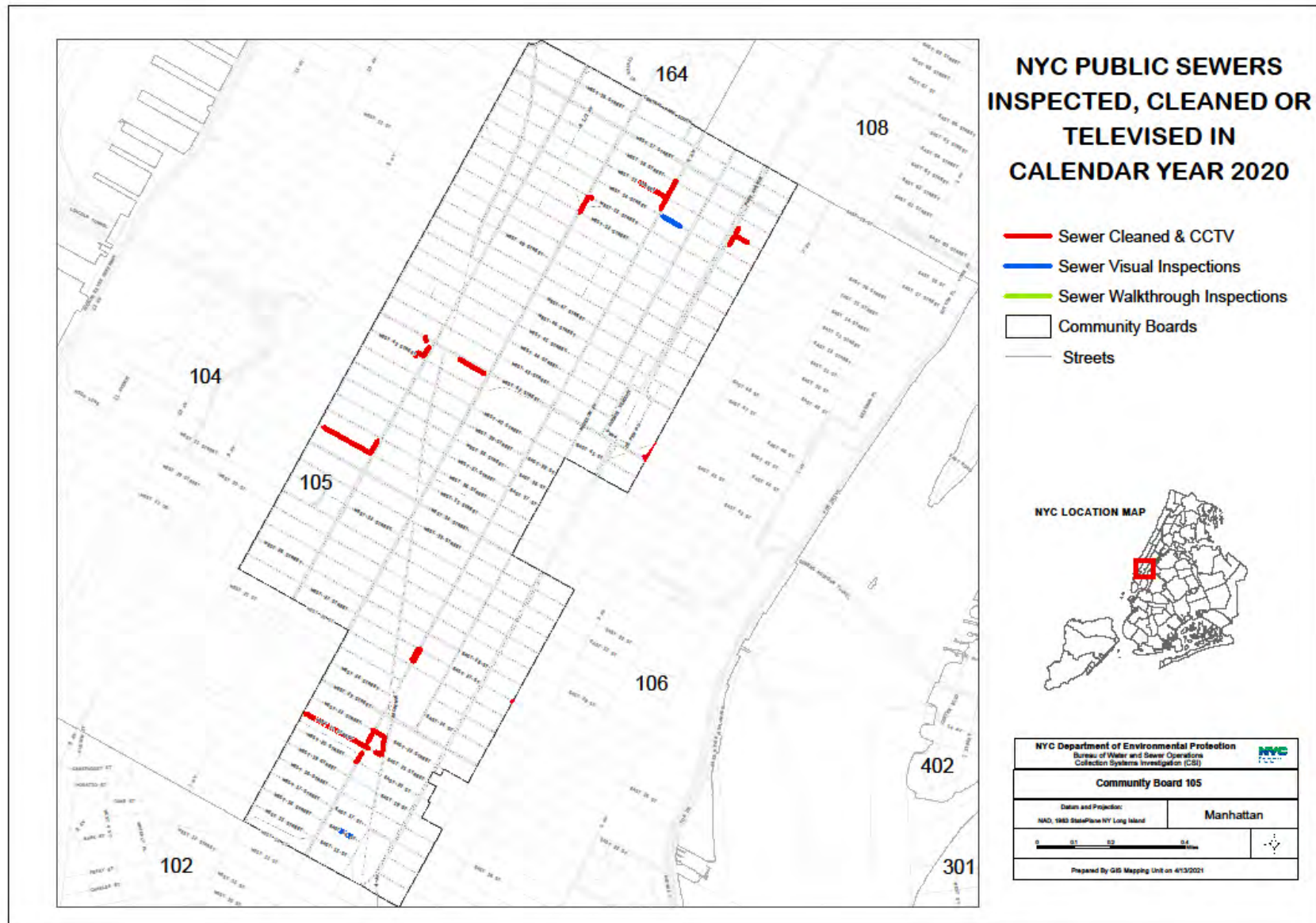


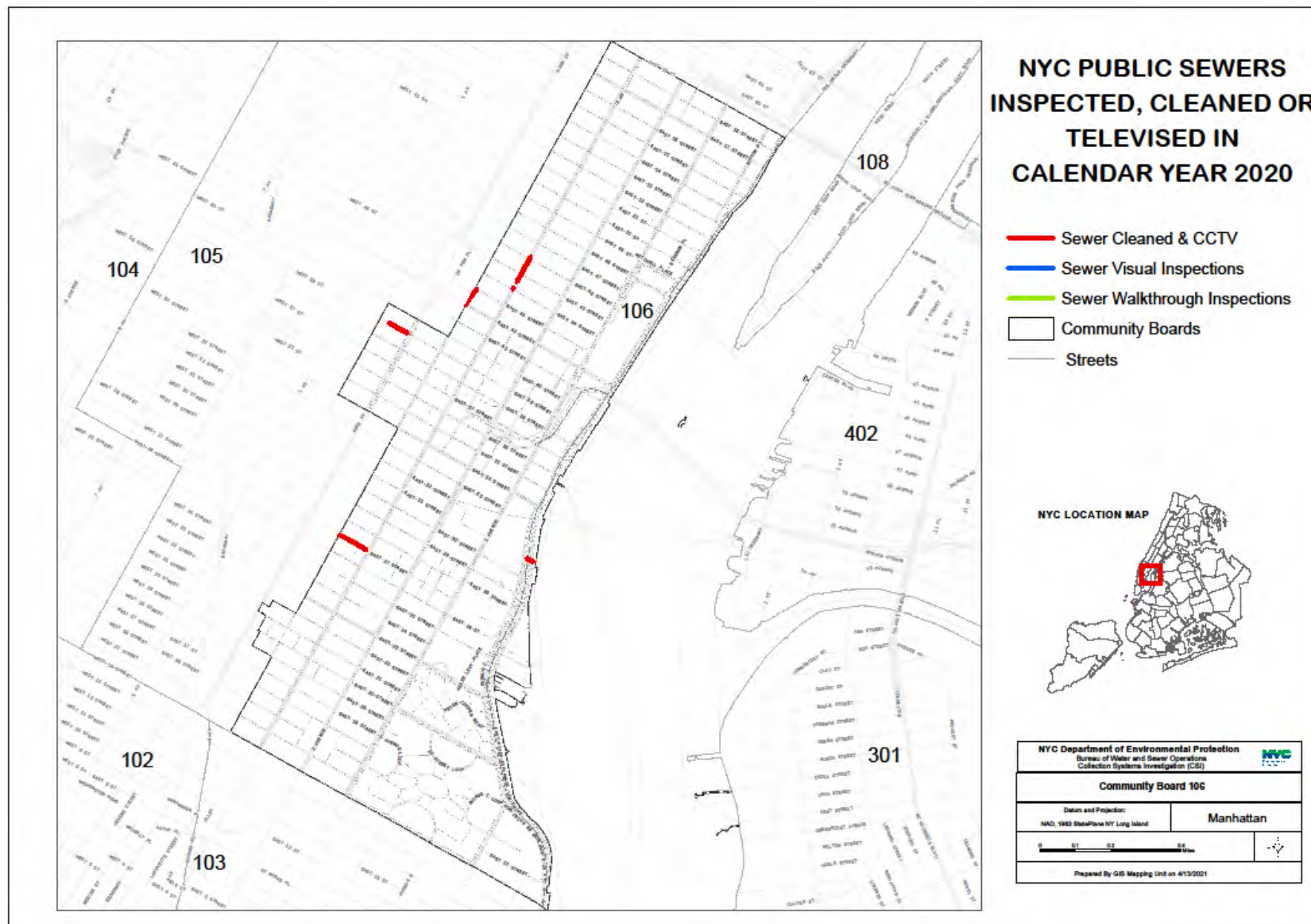
Appendix 2.1.3: Maps of Cleaning Activities for CSI Section by Community Board

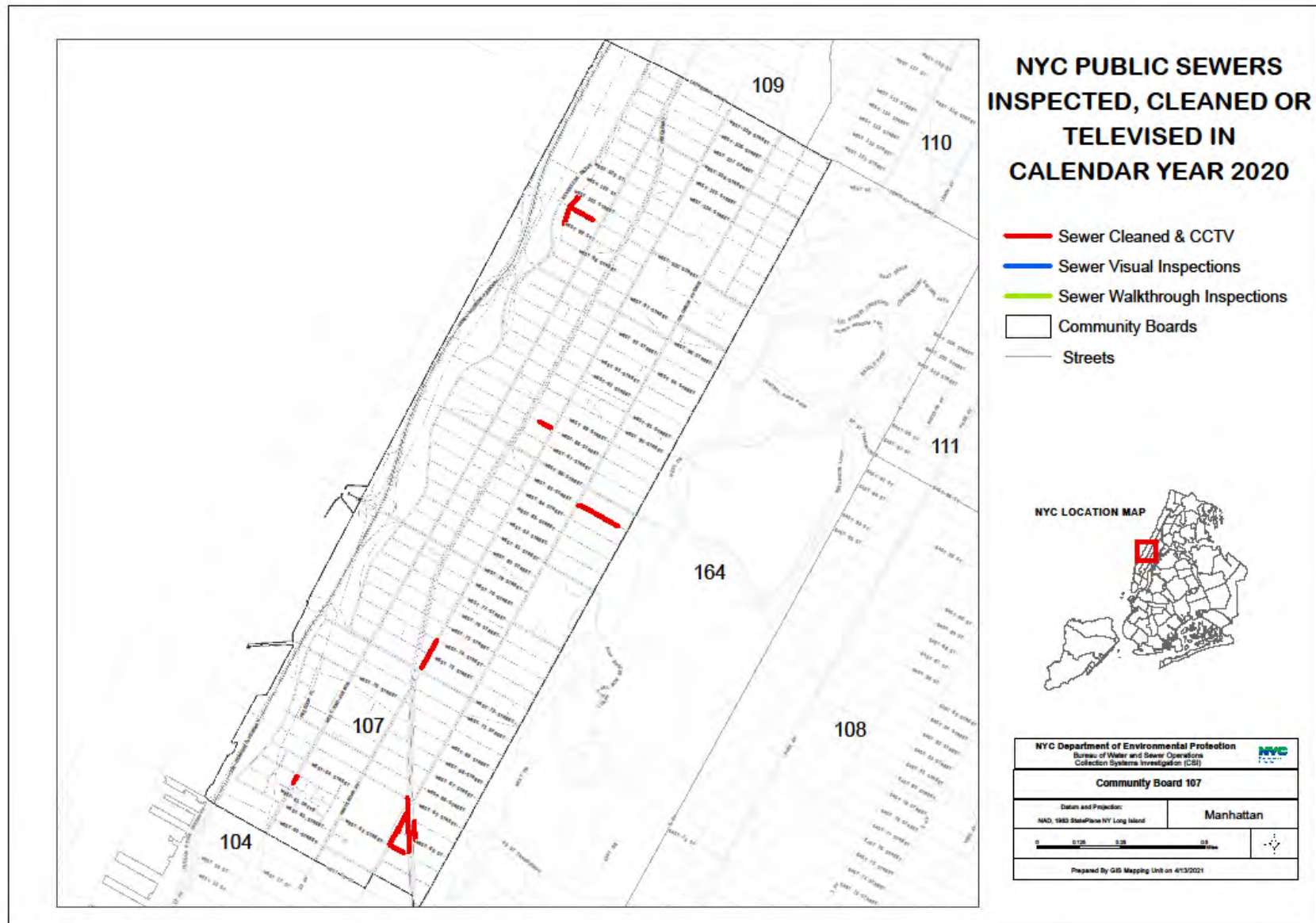


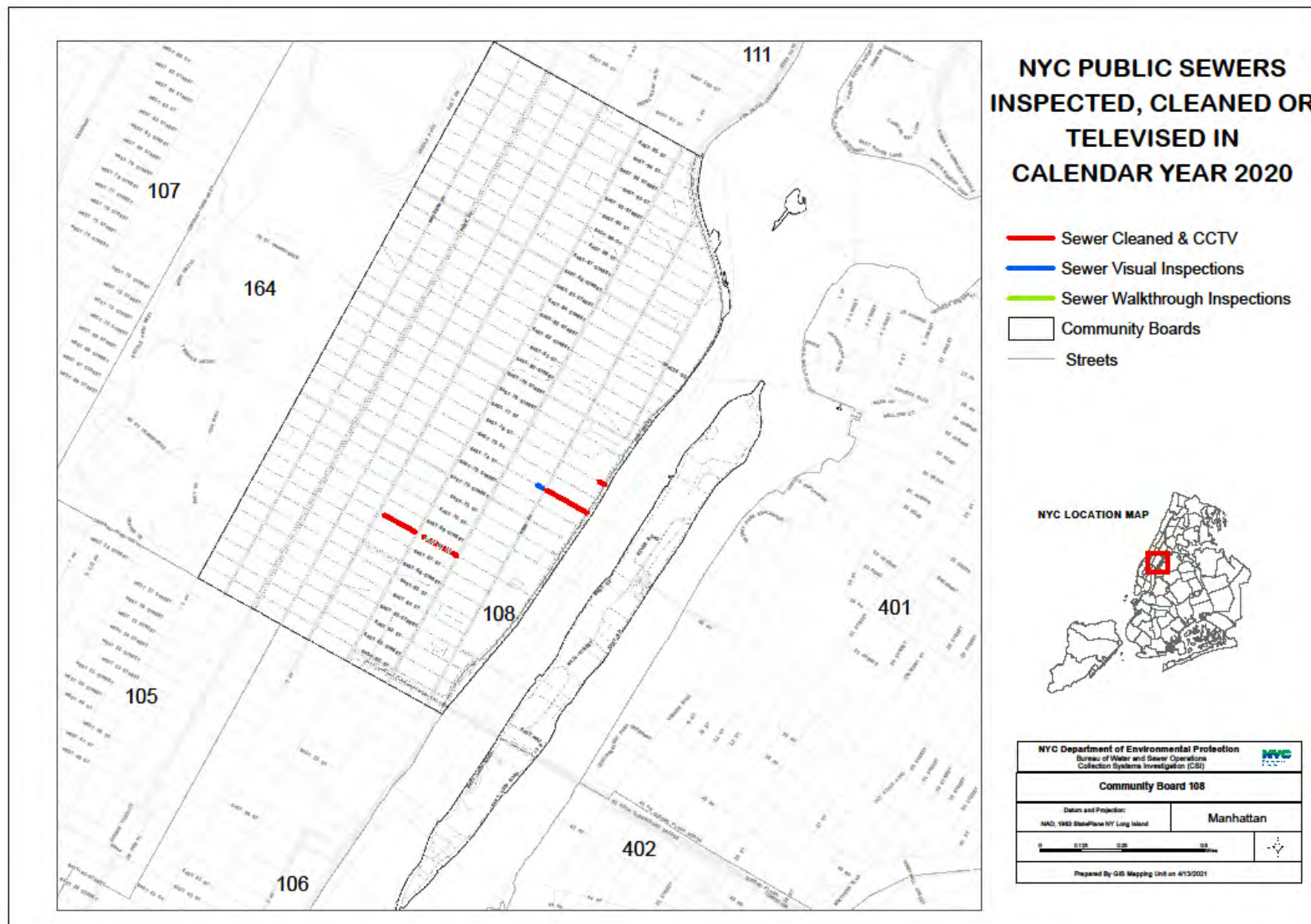


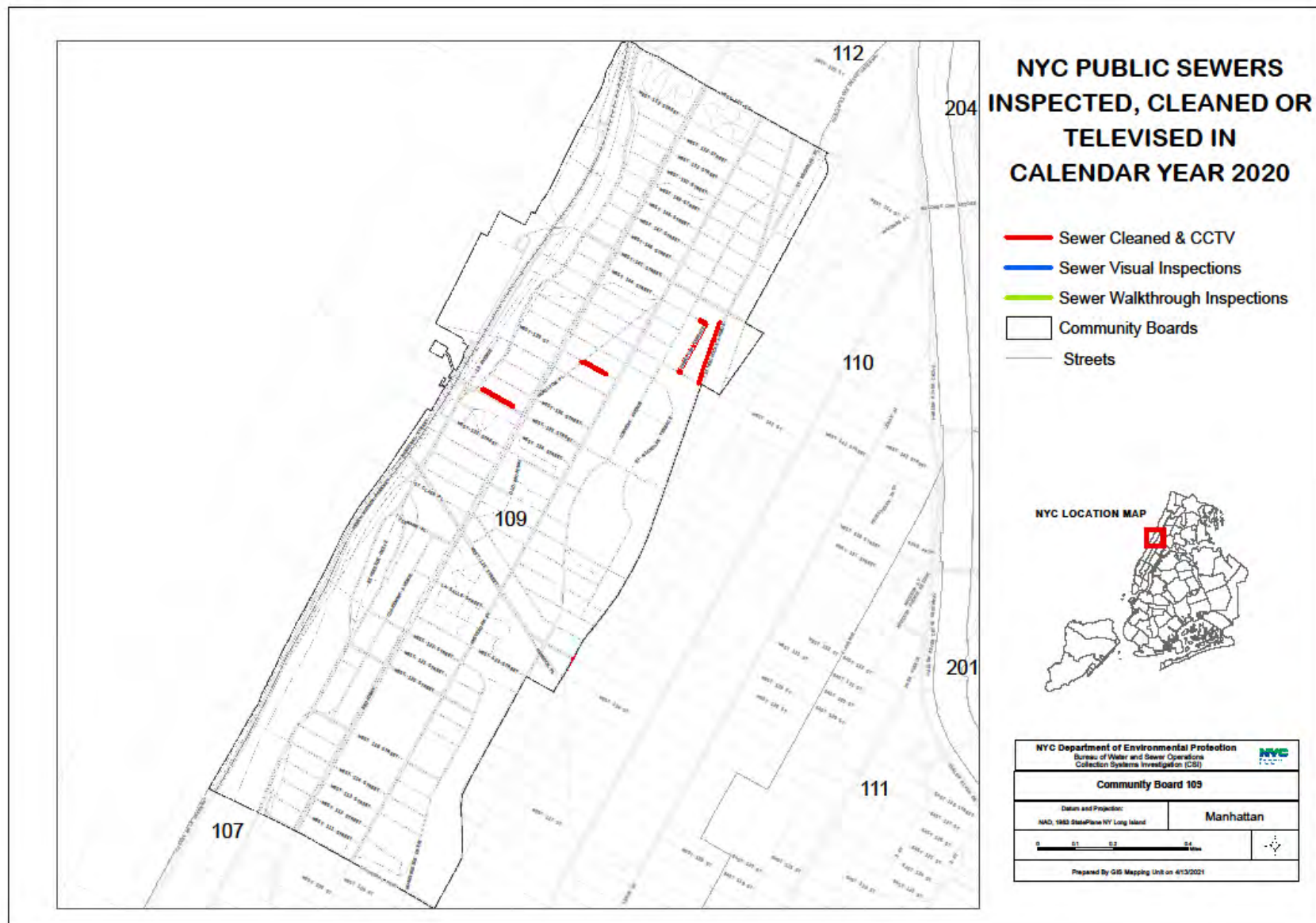


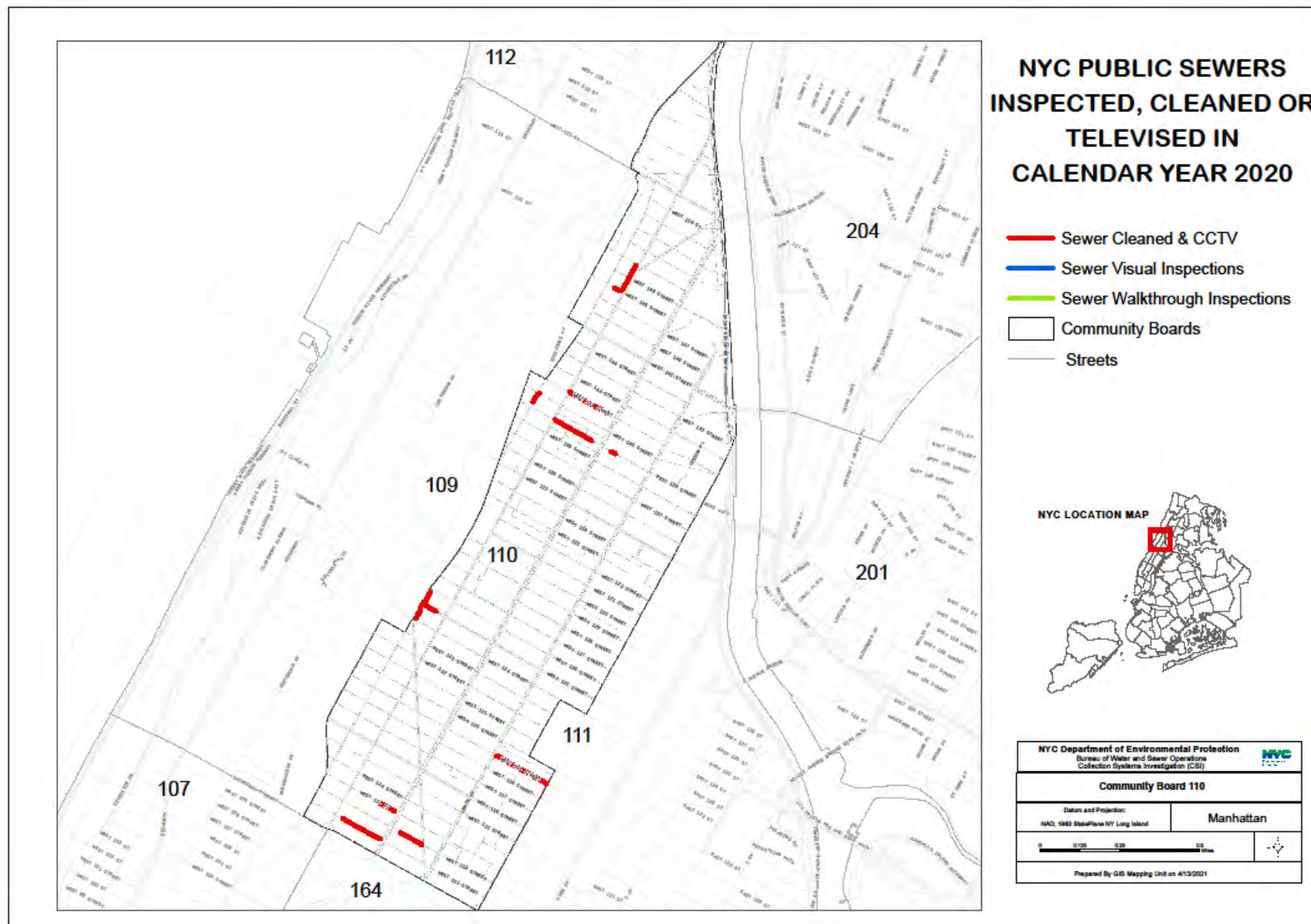


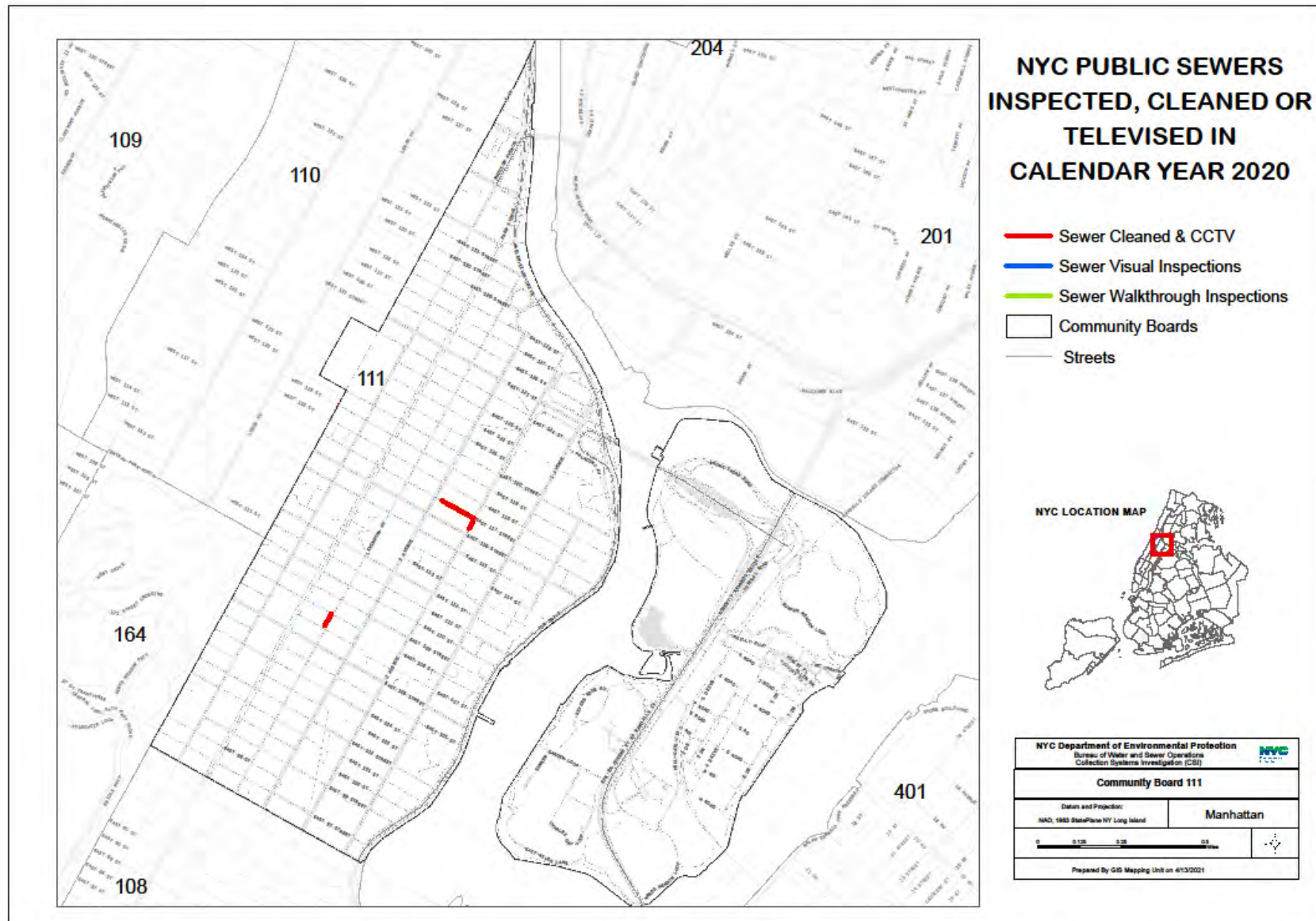


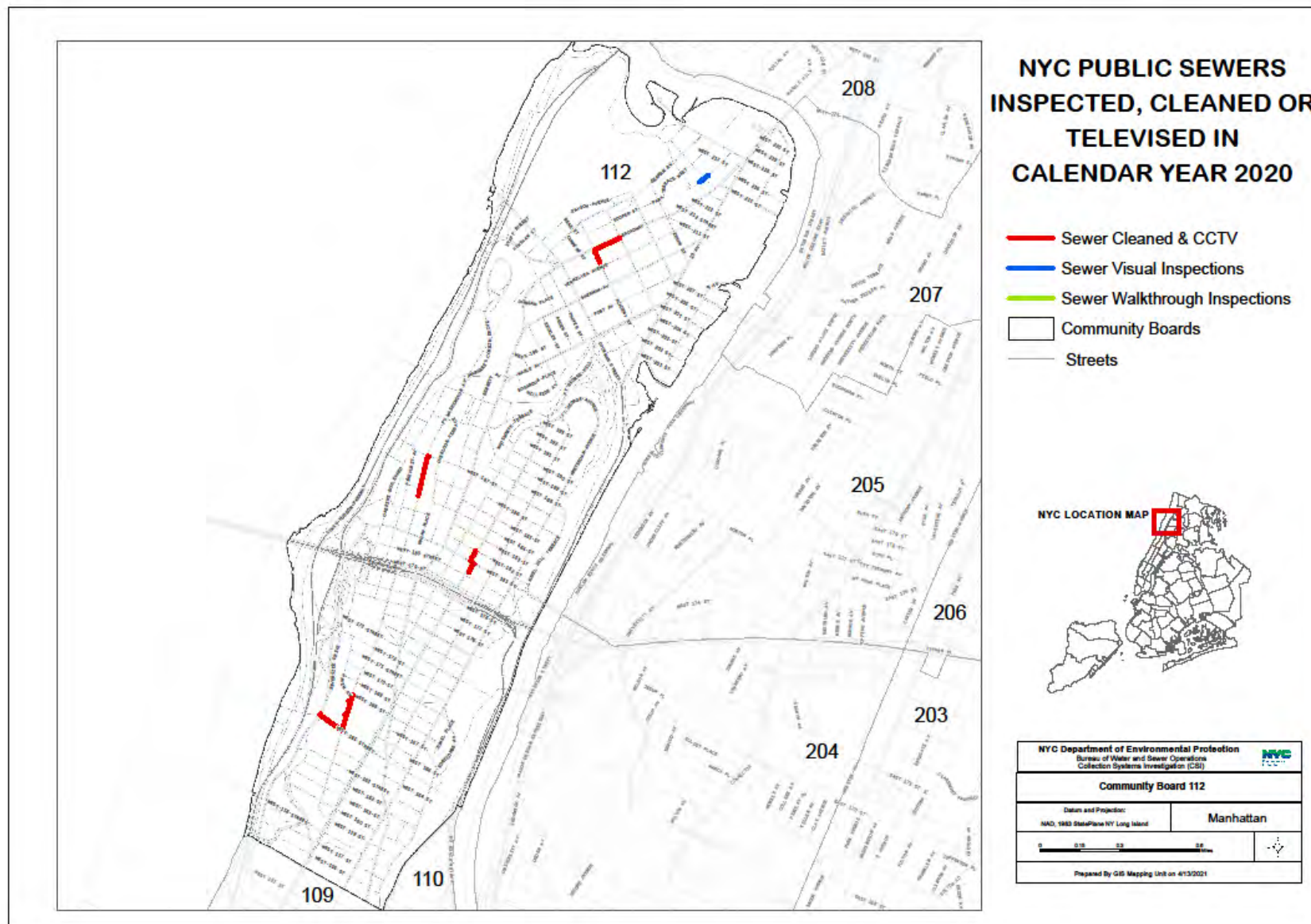


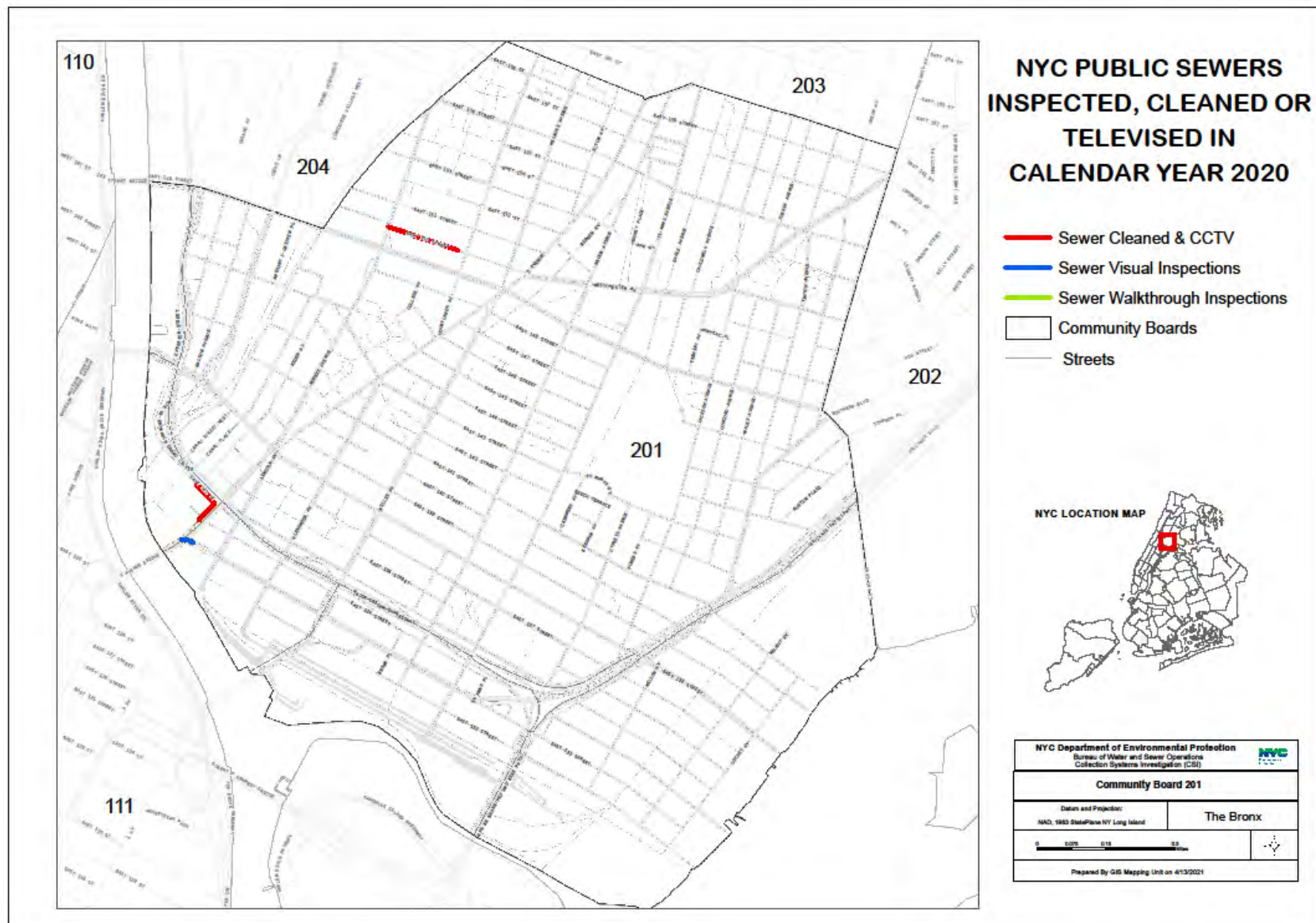


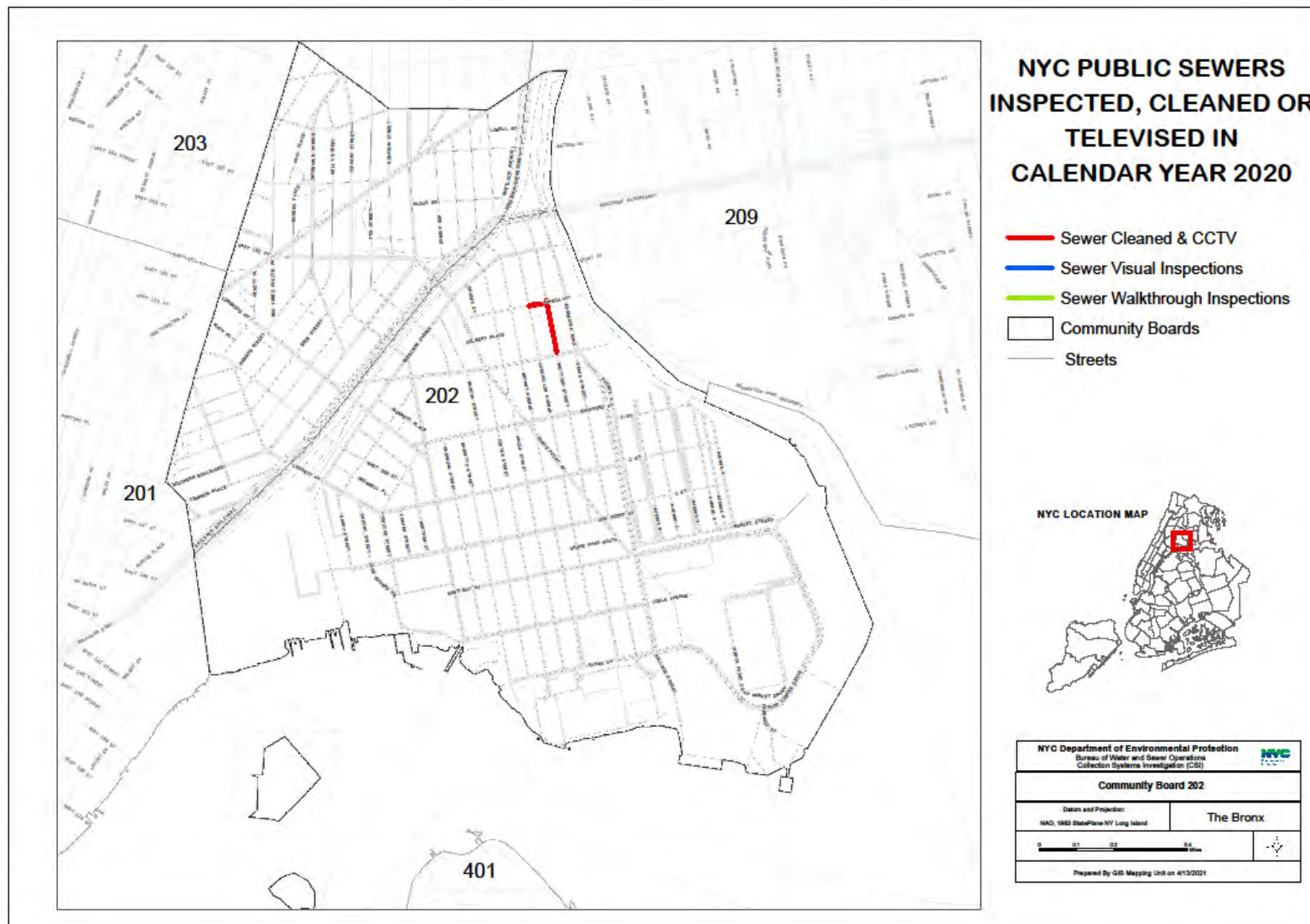


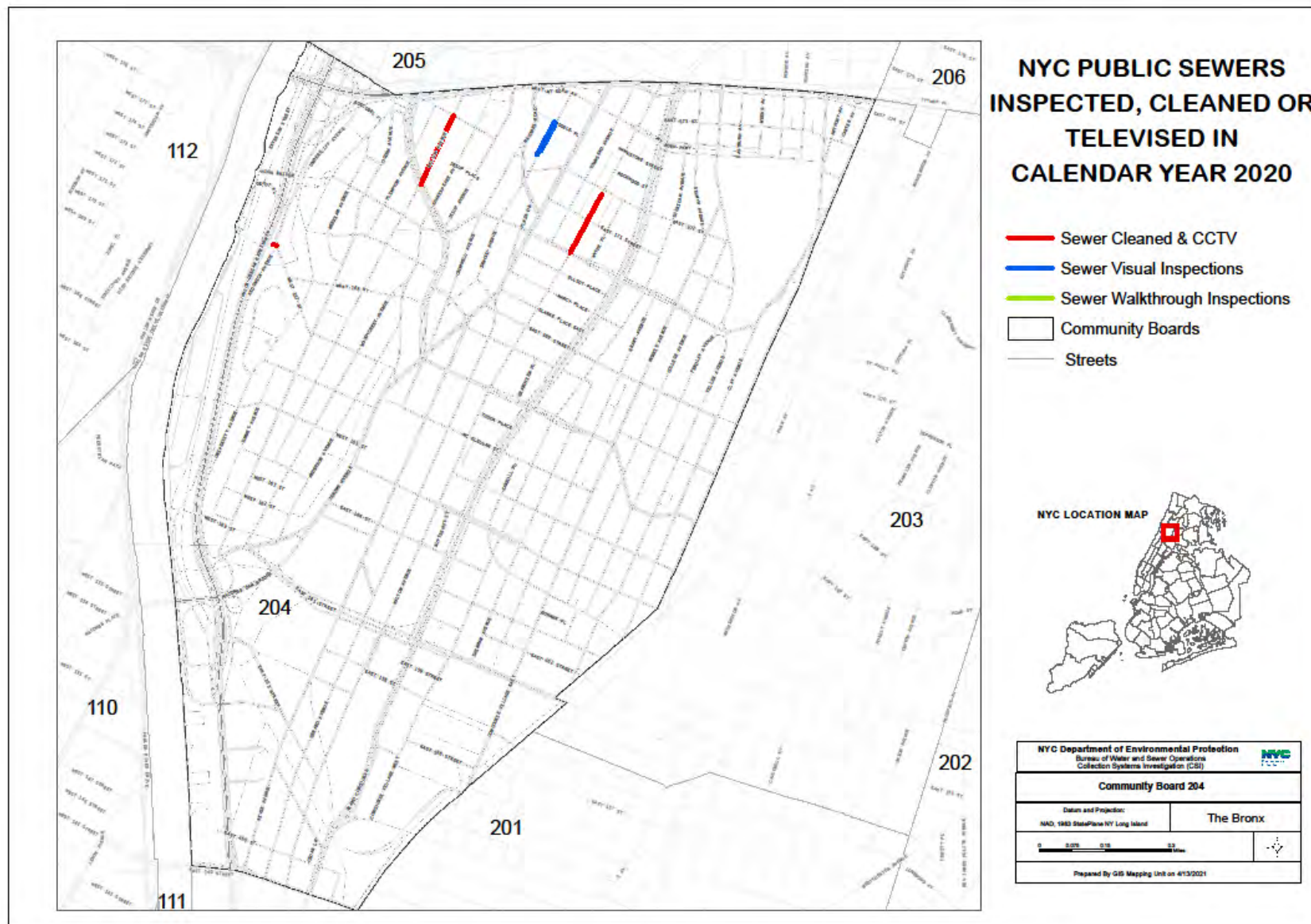


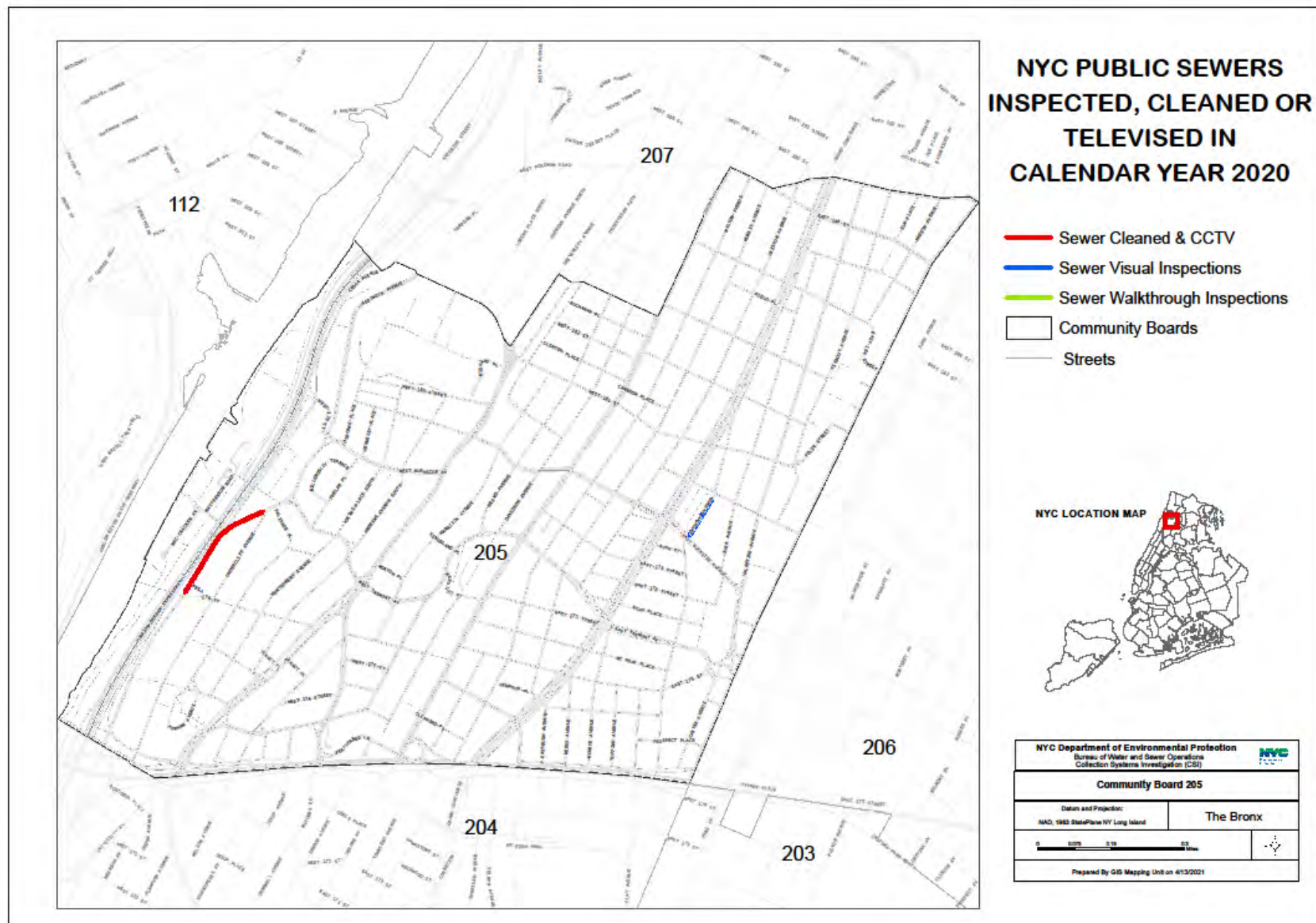


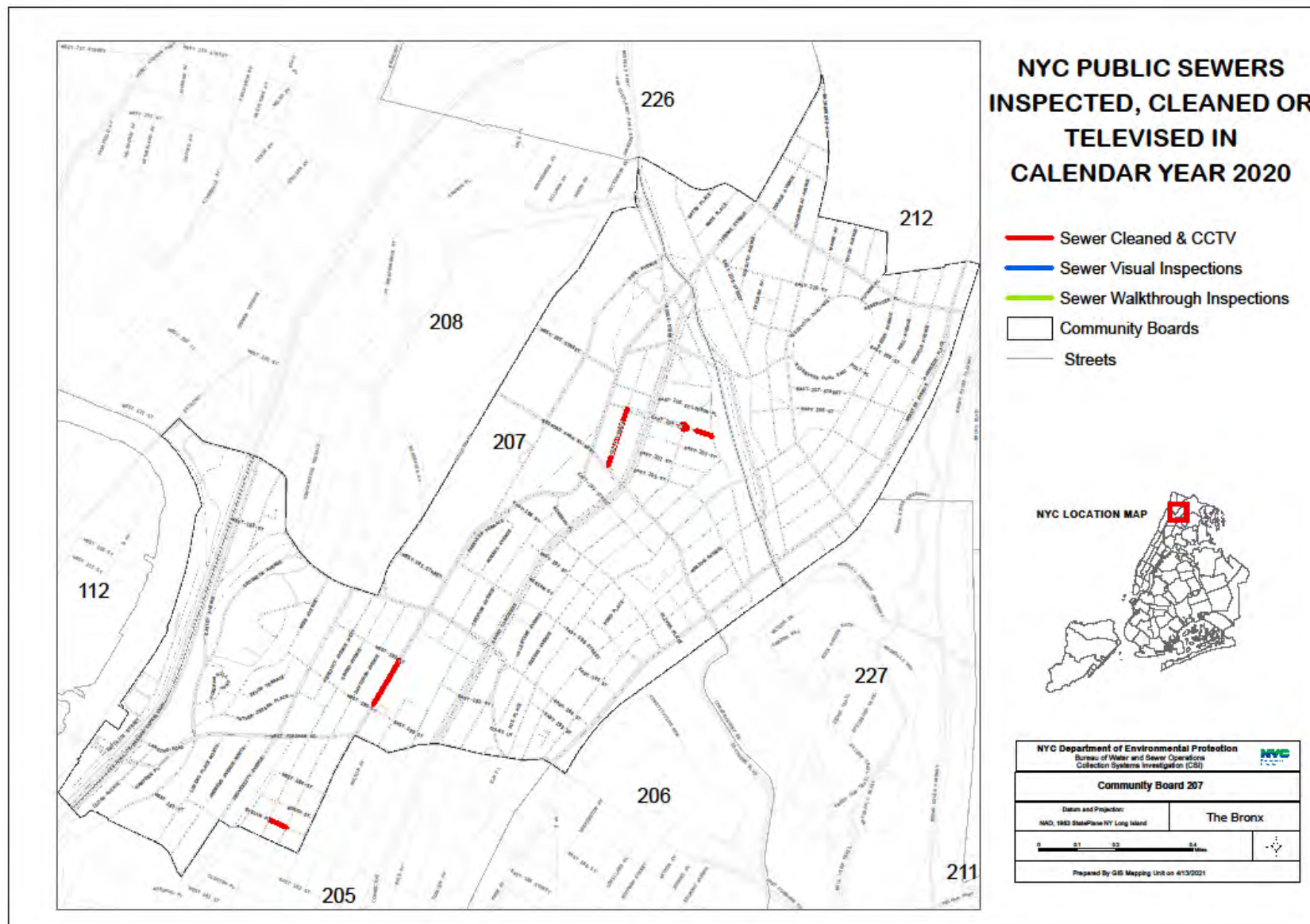


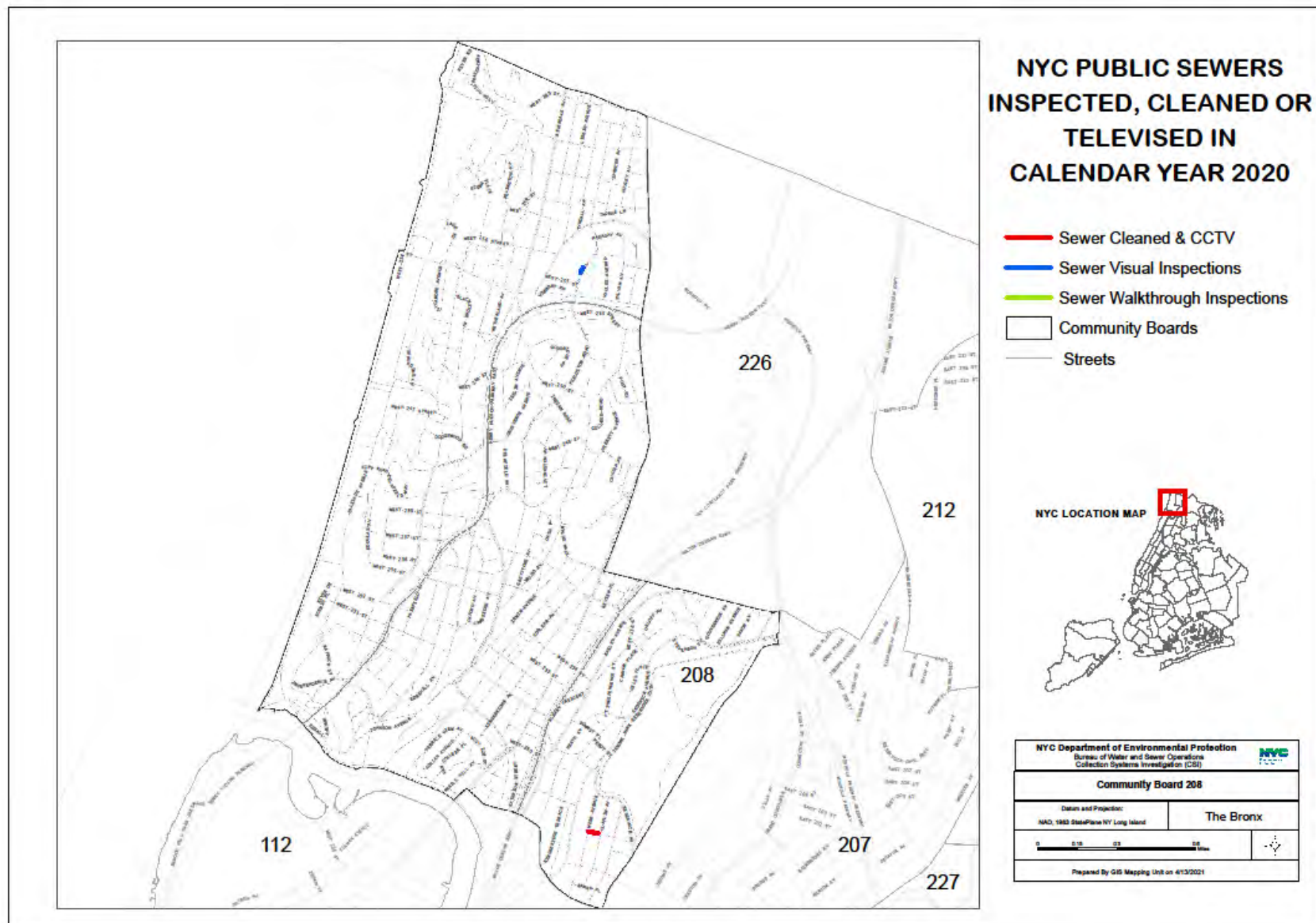


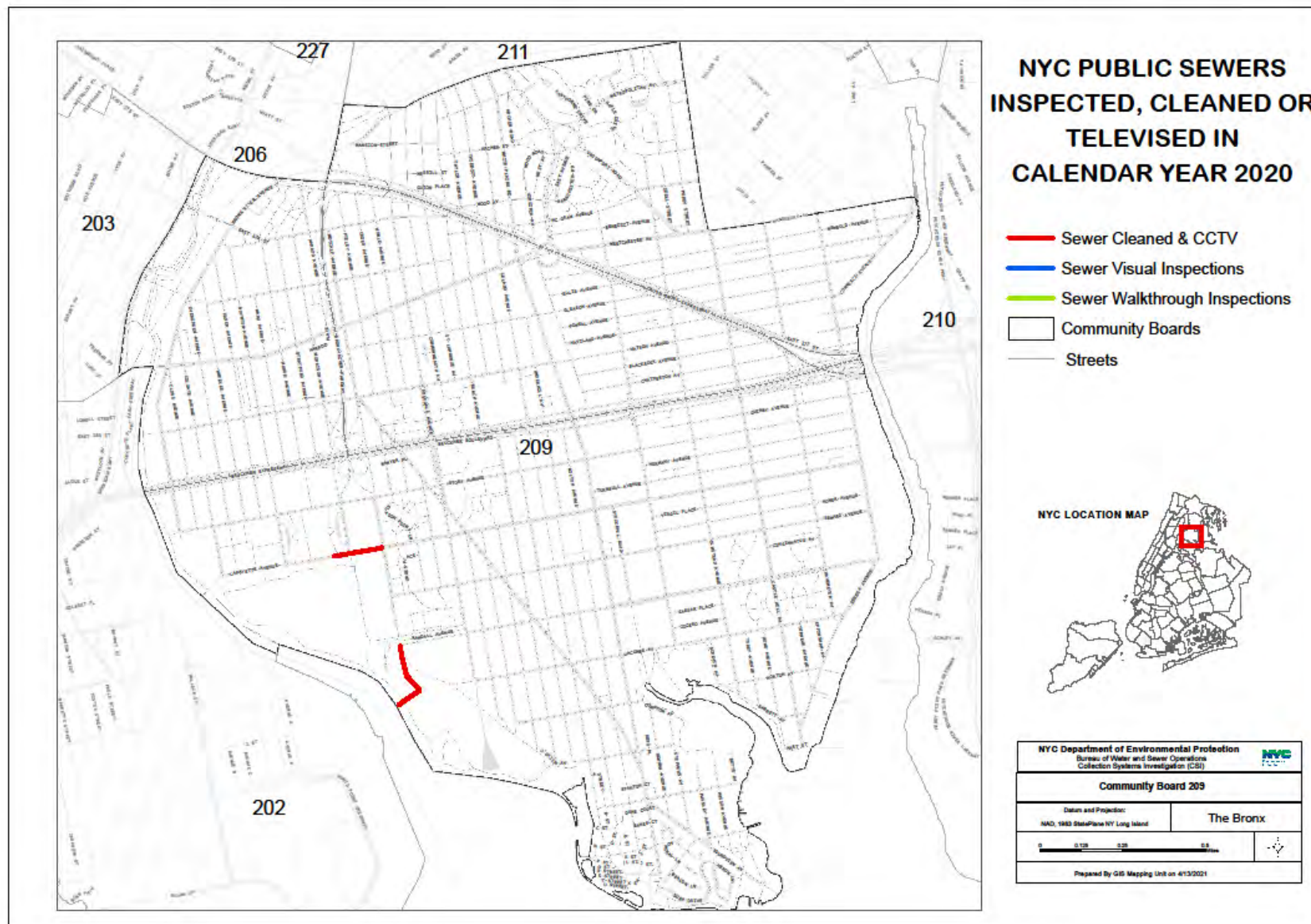


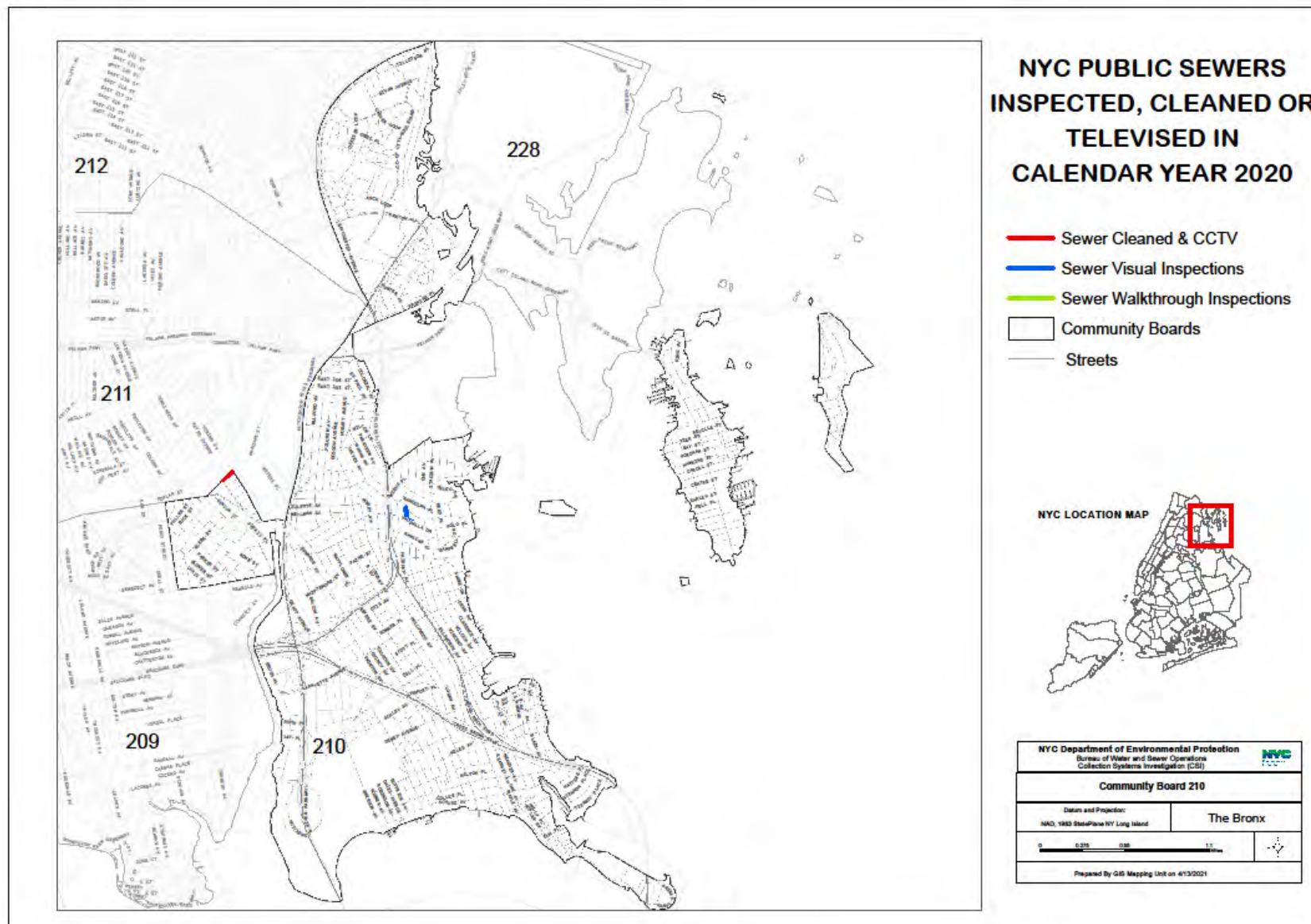


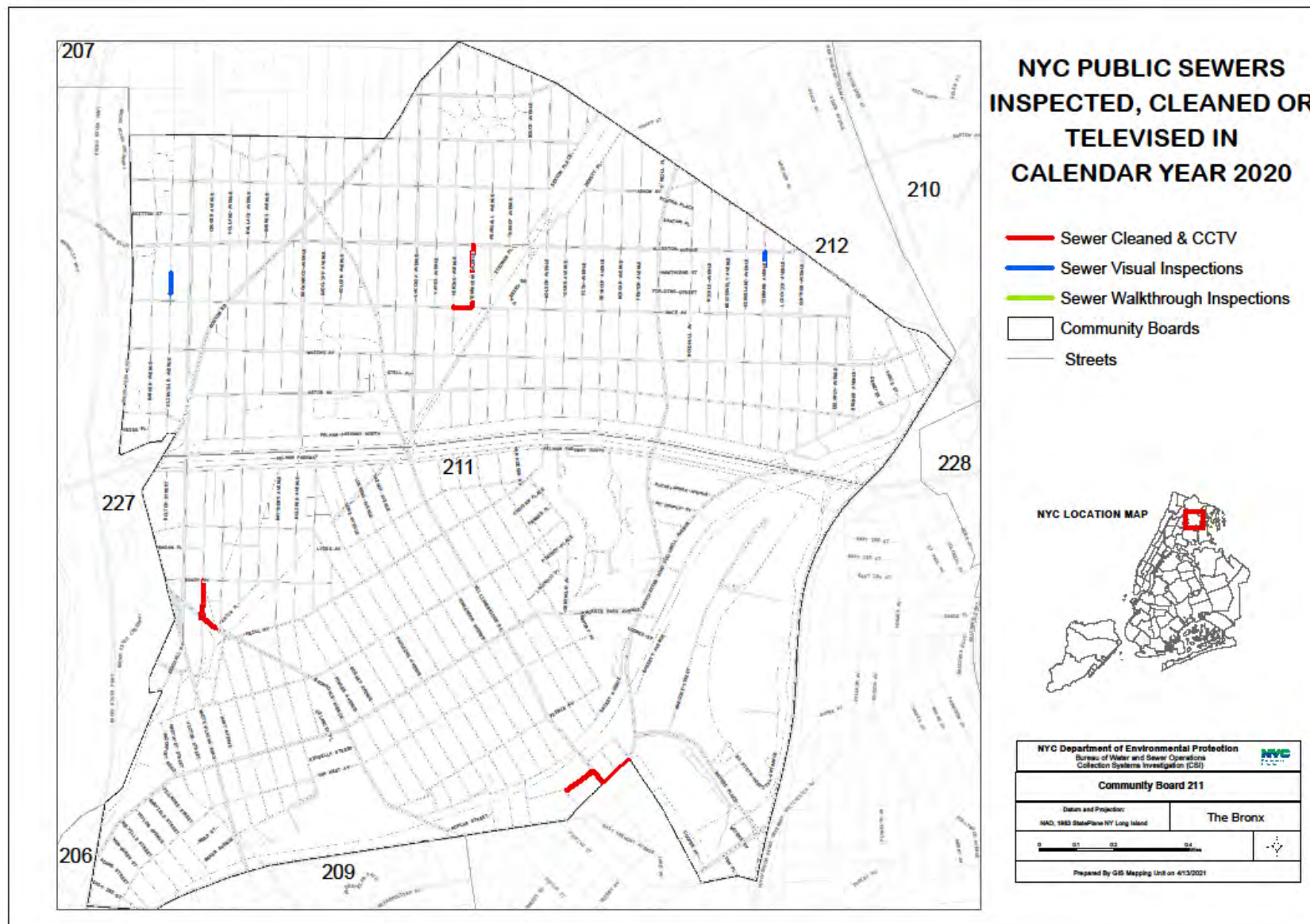


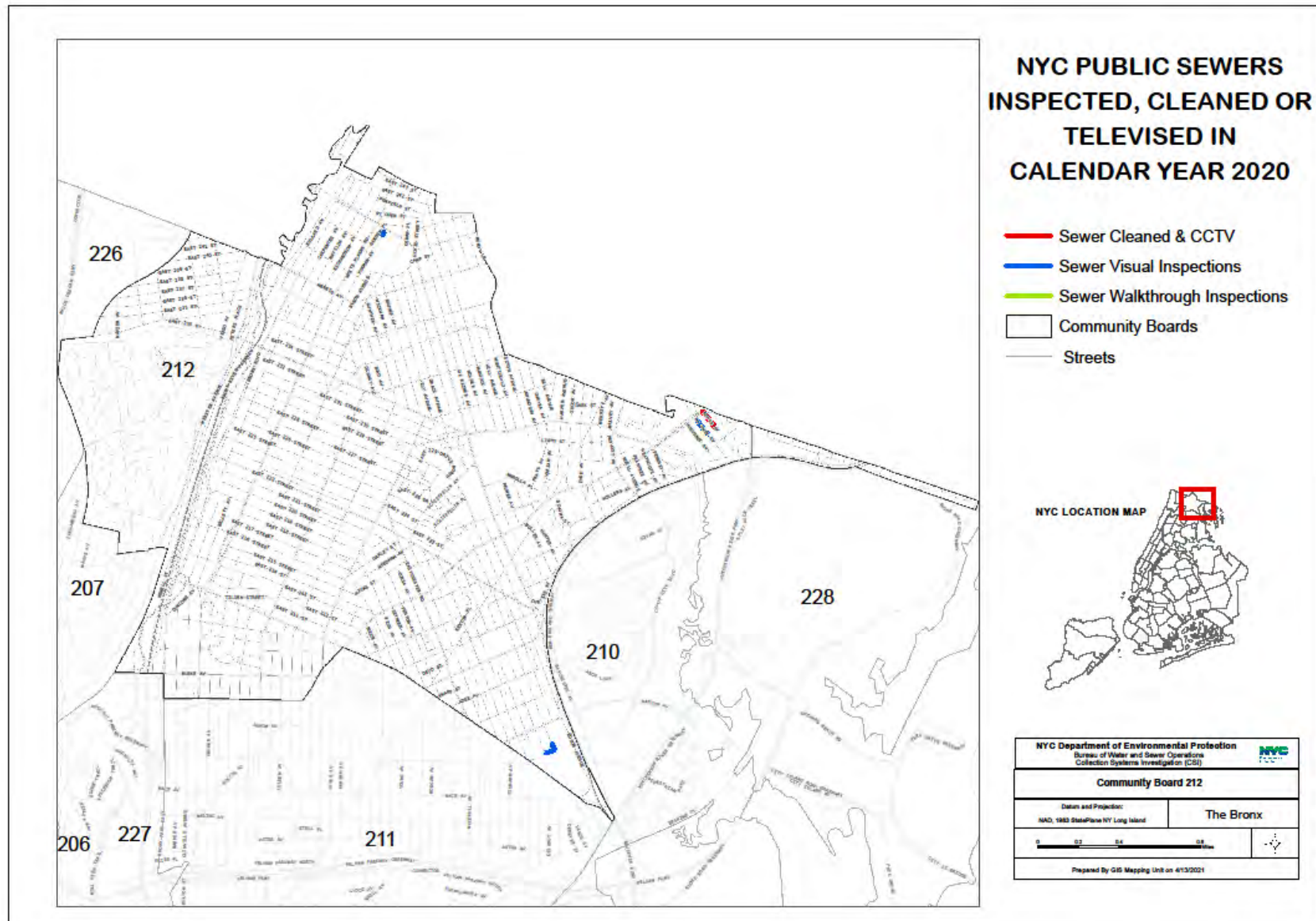


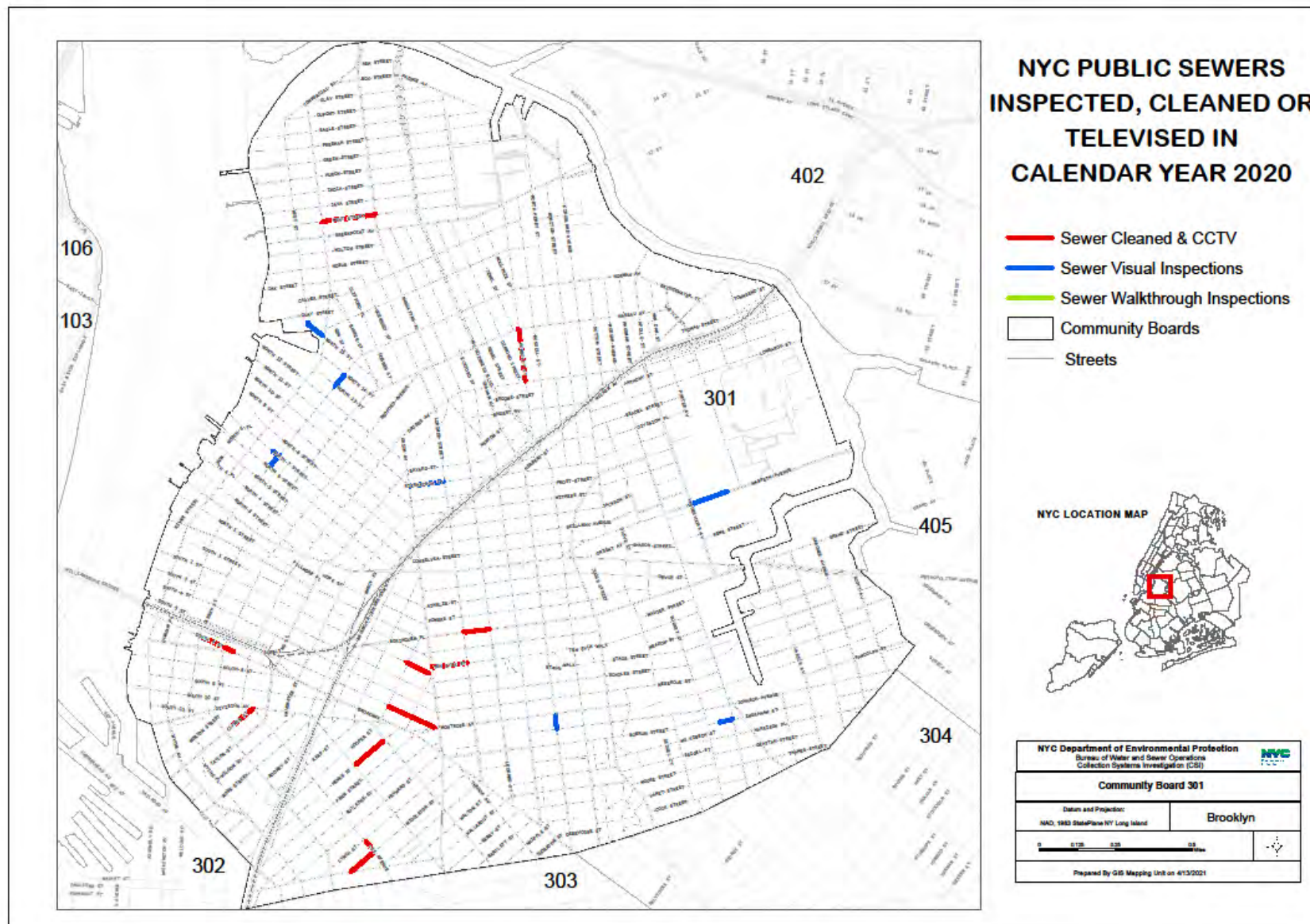


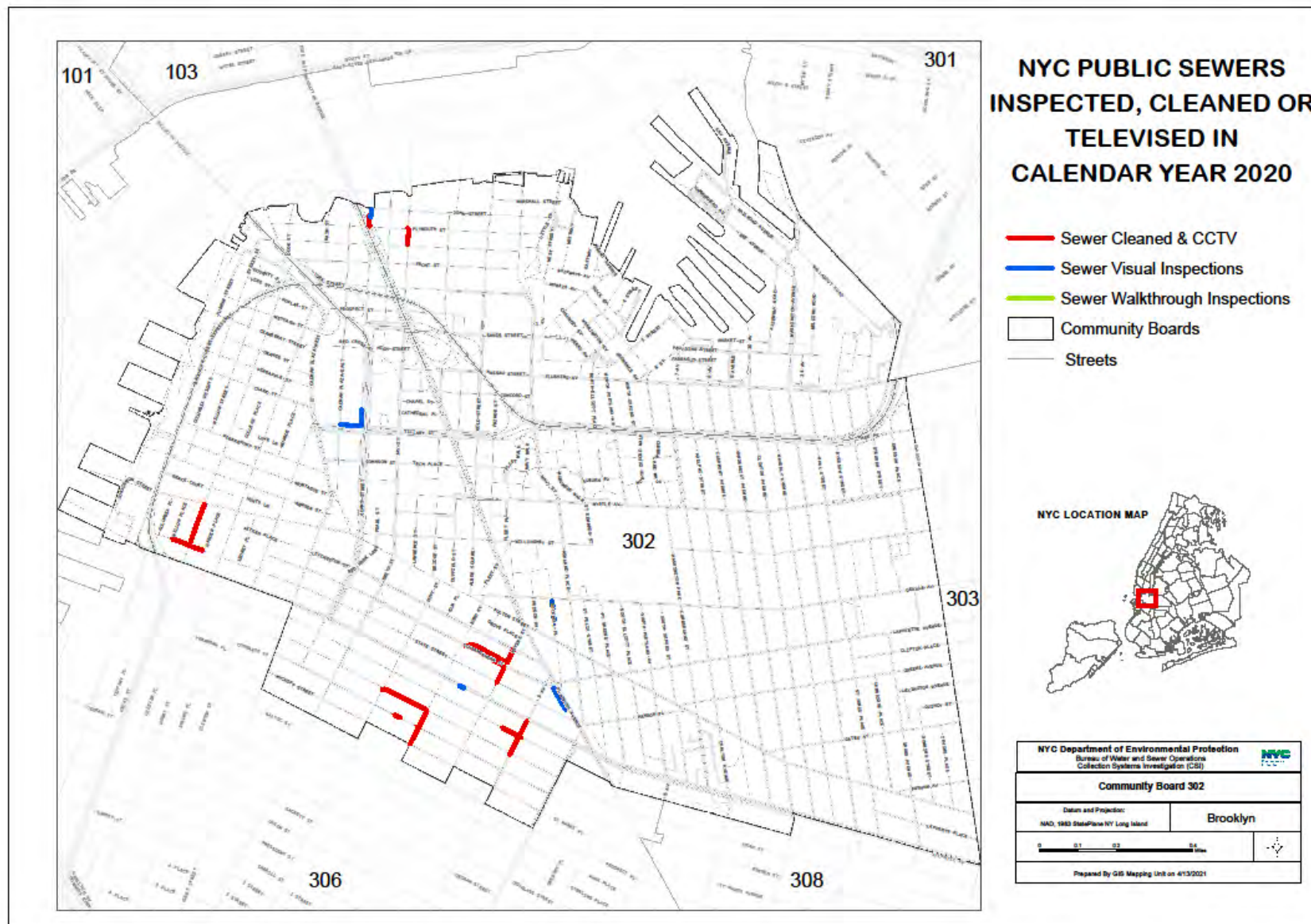


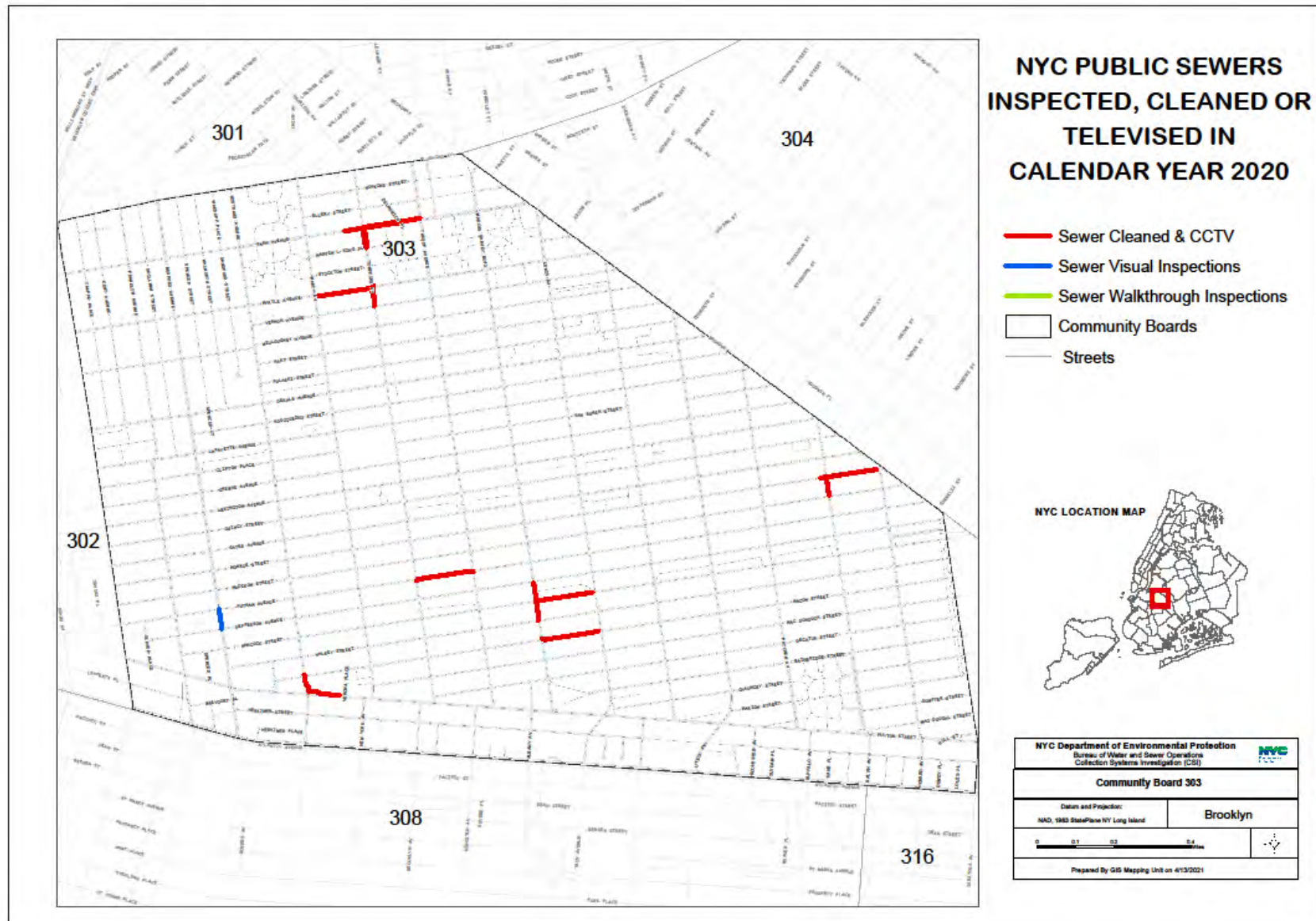


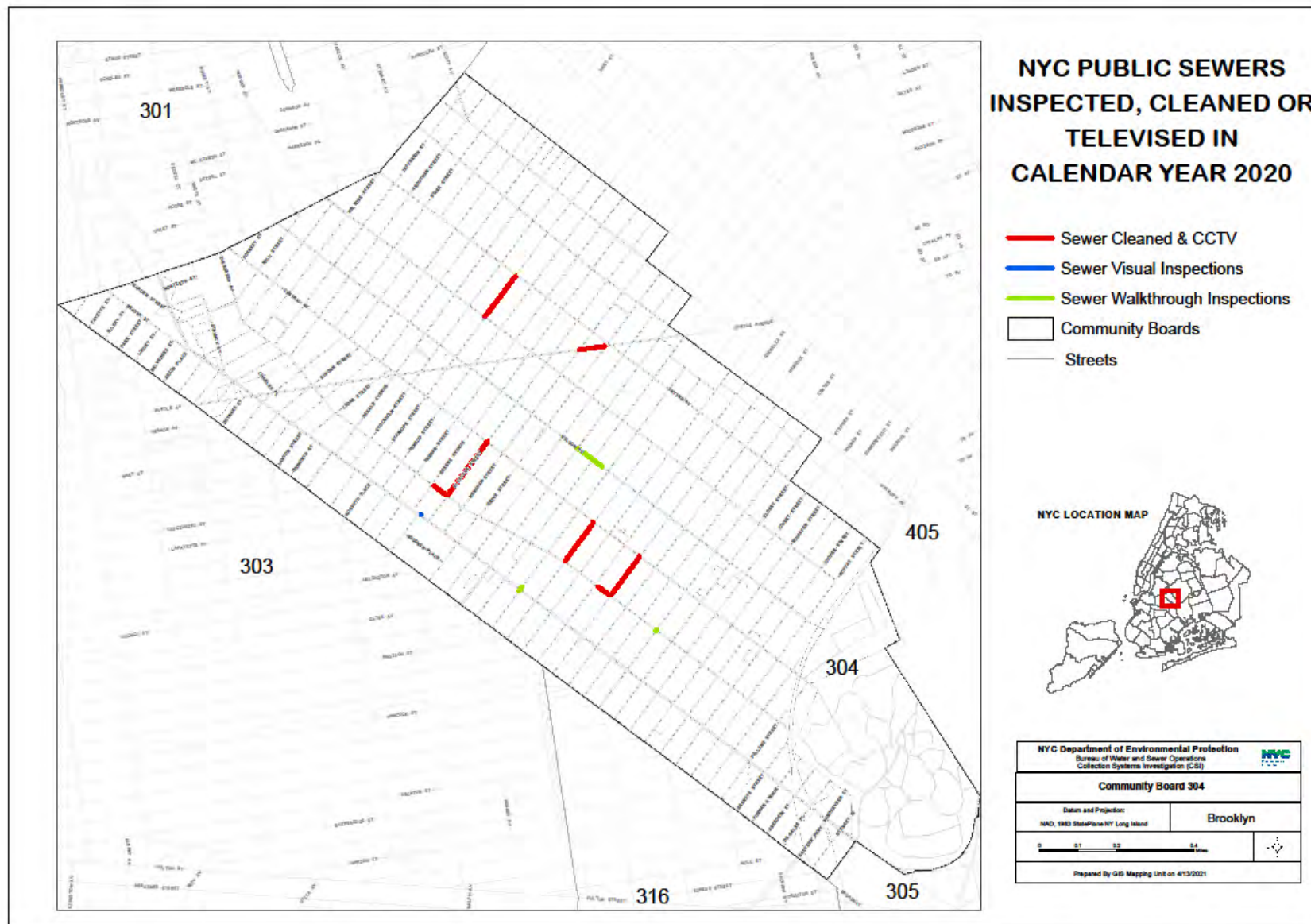


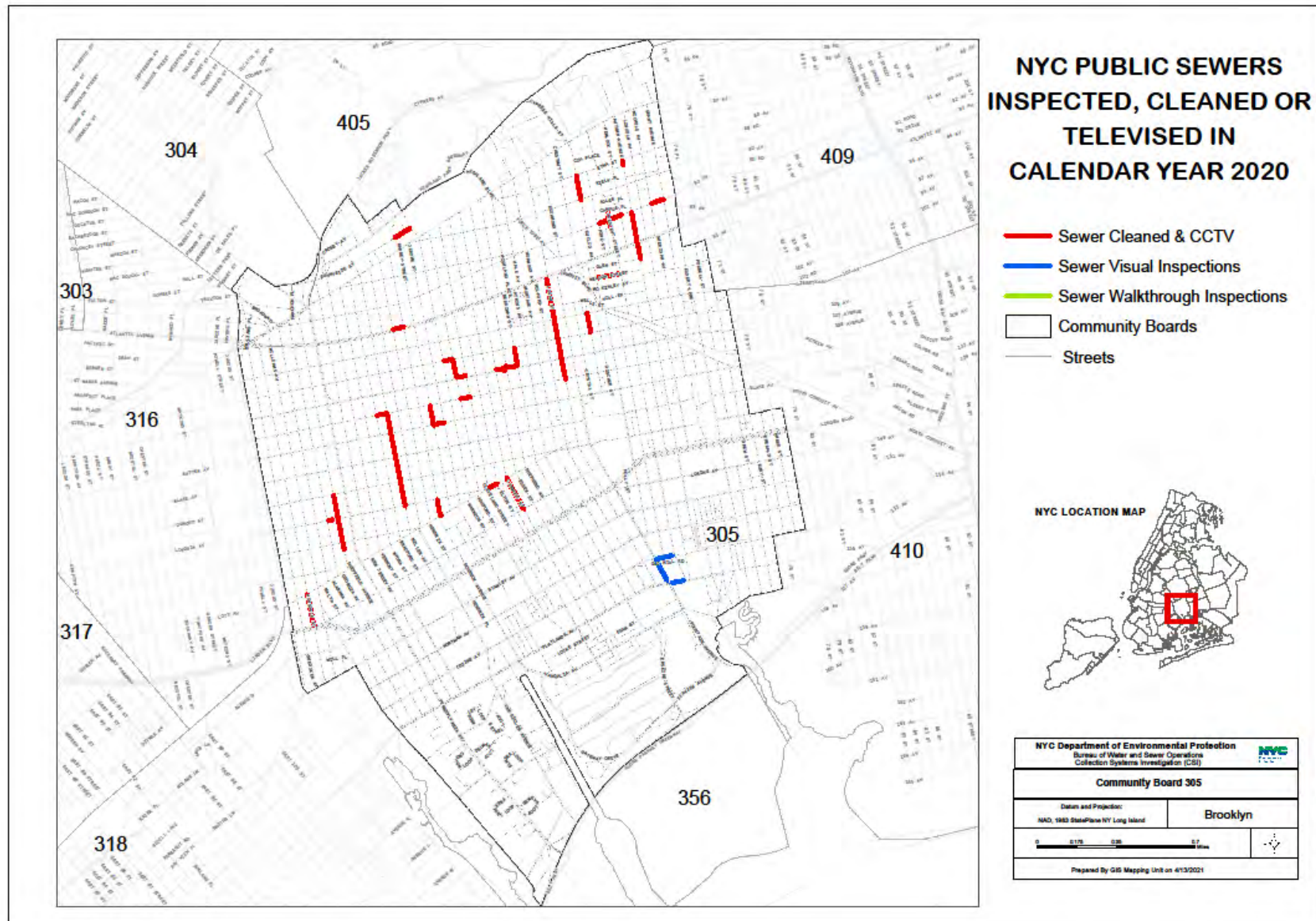


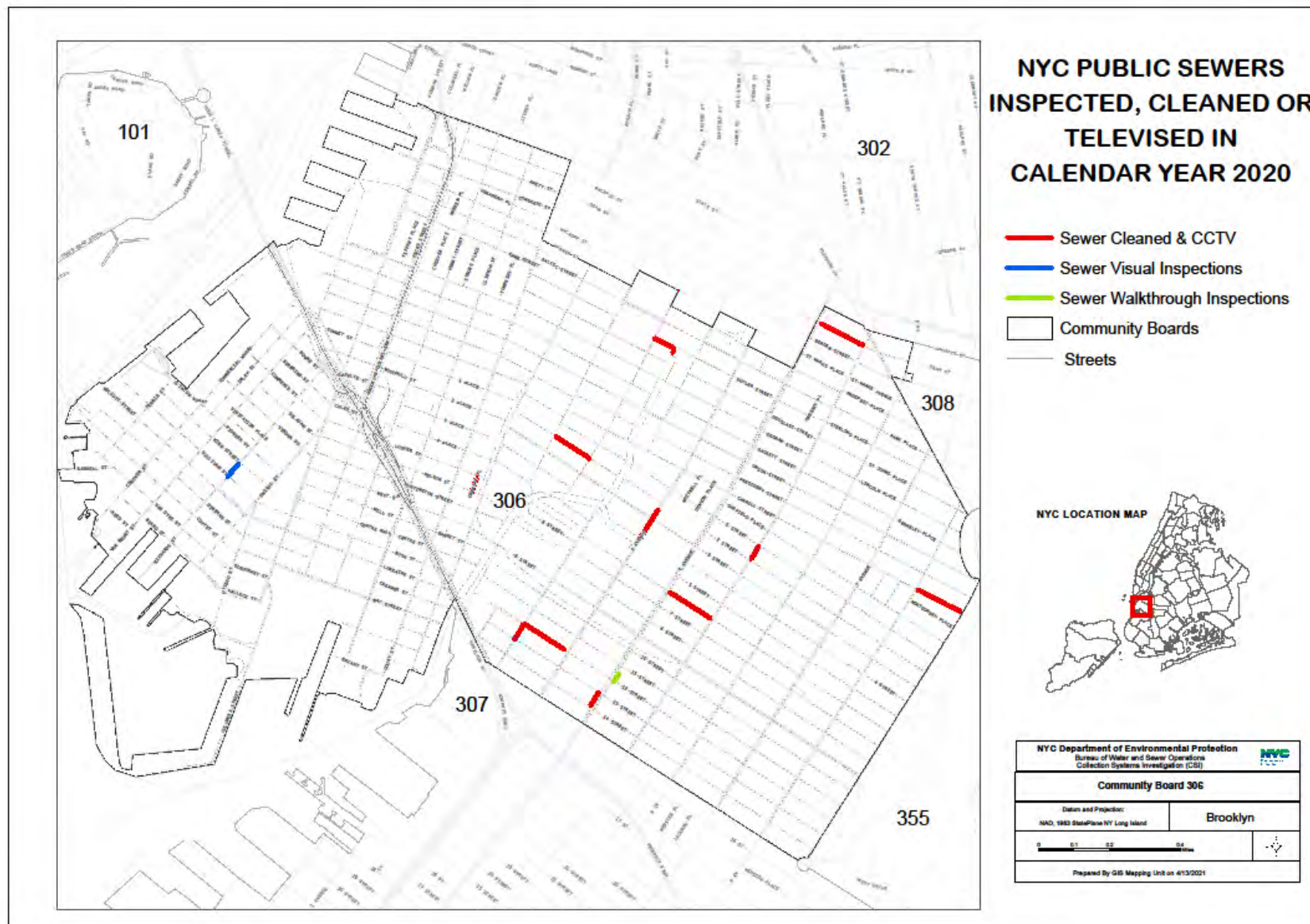


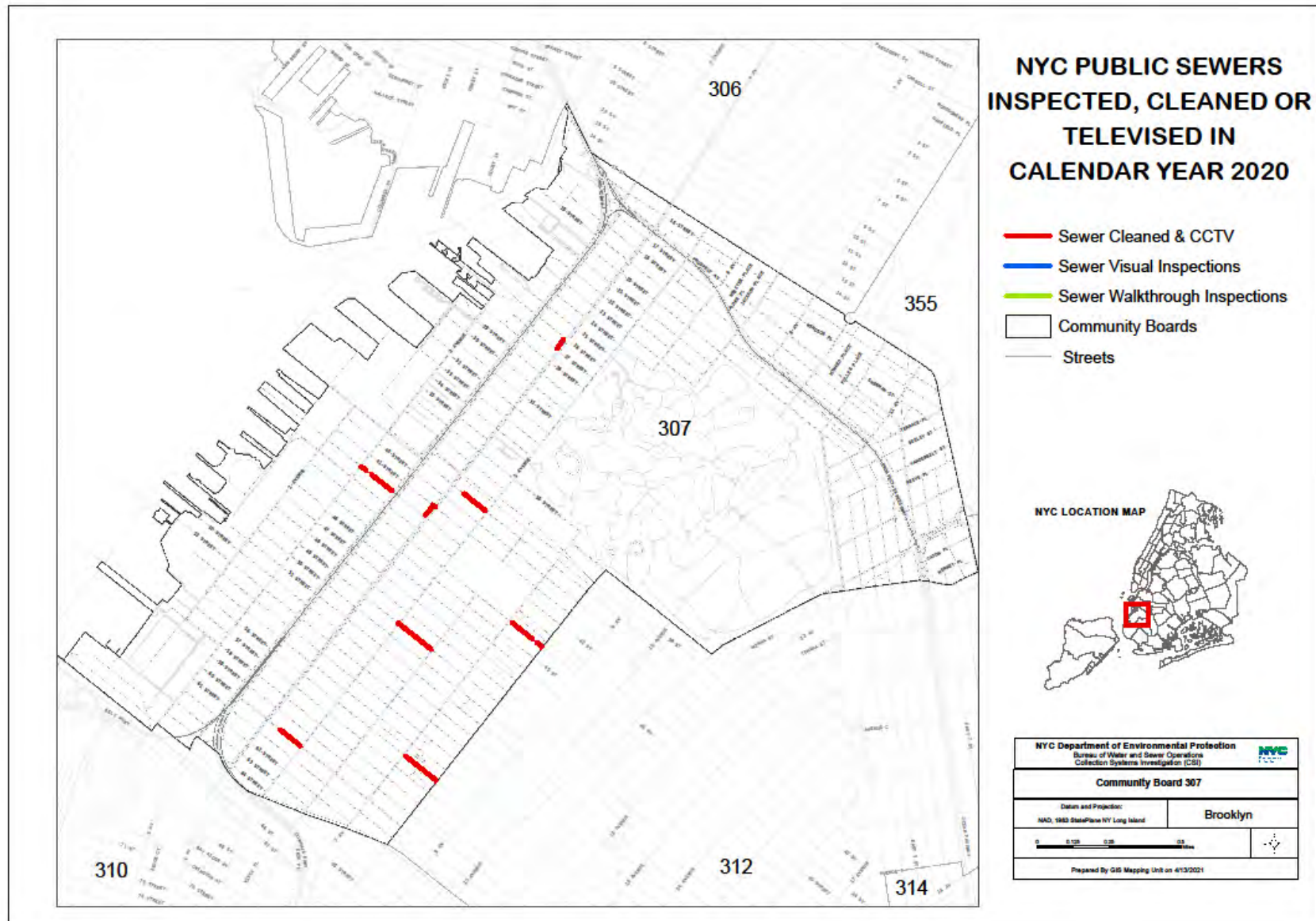


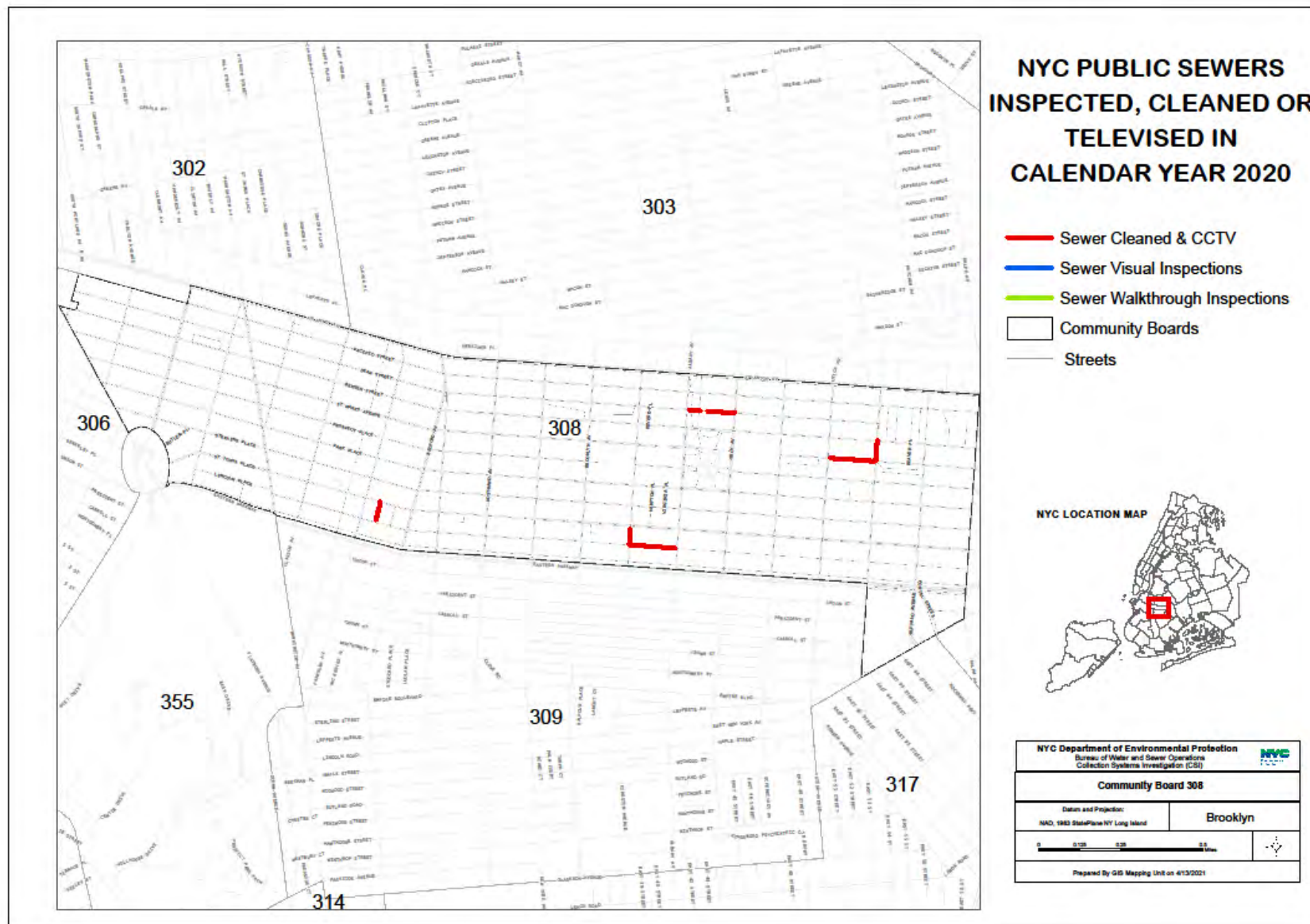


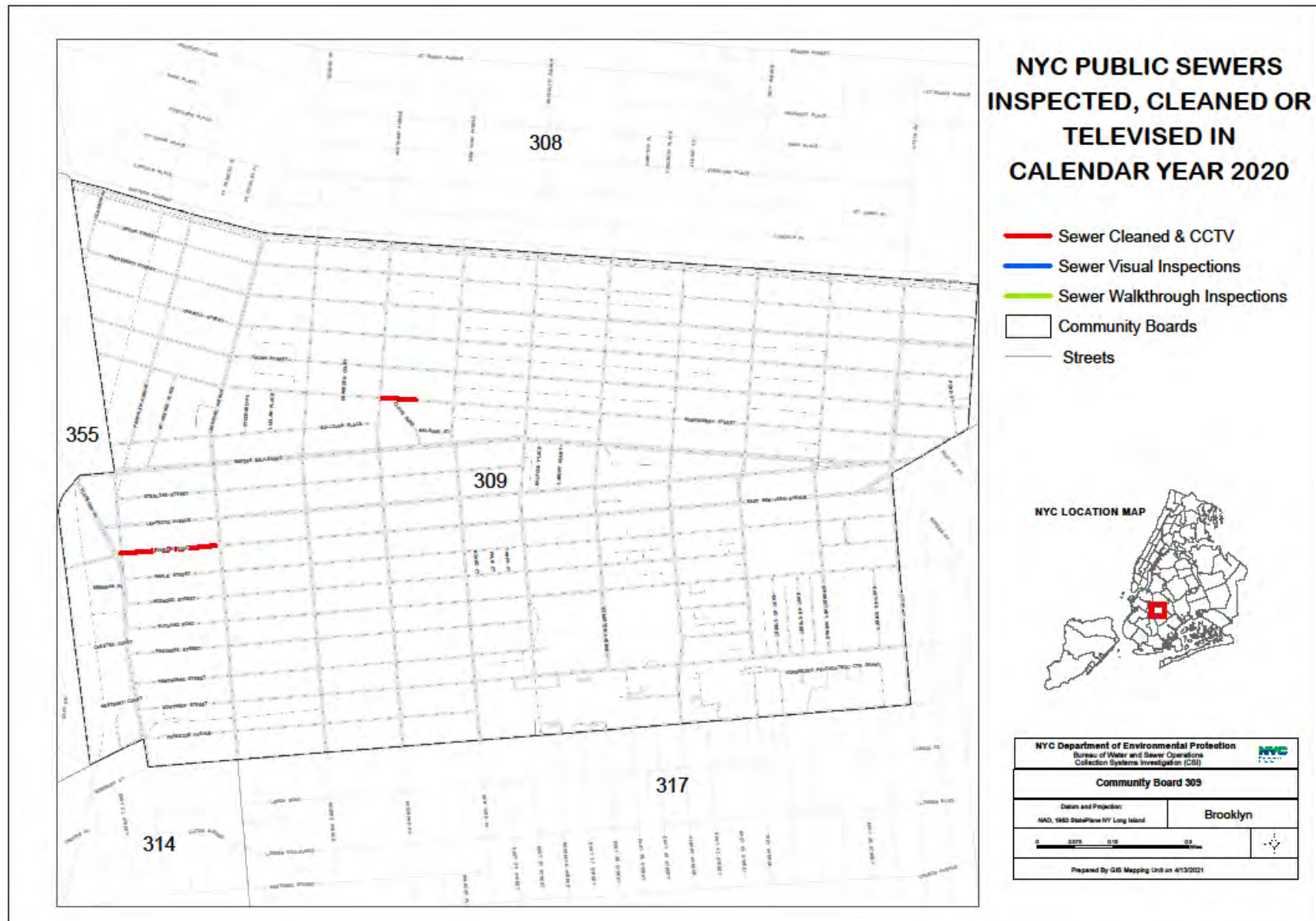


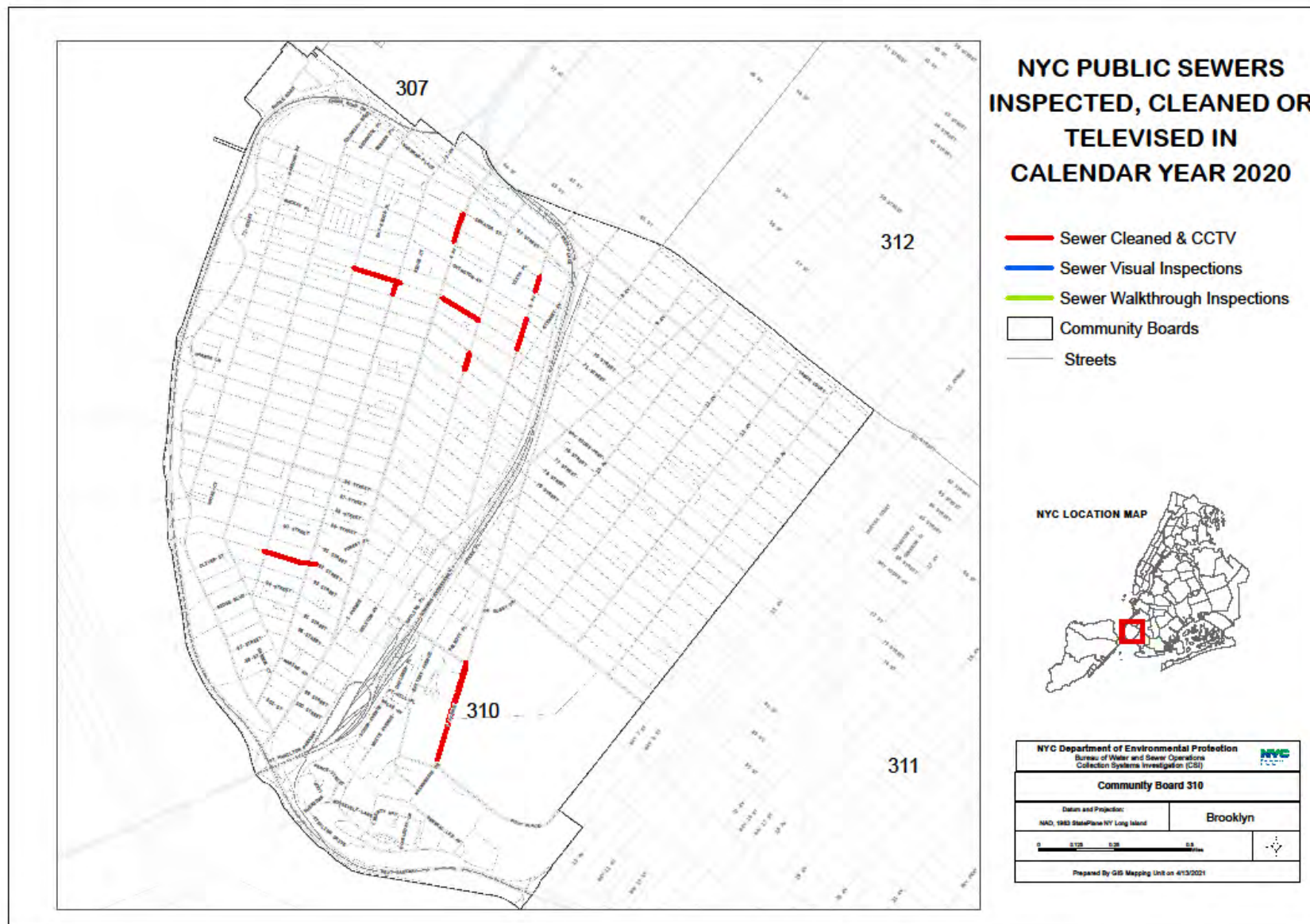


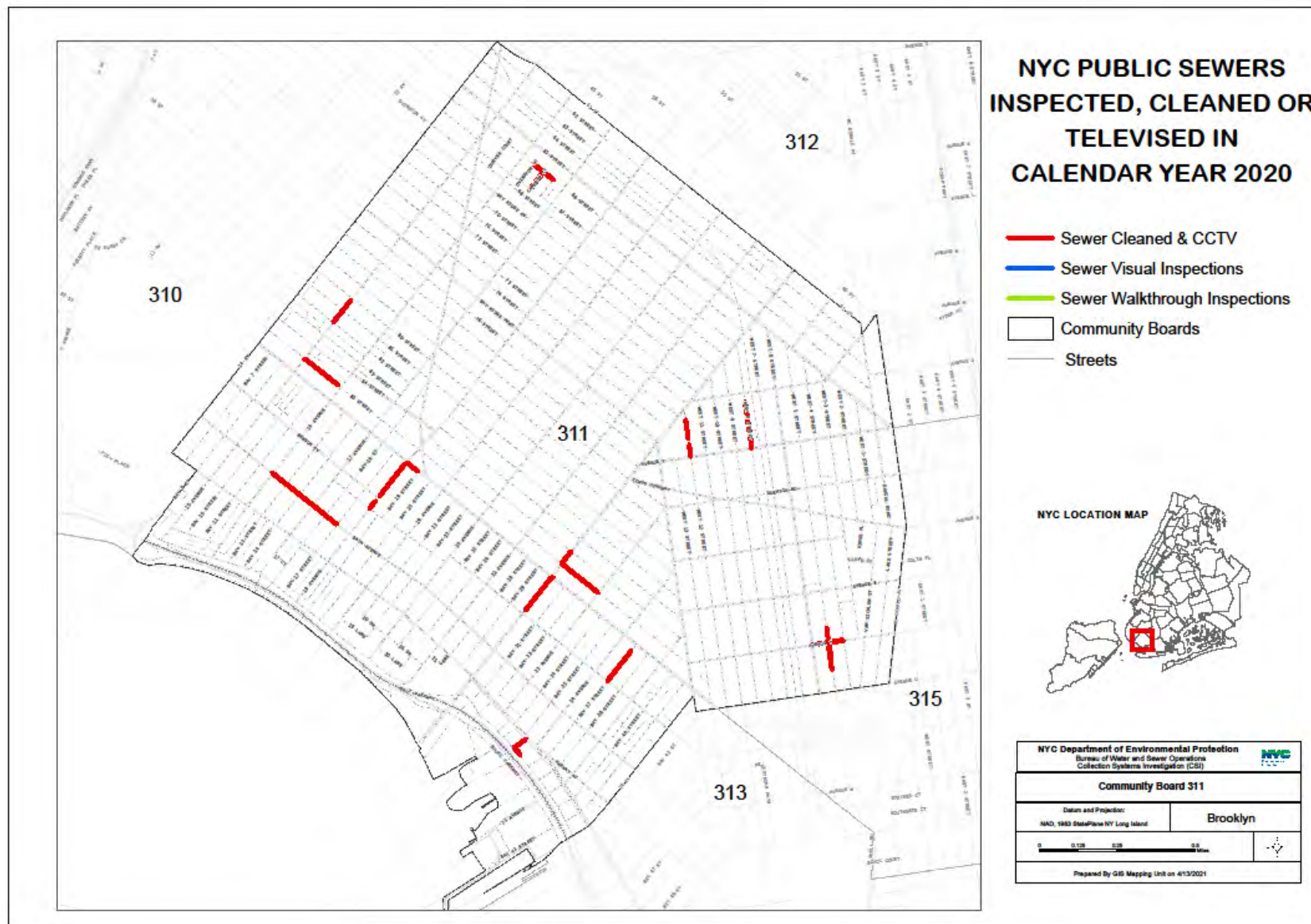


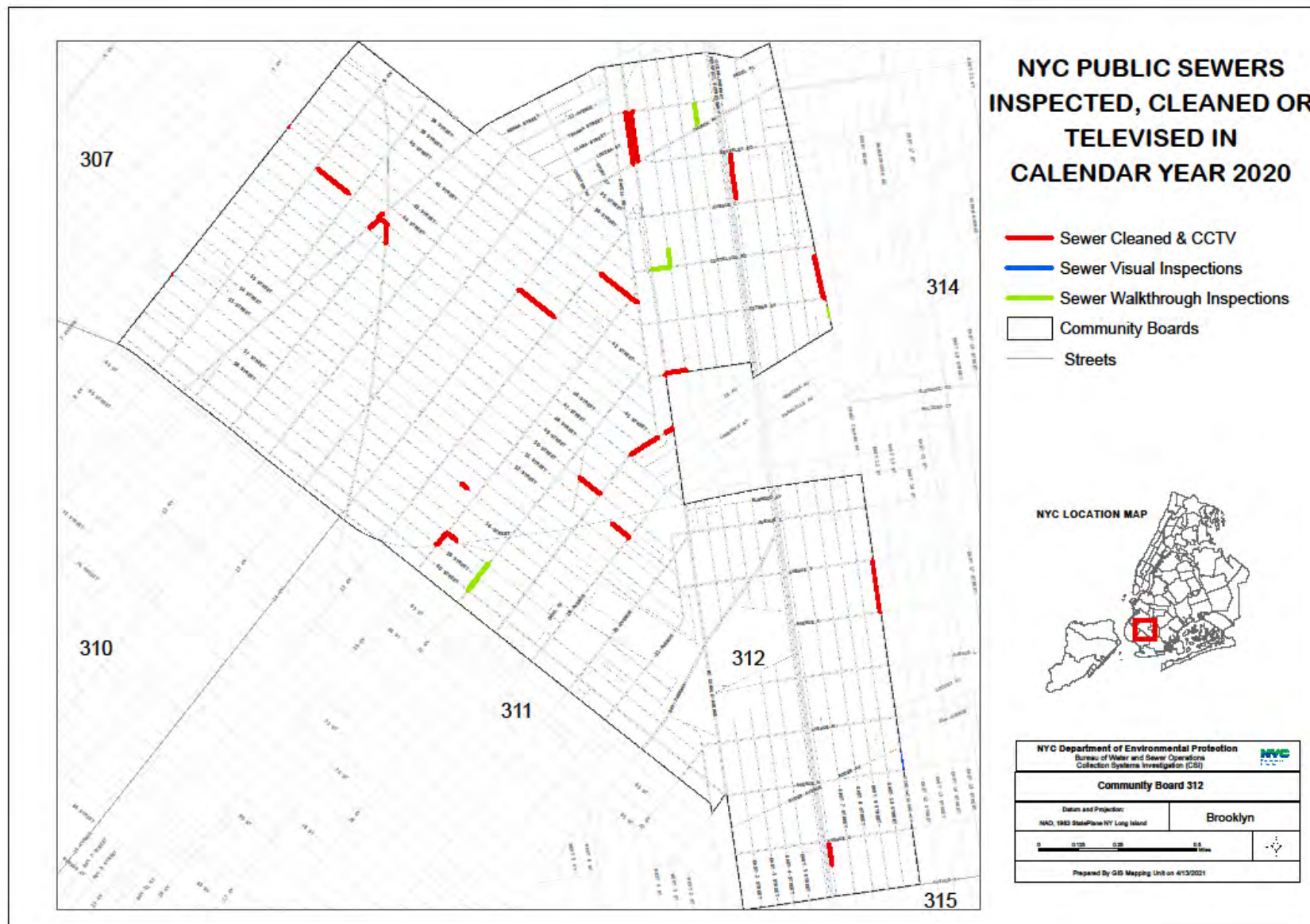


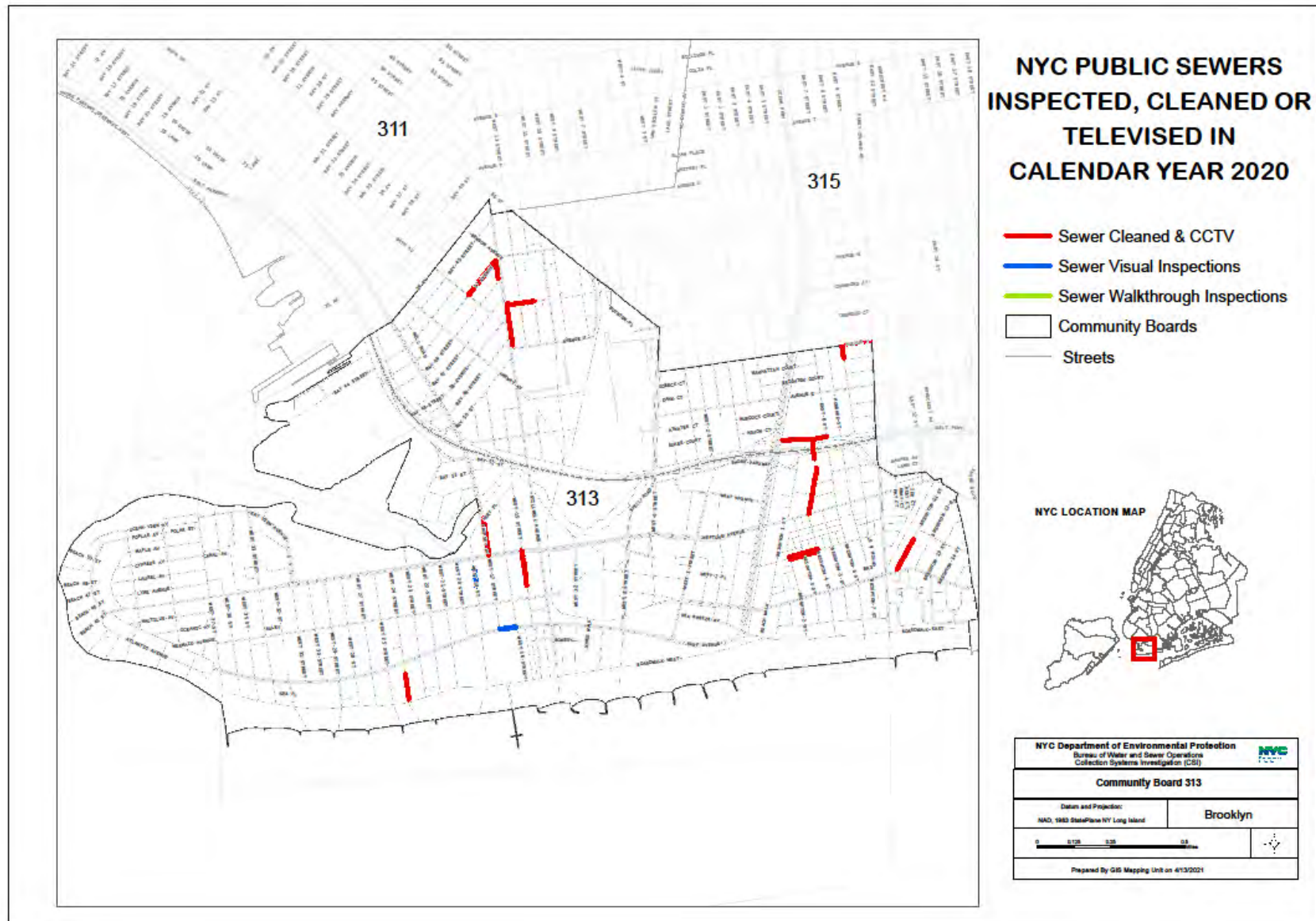


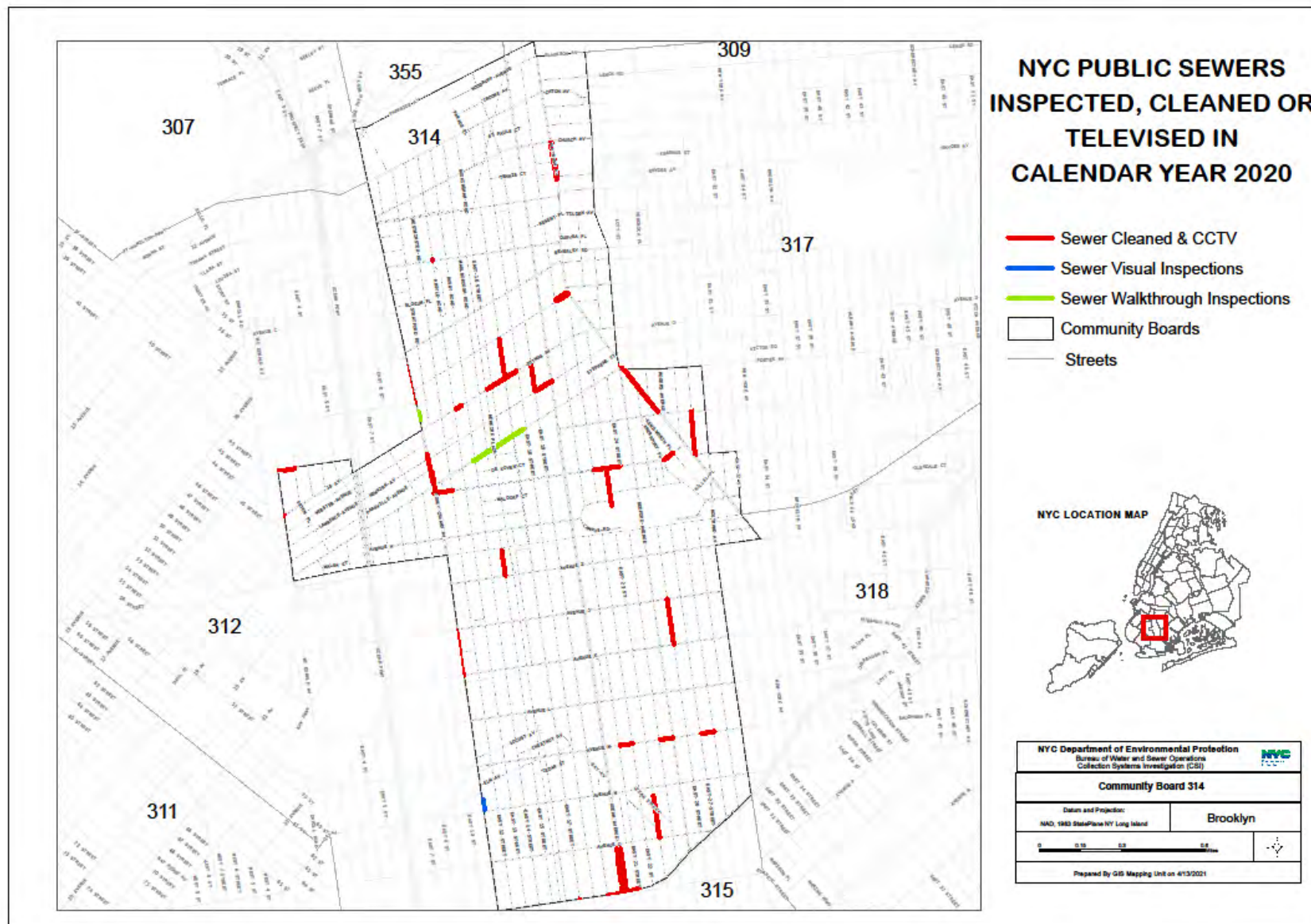


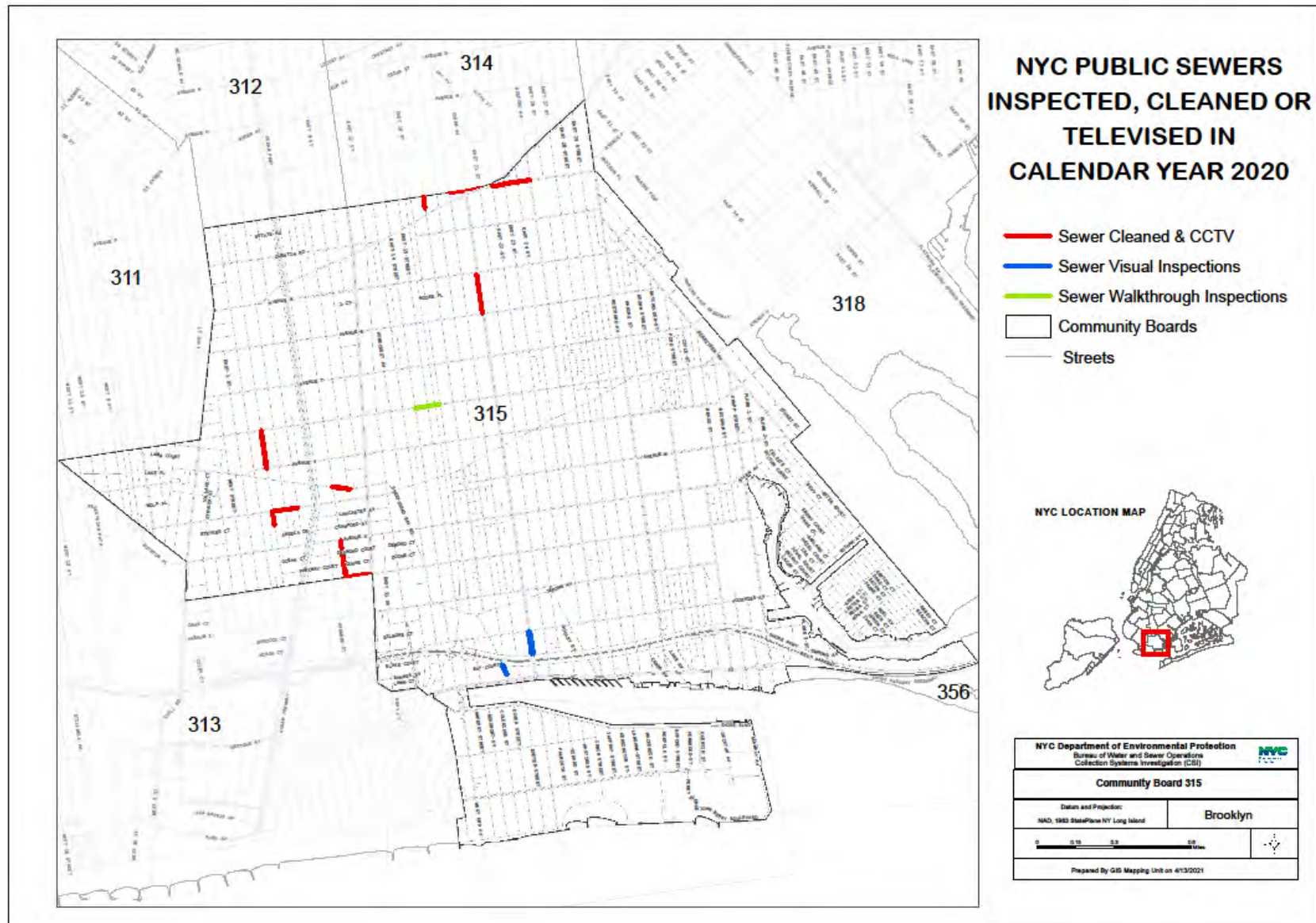


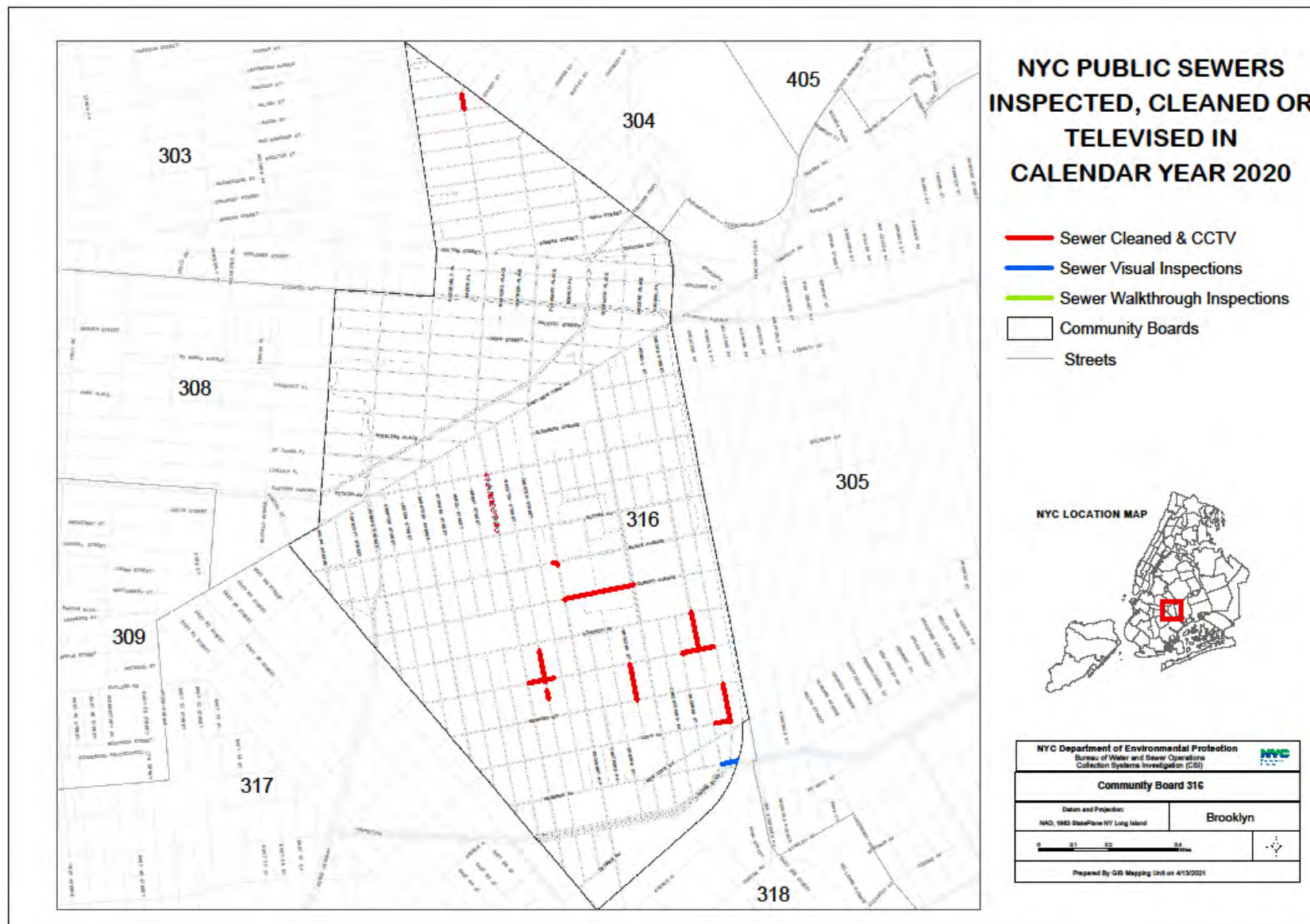


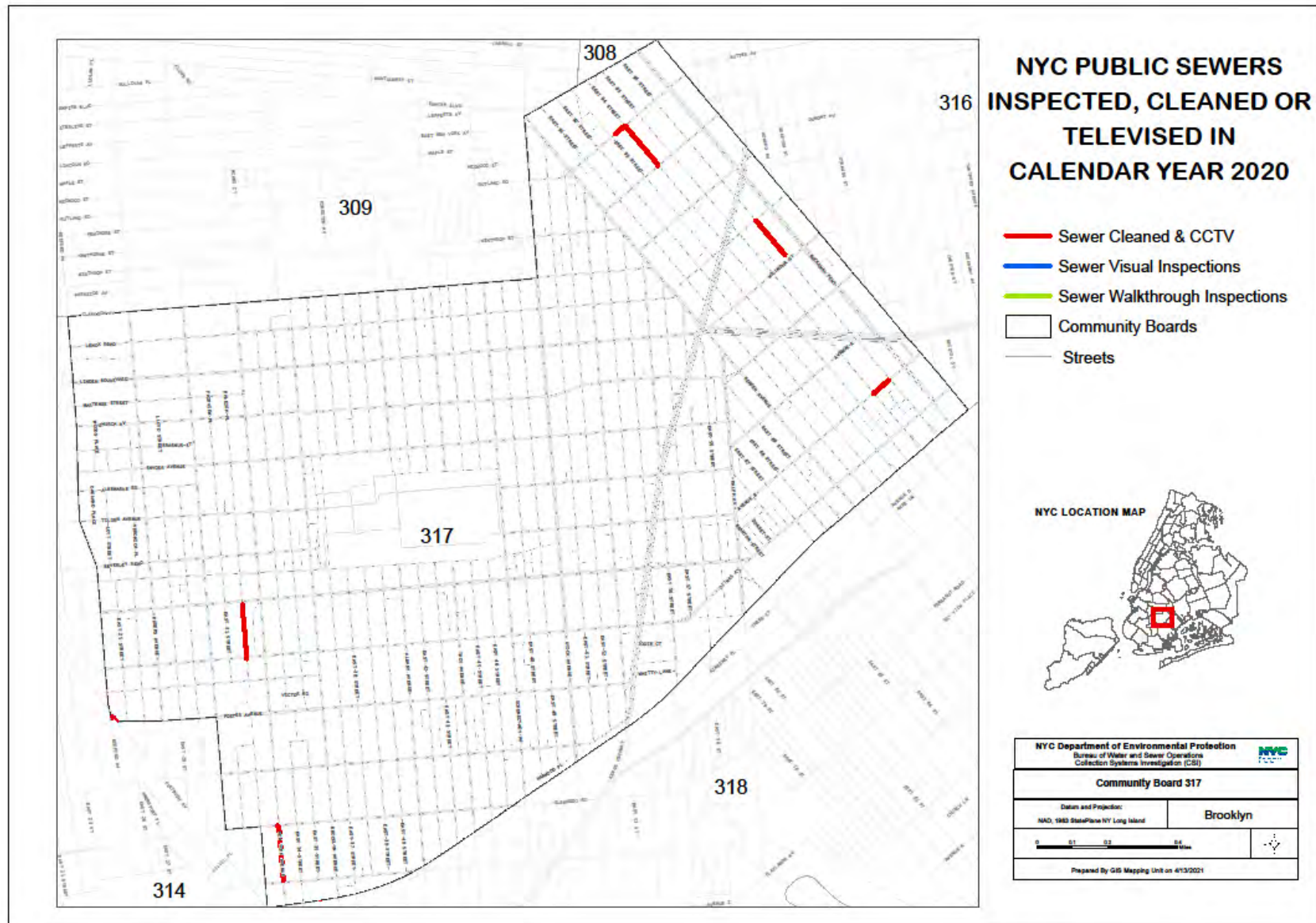


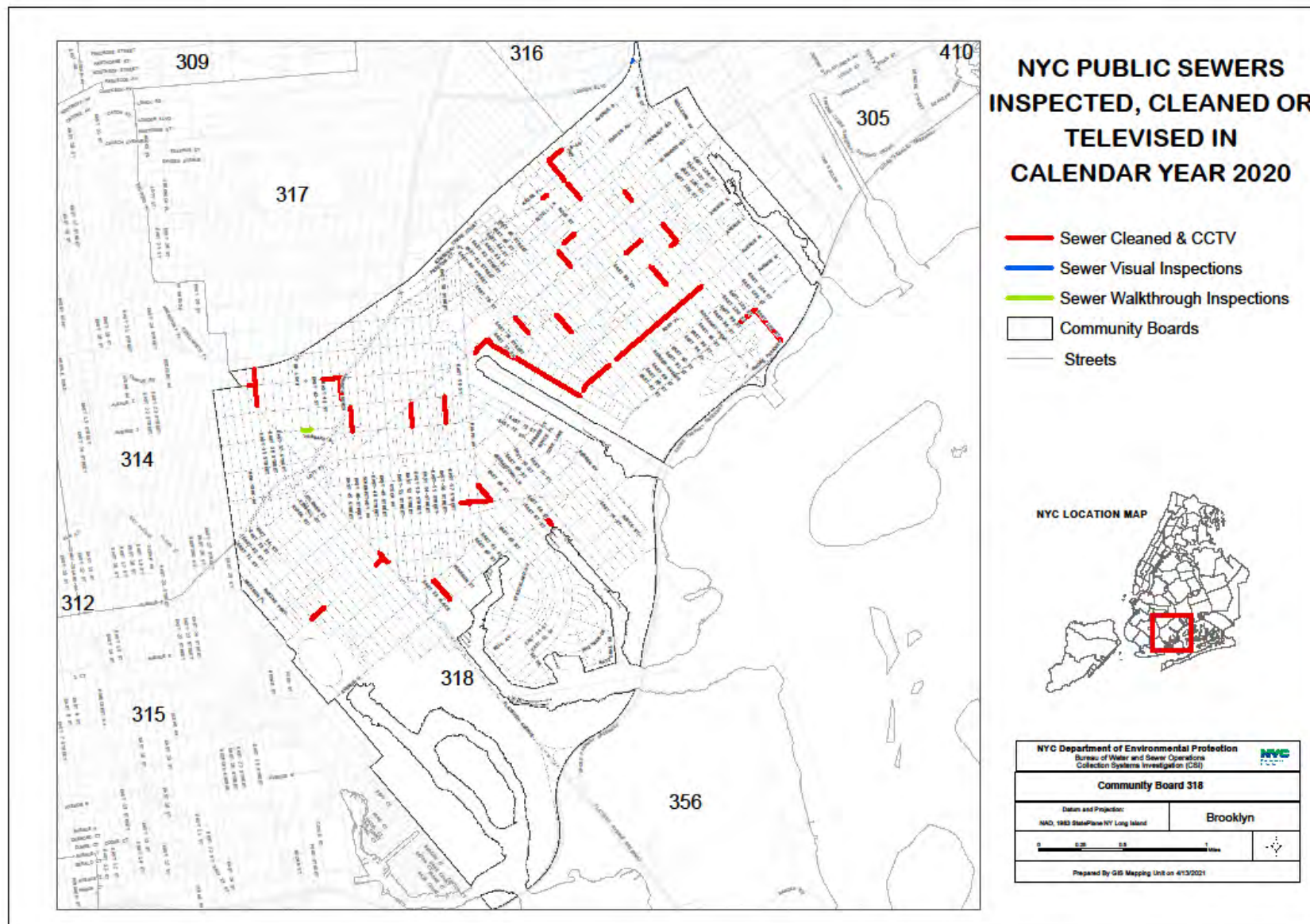


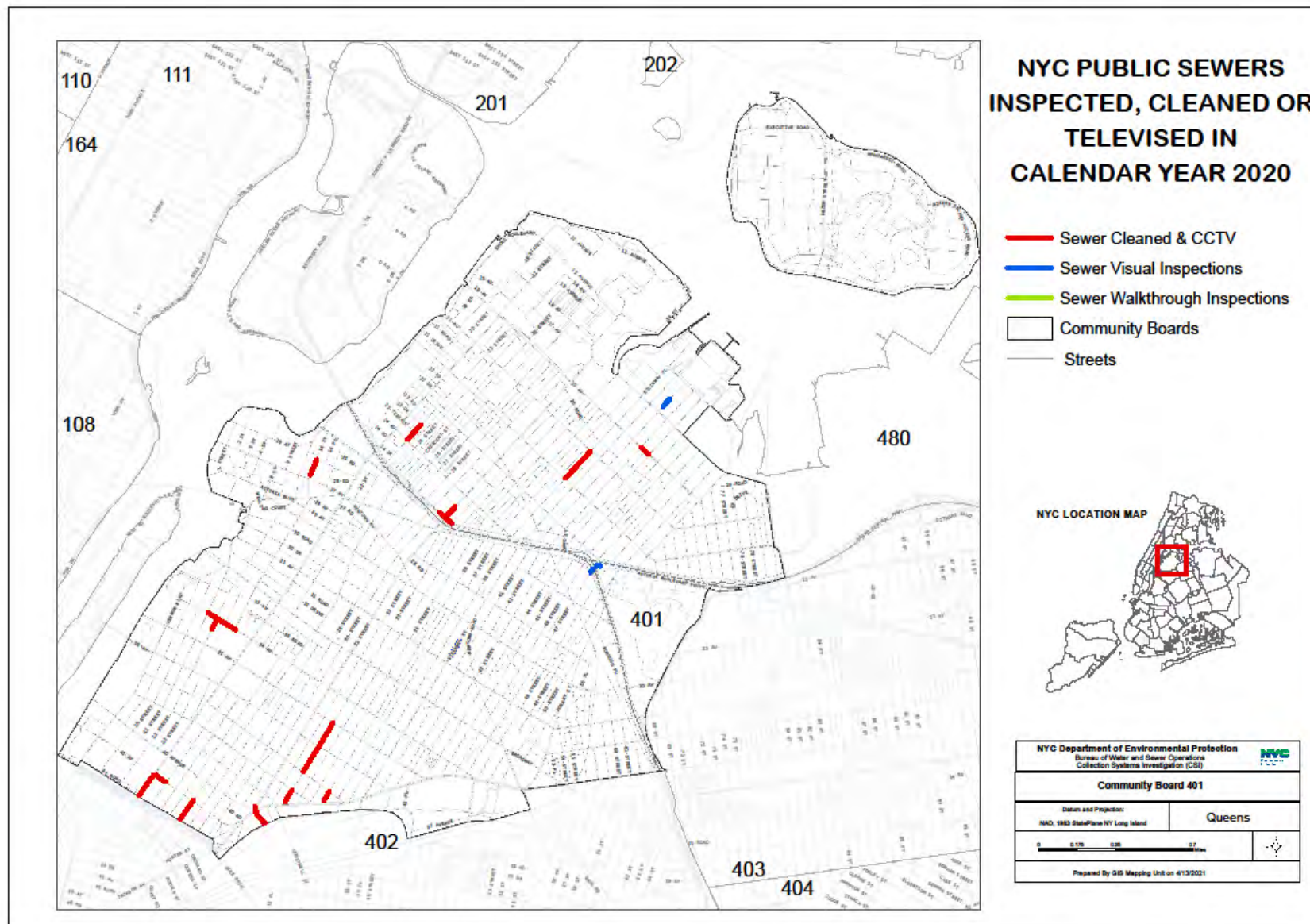


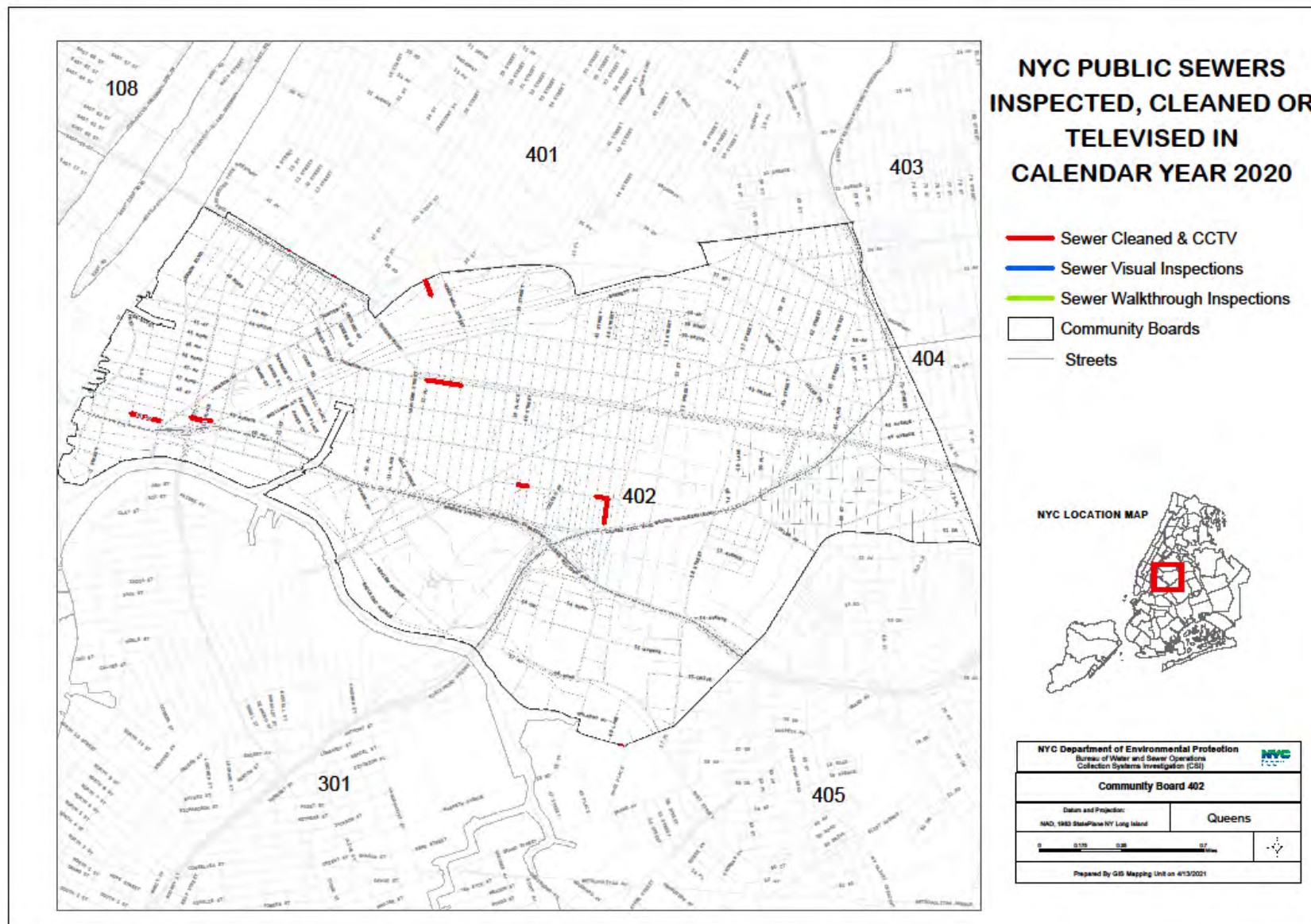


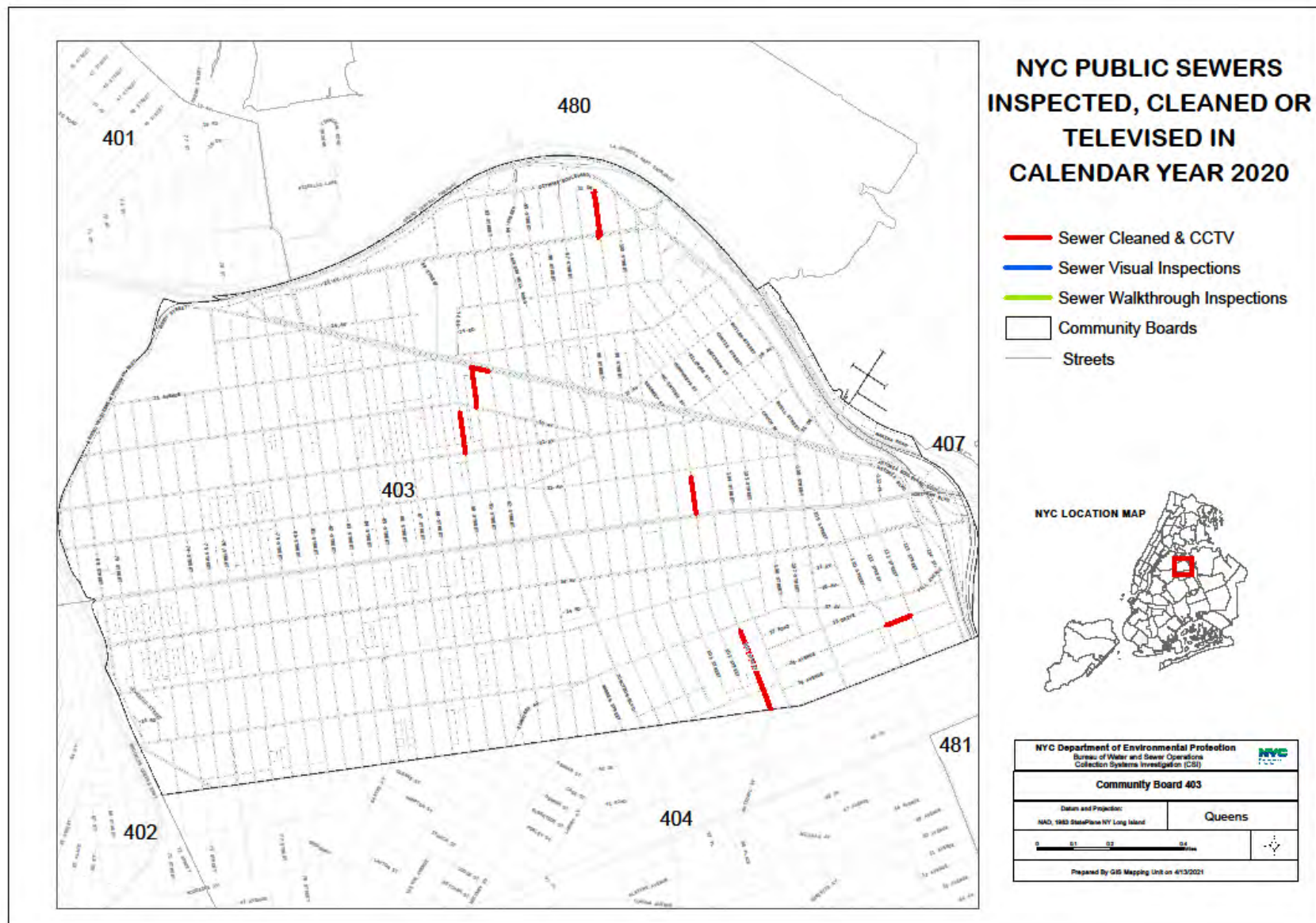


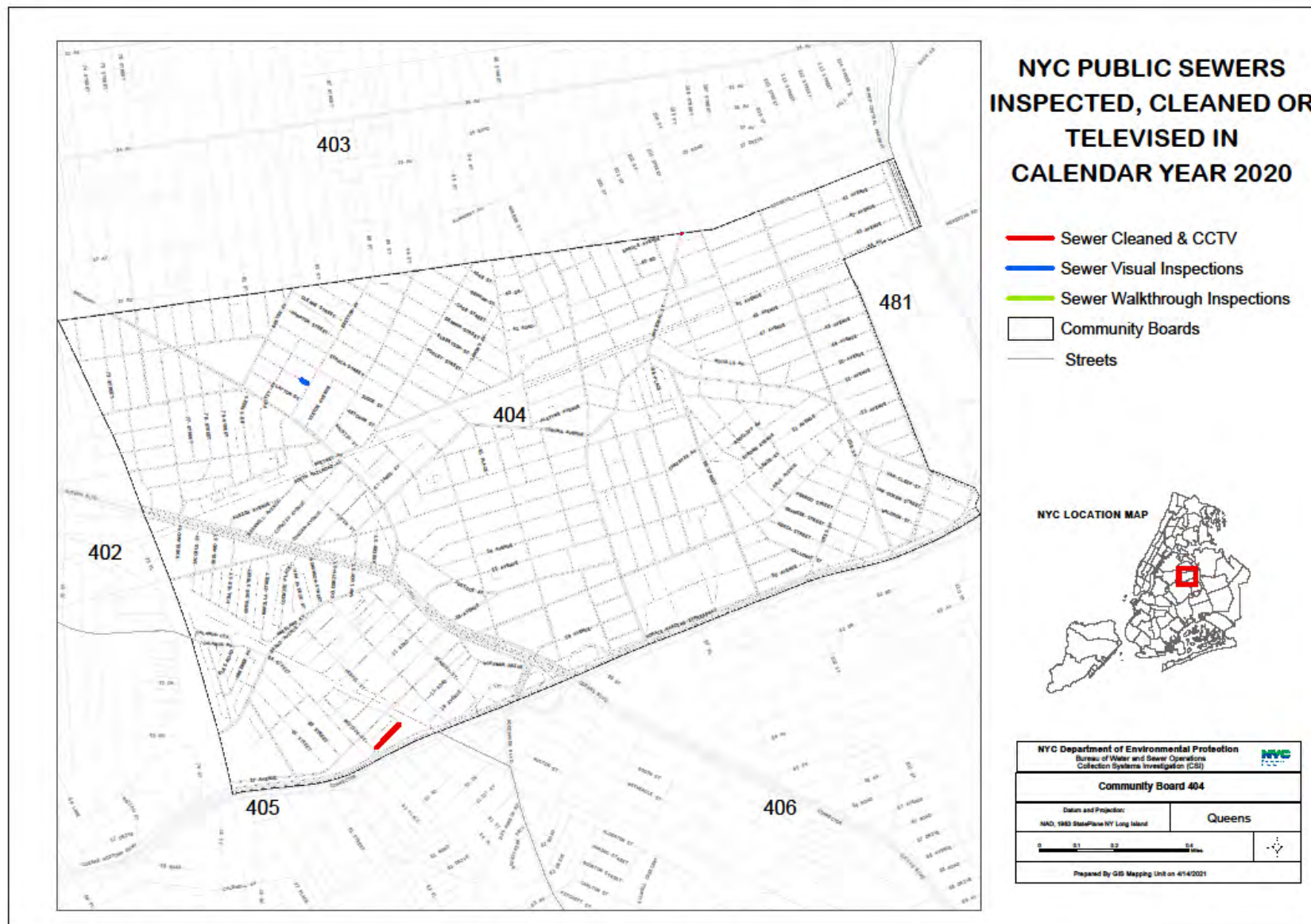


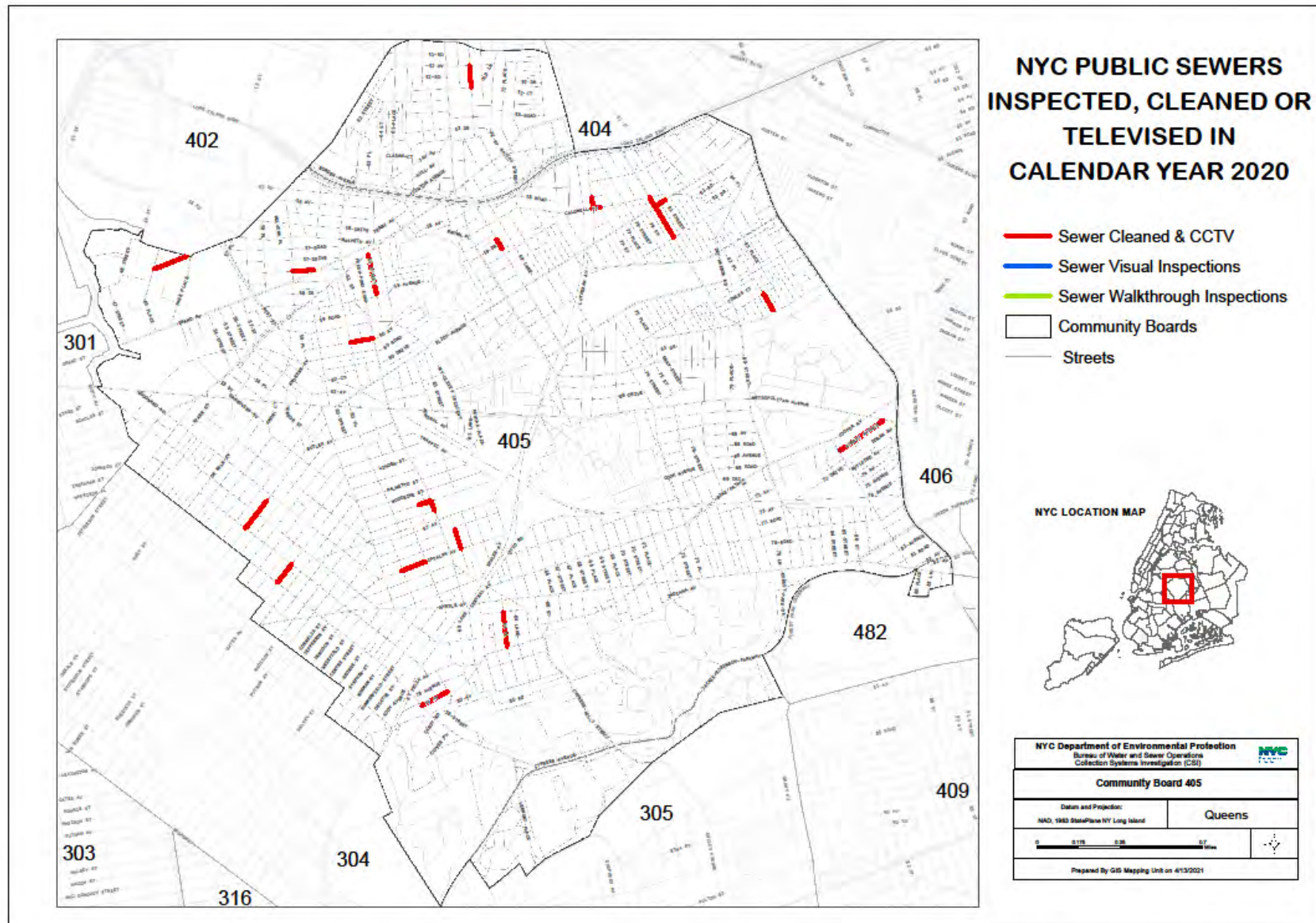


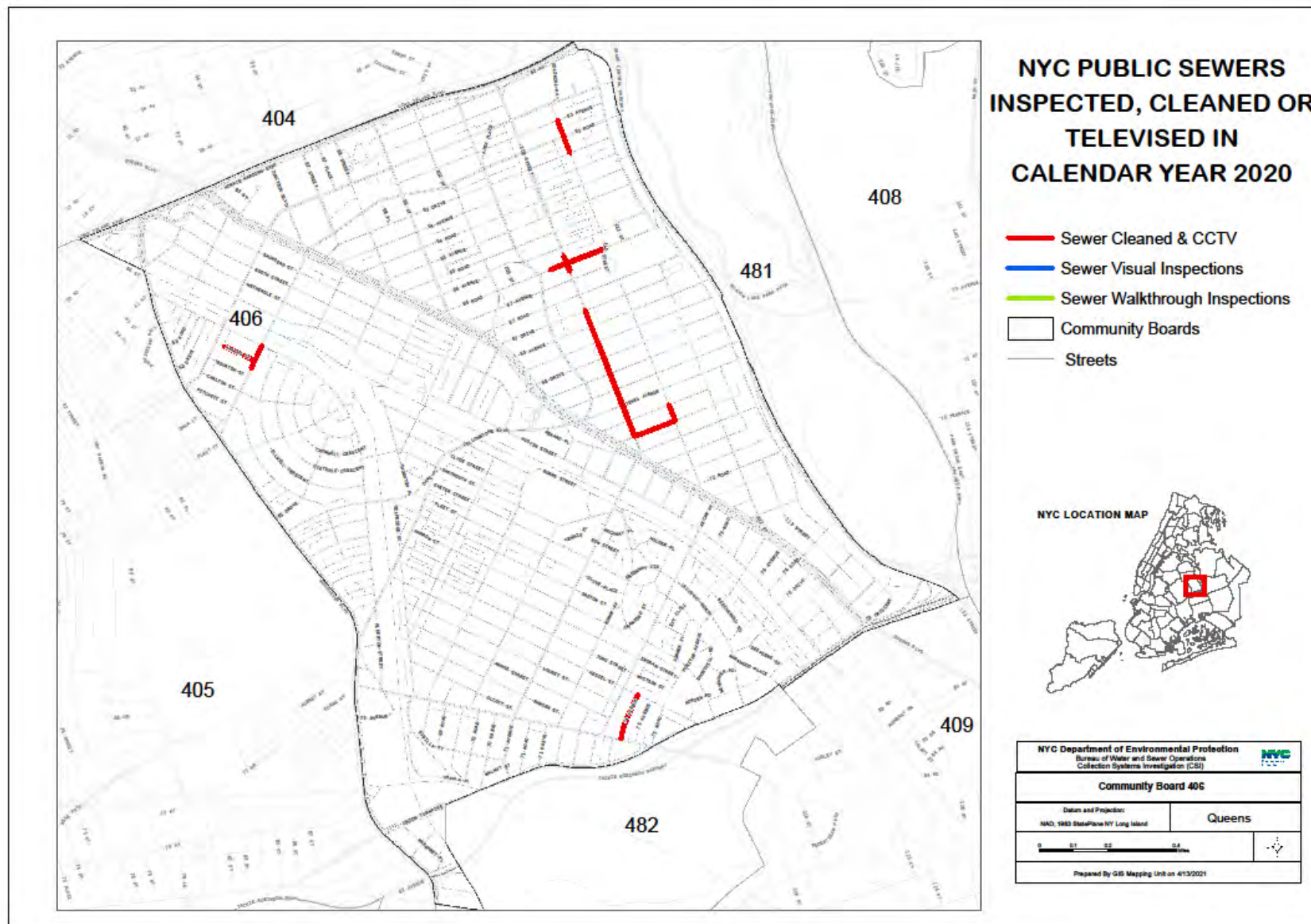


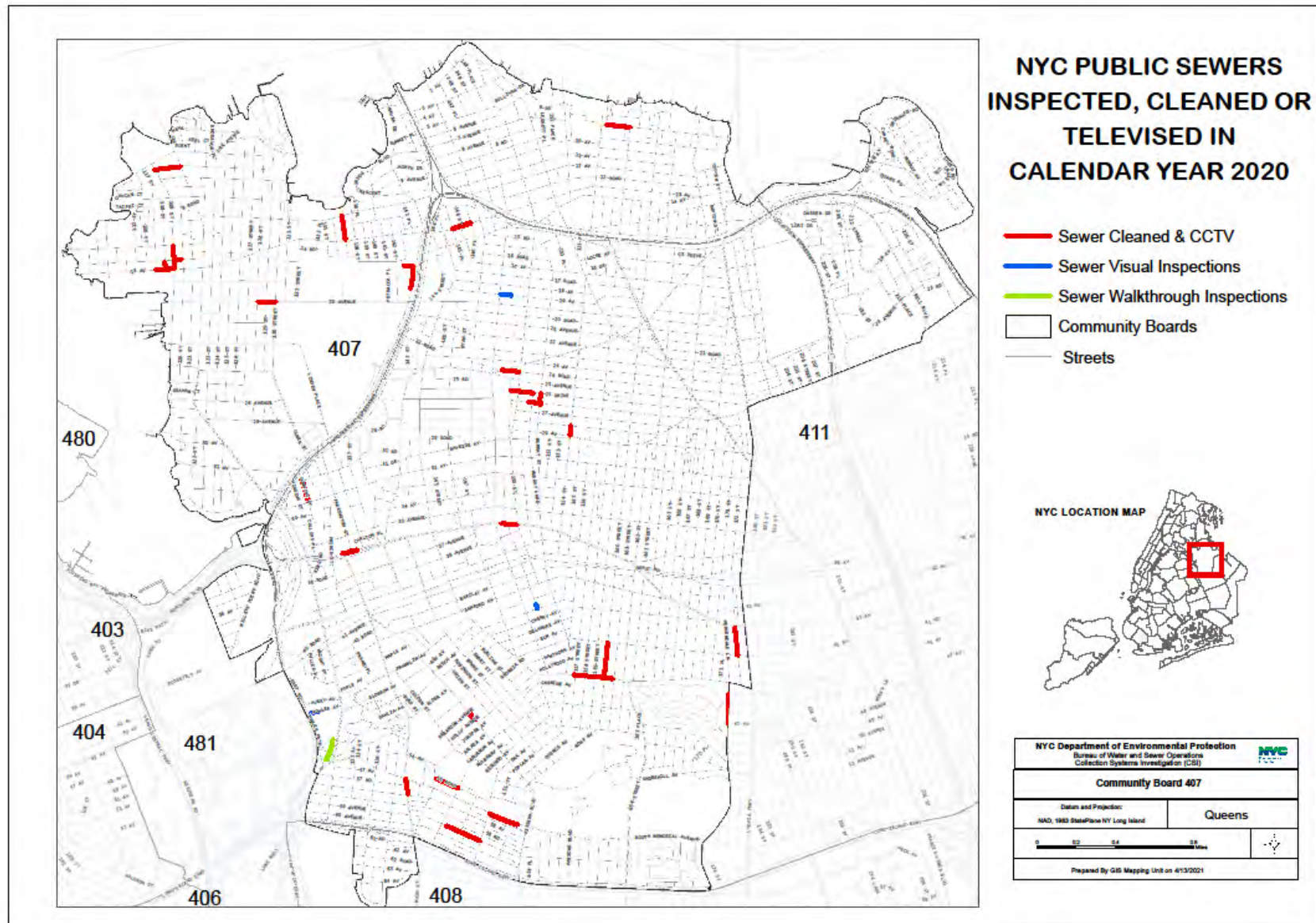


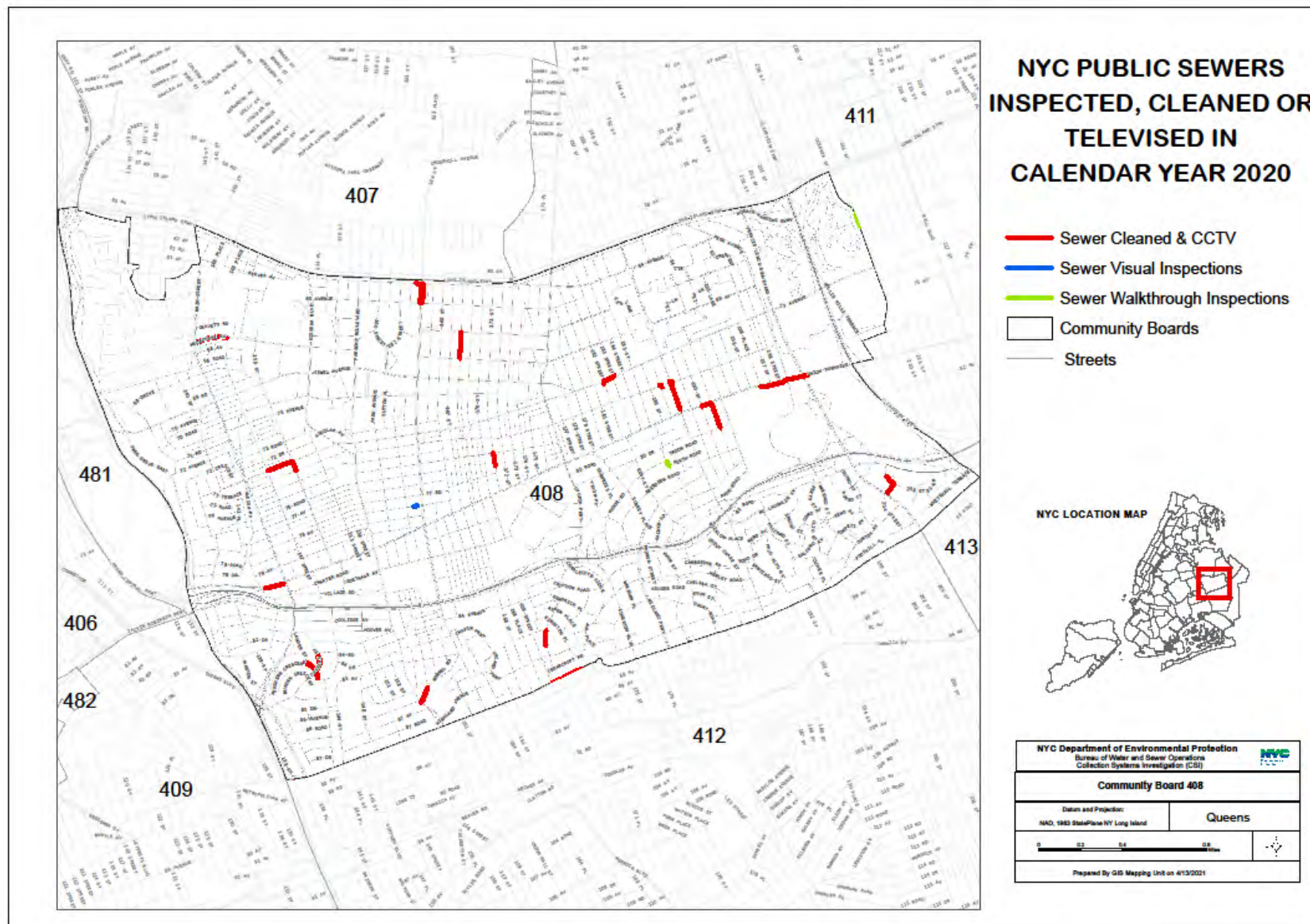


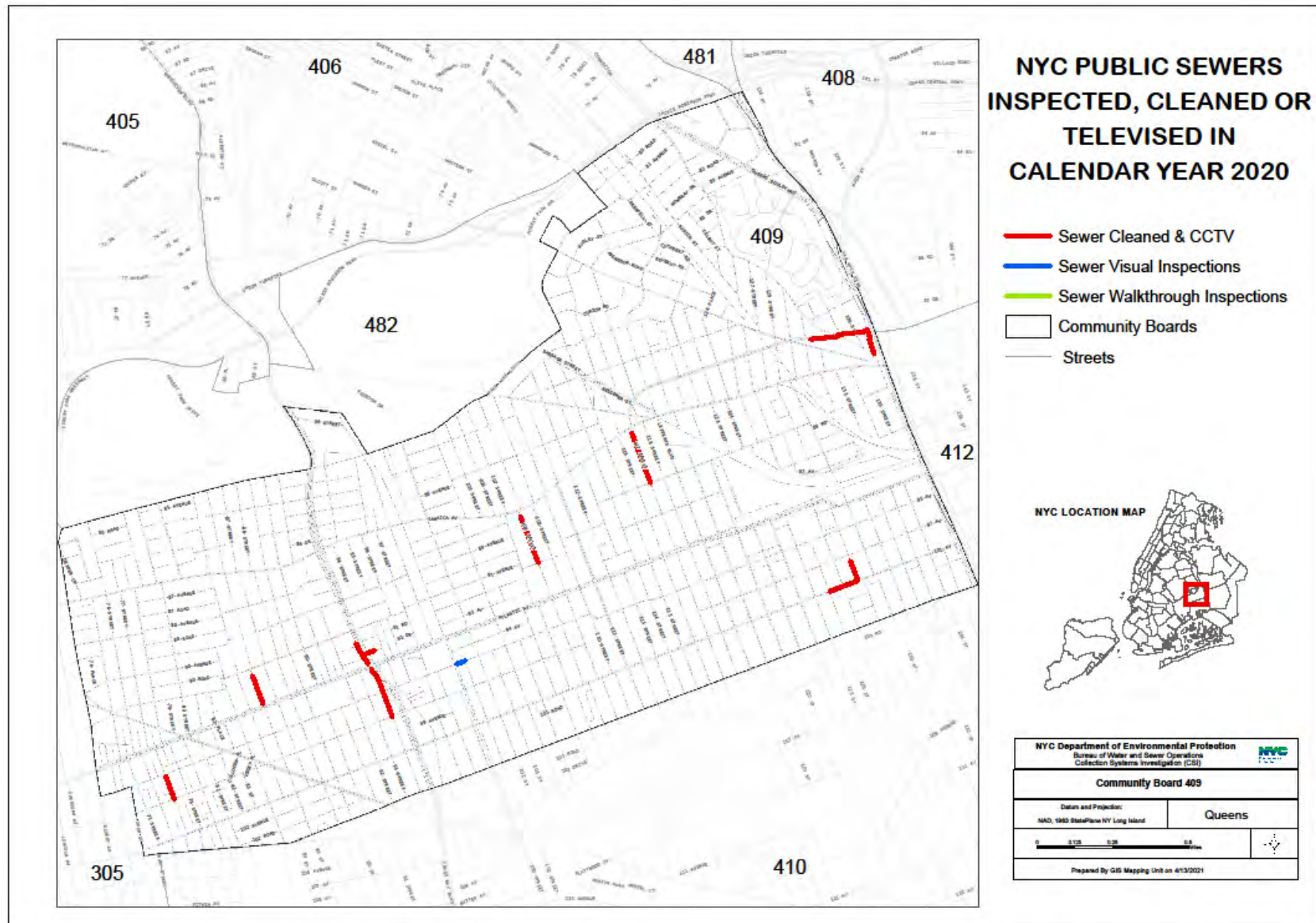


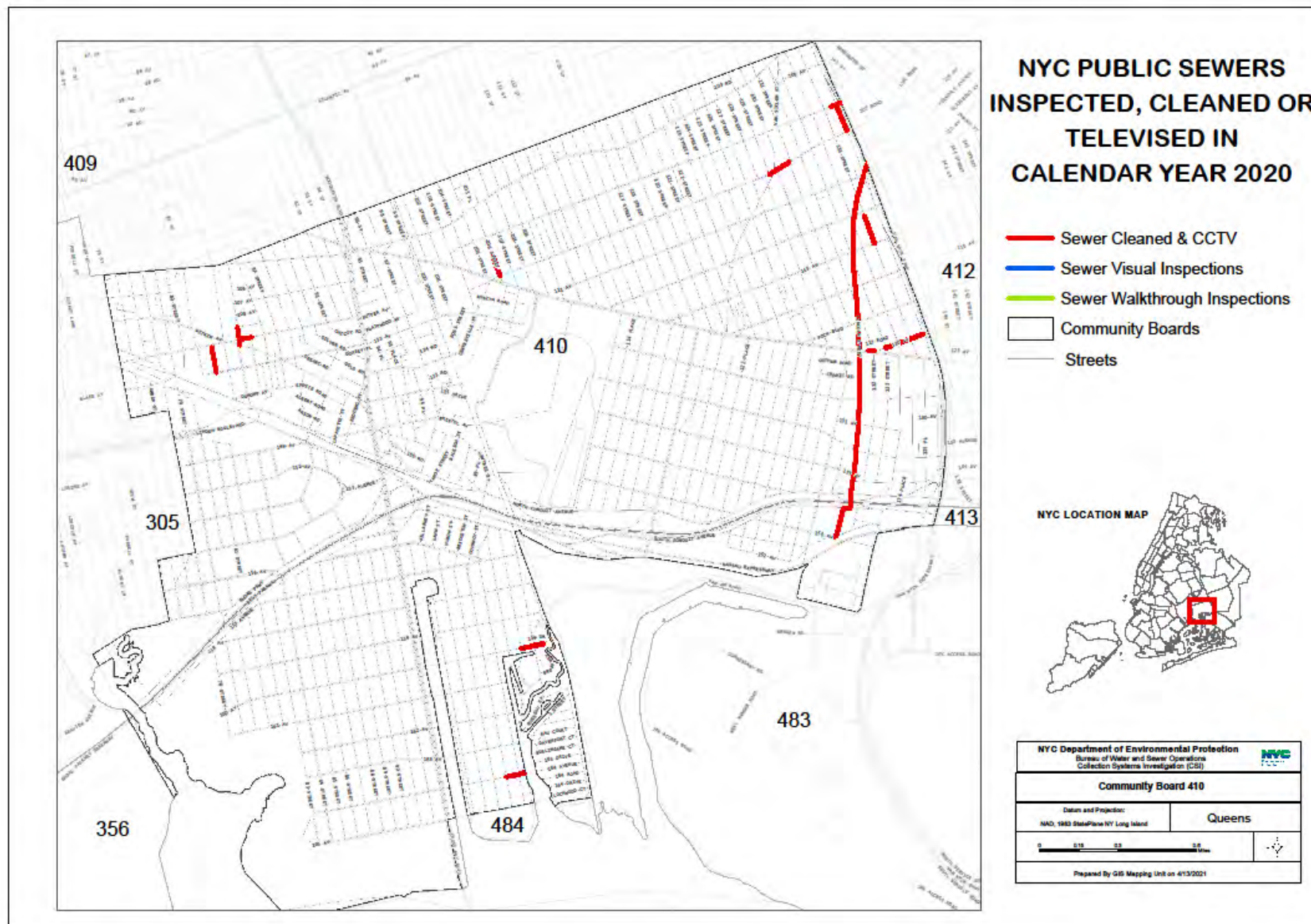


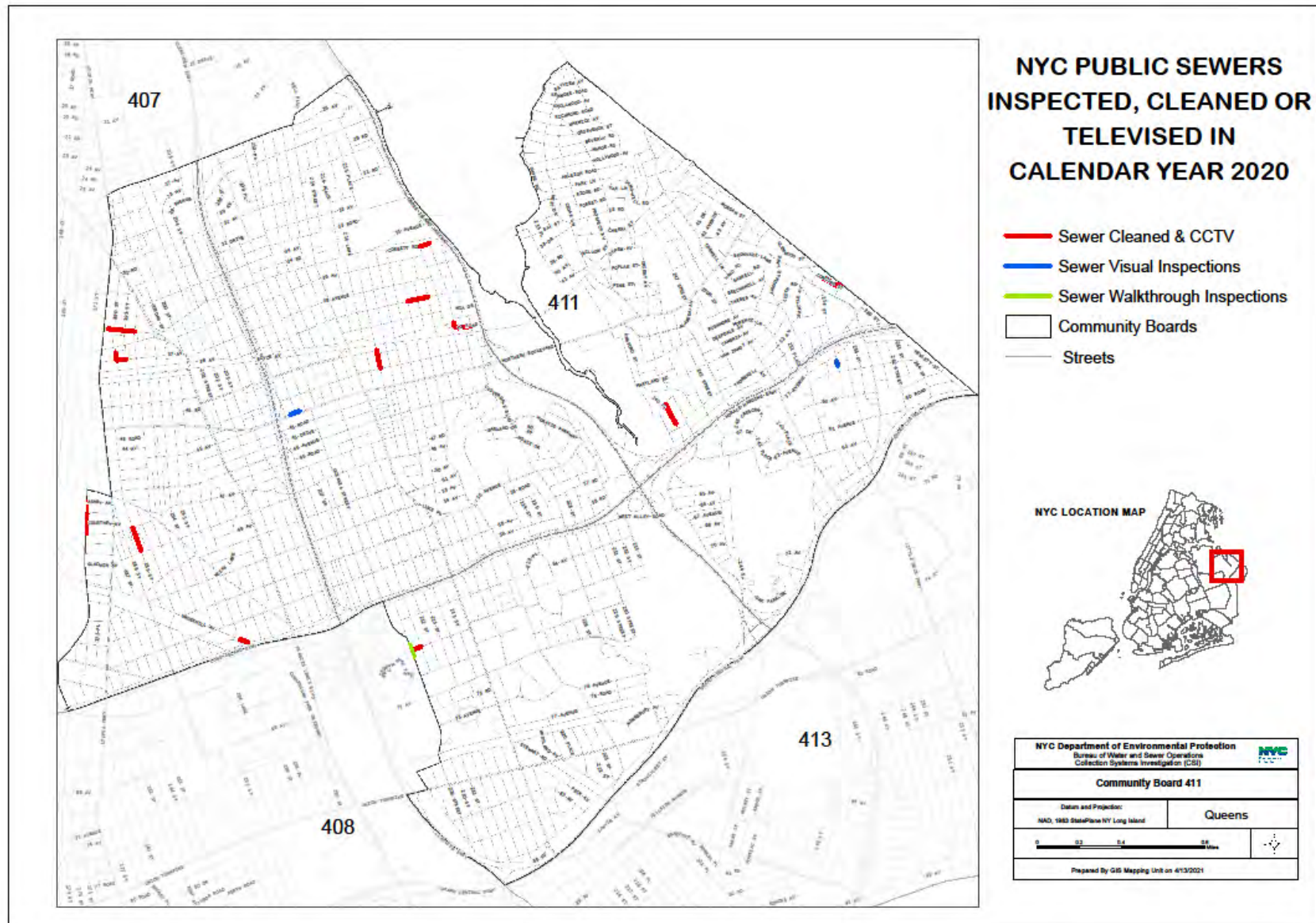


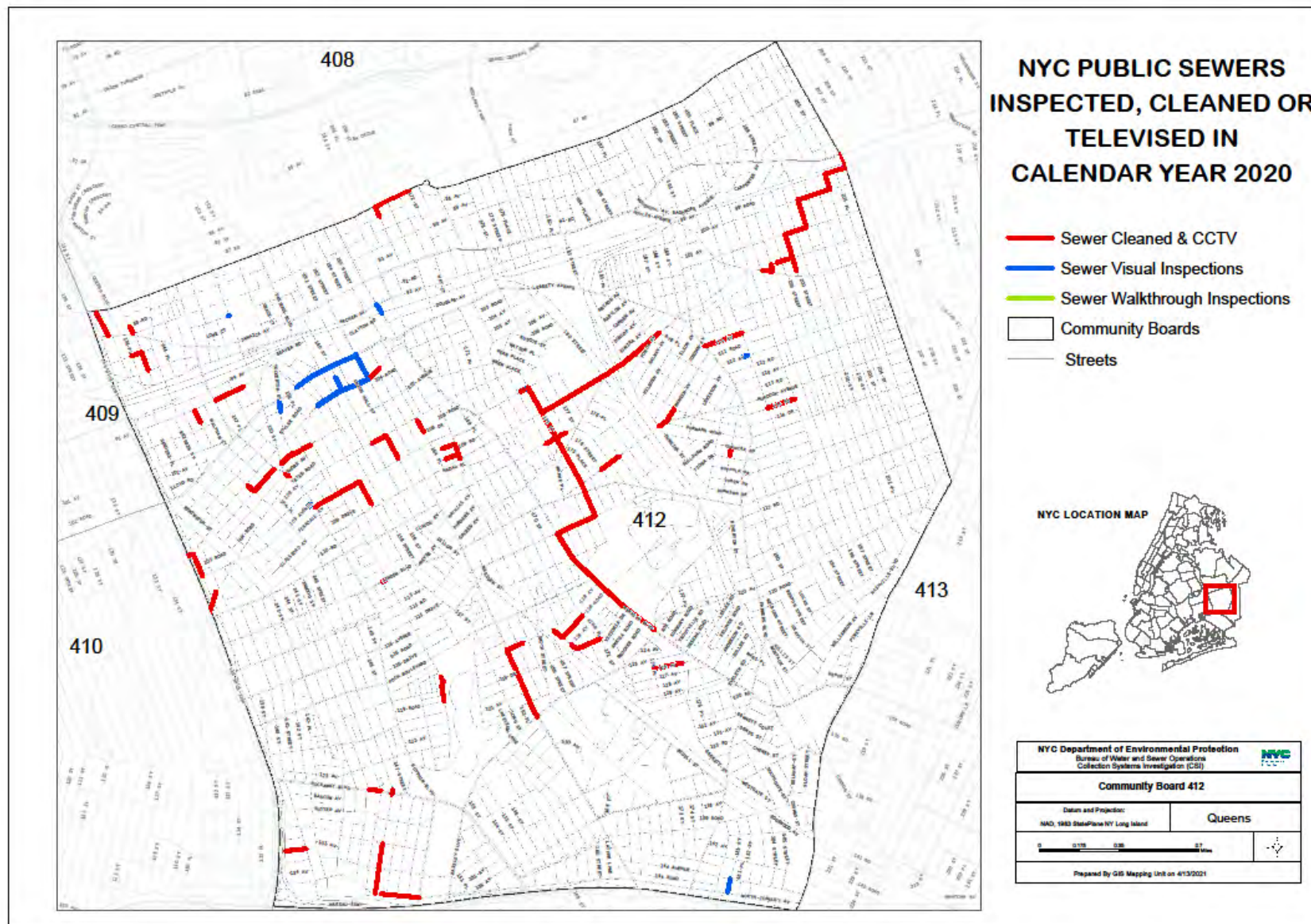


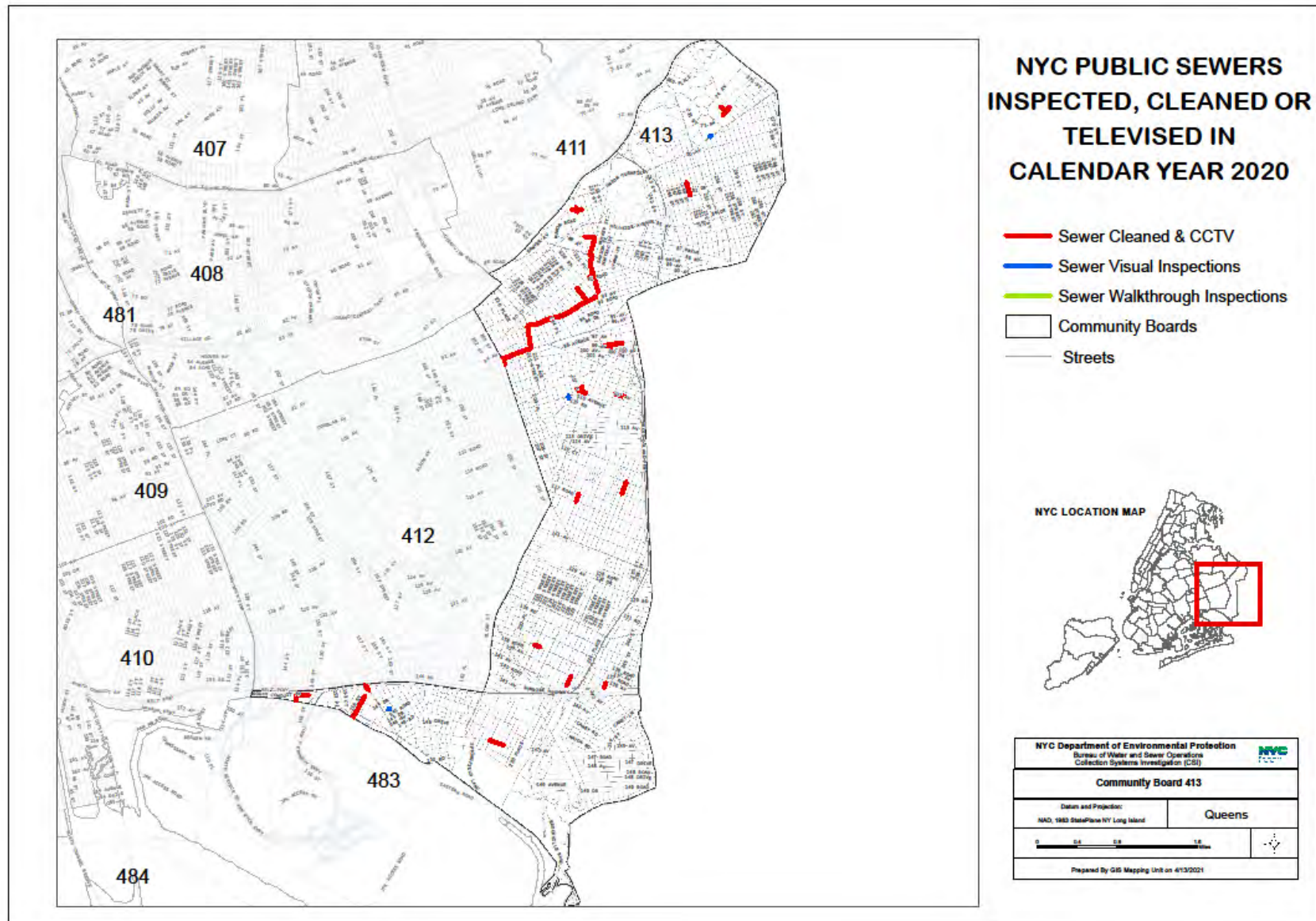


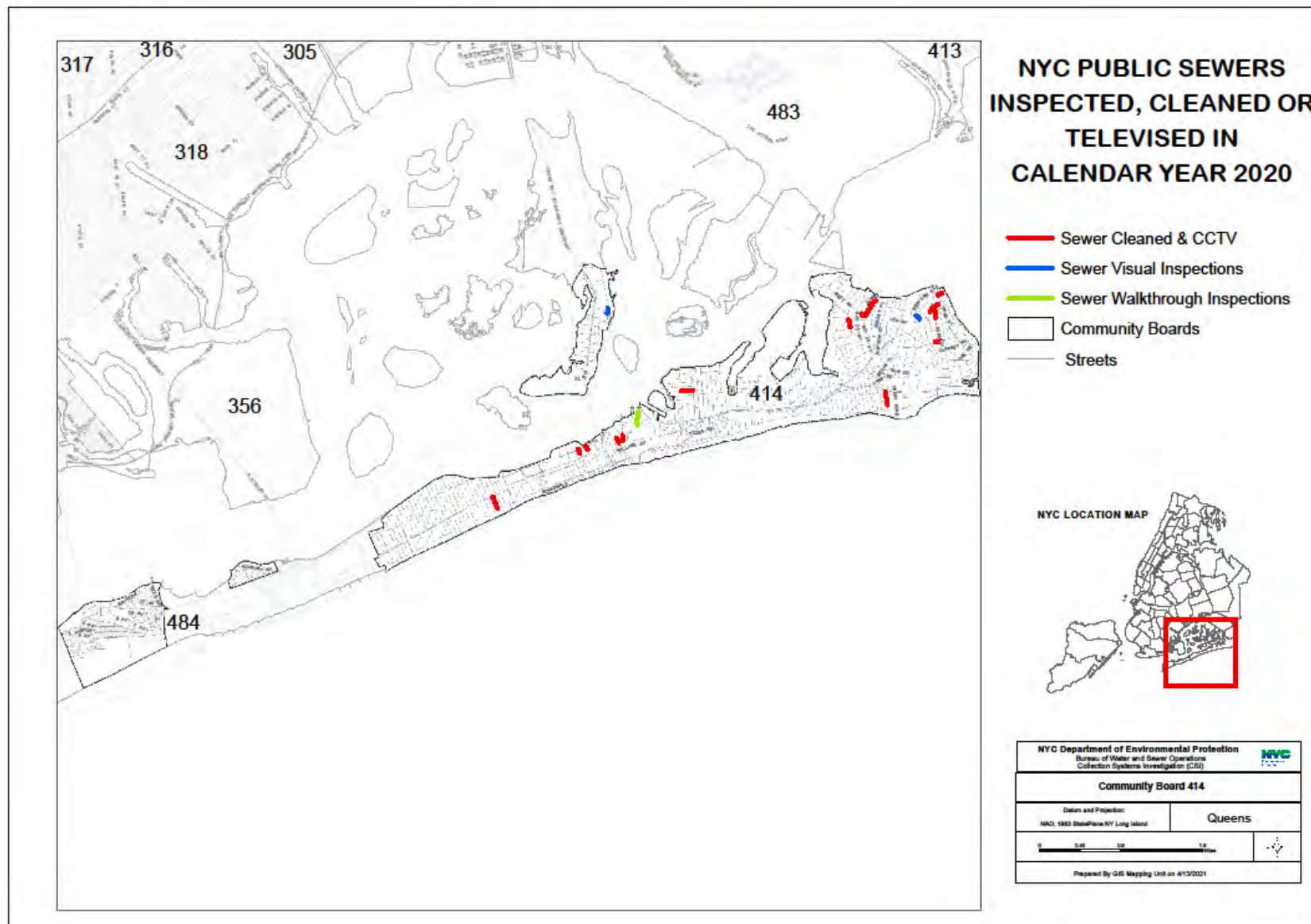


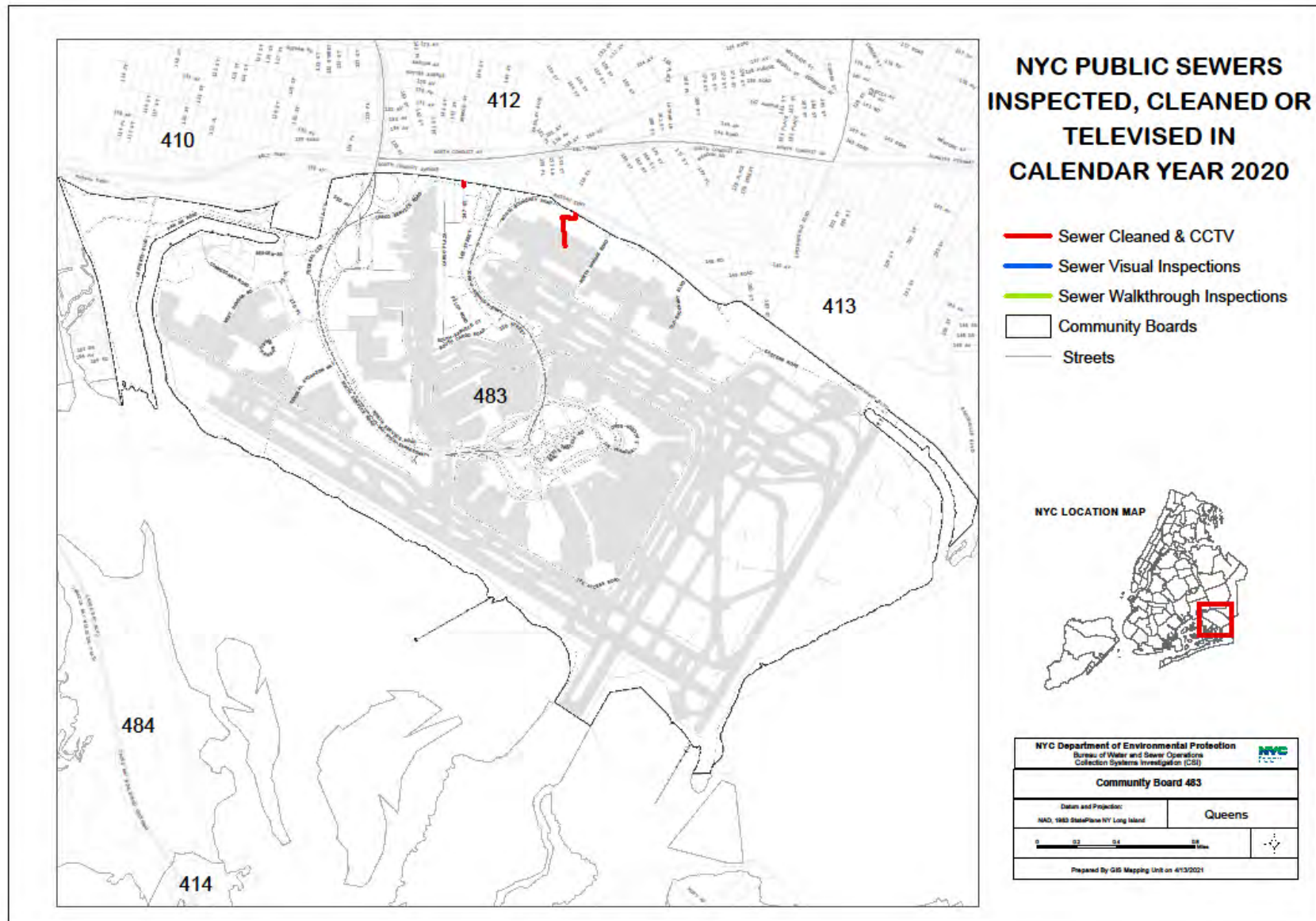


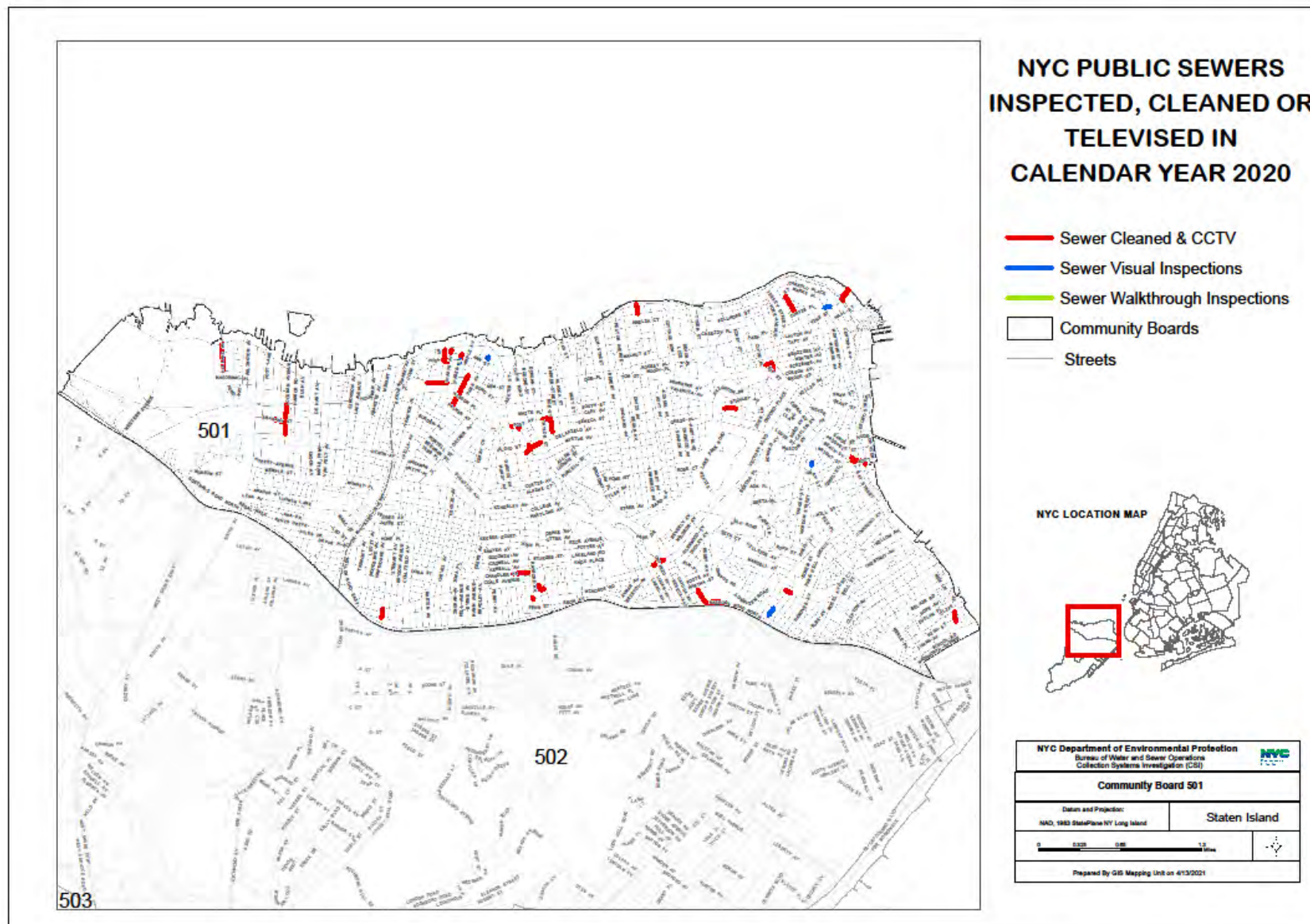


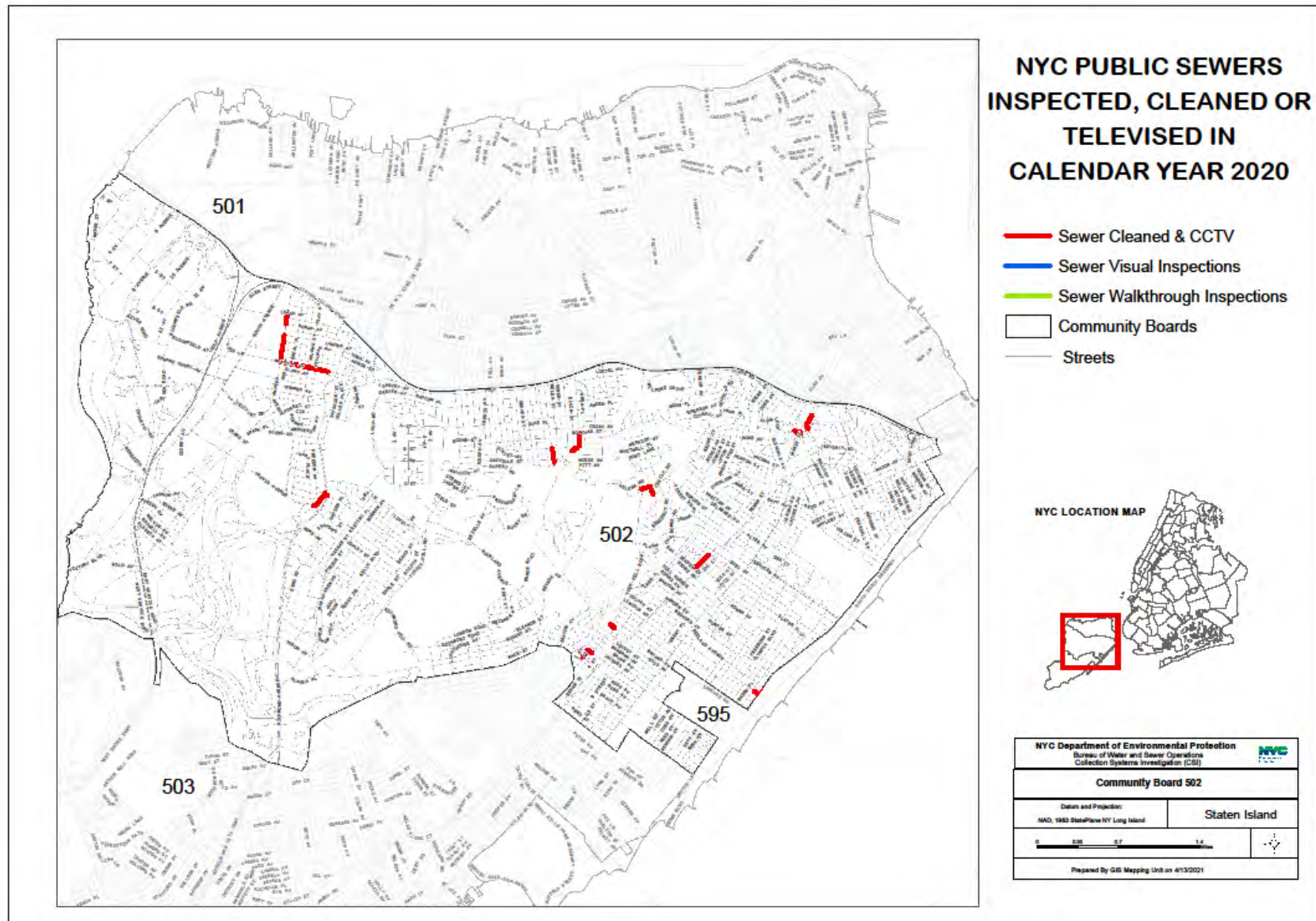


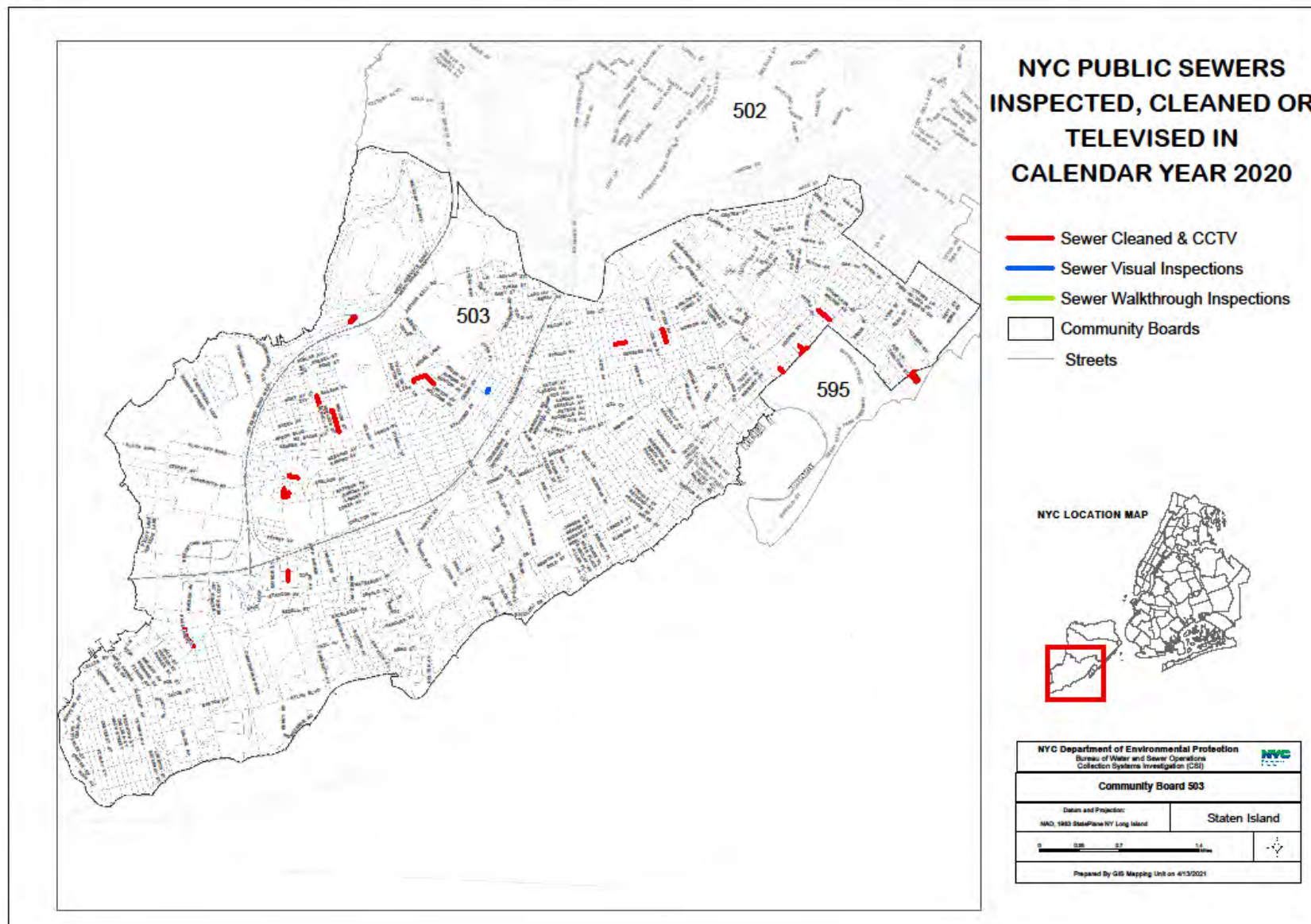


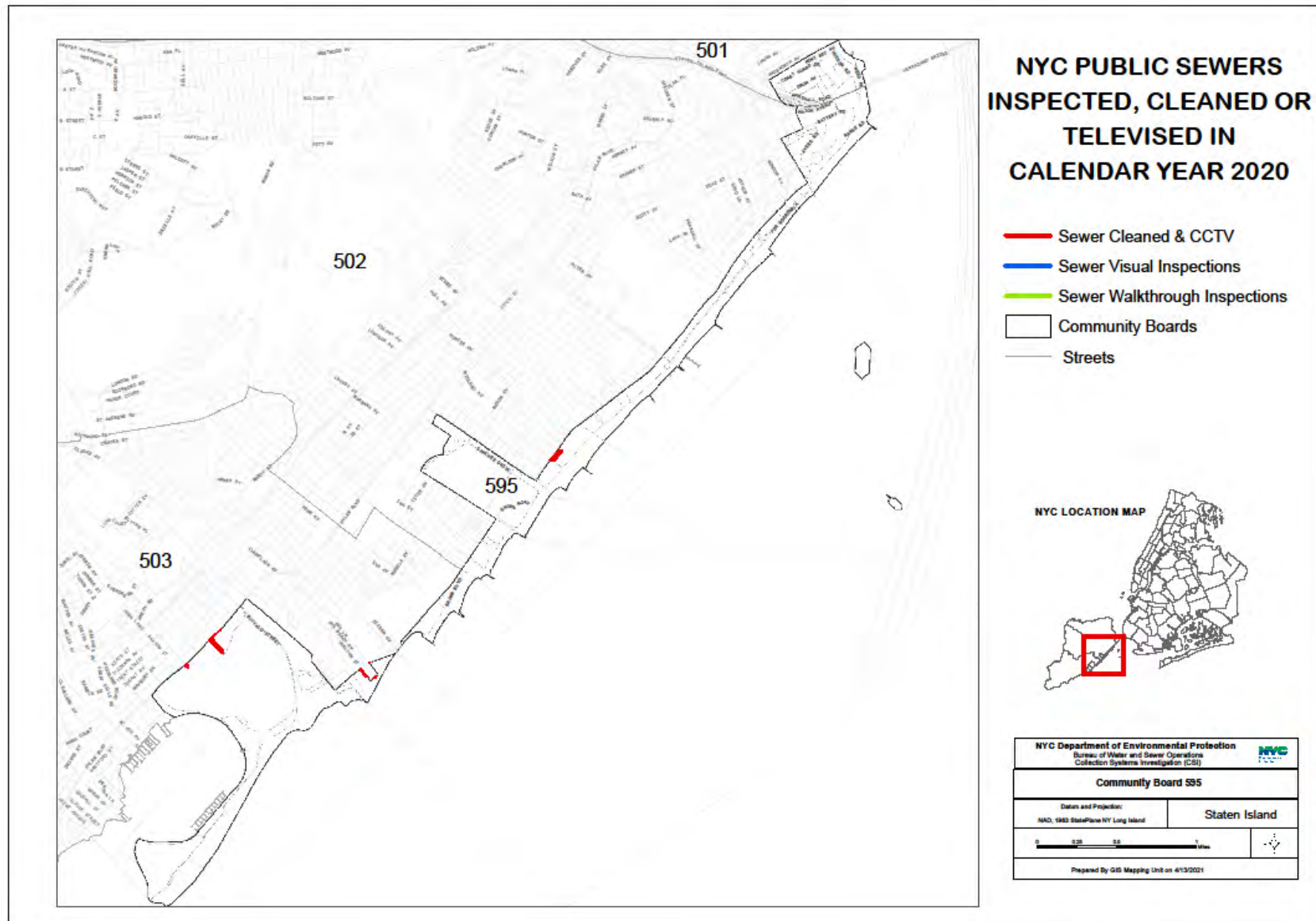












Appendix 2.1.4: CSI Sewer Inspection Cleaning List 2020

Appendix 2.1.4.1: In-House Survey

Appendix 2.1.4.1.1: Brooklyn

N	LOG	Location	Ins	CB	Start	Comp	*Footage (LF)		
							Cleaned	Surveyed	Walked
1	17-765	Hart St (315) bt Marcus Garvey Blvd and Lewis Av	TC	03	2/4/2020	2/4/2020	0	0	0
2	17-941	E 88 St (509) bt Foster Av and Bedell La	KB	18	12/11/2017	1/25/2020	0	0	0
3	18-027	Coney Island Av (3003) bt Guider Av and Brighton 8 Ct	KB	13	1/25/2020	1/25/2020	0	0	0
4	18-230	W 6 St (1566) bt Av O and Av P	KB	11	1/25/2020	1/25/2020	0	0	0
5	18-737	N 11 St (86) bt Wythe Av and Berry St	TC	01	1/23/2020	1/23/2020	0	0	0
6	18-895	E 17 St (629) bt Newkirk Av and Foster Av	MS	14	12/23/2020	12/23/2020	0	0	600
7	19-490	Evergreen Av (105) bt Melrose St and Jefferson St	TC	04	1/23/2020	1/23/2020	0	0	0
8	19-510	Neptune Av from W 8 St and W 12 St to Ocean Pkwy-CONISHPH04	TC	13	2/18/2020	43879	0	0	0
9	19-552	Coney Island Av (1709) bt Roder Av and Av N	MA	14	2/29/2020	2/29/2020	0	199	0
10	19-607	Ocean Av (2350) bt Av R and Av S	JS	15	3/4/2020	3/4/2020	0	0	0
11	19-648	4 Av (485) bt 11 St and 12 St	MS	06	1/9/2020	1/9/2020	0	0	130
12	19-656	Cortelyou Rd (110) bt McDonald Av and E 2 St	MS	12	1/3/2020	1/3/2020	0	0	300
13	19-657	Av K (4012) bt E 40 St and Albany Av	MS	18	1/23/2020	1/23/2020	0	0	297
14	19-671	15 Av (80-14) bt 80 St and 81 St	JS	11	3/4/2020	3/4/2020	0	0	0
15	19-701	Coney Island Av (880) bt Ditmas Av and 18 Av	MS	12	1/3/2020	1/3/2020	0	0	160
16	19-702	17 Av (5910) bt 59 St and 60 St	MS	12	4/28/2020	4/28/2020	0	0	540
17	19-755	E 16 St (1840) bt Av R and Moore Pl - Kelly Playground	KB	15	6/23/2020	6/23/2020	0	0	0
18	19-805	Mill Av (2150) bt Av U and Av V	RF	18	1/9/2020	1/28/2020	0	0	0
19	19-810	Wythe Av (29-41) bt N 14 St and N 13 St	KB	01	1/9/2020	1/9/2020	0	262	0
20	19-811	1 Av (5102) bt 51 St and 52 St-Shoreline Stabilization for Bush Terminal	KB	07	2/4/2020	2/4/2020	0	0	0
21	19-812	Stanley Av (656) bt Van Siclen Av and Hendrix St	RF	05	1/8/2020	-	0	0	0
22	19-814	Wortman Av (271) bt Van Siclen Av and Schenck Av	RF	05	1/8/2020	1/8/2020	0	0	0
23	20-007	E 5 St (305) bt Albemarle Rd and Church Av	MS	12	7/7/2020	7/7/2020	0	0	215
24	20-009	E 2 St (533) bt Av C and Cortelyou Rd	MS	12	6/24/2020	6/24/2020	0	0	125
25	20-020	Richards St bt King St and Sullivan St	KB	06	1/27/2020	1/27/2020	0	260	0
26	20-021	Bush St bt Columbia St and Otsego St	KB	06	1/27/2020	1/27/2020	0	251	0
27	20-022	Bush St bt Henry St and Clinton St	KB	06	1/27/2020	1/27/2020	0	230	0
28	20-043	Powers St (33) bt Hope St and Lorimer St	MA	01	1/31/2020	1/31/2020	0	0	0
29	20-057	Stuart St (1925) bt Fillmore Av and Av S- JHS 278	TC	15	2/20/2020	2/20/2020	0	0	0
30	20-058	Benson Av (2630) bt Bay 43 St and Stillwell Av-Lafayette Educational	TC	13	2/20/2020	2/20/2020	0	0	0
31	20-059	Brighton 4 Rd (25) bt Brighton 4 St and Brighton 6 St - William E Grady	TC	13	2/20/2020	2/20/2020	0	0	0
32	20-061	Maspeth Av (287) bt Vandervoort Av and Newtown Creek Shoreline	TC	01	2/9/2020	2/9/2020	0	697	0
33	20-061A	Maspeth Av (287) bt Vandervoort Av and Newtown Creek Shoreline	TC	01	3/14/2020	3/14/2020	0	0	0
34	20-080	St Marks Av (863) bt Brooklyn Av and Kingston Av	TC	08	2/26/2020	2/26/2020	0	0	0
35	20-092	Bedford Av (1194-1202) bt Putnam Av and Jefferson Av	KB	03	3/6/2020	3/7/2020	0	285	0
36	20-093	Sheepshead Bay Rd (1780) bt Shore Pkwy and Enmons Av	MA	15	2/29/2020	2/29/2020	0	427	0
37	20-105	Virginia St (11-84) bt Central Av and Alonzo Rd	SA	14	3/2/2020	3/2/2020	0	0	0
38	20-110	E 5 St (1322) bt Av L and Av M	TC	12	3/4/2020	3/4/2020	0	0	0
39	20-119	Walworth St (91) bt Park Av and Myrtle Av	TC	03	7/14/2020	7/14/2020	0	0	0
40	20-120	New Jersey Av (307) bt Pitkin Av and Belmont Av	TC	05	6/18/2020	6/18/2020	0	0	0
41	20-166	E 3 St (2354) bt Av X and Av W	JS	15	3/4/2020	3/4/2020	0	0	0
42	20-167	Fulton St (1303) bt Nostrand Av and Verona Pl	SA	03	3/18/2020	3/18/2020	0	0	0
43	20-176	Richardson St (24) bt Union Av and Lorimer St	KB	01	3/11/2020	3/11/2020	0	587	0
44	20-200	Bay St (155) bt Henry St and Clinton St	TL	06	4/23/2020	4/23/2020	0	0	0
45	20-204	Wortman Av (271) bt Van Siclen Av and Schenck Av	TC	05	5/1/2020	5/1/2020	0	0	0
46	20-205	Stanley Av (656) bt Van Siclen Av and Hendrix St	TC	05	5/1/2020	5/1/2020	0	0	0
47	20-269	Ocean Av (3121) bt Voorhies Av and Shore Pkwy	TC	15	7/7/2020	7/7/2020	0	871	0
48	20-275	E 5 St (1948) bt Ave R and Ave S	JS	15	7/6/2020	7/6/2020	0	0	0
49	20-292	Atlantic Av (424) bt Bond St and Nevins St	LJ	02	5/28/2020	5/28/2020	0	75	0
50	20-300	Glenwood Rd (5520) bt E 55 St and E 56 St	TC	18	6/11/2020	6/11/2020	0	0	0
51	20-304	Warren St (617) bt 4 Av and 5 Av	TC	06	6/11/2020	6/11/2020	0	0	0
52	20-309	Av U and E 15 St	MS	15	12/3/2020	12/3/2020	0	0	200
53	20-327	Av U (4112) bt Coleman St and Hendrickson	TC	18	7/1/2020	7/1/2020	0	0	0
54	20-351	Johnson Av (169) bt Manhattan Av and Graham Av	TC	01	8/19/2020	8/19/2020	0	241	0
55	20-352	Girard St (182) bt Hampton Av and Oriental Blvd	TC	15	7/8/2020	7/8/2020	0	0	0

N	LOG	Location	Ins	CB	Start	Comp	*Footage (LF)		
							Cleaned	Surveyed	Walked
56	20-387	Morgan Av (77) bt Harrison Pl and Ingraham St	TC	01	8/18/2020	8/18/2020	0	448	0
57	20-390	Franklin St (1) bt Kent Av and N 15 St	TC	01	11/4/2020	11/4/2020	350	0	0
58	20-392	Gravesend Neck Rd (18) bt Van Sicklen St and Gravesend Cemetery B	TC	15	9/8/2020	9/8/2020	0	0	0
59	20-412	Carroll St (345) bt Hoyt St and Bond St	KB	06	8/18/2020	8/18/2020	0	0	0
60	20-414	18 Av (4024) bt E 5 St and E 4 St	KB	14	8/18/2020	8/18/2020	0	0	0
61	20-436	Bushwick Av (925) and Greene Av	TC	04	8/19/2020	8/19/2020	0	90	0
62	20-450	Wythe Av (168-170) bt N 7 St and N 6 St	KB	01	8/25/2020	8/25/2020	0	365	0
63	20-464	W 23 St (2945) bt Mermaid Av and Surf Av	TC	13	9/2/2020	9/2/2020	0	0	0
64	20-464A	W 23 St (2946) bt Mermaid Av and Surf Av	TC	13	9/11/2020	9/11/2020	0	0	0
65	20-464B	W 23 St (2832) bt Neptune Av and Mermaid Av	TC	13	9/11/2020	9/11/2020	0	0	0
66	20-464C	Mermaid Av and Surf Av	TC	13	9/11/2020	9/11/2020	0	0	0
67	20-464D	Neptune Av (4001) bt Surf Av and B 45 St	TC	13	9/11/2020	9/11/2020	0	0	0
68	20-472	Flatbush Av (100) bt Schermerhorn St and State St	TC	02	9/16/2020	9/16/2020	330	0	0
69	20-516	15 St (100) bt 3 Av and 4 Av	TC	07	9/25/2020	9/25/2020	0	0	0
70	20-537	Manhattan Av (4314) bt Cypress Av and Maple Av	TC	13	9/18/2020	9/18/2020	0	286	0
71	20-553	Dean St (430) bt 4 Av and 5 Av	KB	06	10/13/2020	10/13/2020	0	0	0
72	20-556	Cadman Plaza E (225) bt Red Cross Pl and Tillary St	TC	02	9/29/2020	9/29/2020	0	0	0
73	20-566	Monument Walk (24) bt Navy St and St Edwards St	JS	02	9/9/2020	9/9/2020	0	0	0
			PR	02	9/9/2020	9/9/2020	0	0	0
74	20-568	E 89 St (742) bt Glenwood Rd and Flatlands Ave	JS	318	11/16/2020	11/16/2020	0	0	0
75	20-573	Prospect Av (393) bt 7 Av and 8 Av	KB	07	10/13/2020	10/13/2020	0	0	0
76	20-578	Wilson Av (390) bt Palmetto St and Woodbine St	MS	04	10/27/2020	10/27/2020	0	0	200
77	20-601	W 19 St (2837) bt Neptune Av and Mermaid Av	TC	13	10/19/2020	10/19/2020	0	819	0
78	20-609	Adams St bt Plymouth St and E River	KB	02	10/15/2020	10/15/2020	0	104	0
79	20-618	Surf Av (1607) bt W 16 St and W 17 St	KB	13	11/19/2020	11/19/2020	0	232	0
80	20-618A	Surf Av (1607) bt W 16 St and W 17 St	KB	13	11/19/2020	11/19/2020	0	494	0
81	20-638	Cropsey Av (3035-3039) bt Coney Island Creek Shoreline and Hart Pl	TC	13	11/16/2020	11/16/2020	0	0	0
82	20-638A	Cropsey Av (3035-3039) bt Coney Island Creek Shoreline and Hart Pl	TC	13	11/24/2020	11/24/2020	0	0	0
83	20-651	Brooklyn Av (1026) bt Holy Cross Cemetery Bndy and Tilden Av	TC	17	11/13/2020	11/13/2020	0	0	0
84	20-653	Livonia Av (7) bt Howard Av and Grafton St	TC	16	11/13/2020	11/13/2020	0	0	0
85	20-666	B 38 St (3823) bt Atlantic Av and Surf Av	KB	13	12/4/2020	12/4/2020	0	0	0
86	20-666A	B 38 St (3823) bt Atlantic Av and Surf Av	KB	13	12/4/2020	12/4/2020	0	0	0
87	20-667	Cortelyou Rd (1921) bt E E 19 St and Ocean Av	TC	14	11/16/2020	11/16/2020	0	0	0
88	20-711	Smith St (628) bt Sigourney St and Halleck St	TC	06	12/14/2020	12/14/2020	0	0	0
89	20-712	Fulton St (625) bt Hudson Av and Rockwell Pl	TC	02	12/14/2020	12/14/2020	0	334	0
90	21-004	Junius St and Linden Blvd	TC	16	12/1/2020	12/1/2020	257	0	0

Apeendix 2.1.4.1.2: Manhattan

N	LOG	Location	Ins	CB	Start	Comp	*Footage (LF)		
							Cleaned	Surveyed	Walked
91	17-965	Park Pl (53) bt Church St and W Broadway	JS	01	4/14/2020	4/14/2020	0	0	0
92	18-451	Greenwich St (125) bt Albany St and Thames St	JS	01	4/14/2020	4/14/2020	0	0	0
93	19-301A	Laight St (13-17) bt St Johns La and Varick St	TC	01	1/23/2020	1/23/2020	0	0	0
94	19-492	S St (10) bt Whithall St and Broad St	RF	01	7/29/2019	2/22/2020	0	0	0
95	20-024	FDR Dr bt E Houston St and E 4 St	TC	03	5/27/2020	5/27/2020	0	0	0
96	20-027	Hudson St (310) bt Spring St and Vandam St	LJ	02	2/1/2020	2/1/2020	0	100	0
97	20-052	W 28 St (530) bt High Line and 11 Av	MA	04	2/19/2020	2/19/2020	0	0	0
98	20-067	7 Av (2581) bt W 149 St and W 150 St - IS 10 Tandem PS 200	TC	10	2/19/2020	2/19/2020	0	0	0
99	20-068	Frederick Douglass Blvd (2987) and Harlem River Dr SR W - PS 46	TC	10	2/19/2020	2/19/2020	0	0	0
100	20-079	E 16 St (16) bt 5 Av and Union Sq W	KB	05	3/7/2020	3/7/2020	0	413	0
101	20-103	Central Park S (200) bt Broadway and 7 Av	JS	05	4/1/2020	4/1/2020	0	0	0
102	20-183	St Nicholas Av (1412) bt W 180 St and W 181 St	CO	12	3/24/2020	3/24/2020	0	300	0
			JS	12	3/24/2020	3/24/2020	0	0	0
103	20-240	River Terr and Chambers St	TC	01	5/14/2020	5/14/2020	0	0	0
104	20-322	Rivington St (45) bt Forsyth St and Eldridge St	KB	03	8/20/2020	8/20/2020	0	0	0
105	20-322A	Rivington St (45) bt Forsyth St and Eldridge St	KB	03	8/20/2020	8/20/2020	0	0	0
106	20-416	Broadway (3379) bt Hamilton Pl and W 137 St	TC	09	7/27/2020	7/27/2020	0	64	0
107	20-439	W 215 St (530) bt Park Ter E and Park Ter W	TC	12	9/14/2020	9/14/2020	0	253	0
108	20-439A	W 215 St (530) bt Park Ter E and Park Ter W-Amber Charter School	KB	12	9/22/2020	9/22/2020	0	0	0
109	20-451	Grand St (74) bt Wooster St and Greene St	KB	02	8/20/2020	8/20/2020	0	0	0
110	20-452	York Av (1393) bt E 74 St and E 75 St	KB	08	8/18/2020	8/18/2020	0	230	0
111	20-552	5 Av (689) bt E 54 St and E 55 St	TC	05	12/4/2020	12/4/2020	288	0	0
112	20-559	W 18 St (351) bt 8 Av and 9 Av	KB	04	9/30/2020	9/30/2020	0	0	0
113	20-603	Forsyth St bt Delancey St and Rivington St	TC	03	12/10/2020	12/10/2020	0	0	0
114	20-688	Outfall NCM-078-Regulator	CJ		11/24/2020	11/24/2020	0	88	0

Apeendix 2.1.4.1.3: Queens

N	LOG	Location	Ins	CB	Start	Comp	*Footage (LF)		
							Cleaned	Surveyed	Walked
115	13-156	111 Av (155-04)	JS	12	5/5/2020	5/5/2020	0	0	0
116	13-513	157 St (109-17) bt 109 Av and Brinkerhoff Av	JS	12	5/5/2020	5/5/2020	0	0	0
117	14-037	109 Av (153-14)	JS	12	5/5/2020	5/5/2020	0	0	0
118	15-638	81 St (153-41)	SA	10	3/3/2020	3/3/2020	0	0	0
119	15-639	149 Av (80-15)	SA	10	3/3/2020	3/3/2020	0	0	0
120	15-640	82 St (153-38)	SA	10	3/3/2020	3/3/2020	0	0	0
121	15-933	Cozine Av (709)	PR	05	6/2/2020	6/2/2020	0	1,208	0
122	16-212	Downing St (31-25)	LJ	07	1/26/2020	1/26/2020	0	0	0
123	17-777	College Point Blvd (22-30) bt 22 Av and 23 Av	LJ	07	1/26/2020	1/26/2020	0	0	0
124	18-098	Hook Creek Blvd (145-25) bt 257 St and Frankton St	TC	13	1/23/2020	1/23/2020	0	0	0
125	18-372	26 Av (8-01) bt 4 St and 9 St	LJ	01	1/26/2020	1/26/2020	0	0	0
126	18-437	84 St (52-37) bt Bend and 54 Av	LJ	04	1/26/2020	1/26/2020	0	0	0
127	18-531	67 St (41-33) bt 41 Av and Woodside Av	TC	02	1/21/2020	1/21/2020	0	0	0
128	18-840	40 Rd (131-12) bt Delong St and College Point Blvd	JS	07	4/7/2020	4/7/2020	0	0	0
129	19-019	250 St (82-65) bt 82 Av and 83 Av	JS	13	7/13/2020	7/14/2020	0	0	0
130	19-069	B Channel Dr bt B 145 St and B 108 St-QED1030B-SANDHW11B	JS	14	6/22/2020	6/22/2020	0	0	0
131	19-121	Grand Av (66-28) bt Hamilton Pl and 55 Dr	TC	05	2/23/2020	2/23/2020	0	0	0
132	19-262	93 rd (237-01) bt Gettysburg St and 239 St	JS	13	4/7/2020	4/7/2020	0	0	0
133	19-470	Bowne St (41-62) bt Bend and Franklin Av	KB	07	2/5/2020	2/14/2020	0	0	0
134	19-476	Hillside Av (136-06) bt 136 St and Van Wyck Exp SR W	JS	09	5/22/2020	5/22/2020	0	0	0
135	19-710	Ellwell Crst (63-39) bt Carlton St and 64 Rd	MA	06	11/14/2019	1/7/2020	0	0	0
136	19-738	Van Wyck Expy and Linden Blvd - Inspect multiple lines along the Van	LJ		1/26/2020	1/26/2020	0	0	0
137	19-738A	Van Wyck Expy and Linden Blvd - Inspect multiple lines along the Van	LJ		1/26/2020	1/26/2020	0	0	0
138	19-738B	Van Wyck Expy and Linden Blvd - Inspect multiple lines along the Van	LJ		1/26/2020	1/26/2020	0	0	0
139	19-738C	Van Wyck Expy and Linden Blvd - Inspect multiple lines along the Van	LJ		1/26/2020	1/26/2020	0	0	0
140	19-738D	Van Wyck Expy and Linden Blvd - Inspect multiple lines along the Van	LJ		1/26/2020	1/26/2020	0	0	0
141	19-802	Liberty Av and 157 St - York College Athletic Field	MA	12	1/27/2020	1/31/2020	0	921	0
142	19-802A	South Rd and 157 St - York College Athletic Field	MA	12	1/27/2020	1/31/2020	0	1,395	0
143	19-802B	158 St and Liberty Av - York College Athletic Field	MA	12	1/27/2020	1/31/2020	0	0	0
144	19-802C	159 St and Liberty Av - York College Athletic Field	MA	12	1/27/2020	1/31/2020	0	174	0
145	19-807	14 St (30-99) bt 30 Dr and 31 Av	KB	01	1/13/2020	1/13/2020	0	0	0
146	19-809	149 Pl (42-36) bt Ash Av and Beech Av	TC	07	1/6/2020	1/6/2020	0	132	0
147	20-011	111 Rd (190-58) bt Farmers Blvd and 194 St	TC	12	1/28/2020	1/28/2020	0	0	0
148	20-012	4 Av (145-33) bt Whitestone Exp SR E and 147 St	TC	07	2/3/2020	2/3/2020	0	0	0
149	20-014	130 St (91-20) bt 91 Av and 92 Av	TC	09	2/21/2020	2/21/2020	0	0	0
150	20-028	B Channel Dr (14-56) bt Hassock St and Nassau Cnty Bndy	TC	14	1/28/2020	1/28/2020	0	0	0
151	20-041	B 84 St and B Channel Dr	MS		2/4/2020	2/4/2020	0	0	910
152	20-042	Ketcham St (42-67) bt Pettit Av and Britton Av	LJ	04	1/30/2020	1/30/2020	0	97	0
153	20-044	79 St (350) Beach bt B Channel Dr and Body of Water	RF	14	2/4/2020	2/4/2020	0	0	0
154	20-046	37 Av (58-09) bt 58 St and 59 St	MA	02	2/9/2020	2/9/2020	0	0	0
155	20-069	57 St (58-74) bt Grand Av and 58 Dr - PS 9 - Old PS 86	TC	06	2/18/2020	2/18/2020	0	0	0
156	20-070	35 Av (214-43) bt 214 Pl and 214 Ln - PS 41	TC	11	2/18/2020	2/18/2020	0	0	0
157	20-071	108 Av (155-02) bt 155 St and 156 St - PS 48	TC	12	2/18/2020	2/18/2020	0	0	0
158	20-073	205 St (23-73) bt 23 Av and 26 Av	MA	07	2/21/2020	2/21/2020	0	0	0
159	20-075	Liberty Av (160-02) bt 160 St and Guy R Brewer Blvd	MA	12	2/17/2020	2/23/2020	0	394	0
160	20-076	Guy R Brewer Blvd bt Liberty Av and Tuskegee Airmen Way	MA	12	2/17/2020	2/23/2020	0	698	0
161	20-077	Liberty Av bt 160 St and Guy R Brewer Blvd	MA	12	2/17/2020	2/23/2020	0	609	0
162	20-078	Tuskegee Airmen Way bt 160 St and Guy R Brewer Blvd	MA	12	2/17/2020	2/23/2020	0	1,315	0
163	20-085	253 St (142-27) bt Memphis Av and Weller Av	MA	13	2/25/2020	2/25/2020	0	0	0
164	20-086	3 St (26-35) bt 26 Av and 27 Av	TC	01	2/25/2020	2/25/2020	0	0	0
165	20-095	78 Av (162-19) bt 162 St and 164 St	LJ	08	2/26/2020	2/26/2020	0	103	0
166	20-096	6 Av (145-75) bt Whitestone Exp SR E and 147 St	KB	07	3/9/2020	3/9/2020	0	0	0
167	20-097	Ridge Rd (261) bt Center Dr and E Dr	MA	11	2/29/2020	2/29/2020	0	0	0
168	20-098	W (613) bt Noel Rd and E 6 Rd	TC	14	2/23/2020	2/23/2020	0	373	0
169	20-100	Astoria Blvd over BQE Bridge Bridge	RF	01	2/20/2020	2/20/2020	0	0	0
170	20-104	113 Av (155-18) bt 155 St and 156 St	SA	12	3/2/2020	3/2/2020	0	0	0
171	20-106	114 Rd (194-56) bt 194 St and 196 St	SA	12	3/2/2020	3/2/2020	0	0	0
172	20-107	94 St (40-69) bt Benham St and Case St	SA	04	3/3/2020	3/3/2020	0	0	0
173	20-139	145 Av (165-30) bt Rockaway Blvd and 167 St	LJ	13	3/10/2020	3/10/2020	0	116	0
174	20-140	129 St (118-68) bt Cedric Rd and Sutter Av	TC	10	3/10/2020	3/10/2020	0	0	0
175	20-141	124 St (149-05) bt 149 Av and N Conduit Av	KB	10	3/10/2020	3/10/2020	0	0	0
176	20-156	254 St (57-30) bt 57 Av and 58 Av	LJ	11	3/7/2020	3/7/2020	0	140	0
177	20-157	56 Rd (146-18) bt 146 St and 148 St	TC	07	3/9/2020	3/9/2020	0	0	0
178	20-165	S Conduit Av (153-20) bt Belt Pkwy EB Entrance 150 St and 153 Ln	TC	13	3/20/2020	3/20/2020	0	0	0
179	20-177	Steinway St (30-55) bt 30 Av and 31 Av	TC	01	4/7/2020	4/7/2020	0	304	0
180	20-184	Main St (57-29) bt 58 Av and 57 Rd	CO	07	3/24/2020	3/24/2020	0	300	0

N	LOG	Location	Ins	CB	Start	Comp	*Footage (LF)		
							Cleaned	Surveyed	Walked
181	20-185	137 St (13-04) bt 14 Av and 11 Av	SA	07	3/18/2020	3/18/2020	0	0	0
182	20-187A	95 Av (101-01) bt 94 Av and 95 Av (aka 94-15 100 St)	TC	09	3/17/2020	3/17/2020	0	161	0
183	20-188	Union Tpke (257-09) bt 257 St and 258 St	LJ	13	3/21/2020	3/21/2020	0	151	0
184	20-224	E Hampton Blvd (58-30) bt 58 Rd and Horace Harding Expy SR N	TC	11	4/14/2020	4/14/2020	0	0	0
185	20-230	3 St (26-35) aka 3-01 27 Av bt 3 St and 4 St	TC	01	7/16/2020	7/16/2020	0	0	0
186	20-231	Powells Cove Dr (Malba Dr) bt Malba Dr and Parsons Blvd	LJ	07	5/21/2020	5/21/2020	0	0	0
187	20-243	110 Av (216-03) bt 216 St and 217 St	PR	13	6/24/2020	3/19/2021	0	118	0
188	20-264	Burling St (46-20) bt Holly Av and Jasmine Av	TC	07	5/5/2020	5/5/2020	0	0	0
189	20-276	135 St (114-06) bt Linden Blvd and 115 Ave	TC	10	5/20/2020	5/20/2020	0	0	0
190	20-277	129 St (97-14) bt 97 Ave and 101 Ave	TC	09	5/20/2020	5/20/2020	0	0	0
191	20-278	165 St (115-52) bt 115 Ave and 116 Ave	JS	12	5/20/2020	5/20/2020	0	0	0
192	20-279	Mangin Ave (186-17) bt Wood St and Murdock Ave	TC	12	5/20/2020	5/20/2020	0	0	0
193	20-281	Beach 120 St (138) bt Ocean Pr and Rockaway Beach Blvd	TC	14	5/20/2020	5/20/2020	0	0	0
194	20-294	Kissena Blvd (65-30) bt 65 Av and Driveway	TC	08	5/26/2020	5/26/2020	0	0	0
195	20-298	Springfield Blvd bt 48 Av and 49 Av - Alley Creek Retention	TC	11	6/3/2020	6/3/2020	0	0	0
196	20-301	Corona Av (88-14) bt 88 St and 48 Av	TC	11	6/25/2020	6/25/2020	0	0	0
197	20-305	44 Rd (10-20) bt 10 St and 11 St	KB	02	6/23/2020	6/23/2020	0	0	0
198	20-321	Nameoke Av bt Bayport Pl and Central Av -Construction of Nameoke	TC	14	6/25/2020	6/25/2020	0	814	0
199	20-330	N Conduit Av (100-03) bt Cohancy St and Rockaway Line	TC	10	7/15/2020	7/15/2020	0	171	0
200	20-349	181 St (144-14) bt 144 Av and Bend	TC	12	6/30/2020	6/30/2020	0	614	0
201	20-350	186 St (58-13) bt 58 Av and Horace Harding Expy SR N	TC	11	7/9/2020	7/9/2020	0	0	0
202	20-355	159 St (43-47) bt 43 Av and 45 Av	TC	07	7/9/2020	7/9/2020	0	0	0
203	20-357	109 Ave (147-60) bt Liverpool St and Sutphin Blvd	PR	12	6/24/2020	6/24/2020	0	400	0
204	20-358	112 Ave (190-63) bt 194 St and Farmers Blvd	PR	12	6/24/2020	6/24/2020	0	675	0
205	20-388	189 St (47-49) bt 47 Av and 48 Av	TC	11	8/5/2020	8/5/2020	0	0	0
206	20-389	233 St (64-06) bt 64 Av and 67 Av	TC	11	7/30/2020	7/30/2020	0	0	0
207	20-391	163 St (43-28) bt 43 Av and 45 Av	TC	07	7/30/2020	7/30/2020	0	0	0
208	20-394	59 Av (153-10) bt 153 St and Kissena Blvd	TC	07	7/30/2020	7/30/2020	0	0	0
209	20-396	Plainview Av (19-09) bt B 19 St and B 20 St	TC	14	8/5/2020	8/5/2020	0	0	0
210	20-426	109 Ave (174-10) bt 174 St and 175 St	CO	12	8/6/2020	8/6/2020	0	100	0
211	20-438	52 Ct (73-17) bt 73 St and 74 St	TC	05	9/1/2020	9/1/2020	0	0	0
212	20-515	90 Av (148-29) bt 148 St and 149 St	TC	12	9/1/2020	9/1/2020	0	25	0
213	20-530	Van Wyck Expy and Jewel Av	MS	08	11/20/2020	11/20/2020	0	0	200
214	20-534	Archer Av (165-20) bt 165 St and Merrick Blvd	TC	12	9/14/2020	9/14/2020	0	244	0
215	20-536	Fowler Av (131-01) bt Fowler Path and College Point Blvd	TC	07	10/21/2020	10/21/2020	0	260	260
216	20-570	Pinson St (13-83) bt Birdsall Ave and Nameoke Ave	JS	414	11/9/2020	11/9/2020	0	0	0
217	20-574	36 Av (33-12) bt 33 St and 34 St	KB	01	10/16/2020	10/16/2020	0	0	0
218	20-600	Jamaica Av (163-30) bt 163 St and 164 St	TC	12	10/27/2020	10/27/2020	0	0	0
219	20-602	16 Rd (149-46) bt 149 St and 150 St	TC	07	10/30/2020	10/30/2020	0	0	0
220	20-616	Tuckerton St (104-16) bt Liberty Av and Guinzburg Rd	TC	12	11/25/2020	11/25/2020	0	515	0
221	20-617	249 St (142-18) bt Memphis Av and Bend	TC	13	10/30/2020	10/30/2020	0	0	0
222	20-632	231 St (50-40) bt 50 Av and E Hampton Blvd	TC	11	10/19/2020	10/19/2020	0	0	0
223	20-633	B Channel Dr (50-15) bt B 50 St and B 51 St	KB	14	11/24/2020	11/24/2020	0	0	0
224	20-633A	B Channel Dr (50-15) bt B 50 St and B 51 St	KB	14	11/24/2020	11/24/2020	0	0	0
225	20-649	19 Av (149-21) bt 149 St and 150 St	TC	07	11/20/2020	11/20/2020	0	307	0
226	20-652	39 Av (247-31) bt Sand Hill Rd and Little Neck Pkwy	KB	11	12/2/2020	12/2/2020	0	0	0
227	20-654	B 100 St (215) bt Rockaway Beach Blvd and Steeplechase Ct	TC	14	11/24/2020	11/24/2020	0	0	0
228	20-655	67 Av bt 210 St and 211 St	MS	11	11/17/2020	11/17/2020	0	0	320
229	20-664	41 St (18-39) bt Berrian Blvd and 19 Av	TC	01	11/18/2020	11/18/2020	0	235	0
230	20-665	Beverly Rd (8438) bt Lefferts Blvd and Brevoort St	TC	09	11/30/2020	11/30/2020	0	0	0
231	20-669	Chevy Chase St (81-10) bt Tudor Rd and Aberdeen Rd	MS	08	12/2/2020	12/2/2020	0	0	132
232	20-704	Barclay Av (150-15) bt 150 St and Murray St	TC	07	12/9/2020	12/9/2020	0	0	0
233	20-705	Douglaston Pkwy (46-32) bt Alameda Av and Rushmore Av	TC	11	12/21/2020	12/21/2020	0	0	0
234	20-706	124 St (23-53) bt 23 Av and 25 Av	TC	07	11/30/2020	11/30/2020	0	0	0
235	20-707	61 Av (244-55) and N Hills Golf Bndy	TC	11	12/3/2020	12/3/2020	0	0	0
236	20-707A	19 Av (160-51) bt Willets Point Blvd and 163 St	TC	07	12/3/2020	12/3/2020	0	0	0
237	20-709	Northern Blvd (207-26) bt 208 St and 209 St	TC	11	12/9/2020	12/9/2020	0	389	0
238	20-714	57 Av (260-17) bt 260 St and 262 St	TC	11	12/15/2020	12/15/2020	0	0	0
239	20-723	15 E Rd bt Bend and I 678-Flushing Meadows Park-Q099-520M	TC	81	12/16/2020	12/16/2020	0	0	0
240	20-738	243 St (47-43) bt DE and Barrows Ct	TC	11	12/16/2020	12/16/2020	0	0	0
241	20-741	3 St (26-41) bt 26 Av and 27 Av	TC	01	10/20/2020	10/20/2020	58	0	0

Apeendix 2.1.4.1.4: Staten Island

N	LOG	Location	Ins	CB	Start	Comp	*Footage (LF)		
							Cleaned	Surveyed	Walked
242	17-575	Broad St (70) bt Wright St and Quinn St	TC	01	4/24/2020	4/24/2020	0	0	0
243	17-635	Park La (70) bt Oakland Terr and DE	TC	01	4/24/2020	4/24/2020	0	0	0
244	17-770	Fingerboard Rd (819) bt Windermere Rd and Clove Rd	TC	02	4/23/2020	4/23/2020	0	0	0
245	18-420	Richmond Av (2075) bt Rivington Av and Rockland Av	TC	02	1/16/2020	1/16/2020	0	0	0
246	18-420A	Richmond Av (2075) bt Rivington Av and Rockland Av	TC	02	1/16/2020	1/16/2020	0	0	0
247	18-420B	Richmond Av (2075) bt Rivington Av and Rockland Av	TC	02	1/16/2020	1/16/2020	0	0	0
248	18-741	Gordon St (88) bt Purroy Pl and Hudson St	TC	01	4/24/2020	4/24/2020	0	0	0
249	19-057	Crescent Av (140) bt Bismark Av and Jersey St	TC	01	4/24/2020	4/24/2020	0	0	0
250	19-238	Richmond Terr (248) bt Nicholas St and St Peters Pl	TC	01	4/24/2020	4/24/2020	0	0	0
251	19-240	Sharrots Rd (116) bt Robin Ct and Darnell La	TC	03	4/24/2020	4/24/2020	0	0	0
252	19-517	Grandview Av (36C) bt Richmond Ct and Cowen Pl	TC	01	4/24/2020	4/24/2020	0	0	0
253	19-735	Bay St and Thompson St-New Stapleton Waterfront	KB	01	1/24/2020	1/24/2020	0	0	0
254	19-735B	Bay St and Dock St - New Stapleton Waterfront	KB	01	11/22/2019	2/6/2020	0	0	0
255	19-735C	Bay St and Thompson St- New Stapleton Waterfront	KB	01	11/22/2019	2/6/2020	0	0	0
256	19-787	Harbor View Pl S (3) bt Bay St and Wadsworth Rd	MA	01	1/29/2020	1/29/2020	0	627	0
257	19-790	Park Av (55) bt Church St and Ann St	MA	01	2/27/2020	2/27/2020	0	0	0
258	19-791	Ely Av bt Bennett Av and Downes Av	MA	03	1/23/2020	1/23/2020	0	192	0
259	20-040	Hamden Av (216) bt Husson St and Hylan Blvd	MA	02	2/13/2020	2/13/2020	0	0	0
260	20-050	Hudson St (18) bt Cedar St and Gray St	MA	01	3/2/2020	3/2/2020	0	0	0
261	20-060	New Dorp Ln (465) bt Miller Field Bndy and Sanchez Dr - New Dorp I	TC	02	2/24/2020	2/24/2020	0	0	0
262	20-072	Luten Av (100) bt Deisius St and Eylandt St	TC	03	2/24/2020	2/24/2020	0	0	0
263	20-102	Faber St (54) bt Larkin St and Grove Av	CO	01	3/31/2020	3/31/2020	0	700	0
264	20-109	Bloomngdale Rd (449) bt Mandy Ct and Marvin Rd	CO	03	3/31/2020	3/31/2020	0	300	0
265	20-130	Vulcan St (61) bt Olympia Blvd and Patterson Av	MA	02	3/2/2020	3/2/2020	0	547	0
266	20-175	Prospect St (10) bt Front St and Staten Island Railway Line	TC	01	3/16/2020	3/16/2020	0	337	0
267	20-186	Quinlan Av (37) bt Victory Blvd and Purdy Av	TC	01	3/12/2020	3/12/2020	0	0	0
268	20-222	Arthur Kill Rd (2790) bt Grille Ct and Chemical Ln	JS	03	8/4/2020	8/4/2020	0	0	0
269	20-241	Vicinity of Shore Acres Rd	SA		5/21/2020	6/18/2020	0	0	0
270	20-268	Annadale Rd (683) bt Rye Av and Arden Av	LJ	03	5/15/2020	5/15/2020	0	139	0
271	20-274	Middle Loop Rd (96) bt Armstrong Ave and Cortelyou Ave	JS	03	5/26/2020	5/26/2020	0	0	0
272	20-289	Fairbanks Av and Platt St	JS	03	8/4/2020	-	0	0	0
273	20-320	Rhine Av and Dekalb St	TC	01	7/1/2020	7/1/2020	0	362	0
274	20-323	Wilder Av bt Morton St and Richmond Rd	JS	03	8/4/2020	-	0	0	0
275	20-324	Clove Rd bt W Fingerboard and Whitney Av and Leslie Av	JS	02	6/17/2020	8/4/2020	0	0	0
276	20-328	Burden Av (149) bt LaForge Pl and DE	TC	01	7/1/2020	7/1/2020	0	25	0
277	20-359	Brielle Ave (475) bt Rockland Ave and Friendship Ln	JS	02	6/9/2020	7/2/2020	0	0	0
278	20-360	Hillcrest Ter (130) bt Clove Rd and Hillcrest Ct	CO	02	7/2/2020	7/2/2020	0	0	500
279	20-413	Pacific Av (11) bt Hylan Blvd and Beach Rd	TL	03	8/19/2020	8/19/2020	0	0	0
280	20-421	Arden Av (543) bt Sinclair Av and Sheldon Av-Sanitary	TC	03	7/27/2020	7/27/2020	0	206	0
281	20-421A	Arden Av (543) bt Sinclair Av and Sheldon Av-Storm	TC	03	7/27/2020	7/27/2020	0	41	0
282	20-535	Gordon St (14) bt DE and Grove St	KB	01	9/29/2020	9/29/2020	0	0	0
283	20-541	St Marks Pl (205) bt Bend and Hamilton Av	TC	01	9/17/2020	9/17/2020	0	244	0
284	20-554	Creston Pl (37) bt Bend and DE	KB	01	11/13/2020	11/13/2020	0	0	0
285	20-563	Hopkins Av (92) bt Twombly Av and O'Gorman Av	KB	03	10/6/2020	10/6/2020	0	417	0
286	20-571	Aviston St (134) bt Amherst Av and Riga St	KB	03	10/6/2020	10/6/2020	0	222	0
287	20-639	Simonson Av (124) bt NYCTA Subway and Heusden St	KB	01	11/6/2020	11/6/2020	0	224	0
288	20-663	Mountainview Av (48) bt Victory Blvd and Purdy Av	KB	01	11/25/2020	11/25/2020	0	0	0
289	20-668	Vulcan St (1) bt Nugent Av and Olympia Blvd	KB	02	12/1/2020	12/1/2020	0	0	0

Apeendix 2.1.4.1.5: The Bronx

N	LOG	Location	Ins	CB	Start	Comp	*Footage (LF)		
							Cleaned	Surveyed	Walked
290	17-752	UnderCliff Av (1725) bt W 176 St and Sedgwick Av	TC	05	1/7/2020	1/7/2020	0	0	0
291	18-024	Spencer Av (6031) bt DE and W 261 St	TC	08	1/7/2020	1/7/2020	0	0	0
292	18-447	Bruckner Blvd (2505) bt Bruckner Exp Et 6 B WB and Hutchinson Rv	KB	10	1/25/2020	1/25/2020	0	0	0
293	19-248	Whitlock Av bt E 165 St and Aldus St	TC	02	1/21/2020	1/21/2020	0	0	0
294	19-308	E 241 St (714) bt Cranford Av and Furman Av	TC	12	4/7/2020	4/7/2020	0	108	0
295	19-708	E (261) 206 St bt Rochambeau Av and Bainbridge Av	RF	07	10/27/2019	1/22/2020	0	0	0
296	19-806	Dawson St (915) bt Rogers Pl and Intervale Av	RF	02	1/22/2020	1/22/2020	0	0	0
297	19-813	Jackson Av (603) bt Pontiac Pl and E 151 St	RF	01	1/7/2020	1/7/2020	0	0	0
298	20-023	Boston Rd (2082) bt E 179 St and E 180 St	TC	06	2/7/2020	2/7/2020	0	0	0
299	20-062	Webster Av (3050) bt E Mosholu Pkwy N and E 202 St - PS 20	TC	07	2/11/2020	2/11/2020	0	0	0
300	20-063	White Plains Rd (456) bt Patterson Av and Lacombe Av	TL	09	2/13/2020	2/13/2020	0	0	0
301	20-064	E Tremont Av (3000) bt Tan Pl and Hutchinson Rvr Py Sb Westche	TC	10	2/13/2020	2/13/2020	0	0	0
302	20-065	Terrace View Av (99) bt Adrian Av and Teunissen Pl - JFK HS	TC	08	2/11/2020	2/11/2020	0	0	0
303	20-066	Westchester Av (2697) bt Waters Av and Hutchinson Rvr Py Sb West	TC	11	2/13/2020	2/13/2020	0	0	0
304	20-090	W 247 St (613) bt Alderbrook Rd and Arlington Av	CO	08	3/19/2020	3/31/2020	0	450	0
305	20-091	Olinville Av (2523) bt Mace Av and Allerton Av	TC	11	2/28/2020	2/28/2020	0	303	0
306	20-099	Mcowen Av (3544) bt Hollers Av and Bend	TC	12	3/3/2020	3/3/2020	0	545	0
307	20-118	E 218 St (842) bt Barnes Av and Bronxwood Av	KB	12	3/3/2020	3/3/2020	0	0	0
308	20-142	Harper Av (3947) bt E 233 St and Borough Bndy	TC	12	3/3/2020	3/3/2020	0	0	0
309	20-189	E 206 St (261) bt Rochambeau Av and Bainbridge Av	KB	07	7/29/2020	7/29/2020	0	0	0
310	20-191	Lincoln Av (101) bt E 132 St and Bruckner Blvd	TC	01	3/14/2020	3/14/2020	0	330	0
311	20-202	E 16 St (204) bt Jerome Av and Villa Av	KB	07	3/27/2020	3/27/2020	0	0	0
312	20-203	Jackson Av (603) bt Pontiac Pl and E 151 St	KB	01	5/5/2020	5/5/2020	0	0	0
313	20-206	E Gun Hill Rd (881) bt Barnes Av and Bronxwood Av	TC	12	4/30/2020	4/30/2020	0	0	0
314	20-223	Siegfried Pl (1339) bt DE and Valhalla Dr	TC	10	6/3/2020	6/3/2020	0	535	0
315	20-247	Leggett Av (1080) bt Garrison Av and Barry St	TC	02	4/30/2020	4/30/2020	0	0	0
316	20-280	Jerome Ave (2501) bt E 190 St and W 192 St	JS	07	5/26/2020	5/26/2020	0	0	0
317	20-288	Anthony Av (2075) bt E Burnside Av and E 180 St	TC	05	6/9/2020	6/9/2020	0	459	0
318	20-318	3 Av (2447) bt E 134 St and E 135 St	TC	01	6/30/2020	6/30/2020	0	0	0
319	20-393	Grosvenor Av (5310) bt Bend and Iselin Av	TC	08	8/4/2020	8/4/2020	0	0	0
320	20-395	Bridge Replacement of E 138 St over Major Deegan-D037941-01	TC	01	7/20/2020	7/20/2020	0	0	0
321	20-437	E 214 St (738) bt Holland Av and Barnes Av	TC	12	9/29/2020	9/29/2020	0	0	0
322	20-512	Tiemann Av bt Allerton Av and E Gun Hill Rd -PDX-005-20	TC	11	9/3/2020	9/3/2020	0	216	0
323	20-539	E (180) 132 St bt Lincoln Av and Alexander Av	KB	01	10/9/2020	10/9/2020	0	164	0
324	20-540	E 149 St (567) bt Brooks Av and Anns Av	TC	01	9/21/2020	9/21/2020	0	0	0
325	20-557	3 Av (2455) bt E 134 St and E 135 St	TC	01	9/30/2020	9/30/2020	0	0	0
326	20-560	E 236 St (711) bt White Plains Rd and Furman Av-NYSDOT Pin X110	TC	12	10/22/2020	10/22/2020	0	0	0
327	20-564	Macombs Rd (1504-1518) bt Cromwell Av and Goble Pl	KB	04	10/20/2020	10/20/2020	0	857	0
328	20-572	Fieldston Rd (5437) bt Henry Hudson Py SB En Fields and Bend	KB	08	11/18/2020	11/18/2020	0	15	0
329	20-594	Bruner Av and Ely Av	PR		10/14/2020	10/27/2020	0	521	0
330	20-656	Park Av (3500) bt E 167 St and E 168 ST	TC	03	12/1/2020	12/1/2020	0	0	0
331	20-702	Watson Av (1484) bt Evergreen Av and Wheeler Av	TC	09	12/1/2020	12/1/2020	0	0	0
332	20-703	Webster Av (2302) bt E 183 St and E 184 St	TC	06	12/1/2020	12/1/2020	0	0	0
333	20-708	Hollers Av (2566) bt Ropes Av and Pelham Bay Park W	TC	12	12/15/2020	12/15/2020	0	0	0
334	20-710	Siegfried Pl (1339) bt DE and Valhalla Dr	TC	10	12/10/2020	12/10/2020	0	168	0

2020 In-House Survey Total, LF:

38,089

(7.21 mi)

1/2/2020

12/31/2020

1,283

31,717

5,089

Operating Expenses, \$

* No footage indicates investigation where inspection of sewers was not required or completed

Appendix 2.1.4.2: Citywide

Apeendix 2.1.4.2.1: Brooklyn

N	LOG	Location	Ins	CB	Start	Comp	*Footage (LF)		
							Cleaned	Surveyed	Walked
335	15-857	E 80 St (925) bt Flatlands Av and Av J	MA	18	4/30/2020	4/30/2020	670	0	0
336	18-154	Evergreen Ave (345)	EV	04	1/23/2020	1/24/2020	1,154	0	0
337	18-156	2 St (112)	EV	06	1/22/2020	1/22/2020	597	0	0
338	18-200	Preston Ct (5814) bt E 56 St and E 80 St	RF	18	5/11/2020	-	0	0	0
339	18-216	Brighton 4 Rd and Brighton 4 St	NH	13	6/4/2020	6/9/2020	1,350	0	0
340	18-220	Ocean Pkwy (269)	JB	12	2/21/2020	2/24/2020	0	0	0
341	18-244	McDonald Av (422) bt Albemarle Rd and Church Av	PR	12	2/21/2020	2/24/2020	752	0	0
342	18-246	Av P (1610) bt E 16 St and E 17 St	CO	15	12/10/2019	-	276	0	0
343	18-253	Stillwell Av bt 27 Av and Bay 46 St	MA	13	5/15/2020	5/19/2020	1,089	0	0
344	18-280	7 Av (9216) bt 92 St and Bend	DC	10	4/22/2020	4/29/2020	189	0	0
			MA	10	4/22/2020	4/29/2020	1,747	0	0
			SA	10	4/22/2020	4/29/2020	440	0	0
345	18-294	Berriman St (153) bt Glenmore Av and Pitkin Av	CO	05	1/20/2020	1/24/2020	651	0	0
			JB	05	1/20/2020	1/24/2020	406	0	0
346	18-324	56 St (732) bt 7 Av and 8 Av	CO	07	1/31/2020	2/3/2020	745	0	0
347	18-402	Ten Eyck St (10) bt Union Av and Lorimer St	CO	01	8/19/2020	8/19/2020	625	0	0
348	18-460	Ocean Av (2055) bt Avenue O and Avenue P	EV	14	6/25/2020	11/23/2020	179	0	0
			KB	14	6/25/2020	11/23/2020	587	0	0
			MA	14	6/25/2020	11/23/2020	2,154	0	0
349	18-513	39 St (412) bt 4 Av and 5 Av	EV	07	2/24/2020	2/24/2020	740	0	0
350	18-536	6 Av (7308) bt 72 St and 73 St	DC	10	2/10/2020	2/12/2020	0	0	0
			FM	10	2/10/2020	2/12/2020	564	0	0
351	18-557	E 100 St (1058) bt Av J and Av K	MA	18	11/27/2020	11/27/2020	959	0	0
352	18-577	4 Av (778) bt 26 St and 27 St	DC	07	3/19/2020	3/20/2020	216	0	0
353	18-688	Blake Av and Rockaway Av	DC	16	5/4/2020	5/6/2020	82	0	0
			MA	16	5/4/2020	5/6/2020	583	0	0
354	18-691	12 St (145) bt 2 Av and 3 Av	EV	06	2/25/2020	2/26/2020	910	0	0
355	18-720	Cortelyou Rd (913) bt E 9 St and Coney Island Av	CO	12	3/17/2020	3/19/2020	718	0	0
			DC	12	3/17/2020	3/19/2020	0	0	0
356	18-726	Watkins St bt Riverdale Av and Newport St	CO	16	5/27/2020	5/27/2020	566	0	0
357	18-733	Coney Island Av (1380) bt Av J and Av K	RF	12	4/13/2020	4/15/2020	820	0	0
			NH	12	4/13/2020	4/15/2020	45	0	0
358	18-772	Atlantic Av (2815) bt Hendrix St and Schenck Av	MA	05	10/23/2020	10/23/2020	264	0	0
359	18-775	5 Av (7501) bt Bay Ridge Pkwy and 76 St	MA	10	5/21/2020	5/22/2020	611	0	0
360	18-783	18 Av (8601) bt 86 St and Benson Av	RF	11	6/1/2020	6/3/2020	230	0	0
			NH	11	6/1/2020	6/3/2020	879	0	0
361	18-823	Rutland Rd (999A) bt E 93 St and E 94 St	JB	17	2/24/2020	2/25/2020	977	0	0
362	18-879	Av N and Veterans Av	KB	18	7/1/2020	-	433	0	0
			RF	18	7/1/2020	-	641	0	0
			SA	18	7/1/2020	-	466	0	0
363	18-882	Schenck Av bt Livonia Av and New Lots Av	JS	05	3/20/2020	3/20/2020	382	0	0
364	18-894	Bay Pkwy (8404) bt 84 St and 85 St	AB	11	1/14/2020	1/15/2020	1,050	0	0
365	19-021	Crescent St bt Fulton St and Atlantic Av	MA	05	6/12/2020	6/15/2020	1,039	0	0
366	19-083	Butler St (186) bt Nevins St and Bond St	EV	06	2/21/2020	-	486	0	0
367	19-086	Flatbush Av (2301) bt Av S and Fillmore Av	SA	18	5/28/2020	5/29/2020	1,027	0	0
368	19-087	St Marks Av (1218) bt Utica Av and Rochester Av	EV	08	1/30/2020	1/31/2020	1,052	0	0
369	19-107	8 Av and 44 St	JS	07	8/10/2020	8/11/2020	288	0	0
			MA	07	8/10/2020	8/11/2020	489	0	0
370	19-131	Sutter Av bt Barbey St and Jerome St	EV	05	3/11/2020	3/11/2020	226	0	0
371	19-148	Ralph Av (65) bt Monroe St and Madison St	MA	03	4/23/2020	6/12/2020	358	0	0
			RF	03	4/23/2020	6/12/2020	261	0	0
			SA	03	4/23/2020	6/12/2020	432	0	0
372	19-149	W 24 St (2970) bt Mermaid Av and Surf Av	DC	13	4/24/2020	-	467	0	0
373	19-154	E 84 St (1031) bt Av J and Church La	EV	18	2/3/2020	2/4/2020	1,438	0	0
374	19-183	Autumn Av (294) bt Fulton St and Atlantic Av	DC	05	1/29/2020	1/30/2020	487	0	0
			PR	05	1/29/2020	1/30/2020	653	0	0
375	19-200	18 Av (4504) bt 45 St and 46 St	RF	12	4/16/2020	4/20/2020	856	0	0
376	19-210	Nostrand Av (952) bt Crown St and Montgomery	RF	09	3/27/2020	-	351	0	0
377	19-253	3 Ave (7316) bt 73 St and 74 St	JS	10	1/20/2020	1/21/2020	853	0	0
			SA	10	1/20/2020	1/21/2020	249	0	0
378	19-254	Bay 37 St (22) bt 86 St and Benson Ave	AB	11	1/10/2020	1/13/2020	649	0	0
379	19-274	86 St (1525) bt 15 Av and Bay 10 St	AB	11	1/13/2020	1/14/2020	726	0	0
380	19-275	Albemarle Rd (1215) bt Westminister Rd and Argyle Rd	AB	14	2/4/2020	2/5/2020	39	0	0

N	LOG	Location	Ins	CB	Start	Comp	*Footage (LF)		
							Cleaned	Surveyed	Walked
381	19-276	Brighton 11 St (120) bt Ocean View Av and Brighton B Av	DC	13	5/6/2020	5/8/2020	618	0	0
382	19-277	Essex St (272) bt Atlantic Av and Liberty Av	DC	05	3/20/2020	-	0	0	0
383	19-279	Av M (2115) bt E 21 St and E 22 St	EV	14	2/27/2020	2/27/2020	243	0	0
384	19-280	Bay Pkwy (8655) bt 86 St and Benson Av	AB	11	2/5/2020	2/7/2020	737	0	0
385	19-281	Sunnyside Av (207) bt Barbey St and Sunnyside Ct	NH	05	6/10/2020	6/10/2020	382	0	0
386	19-284	Kent St (148) bt Franklin St and Manhattan Av	MA	01	5/5/2020	5/6/2020	934	0	0
387	19-285	5 Av (285) bt 1 St and 2 St	DC	06	3/19/2020	3/19/2020	215	0	0
388	19-286	Humboldt St (661) bt Driggs Av and Nassau Av	CO	01	1/30/2020	1/31/2020	424	0	0
			DC	01	1/30/2020	1/31/2020	493	0	0
389	19-287	E 7 St (2478) bt Dunne Ct and Av Y	CO	15	5/18/2020	5/26/2020	211	0	0
			JP	15	5/18/2020	5/26/2020	789	0	0
			NH	15	5/18/2020	5/26/2020	988	0	0
390	19-344	Park Av and Tompkins Av	JS	03	5/12/2020	8/13/2020	75	0	0
			MA	03	5/12/2020	8/13/2020	1,108	0	0
			RF	03	5/12/2020	8/13/2020	927	0	0
			NH	03	5/12/2020	8/13/2020	866	0	0
391	19-376	Stillwell Av (2331) bt Av W and Av X	AB	13	1/2/2020	1/6/2020	468	0	0
392	19-377	39 St (1550) bt 15 Av and 16 Av	JB	13	1/2/2020	1/6/2020	1,237	0	0
393	19-404	E 23 St (754) bt Campus Rd and Campus Rd	AB	14	1/2/2020	1/7/2020	257	0	0
			JL	14	1/2/2020	1/7/2020	258	0	0
			JP	14	1/2/2020	1/7/2020	635	0	0
394	19-421	Dean St (1501) bt Albany Av and Troy Av	EV	08	2/10/2020	2/10/2020	733	0	0
395	19-427	E 19 St and Newkirk Av	EV	14	2/5/2020	2/7/2020	1,216	0	0
396	19-462	Hewes St (272) bt Marcy Av and Harrison Av	EV	01	3/9/2020	3/9/2020	619	0	0
397	19-538	Fillmore Av (3317) bt E 33 St and E 34 St	AB	18	2/7/2020	2/7/2020	542	0	0
398	19-539	Av D (9601) bt E 96 St and Rockaway Pkwy	RF	18	4/9/2020	4/9/2020	553	0	0
399	19-541	Belmont Av (695) bt Ashford St and Cleveland St	EV	05	2/27/2020	2/27/2020	225	0	0
400	19-543	4 Av bt 41 St and 42 St	JB	07	1/9/2020	1/9/2020	325	0	0
401	19-544	4 Av (516) bt 13 St and 14 St	JB	06	1/8/2020	1/8/2020	236	0	0
402	19-573	4 Ave (6818) bt Bay Ridge Ave and 68 St	AB	10	1/17/2020	1/20/2020	238	0	0
			SA	10	1/17/2020	1/20/2020	419	0	0
403	19-585	E 96 St (409) bt Lenox Rd and Willmohr St	EV	17	1/29/2020	1/29/2020	691	0	0
404	19-586	Jefferson Av bt Marcus Garvey Blvd and Lewis Av	MA	03	7/22/2020	7/23/2020	523	0	0
405	19-587	Av B (9521) bt E 95 St and E 96 St	AB	17	1/8/2020	1/8/2020	320	0	0
406	19-606	85 St (2376) bt 23 Av and 24 Av	AB	11	1/9/2020	-	0	0	0
407	19-607	Ocean Av (2350) bt Av R and Av S	CO	15	4/9/2020	4/10/2020	0	0	0
			MA	15	4/9/2020	4/10/2020	792	0	0
408	19-608	Macon St (346) bt Marcus Garvey Blvd and Lewis Av	DC	3	2/18/2020	2/19/2020	784	0	0
409	19-609	Stanhope St (235) bt Knickerbocker Av and Irving Av	EV	04	1/28/2020	1/28/2020	700	0	0
410	19-611	W 8 St (1515) bt Av O and Av P	DC	11	2/20/2020	2/20/2020	780	0	0
411	19-613	Miller Av (446) bt Sutter Av and Blake Av	EV	05	9/2/2020	9/15/2020	135	0	0
			MA	05	9/2/2020	9/15/2020	990	0	0
			PR	05	9/2/2020	9/15/2020	0	0	0
412	19-614	E 26 St (1064) bt Av J and Av K	DC	14	4/21/2020	4/22/2020	0	0	0
			JS	14	4/21/2020	4/22/2020	963	0	0
413	19-616	Logan St (411) bt Liberty Av and Glenmore Av	EV	05	2/28/2020	3/5/2020	1,808	0	0
414	19-617	Av M (2706) bt E 27 St and E 28 St	RF	14	4/20/2020	4/20/2020	259	0	0
415	19-618	Ditmas Av bt Argyle Rd and Rugby Rd	DC	14	4/24/2020	4/27/2020	143	0	0
416	19-619	Av J (9613) bt E 96 St and Rockaway Pkwy	MA	18	5/4/2020	5/5/2020	632	0	0
417	19-649	Hicks St and State St	RF	02	6/29/2020	7/1/2020	985	0	0
418	19-650	Dean St (345) bt 3 Av and 4 Av	RF	02	3/24/2020	3/26/2020	808	0	0
419	19-659	Miller Av (397) bt Belmont Av and Sutter Av	CO	05	3/20/2020	4/8/2020	131	0	0
			DC	05	3/20/2020	4/8/2020	0	0	0
			JP	05	3/20/2020	4/8/2020	455	0	0
			JS	05	3/20/2020	4/8/2020	110	0	0
			PR	05	3/20/2020	4/8/2020	0	0	0
420	19-660	Hinsdale St (670) bt New Lots Av and Linden Blvd	DP	05	3/20/2020	4/8/2020	0	0	0
			EV	05	2/11/2020	2/11/2020	741	0	0
421	19-671	15 Av (80-14) bt 80 St and 81 St	JS	11	3/23/2020	-	479	0	0
422	19-699	Flatbush Av (1324) bt Foster Av and E 26 St	MA	14	7/23/2020	-	1,030	0	0
423	19-721	Glenmore Av (666) bt Ashford St and Warwick St	EV	05	1/31/2020	2/3/2020	848	0	0
424	19-762	3 St (214) bt Body of Water and 3 Av	MA	06	10/14/2020	10/14/2020	508	0	0
425	20-008	50 St (1876) bt LIRR Bay Ridge Line and 19 Av	EV	12	1/27/2020	1/27/2020	370	0	0
426	20-010	Fort Hamilton Pkwy (4420) bt New Utrecht Av and 45 St	MA	12	7/14/2020	8/3/2020	0	0	0
			SA	12	7/9/2020	8/3/2020	495	0	0

N	LOG	Location	Ins	CB	Start	Comp	*Footage (LF)		
							Cleaned	Surveyed	Walked
427	20-016	92 St Deep Manhole Reinspections Locations in Brooklyn	EC		6/9/2020	6/10/2020	0	0	0
			EV		1/22/2020	43886	0	0	0
			KB		1/22/2020	43886	0	0	0
			KB		6/9/2020	43992	0	0	0
			TC		6/9/2020	6/10/2020	0	0	0
428	20-031	Hancock St (458) bt Lewis Av and Marcus Garvey Blvd	EV	03	2/18/2020	2/19/2020	1,002	0	0
429	20-032	Broadway (143) bt Driggs Av and Bedford Av	MA	0	5/6/2020	43958	598	0	0
430	20-033	Dean St (172) bt Hoyt St and Bond St	NH	02	3/17/2020	43909	1,447	0	0
431	20-053	Clymer St (185) bt Bedford Av and Bend	FM	01	2/10/2020	43871	510	0	0
432	20-054	Ocean Pkwy (1543) bt Av O and Av P	MA	12	5/20/2020	43972	375	0	0
433	20-087	40 St (1430) bt 14 Av and 15 Av	EV	12	3/10/2020	43901	0	0	0
434	20-122	45 St (961) bt 9 Av and 10 Av	MA	12	5/13/2020	5/15/2020	637	0	0
435	20-124	50 St (1758) bt Old New Utrecht Rd and 18 Av	EV	12	3/10/2020	43900	428	0	0
436	20-145	60 St bt 4 Av and 5 Av	NH	07	6/24/2020	6/25/2020	724	0	0
437	20-153	2 Av bt 42 St and 43 St	NH	07	6/25/2020	6/26/2020	566	0	0
438	20-155	E 68 St (2117) bt Av U and E Mill Basin Shoreline	EV	18	3/9/2020	3/9/2020	270	0	0
439	20-163	E 57 St (1079) bt Av J and Av K	EV	18	3/5/2020	3/6/2020	796	0	0
440	20-166	E 3 St (2354) bt Av X and Av W	MA	15	5/28/2020	6/4/2020	813	0	0
441	20-167	Fulton St (1303) bt Nostrand Av and Verona Pl	RF	03	4/21/2020	4/22/2020	703	0	0
442	20-170	Cropsey Av (3081) bt Hart Pl and Neptune Av (Bend)	CO	13	5/26/2020	5/27/2020	684	0	0
443	20-171	Tompkins Av and Myrtle Av	MA	03	6/18/2020	8/7/2020	1,257	0	0
444	20-172	Ocean pkwy (2601) bt Av Z and Murdock Ct	MA	13	11/3/2020	11/5/2020	795	0	0
445	20-173	Riverdale Av bt Junius St and Powell St	CO	16	4/8/2020	4/9/2020	217	0	0
			PR	16	4/8/2020	4/9/2020	842	0	0
446	20-198	Ocean View Av (229) bt Brighton 2 St and Brighton 3 St	RF	13	4/9/2020	4/16/2020	1,259	0	0
			NH	13	4/9/2020	4/16/2020	263	0	0
447	20-261	6 Av (6804) bt Bay Ridge Av and 68 St	PR	10	4/28/2020	4/28/2020	267	0	0
448	20-263	Schermerhorn St (285) bt Bond St and Nevins St	DC	02	4/29/2020	5/1/2020	627	0	0
			RF	02	4/29/2020	5/1/2020	312	0	0
			SA	02	4/29/2020	5/1/2020	412	0	0
449	20-271	Lee Ave (236) bt Lynch St and Middleton St	RF	01	5/29/2020	6/1/2020	392	0	0
			SA	01	5/29/2020	6/1/2020	429	0	0
450	20-290	Lincoln Rd (105) bt Flatbush Av and Bedford Av	MA	09	6/23/2020	6/23/2020	1,005	0	0
451	20-306	Hopkinson Av (20) bt Macon St and MacDonough St	SA	16	6/12/2020	6/15/2020	217	0	0
452	20-307	49 St (525) bt 5 Av and 6 Av	PR	07	6/15/2020	6/16/2020	787	0	0
			SA	07	6/15/2020	43998	0	0	0
453	20-308	Dean St (374) bt 4 Av and 5 Av	SA	06	6/22/2020	44004	714	0	0
454	20-311	Shore Pkwy (1739) bt 24 Av and Bay 37 St	MA	11	6/24/2020	44006	416	0	0
455	20-312	E 95 St (896) bt Nolans Ln and Foster Av	PR	18	6/16/2020	43999	701	0	0
456	20-313	Seaview Av (10124) bt E 101 St and E 102 St	CO	18	6/18/2020	44006	1,280	0	0
			SA	18	6/18/2020	44006	620	0	0
457	20-317	Grand St bt Lorimer St and Leonard St	KB	01	7/17/2020	7/17/2020	450	0	0
458	20-325	Kingston Av (273) bt St Johns Pl and Lincoln Pl	MA	08	12/7/2020	12/8/2020	987	0	0
459	20-363	Ditmas Av and E 17 St	EV	14	7/8/2020	44022	801	0	0
			JS	14	7/8/2020	44022	711	0	0
			MA	14	7/8/2020	44022	464	0	0
			SA	14	7/8/2020	44022	398	0	0
460	20-373	Mermaid Av and W 15 St - Conisph3a	CO	13	8/20/2020	8/26/2020	792	0	0
			SA	13	8/20/2020	8/26/2020	1,421	0	0
461	20-374	Av M bt E 87 St and E 86 St	CO	18	7/12/2020	12/4/2020	0	0	0
			DC	18	7/12/2020	12/4/2020	0	0	0
			EV	18	7/12/2020	12/4/2020	0	0	0
			JL	18	7/12/2020	12/4/2020	0	0	0
			JP	18	7/12/2020	12/4/2020	0	0	0
			JS	18	7/12/2020	12/4/2020	0	0	0
			MA	18	7/12/2020	12/4/2020	0	0	0
			PR	18	7/12/2020	12/4/2020	0	0	0
			RF	18	7/12/2020	12/4/2020	0	0	0
			SA	18	7/12/2020	12/4/2020	0	0	0
			TC	18	7/12/2020	12/4/2020	0	0	0
			ZS	18	7/12/2020	12/4/2020	0	0	0
462	20-380	Madison St (1079) bt Evergreen Av and Central Av	TB	18	7/12/2020	12/4/2020	0	0	0
			KB	04	7/17/2020	7/21/2020	265	0	0
463	20-399	S 2 St (408) bt Hooper St and Hewes St	MA	04	7/17/2020	7/21/2020	400	0	0
			EV	01	10/13/2020	10/13/2020	442	0	0
464	20-402	6 St (288) bt 4 Av and 5 Av	MA	06	7/23/2020	7/27/2020	730	0	0
			NA	06	7/23/2020	7/27/2020	0	0	0
465	20-420	Plymouth St bt Pearl St and Jay St	CO	02	8/27/2020	9/23/2020	127	0	0
			MA	02	8/27/2020	9/23/2020	22	0	0
			PR	02	8/27/2020	9/23/2020	0	0	0
			SA	02	8/27/2020	9/23/2020	102	0	0

N	LOG	Location	Ins	CB	Start	Comp	*Footage (LF)		
							Cleaned	Surveyed	Walked
466	20-424	S 5 St (404) bt Hooper St and Hewes St	CO	01	8/18/2020	8/18/2020	867	0	0
467	20-430	Riverdale Av and Bristol St	EV	16	8/5/2020	8/10/2020	1,110	0	0
			MA	16	8/5/2020	8/10/2020	36	0	0
468	20-446	Dennett Pl (8) bt Luquer St and Nelson St	EV	06	10/8/2020	10/8/2020	216	0	0
469	20-453	E 32 St (382) bt Clarendon Rd and Av D	MA	17	10/1/2020	10/2/2020	305	0	0
			RF	17	10/1/2020	10/2/2020	503	0	0
470	20-459	St Francis Pl (12) bt St Johns Pl and Lincoln Pl	PR	08	8/31/2020	9/1/2020	282	0	0
471	20-467	Plymouth St and Adams St	CO		8/21/2020	8/21/2020	64	0	0
472	20-471	Putman Av (457) bt Tompkins Av and Throop Av	MA	03	8/27/2020	9/2/2020	815	0	0
473	20-485	Av I bt E 45 St and Troy Av	EV	18	10/5/2020	10/9/2020	267	0	0
			EV		10/6/2020	10/6/2020	0	0	0
			MA	18	10/5/2020	10/9/2020	791	0	0
474	20-487	Av T and W 5 St	EV	11	8/28/2020	9/2/2020	207	0	0
			PR	11	9/2/2020	9/4/2020	21	0	0
			PR		8/28/2020	9/2/2020	1,040	0	0
			PRA	11	9/2/2020	9/4/2020	686	0	0
475	20-489	Junius St and Lott Av	EV	16	10/2/2020	-	113	0	0
			MA	16	10/2/2020	-	706	0	0
476	20-490	New Lots Av (775) bt Cleveland St and Elton St	MA	05	9/30/2020	-	0	0	0
			RF	05	9/30/2020	-	230	0	0
477	20-491	Fulton St (3443) bt Nichols Av and Grant Av	MA	05	10/22/2020	10/22/2020	299	0	0
478	20-492	E 3 St (2196) bt Av U and Av V	EV	15	9/29/2020	10/13/2020	1,543	0	0
479	20-493	Miller Av (557) bt Dumont Av and Livonia Av	EV	05	9/11/2020	9/15/2020	277	0	0
			MA	05	9/11/2020	9/15/2020	294	0	0
			PR	05	9/11/2020	9/15/2020	0	0	0
480	20-494	Flatbush Av (934) bt Church Av and Snyder Av	MA	14	8/31/2020	9/1/2020	1,330	0	0
481	20-497	E 46 St (1420) bt Av J and Av K	MA	18	9/29/2020	-	362	0	0
482	20-498	Autumn Av (122) bt Etna St and Danforth St	PR	05	9/1/2020	9/1/2020	78	0	0
483	20-501	Logan St (498) bt Pitkin Av and Belmont Av	MA	05	9/3/2020	9/4/2020	118	0	0
			PR	05	9/3/2020	9/4/2020	357	0	0
484	20-503	Chestnut St (402) bt Liberty Av and Glenmore Av	MA	05	9/2/2020	9/2/2020	470	0	0
485	20-507	New York Av bt Av H and Glenwood Rd	MA	17	9/10/2020	9/10/2020	854	0	0
486	20-508	Weldon St (65) bt Euclid Av and Crescent St	MA	05	9/4/2020	9/4/2020	562	0	0
487	20-518	73 St (460) bt 4 Av and 5 Av	MA	10	9/22/2020	9/22/2020	765	0	0
488	20-519	W 12 St (1541) bt Bay Pkwy and Av P	DC	11	9/21/2020	9/22/2020	190	0	0
			MA	11	9/21/2020	9/22/2020	283	0	0
489	20-520	Coney Island Av (1049) bt Foster Av and Glenwood Rd	MA	14	9/28/2020	9/29/2020	339	0	0
			NH	14	9/28/2020	9/29/2020	150	0	0
490	20-521	E 96 St (1346) bt Holmes Ln and Av L	EV	18	9/11/2020	9/15/2020	620	0	0
			MA	18	9/11/2020	9/15/2020	609	0	0
			PR	18	9/11/2020	9/15/2020	238	0	0
491	20-522	E 59 St bt Av M and Av N	MA	18	9/24/2020	10/28/2020	617	0	0
			SA	18	9/24/2020	10/28/2020	0	0	0
492	20-523	Linwood St bt Hegeman Av and New Lots Av	MA	05	9/18/2020	9/18/2020	829	0	0
493	20-525	Euclid Av (104) bt Etna St and Ridgewood Av	MA	05	9/16/2020	9/16/2020	577	0	0
494	20-527	E 99 St (726) bt Glenwood Rd and Conklin Av	MA	18	9/16/2020	9/17/2020	348	0	0
495	20-528	Evergreen Av (551) bt Jefferson Av and Hancock St	MA	04	9/17/2020	9/18/2020	889	0	0
496	20-529	E 53 St (1306) bt Flatlands Av and Av K	MA	18	9/15/2020	9/16/2020	336	0	0
			PR	18	9/15/2020	9/16/2020	347	0	0
497	20-547	E 54 St (2001) bt Av T and Av U	MA	18	9/25/2020	10/1/2020	874	0	0
			RF	18	9/25/2020	10/1/2020	40	0	0
			SA	18	9/25/2020	10/1/2020	780	0	0
			NH	18	9/25/2020	10/1/2020	0	0	0
498	20-568	E 89 St (742) bt Glenwood Rd and Flatlands Ave	MA	318	12/8/2020	12/9/2020	627	0	0
499	20-575	15 Av (4302) bt 43 St and 44 St	EV	12	10/8/2020	10/9/2020	748	0	0
500	20-583	Sheffield Av and Livonia Av	DC	05	10/28/2020	11/2/2020	740	0	0
			MA	05	10/28/2020	11/2/2020	692	0	0
501	20-584	Av M (2415) bt E 24 St and Bedford Av	MA	14	12/1/2020	12/1/2020	249	0	0
502	20-585	E 23 St (1422) bt Av N and Olean St	SA	14	10/23/2020	10/23/2020	824	0	0
503	20-586	66 St (1649) bt Cameron Ct and Wallaston Ct	SA	11	10/22/2020	10/22/2020	746	0	0
504	20-587	Dumont Av (300) bt Rockaway Av and Osborn St	DC	16	10/26/2020	10/29/2020	110	0	0
			MA	16	10/26/2020	10/29/2020	1,168	0	0
505	20-588	E 95 St (964) bt Foster Av and Farragut Rd	MA	18	10/14/2020	10/15/2020	632	0	0
506	20-590	Glenwood Rd (2713) bt Bend and Kenilworth Pl	DC	14	10/23/2020	10/28/2020	0	0	0
			MA	14	10/23/2020	10/28/2020	248	0	0
507	20-591	Coney Island Av and Parkville Av	KB	14	10/15/2020	10/20/2020	354	0	0
			MA	14	10/15/2020	10/20/2020	598	0	0
508	20-592	Hopkinson Av (527) bt Pitkin Av and Sutter Av	MA	16	10/15/2020	10/22/2020	522	0	0
			SA	16	10/15/2020	10/22/2020	422	0	0

N	LOG	Location	Ins	CB	Start	Comp	*Footage (LF)		
							Cleaned	Surveyed	Walked
509	20-621	E 29 St (647) bt Farragut Rd and Flatbush Av	MA	14	11/12/2020	11/12/2020	839	0	0
510	20-622	58 St (1615) bt 16 Av and DE	MA	12	11/3/2020	11/3/2020	478	0	0
511	20-623	Av F bt McDonald Av and E 2 St	MA	12	11/13/2020	11/16/2020	881	0	0
512	20-624	E 35 St bt Av I and Flatbush Av	DC	18	11/5/2020	11/10/2020	208	0	0
			MA	18	11/5/2020	11/10/2020	1,120	0	0
513	20-641	W 11 St bt Av V and Av W	CO	13	11/2/2020	-	0	0	0
			DC	13	11/2/2020	-	0	0	0
			JP	13	11/2/2020	-	0	0	0
			JS	13	11/2/2020	-	0	0	0
			MA	13	11/2/2020	-	0	0	0
			RF	13	11/2/2020	-	0	0	0
			SA	13	11/2/2020	-	0	0	0
			ZS	13	11/2/2020	-	0	0	0
			TB	13	11/2/2020	-	0	0	0
514	20-646	Gravesend Neck Rd (727) bt E 7 St and E 8 St	EV	15	11/30/2020	11/30/2020	259	0	0
			MA	15	11/30/2020	11/30/2020	504	0	0
515	20-647	Glenwood Rd (9024) bt Remsen Av and Durland Pl	MA	18	11/17/2020	11/28/2020	467	0	0
516	20-648	Barbey St (459) bt Belmont Av and Sutter Av	MA	05	11/16/2020	11/17/2020	466	0	0
517	20-657	E 15 St (854) bt E 15 St Footbridge and Av I	EV	14	11/25/2020	11/25/2020	488	0	0
518	20-658	Foster Av (9233) bt E 92 St and E 93 St	EV	18	11/18/2020	11/24/2020	176	0	0
519	20-689	Dorchester Rd bt E 21 St and Flatbush Av	MA	14	12/1/2020	12/2/2020	538	0	0
520	20-694	Myrtle Av (1466) bt Menahan St and Grove St	MA	04	12/4/2020	12/4/2020	242	0	0
521	20-698	Carroll St (842) bt 8 Av and Prospect Park (W)	MA	06	12/3/2020	12/4/2020	695	0	0

Apeendix 2.1.4.2.2: Manhattan

N	LOG	Location	Ins	CB	Start	Comp	*Footage (LF)		
							Cleaned	Surveyed	Walked
522	13-525	W 125 St (319) bt 8 Av and St Nicholas Av	AB	10	3/3/2020	3/6/2020	840	0	0
523	16-754	Orchard St bt Delancey St and Rivington St	MA	03	6/19/2020	6/22/2020	702	0	0
524	17-661	Bowery (176) bt Kenmare St and Spring St	EV	02	9/23/2020	9/25/2020	314	0	0
525	17-697	Bowery (161) bt Broome St and Delancey St	DC	03	9/25/2020	-	313	0	0
			EV	03	9/25/2020	-	499	0	0
			JL	03	9/25/2020	-	0	0	0
526	18-451	Greenwich St (125) bt Albany St and Thames St	CO	01	5/21/2020	-	0	0	0
			DC	01	5/21/2020	-	134	0	0
527	18-470	E 21 St bt 5 Av and Broadway	EV	05	11/9/2020	11/25/2020	514	0	0
			JL	05	11/9/2020	11/25/2020	1,327	0	0
528	18-533	I Av (160) bt E 9 St and E 10 St	NH	03	4/17/2020	4/28/2020	738	0	0
529	18-704	W 111 St (230) bt Adam Clayton Powell Jr Blvd and Frederick Douglass	AB	10	3/5/2020	3/10/2020	0	0	0
			MA	10	3/5/2020	3/10/2020	715	0	0
530	18-715	E 117 St (250) bt 3 Av and 2 Av	EV	11	3/24/2020	3/30/2020	786	0	0
531	18-728	Charlton St (96) bt Hudson St and Greenwich St	EV	02	3/26/2020	3/27/2020	509	0	0
532	18-731	Jones St (21) bt W 4 St and Bleecker St	NH	02	3/26/2020	3/31/2020	703	0	0
533	18-757	3 Av (708) bt E 44 St and E 45 St	EV	06	7/13/2020	7/21/2020	547	0	0
534	18-820	W 28 St (530) bt High Line and 11 Av	AB	04	2/11/2020	11/27/2020	598	0	0
			CO	04	2/11/2020	11/27/2020	121	0	0
535	18-832	Greenwich Av (79) bt Bank St and W 11 St	AB	02	1/13/2020	1/24/2020	1,605	0	0
			FM	02	1/13/2020	1/24/2020	98	0	0
			RF	02	1/13/2020	1/24/2020	199	0	0
536	18-899	W 148 St (302) bt Bradhurst Av and Frederick Douglass Blvd	EV	10	10/27/2020	11/5/2020	166	0	0
			JL	10	10/27/2020	11/5/2020	504	0	0
537	19-062	W 42 St (130) bt Av of the Americas and Broadway	EV	05	7/22/2020	7/22/2020	495	0	0
538	19-207	W 135 St (601) bt Broadway and Riverside Dr	AB	09	2/21/2020	2/25/2020	291	0	0
			FM	09	2/21/2020	2/25/2020	201	0	0
539	19-217	Hudson St (435) bt Leroy St and Morton St	EV	02	9/17/2020	9/21/2020	99	0	0
			PR	02	9/17/2020	9/21/2020	218	0	0
540	19-504	W 85 St (24) bt Central Park W and Columbus Av	FM	07	2/25/2020	3/3/2020	650	0	0
541	19-592	W 73 St and Amsterdam Av	AB	07	2/19/2020	2/24/2020	462	0	0
			FM	07	2/19/2020	2/24/2020	179	0	0
542	19-593	W 113 St (229) bt Adam Clayton Powell Jr Blvd and Frederick Douglass	FM	10	2/3/2020	-	338	0	0
			JB	10	1/31/2020	2/3/2020	0	0	0
543	19-628	LaGuardia Pl (540) bt Bleecker St and W 3 St	EV	02	9/14/2020	9/17/2020	329	0	0
			PR	02	9/14/2020	9/17/2020	110	0	0
544	19-640	W 119 St (32) bt 5 Av and Lenox Av	JS	10	4/9/2020	4/14/2020	420	0	0
			PR	10	4/9/2020	4/14/2020	470	0	0
			SA	10	4/9/2020	4/14/2020	35	0	0
545	19-645	Edgecombe Av (104) bt W 139 St and W 140 St	AB	10	3/3/2020	3/3/2020	211	0	0
546	19-682	W End Av (55) bt W 62 St and Thelonious Monk Crcl	AB	07	2/20/2020	-	125	0	0
547	19-684	Broadway (1900) bt W 63 St and W 64 St	EV	07	10/27/2020	10/28/2020	0	0	0
			JL	07	10/27/2020	10/28/2020	300	0	0
548	19-695	7 Av bt W 41 St and W 42 St-MED679	FM	05	2/26/2020	2/27/2020	241	0	0
549	19-719	Bridge St and Broad St	AB	01	12/17/2019	12/19/2019	6	0	0
			EC	01	1/27/2020	2/4/2020	0	0	0
			FM	01	1/27/2020	2/4/2020	0	0	0
			JB	01	1/27/2020	2/4/2020	0	0	0
550	19-795	King St bt Greenwich St and Hudson St	JB	02	1/28/2020	1/30/2020	428	0	0
551	19-796	Academy St and Broadway	EV	12	9/21/2020	9/23/2020	948	0	0
552	20-005	Broadway and W 63 St	FM	07	1/14/2020	1/17/2020	1,786	0	0
553	20-047	Hamilton Terr (22) bt W 141 St and W 144 St	AB	09	3/2/2020	3/2/2020	880	0	0
554	20-048	6 Av (1330) bt W 53 St and W 54 St	JL	05	8/13/2020	8/18/2020	309	0	0
			TC	05	8/13/2020	8/18/2020	0	0	0
555	20-111	W 35 St (225) bt 7 Av and 8 Av	NH	05	4/2/2020	4/3/2020	983	0	0
556	20-125	I Av bt E 68 St and E 69 St	NH	08	3/24/2020	3/25/2020	626	0	0
557	20-126	Lexington Av bt E 107 St and E 108 St	CO	11	3/23/2020	4/14/2020	123	0	0
558	20-129	E 27 St (133) bt Lexington Av and Broadway Ally	NH	06	3/31/2020	4/1/2020	467	0	0
559	20-180	Grand St (466) bt Pitt St and Bialystoker Pl	NH	03	5/22/2020	5/26/2020	415	0	0
560	20-183	St Nicholas Av (1412) bt W 180 St and W 181 St	DC	12	4/17/2020	4/17/2020	439	0	0
561	20-218	W 88 St (200) bt Broadway and Amsterdam Av	NH	07	4/28/2020	4/29/2020	587	0	0
562	20-227	Park Av (425) bt E 55 St and E 56 St	CO	05	4/15/2020	4/16/2020	407	0	0
563	20-228	Spring St (260) bt Varick St and Hudson St	NH	02	4/23/2020	4/24/2020	936	0	0
564	20-242	Broome St and Lewis St	NH	03	4/20/2020	-	340	0	0
			CO	12	4/20/2020	4/23/2020	551	0	0
			JS	12	4/20/2020	4/23/2020	435	0	0
565	20-244	Ft Washington Av (177) bt W 165 St and W 168 St	PR	12	4/20/2020	4/23/2020	603	0	0

N	LOG	Location	Ins	CB	Start	Comp	*Footage (LF)		
							Cleaned	Surveyed	Walked
566	20-245	E 68 St (210) bt 3 Av and 2 Av	NH	08	4/30/2020	2/23/2021	572	0	0
567	20-270	W 139 St (103) bt Lenox Av and 7 Av	NH	10	5/11/2020	5/13/2020	803	0	0
568	20-284	W 139 St (507) bt Amsterdam Av and Hamilton Pl	DC	09	5/15/2020	5/15/2020	377	0	0
569	20-326	W 141 St (208) bt Adam Clayton Powell Jr Blvd and Frederick Douglas	DC	10	6/23/2020	6/25/2020	286	0	0
			SA	10	6/23/2020	6/25/2020	31	0	0
			TC	10	6/23/2020	6/25/2020	414	0	0
570	20-334	E 39 St (23) bt Madison Av and Park Av	EV	06	7/6/2020	7/7/2020	318	0	0
571	20-342	Saint Nicholas Av and W 112 St	EV	10	7/10/2020	7/13/2020	404	0	0
572	20-353	E 2 St (126) bt Av A and 1 Av	CO	03	6/29/2020	6/29/2020	0	0	0
573	20-354	Greenwich St (275) bt Murray St and Warren St	EV	01	6/29/2020	7/6/2020	274	0	0
			KB	01	6/29/2020	7/6/2020	446	0	0
574	20-361	Overlook Ter (55) bt W 186 St and W 187 ST	EV	12	7/2/2020	7/2/2020	850	0	0
575	20-365	Greene St bt Washington Pl and Waverly Pl	JL	02	7/6/2020	-	442	0	0
			KB	02	7/6/2020	-	0	0	0
576	20-381	E 42 St and Lexington Av	EV	05	7/16/2020	7/31/2020	332	0	0
577	20-400	77 St Outfall NB FDR Dr Promenade	EV		7/23/2020	7/23/2020	69	0	0
			EV		7/24/2020	7/24/2020	0	0	0
578	20-454	Riverside Dr (280) bt W End Av and Riverside Dr	JL	07	8/19/2020	-	1,009	0	0
579	20-558	5 Av (230) bt E 26 St and E 27 St	EV	05	9/24/2020	-	390	0	0
580	20-595	W 24 St (202) bt 7 Av and 8 Av	JL	04	10/19/2020	10/22/2020	1,304	0	0
581	20-599	W 55 St and 5 Av	EV	05	10/15/2020	10/20/2020	558	0	0
			JL	05	10/15/2020	10/20/2020	25	0	0
			SA	05	10/15/2020	10/20/2020	363	0	0
582	20-608	FDR Dr and E 34 St	JL	06	10/21/2020	10/21/2020	206	0	0
583	20-645	St Nicholas Av (691) bt W 141 and W 145 St	CO	09	11/30/2020	12/1/2020	395	0	0
			JL	09	11/30/2020	12/1/2020	586	0	0
584	20-650	1 Av (134) bt St Marks Pl and E 9 St	JL	03	11/6/2020	11/9/2020	400	0	0
585	20-690	South St and Catherine Slip	EV	03	12/16/2020	-	0	0	0
			JL	03	12/16/2020	-	111	0	0
586	20-691	Lexington Av bt E 107 St and E 108 St	EV	11	12/2/2020	-	0	0	0
			JL	11	12/2/2020	-	77	0	0

Apeendix 2.1.4.2.3: Queens

N	LOG	Location	Ins	CB	Start	Comp	*Footage (LF)		
							Cleaned	Surveyed	Walked
587	14-037	109 Av (153-14)	JS	12	5/11/2020	6/15/2020	86	0	0
			NH	12	5/11/2020	6/15/2020	1,811	0	0
588	14-198	118 St (14-53) bt 14 Rd and 15 Av	JB	07	2/3/2020	2/12/2020	489	0	0
			JS	12	5/14/2020	5/18/2020	296	0	0
589	15-368	107 Av (150-21)	SA	12	5/14/2020	5/18/2020	847	0	0
590	16-215	233 St (139-42)	EV	13	10/5/2020	10/5/2020	548	0	0
591	16-485	58 Rd/Easement bt Maspeth Av and 47 St	EC	05	2/21/2020	-	0	0	0
592	17-016	126 Av (174-50) bt 174 Pl and 176 St	PR	12	9/16/2020	9/17/2020	554	0	0
593	17-615	164 Av (98-08) bt 98 St and 99 St	JL	10	10/6/2020	10/9/2020	762	0	0
			DC	12	1/6/2020	5/29/2020	139	0	0
			DC		4/26/2019	3/31/2020	0	0	0
			EC	12	4/26/2019	3/31/2020	0	0	0
			EV	12	1/6/2020	5/29/2020	1,953	0	0
			FM	12	4/26/2019	3/31/2020	0	0	0
			JL	12	1/6/2020	5/29/2020	3,773	0	0
			JL		4/26/2019	3/31/2020	0	0	0
			JP	12	1/6/2020	5/29/2020	1,088	0	0
			JP		9/22/2020	-	0	0	0
			JP		4/26/2019	3/31/2020	0	0	0
			KB	12	1/6/2020	5/29/2020	751	0	0
			KB		4/26/2019	3/31/2020	0	0	0
			MA	12	1/6/2020	5/29/2020	133	0	0
			PR	12	1/6/2020	5/29/2020	618	0	0
			RF	12	1/6/2020	5/29/2020	6,167	0	0
			RF		9/22/2020	-	0	0	0
			RF		4/26/2019	3/31/2020	0	0	0
			SA	12	1/6/2020	5/29/2020	261	0	0
			TC	12	4/26/2019	3/31/2020	0	0	0
			ZS	12	4/26/2019	3/31/2020	0	0	0
595	17-969	50 Av (11-49) bt 11 Pl and 21 St	JL	02	10/19/2020	10/21/2020	597	0	0
596	17-980	Coldspring Rd (27-30) bt Bay 27 St and Bay Park Pl	SA	14	12/2/2019	5/7/2020	648	0	0
597	18-202	108 St (87-24) bt Jamaica Av and 91 Av	JL	09	10/9/2020	10/13/2020	855	0	0
598	18-221	Union Hall St (108-24)	JL	12	10/21/2020	10/22/2020	981	0	0
599	18-296	48 St (50-54) bt 50 Av and Laurel Hill Blvd	DC	02	9/30/2020	10/6/2020	567	0	0
			JL	02	9/30/2020	10/6/2020	262	0	0
600	18-307	93 Av (93-14) bt Woodhaven Blvd and 95 St	JB	09	2/10/2020	2/10/2020	223	0	0
601	18-332	83 St (64-61) bt 64 Rd and Furmanville Av	JB	05	2/10/2020	2/10/2020	441	0	0
602	18-453	Rockaway Blvd (131-14) bt 131 St and 120 Av	JB	10	1/9/2020	1/9/2020	66	0	0
603	18-459	Beach 98 St (319) bt Rockaway Frwy and Beach Channel Dr	FM	14	10/25/2018	1/3/2020	421	0	0
604	18-485	51 Av (5-40) bt 5 St and Vernon Blvd	NH	02	3/23/2020	3/23/2020	654	0	0
			AB	12	12/6/2019	7/31/2020	753	0	0
			CO	12	4/23/2020	8/27/2020	0	0	0
			DC	12	4/23/2020	8/27/2020	0	0	0
			EC	12	4/23/2020	8/27/2020	0	0	0
			JL	12	4/23/2020	8/27/2020	0	0	0
			JP	12	4/23/2020	8/27/2020	0	0	0
			PR	12	4/23/2020	8/27/2020	0	0	0
			RF	12	4/23/2020	8/27/2020	0	0	0
			TB	12	4/23/2020	8/27/2020	0	0	0
			NH	12	4/23/2020	8/27/2020	0	0	0
606	18-886	Tuskegee Airman Way (164-28) bt 164 St and 165 St	FM	12	1/27/2020	6/22/2020	0	0	0
			NH	12	1/27/2020	6/22/2020	924	0	0
607	18-887	Winchester Blvd bt 92 Av and 221 Pl	JS	13	9/10/2020	9/11/2020	877	0	0
608	19-013	B 88 St bt Rockaway Fwy and Rockaway B Blvd	DC	14	8/26/2020	8/26/2020	277	0	0
609	19-019	250 St (82-65) bt 82 Av and 83 Av	JL	13	7/13/2020	7/3/2020	707	0	0
610	19-055	199 St and Union Tpke	EV	08	9/24/2020	9/29/2020	2,118	0	0
611	19-089	117 St (87-03) bt Jamaica Av and 89 Av	FM	09	1/8/2020	1/9/2020	934	0	0
612	19-090	Virginia St (13-11) bt Central Av and Brunswick Av	AB	14	2/27/2020	2/8/2021	328	0	0
613	19-132	Murdock Av bt 177 St and 178 St	DC	12	5/20/2020	5/20/2020	531	0	0
614	19-146	160 Av (101-06) bt 101 St and 102 St	FM	10	1/27/2020	2/4/2020	594	0	0
			KB	01	12/2/2020	-	0	0	0
			TC	01	12/2/2020	-	0	0	0
			TB	01	12/2/2020	-	0	0	0
615	19-156	Northern Blvd W of Honeywell St (Northern Blvd Siphon Issues)	PR	12	5/12/2020	5/12/2020	316	0	0
616	19-178	Liverpool St (95-06) bt 95 Av and 97 Av	CO	12	5/18/2020	5/20/2020	709	0	0
			DC	12	5/18/2020	5/20/2020	0	0	0
617	19-179	Liverpool St (106-41) bt South Rd and 107 Av	JS	12	5/18/2020	5/20/2020	220	0	0

N	LOG	Location	Ins	CB	Start	Comp	*Footage (LF)		
							Cleaned	Surveyed	Walked
618	19-182	42 Av (215-01) bt 215 St and 215 Pl	FM	11	1/10/2020	1/14/2020	96	0	0
			JB	11	1/10/2020	1/14/2020	149	0	0
			TC	11	1/10/2020	1/14/2020	311	0	0
619	19-202	132 Av (137-05) bt Van Wyck Sep and 140 St	EV	12	11/3/2020	11/4/2020	494	0	0
620	19-203	138 St (88-38) bt Hillside Av and Jamaica Av	EV	12	10/26/2020	10/26/2020	418	0	0
621	19-225	Northern Blvd bt 150 St and 149 Pl	KB	12	10/26/2020	10/26/2020	180	0	0
622	19-226	74 Av (99-55) bt Metropolitan Av and Kessel St	JB	07	1/10/2020	1/10/2020	312	0	0
623	19-226	74 Av (99-55) bt Metropolitan Av and Kessel St	FM	06	1/30/2020	1/31/2020	688	0	0
623	19-257	Mott Ave (24-21) bt B 25 St and B 24 St	AB	14	2/26/2020	2/26/2020	1,495	0	0
624	19-297	Madison St (60-72) bt 60 Pl and Fresh Pond Rd	EC	05	1/9/2020	10/16/2020	646	0	0
			EV	05	1/9/2020	10/16/2020	0	0	0
			FM	05	1/9/2020	10/16/2020	0	0	0
			JL	05	1/9/2020	10/16/2020	148	0	0
625	19-343	14 Rd bt 119 St and 120 St	FM	07	1/22/2020	1/23/2020	611	0	0
626	19-379	111 Av (190-27) bt 194 St and Farmers Blvd	EV	12	11/18/2020	11/18/2020	940	0	0
627	19-380	208 St (86-35) bt Grand Central Pkwy Service Rd E and 86 Rd	JL	08	10/30/2020	10/30/2020	588	0	0
628	19-381	120 Av (169-29) bt 170 St and Marsden St	JL	12	10/28/2020	10/29/2020	768	0	0
629	19-461	168 St (67-47) bt 67 Av and 69 Av	JL	08	10/13/2020	10/14/2020	667	0	0
630	19-475	Melbourne Av (144-47) bt Main St and 147 St	FM	08	1/31/2020	2/3/2020	818	0	0
			JB	08	1/31/2020	2/3/2020	0	0	0
631	19-476	Hillside Av (136-06) bt 136 St and Van Wyck Exp SR W	DC	09	5/26/2020	6/1/2020	575	0	0
			PR	09	5/26/2020	6/1/2020	461	0	0
			NH	09	5/26/2020	6/1/2020	476	0	0
632	19-487	99 St from 22 Dr to 23 Av	FM	03	10/29/2019	1/7/2020	824	0	0
633	19-496	31 Av and 90 St	FM	03	1/23/2020	1/23/2020	580	0	0
634	19-498	Woodhaven Blvd (92-20) bt 92 Av and 93 Av	EV	09	9/11/2020	9/14/2020	194	0	0
			JS	09	9/11/2020	9/14/2020	490	0	0
635	19-525	38 St (21-25) bt 21 Av and Ditmars Blvd	EV	01	9/1/2020	9/1/2020	908	0	0
636	19-556	Hillside Av (169-18) bt 169 St and 170 St	SA	12	4/2/2020	4/2/2020	513	0	0
637	19-575	109 Ave (130-12) bt 130 St and 131 St	FM	10	1/10/2020	1/10/2020	477	0	0
638	19-576	89 Ave (139-01) bt 144 St and 139 St	EV	12	12/8/2020	-	185	0	0
639	19-596	102 St (32-13) bt 32 Av and Northern Blvd	AB	03	2/27/2020	2/27/2020	532	0	0
640	19-610	219 St (92-19) bt 92 Av and 93 Av	FM	13	10/7/2019	1/6/2020	905	0	0
641	19-624	110 St (63-36) bt 63 Rd and 63 Dr	DC	06	4/1/2020	4/1/2020	544	0	0
642	19-625	69 Pl (59-58) bt 59 Dr and 60 Av	MA	05	1/21/2020	1/21/2020	254	0	0
643	19-626	25 St (41-07) bt 41 Av and Ramp	NH	01	6/15/2020	6/16/2020	600	0	0
644	19-630	80 St (61-47) bt Eliot Av and 62 Av	JP	05	1/20/2020	1/21/2020	506	0	0
			MA	05	1/20/2020	1/21/2020	315	0	0
645	19-642	192 St (80-11) bt Union Tpke and 81 Av	JL	08	1/8/2020	1/8/2020	912	0	0
646	19-643	46 Av and 157 St	KB	07	10/24/2019	1/16/2020	493	0	0
647	19-672	90 Av (138-33) bt 138 Pl and 139 St	JP	12	1/16/2020	1/16/2020	696	0	0
648	19-685	Normal Rd (159-26) bt Parsons Blvd and 160 St	JB	08	1/15/2020	1/16/2020	822	0	0
			JP	08	1/15/2020	1/16/2020	0	0	0
649	19-754	14 Av bt 145 Pl and 146 St	KB	07	1/14/2020	1/16/2020	0	0	0
			TC	07	1/14/2020	1/16/2020	855	0	0
650	19-758	Daniels St and Pershing Cres	MA	08	1/9/2020	1/14/2020	896	0	0
			RF	08	1/9/2020	1/14/2020	1,029	0	0
651	19-771	189 St (47-36) bt 47 Av and 48 Av	KB	11	1/17/2020	1/17/2020	613	0	0
652	19-779	Kissena Blvd bt Geranium Av and Holly Av	DC	07	6/3/2020	6/3/2020	255	0	0
653	19-780	39 Av (219-03) bt 219 St and 220 St	AB	11	2/24/2020	2/24/2020	515	0	0
654	19-782	24 Rd bt 150 St and Willets Point Blvd	FM	07	1/22/2020	1/22/2020	463	0	0
655	19-783	150 St and S Conduit Av	FM	13	12/7/2019	1/31/2020	0	0	0
			JB	13	12/7/2019	1/31/2020	0	0	0
656	19-799	Sanitary Trunkline Sewer 1 In SE Queens	DC		4/1/2020	6/30/2020	0	0	0
			EC		1/20/2020	3/27/2020	0	0	0
			FM		1/20/2020	3/27/2020	721	0	0
			JL		1/20/2020	3/27/2020	0	0	0
			JP		4/1/2020	6/30/2020	0	0	0
			JP		1/20/2020	3/27/2020	0	0	0
			KB		4/1/2020	6/30/2020	0	0	0
			PR		4/1/2020	6/30/2020	0	0	0
			RF		4/1/2020	6/30/2020	0	0	0
			ZS		1/20/2020	3/27/2020	0	0	0
657	19-808	231 St (80-56) bt Stronghurst Av and Seward Av	FM	13	12/31/2019	1/2/2020	793	0	0
658	19-815	62 St bt 68 Av and Catalpa Av	RF	05	1/13/2020	-	456	0	0
659	19-816	79 Av (58-60) bt Cypress Av and 60 St	TC	05	1/10/2020	1/10/2020	650	0	0
660	20-017	84 St and Sutter Av	FM	10	1/24/2020	1/24/2020	763	0	0
661	20-018	82 St (132-04) bt Sutter Av and 133 Av	FM	10	1/27/2020	1/27/2020	519	0	0
662	20-026	109 Av bt 156 St and 157 St	FM	412	1/28/2020	1/28/2020	258	0	0
663	20-030	Beach 24 St (173) bt Dead End and Seagirt Blvd	AB	12	2/28/2020	2/28/2020	795	0	0

N	LOG	Location	Ins	CB	Start	Comp	*Footage (LF)		
							Cleaned	Surveyed	Walked
664	20-045	99 Av bt 219 St and 221 St	JB		2/6/2020	5/14/2020	710	0	0
			PR		2/6/2020	5/14/2020	531	0	0
			SA		2/6/2020	5/14/2020	434	0	0
665	20-049	Channing Rd (1195) bt B 9 St and B 12 St	AB	14	2/25/2020	2/25/2020	1,327	0	0
666	20-055	80 St and Eliot Av	EV	05	3/16/2020	3/17/2020	482	0	0
667	20-082	23 St (23-71) bt 23 Dr and 23 Terr	AB	01	2/21/2020	2/24/2020	0	0	0
			FM	01	2/21/2020	2/24/2020	515	0	0
668	20-083	73 Av bt 182 St and 183 St	AB	08	2/21/2020	2/24/2020	0	0	0
			FM	08	2/21/2020	2/24/2020	444	0	0
669	20-084	Corbett Rd (221-04) bt 221 St and 222 St	FM	11	3/2/2020	3/2/2020	263	0	0
670	20-094	Auburndale Ln bt Bagley Av and 47 Av	AB	11	2/20/2020	2/28/2020	168	0	0
			FM	11	2/20/2020	2/28/2020	909	0	0
671	20-106	114 Rd (194-56) bt 194 St and 196 St	EV	12	11/18/2020	11/18/2020	622	0	0
672	20-115	103 St (37-13) bt 37 Av and 39 Av	KB	03	4/6/2020	4/9/2020	1,181	0	0
			SA	03	4/6/2020	4/9/2020	51	0	0
673	20-116	107 Av (223-32) bt 223 St and 225 St	NH	13	3/12/2020	3/13/2020	1,053	0	0
674	20-127	221 St (117-23) bt Linden Blvd and 118 Av	DC	13	3/6/2020	3/6/2020	428	0	0
675	20-133	Grand Av and 58 Av	CO	05	3/10/2020	3/10/2020	475	0	0
676	20-134	59 Av (146-25) bt 146 St and 148 St	DC	07	3/6/2020	3/9/2020	406	0	0
			PR	07	3/6/2020	3/9/2020	584	0	0
677	20-135	92 St and Astoria Blvd	DC	03	3/30/2020	4/1/2020	226	0	0
			EV	03	3/30/2020	4/1/2020	0	0	0
			RF	03	3/30/2020	4/1/2020	582	0	0
678	20-137	171 St (76-27) bt 76 Av and 77 Rd	CO	08	3/9/2020	3/10/2020	44	0	0
			PR	08	3/9/2020	3/10/2020	164	0	0
679	20-138	Powells Cove Blvd (154-46) bt 154 Pl and 157 St	EV	07	3/16/2020	3/16/2020	622	0	0
680	20-164	86 St (91-49) bt 91 Av and Atlantic Av	CO	09	3/11/2020	3/12/2020	262	0	0
			NH	09	3/11/2020	3/12/2020	267	0	0
681	20-179	Booth Memorial Av (153-30) bt 153 St and Kissena Blvd	EV	07	3/17/2020	3/20/2020	809	0	0
682	20-181	118 Rd (168-12) bt Ring Pl and Marsden St	CO	12	5/8/2020	5/21/2020	261	0	0
			SA	12	5/8/2020	5/21/2020	689	0	0
683	20-184	Main St (57-29) bt 58 Av and 57 Rd	DC	07	4/3/2020	4/3/2020	420	0	0
684	20-185	137 St (13-04) bt 14 Av and 11 Av	JL	07	10/29/2020	10/29/2020	661	0	0
685	20-193	138 Av bt 225 St and 226 St	DC	13	4/3/2020	4/7/2020	254	0	0
			KB	13	4/3/2020	4/7/2020	192	0	0
686	20-201	B 68 St (560) bt Elizabeth Av and Alameda Av	EV	14	3/19/2020	3/19/2020	688	0	0
687	20-208	38 Av (111-08) bt 111 St and 112 St	PR	03	5/6/2020	5/6/2020	378	0	0
688	20-209	164 St (61-44) bt Horace Harding Expy and 65 Av	JS	08	5/4/2020	5/5/2020	621	0	0
			PR	08	5/4/2020	5/5/2020	542	0	0
689	20-213	56 Rd (142-20) bt 142 St and 146 St	JS	07	4/28/2020	4/29/2020	0	0	0
			PR	07	4/28/2020	4/29/2020	637	0	0
691	20-225	Sanitary Trunkline Sewer 2 in SE Queens	JS	05	4/28/2020	4/28/2020	583	0	0
			CO		4/21/2020	-	0	0	0
			CO		6/26/2020	6/26/2020	322	0	0
			DC		4/21/2020	-	0	0	0
			EV		4/21/2020	-	0	0	0
			JL		4/21/2020	-	0	0	0
			JP		4/21/2020	-	0	0	0
			JS		4/21/2020	-	0	0	0
			PR		4/21/2020	-	0	0	0
			RF		4/21/2020	-	0	0	0
692	20-235	120 Av bt 134 St and 135 St	SA		4/21/2020	-	0	0	0
			CO	10	4/23/2020	4/27/2020	138	0	0
			JS	10	4/23/2020	4/27/2020	424	0	0
693	20-262	64 Pl (75-20) bt 74 Av and Cooper Av	SA	10	4/23/2020	4/27/2020	138	0	0
			JL	05	8/27/2020	8/27/2020	768	0	0
694	20-272	Hillside Ave (170-12) bt 170 St and 171 St	EV	12	10/27/2020	10/28/2020	503	0	0
			JL	12	10/27/2020	10/28/2020	0	0	0
695	20-276	135 St (114-06) bt Linden Blvd and 115 Ave	SA	10	6/5/2020	6/5/2020	602	0	0
696	20-277	129 St (97-14) bt 97 Ave and 101 Ave	JL	09	6/8/2020	6/9/2020	407	0	0
			SA	09	6/8/2020	6/9/2020	513	0	0
697	20-279	Mangin Ave (186-17) bt Wood St and Murdock Ave	CO	12	6/8/2020	6/8/2020	573	0	0
698	20-281	Beach 120 St (138) bt Ocean Pr and Rockaway Beach Blvd	CO	14	6/8/2020	6/10/2020	398	0	0
			DC	14	6/8/2020	6/10/2020	365	0	0
699	20-286	50 Av (40-08) bt 40 St and 41 St	CO	02	5/21/2020	5/21/2020	222	0	0
700	20-295	70 Rd (108-33) bt 108 St and 110 St	CO	06	6/1/2020	6/3/2020	958	0	0
			DC	06	6/1/2020	6/3/2020	260	0	0
			NH	06	6/1/2020	6/3/2020	264	0	0
701	20-296	26 Av (150-46) bt Murray Ln and Murray St	DC	07	6/3/2020	6/4/2020	172	0	0
			SA	07	6/3/2020	6/4/2020	630	0	0

N	LOG	Location	Ins	CB	Start	Comp	*Footage (LF)		
							Cleaned	Surveyed	Walked
702	20-299	154 St (28-20) bt 28 Av and 29 Av	NH	07	5/28/2020	5/28/2020	279	0	0
703	20-337	20 Av and 129 St	JS	07	6/29/2020	6/29/2020	786	0	0
704	20-339	34 St bt 47 Av and Queens Blvd	JL	02	7/8/2020	7/8/2020	776	0	0
705	20-356	31 St and Hoyt Av N	CO	01	7/9/2020	7/22/2020	190	0	0
			JL	01	7/9/2020	7/22/2020	482	0	0
			TC	01	7/9/2020	7/22/2020	0	0	0
706	20-378	Farrington St and Northern Blvd	JL	07	7/15/2020	7/20/2020	478	0	0
707	20-382	Greene Av and Onderdonk Av	EV	05	7/27/2020	7/28/2020	789	0	0
708	20-384	106 St (107-49) bt 107 Av and 109 Av	EV	10	7/24/2020	7/27/2020	419	0	0
709	20-411	Van Wyck Expy and 107 Av	EV	12	7/28/2020	-	1,899	0	0
710	20-419	147 Av bt 225 St and 229 St	EV	13	8/3/2020	8/12/2020	0	0	0
			JL	13	8/3/2020	8/12/2020	800	0	0
			JL		8/7/2020	8/7/2020	0	0	0
			JS	13	8/3/2020	8/12/2020	0	0	0
711	20-422	188 St bt 75 Av and Union Tpke	EV	08	7/29/2020	8/10/2020	760	0	0
712	20-425	109 Rd (164-16) bt Dead End and 167 St	EV	12	8/13/2020	8/21/2020	326	0	0
			JL	12	8/13/2020	8/21/2020	686	0	0
713	20-426	109 Ave (174-10) bt 174 St and 175 St	EV	12	8/12/2020	8/13/2020	403	0	0
			JS	12	8/12/2020	8/13/2020	478	0	0
714	20-429	73 Av bt 150 St and 153 St	EV	08	8/11/2020	8/12/2020	855	0	0
			JS	08	8/11/2020	8/12/2020	273	0	0
715	20-432	45 St (20-02) bt 20 Av and 20 Rd	EV	01	8/10/2020	8/10/2020	277	0	0
716	20-433	33 St and 36 Av	EV	01	8/20/2020	8/21/2020	1,481	0	0
717	20-434	63 St (57-16) bt Flushing Av and 59 Av	EV	05	8/24/2020	8/25/2020	891	0	0
718	20-444	Underhill Av bt 196 St and 196 Pl	EV	11	8/25/2020	8/25/2020	242	0	0
719	20-456	Gates Av (1702) bt Cypress Av and Seneca Av	EV	05	8/14/2020	8/18/2020	562	0	0
720	20-457	76 St bt Caldwell Av and 75 Pl	EV	05	8/18/2020	8/24/2020	784	0	0
721	20-458	94 St (30-16) bt 30 Av and 31 Av	EV	03	8/14/2020	8/14/2020	321	0	0
722	20-460	80 St (61-67) bt Eliot Av and 62 Av	EV	05	8/17/2020	-	818	0	0
723	20-461	41 Av (21-07) bt 21 St and 22 St	EV	01	8/19/2020	8/31/2020	727	0	0
			JL	01	8/19/2020	8/31/2020	308	0	0
			PR	01	8/19/2020	8/31/2020	120	0	0
			SA	01	8/19/2020	8/31/2020	0	0	0
724	20-462	6 Av (119-31) bt 119 St and Bend	JL	07	8/25/2020	8/26/2020	690	0	0
725	20-463	Northern Blvd (33-01) bt 33 St and 34 St	PR	01	8/19/2020	8/19/2020	314	0	0
726	20-468	57 Rd (84-32) bt 84 St and 85 St	JL	04	8/26/2020	-	448	0	0
727	20-473	36 St (37-26) bt 37 Av and Northern Blvd	DC	01	8/26/2020	8/26/2020	204	0	0
728	20-495	14 St (26-40) bt 26 Av and 27 Av	DC	01	9/24/2020	9/30/2020	0	0	0
			EV	01	9/24/2020	9/30/2020	418	0	0
729	20-496	160 St (45-89) bt 45 Av and 46 Av	EV	07	9/10/2020	9/14/2020	601	0	0
			JS	07	9/10/2020	9/14/2020	999	0	0
730	20-505	108 St (67-67) bt 67 Dr and 68 Av	EV	06	9/2/2020	9/9/2020	2,814	0	0
			PR	06	9/2/2020	9/9/2020	773	0	0
731	20-511	Haring St and 63 Dr	JS	06	9/9/2020	9/10/2020	997	0	0
732	20-514	35 Av (190-06) bt 190 St and 191 St	JS	11	9/8/2020	9/8/2020	675	0	0
733	20-532	263 St and 76 Av	EV	13	9/15/2020	9/18/2020	982	0	0
			PR	13	9/15/2020	9/18/2020	313	0	0
734	20-542	109 Av bt Monterey St and Springfield Blvd	EV	13	9/18/2020	9/22/2020	1,554	0	0
735	20-544	172 St (43-49) bt Northern Blvd and 45 Av	JL	07	10/8/2020	10/8/2020	721	0	0
736	20-546	12 St bt 34 Av and 35 Av	EV	01	9/22/2020	10/16/2020	1,295	0	0
737	20-548	Mexico St (115-31) bt Quencer Rd and Tioga Dr	EV	12	10/5/2020	10/5/2020	210	0	0
738	20-549	243 St bt 138 Av and N Conduit Av	JS	13	10/14/2020	10/14/2020	244	0	0
739	20-550	94 St (95-30) bt 95 Av and 97 Av	EV	09	10/5/2020	10/5/2020	590	0	0
			JL	09	10/5/2020	10/5/2020	307	0	0
740	20-579	Downing St (31-15) bt 31 Rd and 32 Av	JL	07	10/8/2020	10/9/2020	624	0	0
741	20-580	60 Av (60-77) bt 60 Ln and 61 St	JL	05	10/13/2020	10/13/2020	531	0	0
742	20-581	Rockaway Blvd bt 145 St and Inwood St	JL		10/9/2020	10/9/2020	288	0	0
743	20-596	25 Dr (149-48) bt DE and 150 St	EC	07	10/23/2020	10/23/2020	621	0	0
744	20-605	200 St (109-11) bt 109 Av and Hollis Av	JL	12	10/23/2020	10/23/2020	273	0	0
			EC	11	10/22/2020	10/23/2020	199	0	0
745	20-606	190 St (36-23) bt Crocheron Av and 37 Av	JL	11	10/22/2020	10/23/2020	252	0	0
			JL	09	10/22/2020	10/23/2020	421	0	0
746	20-607	77 St (95-14) bt 95 Av and 97 Av	JL	09	10/22/2020	10/23/2020	421	0	0
			CO	07	12/23/2020	12/24/2020	621	0	0
747	20-610	Whitestone Expy (17-10) bt 14 Av and Whitestone Expy Et 15 SB	DC	07	12/23/2020	12/24/2020	265	0	0
748	20-611	Homelawn St (85-18) bt Gothic Dr and Henley Rd	KB	08	10/26/2020	10/26/2020	386	0	0
749	20-615	Concord St (53-12) bt Upland Rd and Overlook Rd	JL	11	10/29/2020	-	547	0	0
750	20-630	103 St (39-06) bt 39 Av and National St	EV	03	11/4/2020	-	0	0	0
751	20-640	Aubrey Av (88-41) bt 88 St and Metropolitan Av	EV	05	10/30/2020	-	74	0	0
			JL	05	10/30/2020	-	1,164	0	0

N	LOG	Location	Ins	CB	Start	Comp	*Footage (LF)		
							Cleaned	Surveyed	Walked
752	20-642	Union Tpke (141-40) bt 141 St and Bend	CO	08	11/28/2020	11/30/2020	0	0	0
			EC	08	11/28/2020	11/30/2020	479	0	0
753	20-644	66 Rd bt 108 St and 110 St	JL	06	11/10/2020	11/13/2020	2,227	0	0
754	20-655	67 Av bt 210 St and 211 St	EV	11	11/16/2020	11/16/2020	78	0	0
			JL	11	11/16/2020	11/16/2020	382	0	0
755	20-687	41 Rd (222-08) bt 222 St and 223 St	EV	11	12/4/2020	12/7/2020	529	0	0
756	20-693	241 St (52-10) bt 52 Av and 53 Av	EV	11	12/9/2020	12/9/2020	582	0	0
757	20-696	Cornaga Av (12-23) bt Rose St and Gateway Blvd	JL	14	12/28/2020	12/28/2020	482	0	0
758	20-697	229 St bt 115 Rd and 116 Av	EV	13	12/7/2020	12/7/2020	651	0	0
759	20-699	70 St (52-31) bt 52 Av and 52 Dr	EV	05	12/3/2020	12/4/2020	0	0	0
			JL	05	12/3/2020	12/4/2020	484	0	0
760	20-728	B 90 St and Rockaway Beach Blvd	JL	14	12/28/2020	12/28/2020	338	0	0

Apeendix 2.1.4.2.4: Staten Island

N	LOG	Location	Ins	CB	Start	Comp	*Footage (LF)		
							Cleaned	Surveyed	Walked
761	15-600	Page Av bt Amboy Rd and Creek SE-812	JB	03	2/27/2020	2/27/2020	891	0	0
762	17-591	Project-R067-117M- Jefferson St bt Seaver Av and Dongan Hills Av (N	MA	02	4/3/2020	4/3/2020	815	0	0
763	18-105	Victory Blvd bt Logan Av and Ontario Av	MA	01	10/16/2020	10/20/2020	544	0	0
764	18-179	Castleton Av (1637) bt Sharpe Av and Treadwell Av	MA	01	5/27/2020	5/27/2020	822	0	0
765	18-443	Manor Rd (1018) bt Harold St and Bend	MA	02	4/20/2020	-	872	0	0
766	18-445	Castleton Av (303) bt Harbor View Ct and Bend	MA	01	5/12/2020	5/12/2020	435	0	0
767	18-784	Manee Av bt Amboy Rd and Utica St - SER002237	AB	03	1/10/2020	3/3/2020	122	0	0
			JB	03	1/10/2020	3/3/2020	453	0	0
768	18-831	Port Richmond Av (275) bt Palmer Av and Anderson Av	MA	01	6/16/2020	6/17/2020	1,319	0	0
769	18-834	Roe St (132) bt Delafield Av and Cary Av	JB	01	2/25/2020	2/26/2020	1,112	0	0
770	19-252	Green Valley Rd (302) bt Manchester Dr and Victoria Rd	MA	03	3/10/2020	3/10/2020	1,264	0	0
771	19-375	Bay St (580) bt Union Pl and Water St	DC	01	2/12/2020	2/13/2020	457	0	0
			EV	01	2/12/2020	2/13/2020	375	0	0
772	19-402	ACOE Seawall Sanitary Crossings	MA		7/1/2020	9/21/2020	1,665	0	0
773	19-410	Richmond Ter (1140) bt. David Av and Bard Av	DC	01	2/14/2020	2/18/2020	403	0	0
			EV	01	2/14/2020	2/18/2020	402	0	0
774	19-516	Bryant Av (16) bt Richmond Rd and Allison Pl	CO	02	3/30/2020	-	0	0	0
			MA	02	3/30/2020	-	654	0	0
775	19-522	Chesterton Av (213) bt Platt St and Hylan Blvd	EV	03	2/13/2020	2/14/2020	754	0	0
776	19-523	Saxon Av (110) bt Gadsen Pl and Draper Pl	CO	02	3/30/2020	3/30/2020	0	0	0
777	19-526	Chandler Av (86) bt S Greenleaf Av and Westcott Blvd	AB	01	1/10/2020	1/10/2020	655	0	0
778	19-535	Elverton Av (236) bt DE and Leverett Av	MA	03	5/22/2020	5/26/2020	0	0	0
			SA	03	5/22/2020	5/26/2020	1,119	0	0
779	19-561	Rossville Av (800) bt Woodrow Rd to Correll Av	MA	03	5/29/2020	6/1/2020	2,402	0	0
780	19-570	2 St (22) bt Rose Ave and New Dorp La	MA	02	3/11/2020	3/12/2020	639	0	0
781	19-571	Todt Hill Rd (715) bt Whitlock Ave and Four Corners Rd	MA	02	3/13/2020	3/16/2020	426	0	0
			NH	02	3/13/2020	3/16/2020	347	0	0
782	19-720	Grasmere Av (66) bt Railroad Av and Christ St	DC	02	2/11/2020	2/12/2020	399	0	0
783	19-743	Brabant St (142) bt Lockman Av and Grandview Av	JB	01	2/26/2020	7/8/2020	1,035	0	0
			MA	01	2/26/2020	7/8/2020	1,211	0	0
784	20-025	Graham Av bt Merrill Av and Fieldstone Rd	JB	02	1/28/2020	3/13/2020	1,887	0	0
			MA	02	1/28/2020	3/13/2020	1,433	0	0
785	20-038	Van Tuyl St (20) bt Dead End and York Av	DC	01	2/11/2020	2/11/2020	534	0	0
786	20-039	Brielle Av (501) bt Selmoff La and Rockland Av	MA	02	2/6/2020	2/6/2020	930	0	0
787	20-102	Faber St (54) bt Larkin St and Grove Av	MA	01	4/10/2020	4/17/2020	611	0	0
			SA	01	4/10/2020	4/17/2020	605	0	0
788	20-109	Bloomington Rd (449) bt Mandy Ct and Marvin Rd	MA	03	4/13/2020	4/14/2020	792	0	0
789	20-113	Lake Av (125) bt Staten Island Railway Line & Walker St	JP	01	4/1/2020	4/3/2020	227	0	0
			MA	01	4/1/2020	4/3/2020	372	0	0
790	20-219	Lester St (24) bt Garden St and Josephine St	MA	01	8/20/2020	8/25/2020	224	0	0
			SA	01	8/20/2020	8/25/2020	52	0	0
791	20-238	Mountainview Av (453) bt Brielle Av and Portage Av	MA	02	5/11/2020	5/11/2020	657	0	0
792	20-239	Dunham St (145) bt Erie St and Outerbridge Av	MA	03	5/8/2020	5/8/2020	870	0	0
793	20-241	Vicinity of Shore Acres Rd	SA		8/25/2020	8/25/2020	85	0	0
794	20-274	Middle Loop Rd (96) bt Armstrong Ave and Cortelyou Ave	MA	03	6/3/2020	6/3/2020	548	0	0
795	20-302	Clove Rd (1498) bt Howard Av and Little Clove Rd	MA	01	6/9/2020	6/11/2020	1,476	0	0
796	20-345	Richmond Terr (75) bt N Ramp Viaduct and Hamilton Av	JS	01	8/12/2020	9/9/2020	429	0	0
			MA	01	8/12/2020	9/9/2020	251	0	0
797	20-346	Raymond Pl and Delafield Av	JS	01	7/31/2020	8/6/2020	654	0	0
			MA	01	7/31/2020	8/6/2020	668	0	0
798	20-360	Hillcrest Ter (130) bt Clove Rd and Hillcrest Ct	MA	02	8/25/2020	9/21/2020	468	0	0
			SA	02	8/25/2020	9/21/2020	340	0	0
799	20-377	Mary St (41) bt Rhine Av and Deirdre Ct	MA	01	9/23/2020	9/24/2020	23	0	0
800	20-410	Willowbrook Rd (624) bt Wyona Av and Neptune Pl	MA	01	8/26/2020	8/28/2020	362	0	0
801	20-417	Ovis Pl (41) bt Thollen St and Bend	MA	03	7/29/2020	7/30/2020	1,374	0	0
802	20-469	Hillman Av bt Merrill Av and Jardine Av	DC	02	12/15/2020	12/29/2020	478	0	0
			EV	02	12/15/2020	12/29/2020	253	0	0
			KB	02	12/15/2020	12/29/2020	0	0	0
			MA	02	12/15/2020	12/29/2020	1,390	0	0
803	20-470	Hylan Blvd and RedGrave Av	MA	03	10/19/2020	10/19/2020	640	0	0
804	20-484	Arthur Kill Rd and W SR	MA	03	8/28/2020	8/28/2020	400	0	0
805	20-545	Josephine St-SER002331-SER200303	MA	01	10/16/2020	10/16/2020	0	0	0
806	20-577	Lincoln Av (615) bt Baden Pl and Patterson Av	EV	02	10/7/2020	10/8/2020	0	0	0
			MA	02	10/7/2020	10/8/2020	706	0	0

N	LOG	Location	Ins	CB	Start	Comp	*Footage (LF)		
							Cleaned	Surveyed	Walked
807	20-604	Marisa Cir (25) and Bend	EV	03	12/22/2020	12/23/2020	459	0	0
			JL	03	12/22/2020	12/23/2020	0	0	0
808	20-636	Egmont Pl (21) bt Hamilton Ave and Dead End	EV	01	12/23/2020	12/23/2020	870	0	0
809	20-718	Holland Av bt Benjamin Pl and Richmond Ter	MA	01	12/30/2020	12/31/2020	1,144	0	0

Apeendix 2.1.4.2.5: Bronx

N	LOG	Location	Ins	CB	Start	Comp	*Footage (LF)		
							Cleaned	Surveyed	Walked
810	13-1014	Randall Av (bend) Soundview Park HP-10 CSO25	CJ	09	8/25/2020	9/15/2020	0	0	0
			RF	09	8/25/2020	9/15/2020	0	0	0
811	17-966	Walton Av (1453) bt E 171 St and E 172 St	FM	04	2/18/2020	2/18/2020	803	0	0
812	18-224	Poplar St (2576)	FM	11	2/19/2020	2/20/2020	1,010	0	0
813	19-081	Seneca Av (1357) bt LongFellow Av and Whittier St	CO	02	6/3/2020	6/5/2020	0	0	0
			DC	02	6/3/2020	6/5/2020	763	0	0
			JB	02	2/11/2020	2/11/2020	364	0	0
			JB		2/13/2020	2/13/2020	195	0	0
814	19-155	Bronxdale Av (2040) bt Antin Pl and Cruger Av	AB	11	2/13/2020	2/14/2020	622	0	0
815	19-266	Sedgwick Av (1560) bt Cross Bronx Expy Et 1 D SB and W 176 St	AB	05	2/18/2020	2/18/2020	1,243	0	0
816	19-282	Nelson Av (1415) bt Edward L Granr Hwy and W 172 St	JB	04	2/12/2020	2/12/2020	886	0	0
817	19-600	E 204 St (243) bt Valentine Av and E Mosholu Pkwy S	MA	07	2/14/2020	2/14/2020	618	0	0
818	20-090	W 247 St (613) bt Alderbrook Rd and Arlington Av	CO	08	3/11/2020	5/1/2020	1,308	0	0
			SA	08	3/11/2020	5/1/2020	19	0	0
819	20-108	Grand Av (2271) bt Evelyn Pl and W 183 St	SA	07	5/1/2020	1/28/2021	270	0	0
820	20-146	Tenbroeck Av (2514) bt Mace Av and Allerton Av	FM	11	3/4/2020	3/4/2020	1,145	0	0
821	20-147	E 150 St (330) bt Morris Av and Courtlandt Av	FM	01	3/5/2020	3/5/2020	836	0	0
822	20-280	Jerome Ave (2501) bt E 190 St and W 192 St	RF	07	6/25/2020	6/26/2020	719	0	0
			SA	07	6/25/2020	6/26/2020	0	0	0
823	20-376	Major Deegan Exp and W 167 St-Shaft 7	EV		7/15/2020	7/16/2020	100	0	0
824	20-557A	3 Av (2455) bt E 134 St and E 135 St	EC		10/19/2020	12/4/2020	0	0	0
			EV		10/19/2020	12/4/2020	0	0	0
			JL		10/19/2020	12/4/2020	302	0	0
			TC		10/19/2020	12/4/2020	0	0	0
825	20-565	Zerega Av (930) bt Quimby Av and Cross Bronx Expwy	EV	09	9/28/2020	10/2/2020	785	0	0
826	20-576	Villa Av bt Bedford Park Blvd and E 204 St	JL	07	10/6/2020	10/8/2020	811	0	0
827	20-673	131 W 197 St bt Claflin Av and Webb Av	EV	08	11/20/2020	-	214	0	0
828	20-721	Lafayette Av bt Metcalf Av and Morrison Av	DC	09	12/11/2020	-	119	0	0
			EV	09	12/11/2020	-	394	0	0
			SA	09	12/11/2020	-	256	0	0
829	20-722	E 186 St (446) bt Park Av and Washington Av	DC	06	12/29/2020	12/30/2020	14	0	0
			JL	06	12/29/2020	12/30/2020	85	0	0
830	20-724	Ropes Av (3545) bt Flint Av and Boston Rd	CO	12	12/31/2020	12/31/2020	567	0	0

2020 Citywide Contract Total, LF:

380,359

(72.04 mi)

1/2/2020 12/31/2020

380,359

0

0

Operating Expenses, \$

8,437,850

* No footage indicates investigation where inspection of sewers was not required or completed

IN-HOUSE SURVEY + CITYWIDE CONTRACT:

2020 Total, LF:

418,448

(79.25 mi)

1/2/2020 12/31/2020

381,642

31,717

5,089

Operating Expenses, \$

8,437,850

Appendix 2.2: BWT

Appendix 2.2.1: Table 1 - Summary of 100 Telemetered Regulators

Summary of 100 Telemetered Regulators											
				= 17 with Inclinometers							
				= 27 Key Regulators*						05/01/16	
No.	WPCP	Reg. No.	Regulator Location	Outfall SPDES No.	Reg. Type	Flow Compartment	Weir Data		Hydraulic Capacity (mgd)	Flow Data	
							Length (ft)	Elev. (ft)		Peak (mgd)	Mean DWF (mgd)
1	26W	01	TIDE GATE (26 WARD WPCP)	004	TG.	S.G./72"x56"			N/A	21.71	19.15
2	26W	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. & DITMARS 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 PENNYFIELD 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"	26'-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. MAN	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	LINDEN 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(Q)	Q-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

1	RK	01	B.106th ST. & BEACH CHANNEL DR.	029	MECH.	.G./2EA.40.75"x20	5'-6"	-6.00	103.98	13.89	10.99
1 Subtotal											
1	TI	09	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"	+8.50	30.34	9.89	N/A
3	TI	13	15th DR. & WILLETS POINT BLVD.	023	HYD.	S.G./24"x18"	9'-0"	+24.65	12.78	3.87	2.81
4	TI	30	QUINCE AVE. & KISSENA BLVD.	010	MECH.	S.G./9"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	210 th ST. & LIE (N.S)	008	DC.	F.O./30"DIA.	12'-0"	+51.10	15.91	4.90	2.54
7	TI	47	218th ST & LIE (N.S)	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)	02B	N/O E. 74th ST. & FDR DR.	003	HYD.	S.G./30"x24"			26.00	N/A	N/A
2	WI(M)	07	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	11.37	10.20
8	WI(M)	51	N/S HARLEM R. DR. (W.167th ST.)	051	HYD.	S.G./18"x18"	3'-6"	+9.80	10.81	5.69	3.98
9	WI(M)	52	N/S HARLEM R. DR. (W.176th ST.)	052	HYD.	S.G./18"x18"	7'-0"	+43.88	8.32	6.20	3.94
10	WI(B)	53	BRUCKNER BLVD. & BROOK AVE.	068	HYD.	S.G./42"x42"	25'-0"	-7.42	248.67	62.39	52.64
11	WI(B)	58	MAJOR DEEGAN S/S 138th ST.	075	HYD.	S.G./30"x24"	11'-2"	-3.75	16.06	17.47	7.79
12	WI(B)	60	JEROME AVE. & McCOMBS DAM PARK	062	HYD.	S.G./42"x42"	9'-3"	-2.81	67.29	16.10	13.42
13	WI(B)	62	UNDERCLIFF & SEDGEWICK AVE.	060	HYD.	S.G./30"x24"	12'-8"	-3.83	16.36	36.24	22.66
14	WI(B)	67	E.192nd ST. W/O BAYLEY AVE.	056	HYD.	S.G./48"x36"	28'-0"	-3.55	57.85	49.05	36.38
15	WI(B)	68	E.149th ST. & EAST RIVER	072	HYD.	S.G./24"x24"	8'-0"	-3.00	13.6	9.14	8.27

15 Subtotal

100 Total

*Original count of 28 Key Regulators temporarily included PR-35W while PR-13E and PR-06W were out of service for repair.

Appendix 2.2.2: Table 2 - Sediments From Non-interceptor Assets 2020

Plant Name	Asset Type Cleaned	Tons Removed	Cubic Yards Removed
OH	Influent Thickener & sludge Well	16.0	10.32
WI	WI-D Battery Tank, Influent Channel, and FST #34, 36	4341.10	2800.71
Total		4357.10	2811.03

CSO Name	Asset Type Cleaned	Tons Removed	Cubic Yards Removed
Holding Tank	Paerdegat Facility	318.53	205.5
Total		318.53	205.5

Pump Station Name	Asset Type Cleaned	Tons Removed	Cubic Yards Removed
108th St	Wet Well & Bar Screens	61.46	39.65
2nd Ave	Wet Well & Bar Screens	13.13	8.47
Auburn Ave	Wet Well & Bar Screens	10.37	6.69
Ave M	Wet Well & Bar Screens	12.34	7.96
Bay Water	Wet Well & Bar Screens	13.31	8.59
Broad Channel	Wet Well & Bar Screens	12.69	8.19
Bush Terminal	Wet Well & Bar Screens	24.52	15.82
Cannon Ave	Wet Well & Bar Screens	12.43	8.02
Canterbury	Wet Well & Bar Screens	16.06	10.36
Howard Beach	Wet Well & Bar Screens	36.81	23.75
Mersereau Ave	Wet Well & Bar Screens	34.18	22.05
Nameoak	Wet Well & Bar Screens	29.73	19.18
Park Drive	Wet Well & Bar Screens	68.57	44.24
Richmond Ave Pump St.	Wet Well & Bar Screens	79.53	51.31
Rikers Island	Wet Well & Bar Screens	41.25	26.61
Roosevelt Main	Wet Well & Bar Screens	11.75	7.58
Rosedale	Wet Well & Bar Screens	35.7	23.03
Seagirt	Wet Well & Bar Screens	61.07	39.4
South Beach	Wet Well & Bar Screens	23.98	15.47
Victory Blvd	Wet Well & Bar Screens	11.11	7.17
West Shore Expressway	Wet Well & Bar Screens	6.90	4.45
Total		616.89	397.99

Appendix 2.2.3: Table 3 - Intercepting Sewer Inspections 2020 – Pipe Rating Index and Ranking

Pipeline segment ref.	O_M Rating	Structural Rating	O&M Rank	Structural Rank
26W_E_01	2.0	0.0	4	4
26W_E_12	2.0	0.0	4	4
26W_E_13	2.4	0.0	4	4
26W_E_14	3.0	0.0	3	4
26W_E_15	2.9	0.0	4	4
26W_E_16	2.5	0.0	4	4
26W_E_17	2.7	0.0	4	4
26W_E_18	2.5	0.0	4	4
26W_E_19	2.8	0.0	2	4
26W_E_20	3.7	0.0	1	4
26W_E_21	3.4	3.0	2	3
26W_E_22	3.3	3.0	2	3
26W_W_02	2.3	0.0	4	4
26W_W_03	2.2	0.0	4	4
26W_W_04	2.1	0.0	4	4
26W_W_05	2.2	0.0	4	4
26W_W_06	2.0	0.0	4	4
26W_W_07	2.0	0.0	4	4
26W_W_08	2.1	0.0	4	4
26W_W_09	2.0	0.0	4	4
26W_W_10	2.1	0.0	4	4
26W_W_11	2.1	0.0	4	4
26W_W_12	2.0	0.0	4	4
26W_W_13	2.1	0.0	4	4
26W_W_14	2.3	0.0	4	4
HP_E_001	2.0	3.0	4	3
HP_E_002	2.0	3.0	4	3
HP_E_003	2.0	0.0	4	4
HP_E_004	2.1	0.0	4	4
HP_E_005	2.1	0.0	4	4
HP_E_006	2.0	0.0	4	4
HP_E_007	2.4	0.0	4	4
HP_E_016	2.0	0.0	4	4
HP_E_017	2.0	0.0	4	4
HP_E_018	2.0	0.0	4	4
HP_E_019	2.0	0.0	4	4
HP_E_020	2.0	0.0	2	4
HP_E_021	2.0	0.0	2	4
HP_E_022	2.0	0.0	4	4
HP_E_024	2.0	0.0	4	4
HP_E_025	2.0	0.0	4	4
HP_E_026	2.0	0.0	4	4
HP_E_027	2.0	0.0	4	4
HP_E_028	2.0	0.0	4	4
HP_E_029A	2.0	0.0	4	4
HP_E_030	2.0	0.0	4	4

Pipeline segment ref:	O_M Rating	Structural Rating	O&M Rank	Structural Rank
HP_E_030A	2.0	0.0	4	4
HP_E_031A	2.0	0.0	4	4
HP_E_032	2.0	0.0	4	4
HP_E_032A	2.0	0.0	4	4
HP_E_033A	2.0	0.0	4	4
HP_E_034	2.0	0.0	4	4
HP_E_034A	2.0	0.0	4	4
HP_E_035A	2.0	0.0	4	4
HP_E_036	3.0	0.0	3	4
HP_E_036A	2.0	0.0	4	4
HP_E_037	3.0	0.0	3	4
HP_E_037A	2.6	0.0	4	4
HP_E_038	2.0	0.0	4	4
HP_E_038A	2.0	0.0	4	4
HP_E_039	2.0	0.0	4	4
HP_E_039A	2.0	2.0	4	4
HP_E_040	2.0	0.0	4	4
HP_E_040A	2.0	0.0	4	4
HP_E_041A	2.0	2.0	4	4
HP_E_042	2.6	0.0	4	4
HP_E_042A	2.3	0.0	4	4
HP_E_043	2.0	0.0	4	4
HP_E_043A	2.1	0.0	4	4
HP_E_044	2.0	0.0	4	4
HP_E_044A	2.0	0.0	4	4
HP_E_045A	2.0	0.0	4	4
HP_E_046A	2.0	0.0	4	4
HP_E_047	2.0	5.0	4	3
HP_E_047A	2.0	0.0	4	4
HP_E_049	2.6	0.0	4	4
HP_E_049A	2.6	5.0	4	3
HP_E_050	4.0	0.0	2	4
HP_E_050C	2.0	0.0	2	4
HP_E_051	3.4	0.0	2	4
HP_E_051A	2.0	0.0	4	4
HP_E_052	3.8	0.0	2	4
HP_E_052A	2.0	0.0	4	4
HP_E_053	3.1	0.0	2	4
HP_E_053A	2.0	0.0	4	4
HP_E_054	2.7	0.0	4	4
HP_E_054A	2.0	0.0	4	4
HP_E_055	2.7	0.0	2	4
HP_E_055A	2.0	0.0	4	4
HP_E_056	2.0	0.0	4	4
HP_E_056A	2.5	0.0	4	4
HP_E_058	2.0	0.0	4	4
HP_E_060	2.0	0.0	4	4

Pipeline segment ref:	O_M Rating	Structural Rating	O&M Rank	Structural Rank
HP_E_060A	2.0	0.0	4	4
HP_E_061	2.0	0.0	4	4
HP_E_061A	2.0	0.0	4	4
HP_E_062	2.0	0.0	4	4
HP_E_062A	2.0	0.0	4	4
HP_E_063	2.0	0.0	4	4
HP_E_063A	2.6	0.0	4	4
HP_E_064	2.0	0.0	4	4
HP_E_064A	2.0	0.0	4	4
HP_E_065	2.4	0.0	4	4
HP_E_065A	3.0	0.0	3	4
HP_E_066	2.3	0.0	4	4
HP_E_067	2.0	0.0	4	4
HP_E_067A	2.0	0.0	4	4
HP_E_068	2.0	0.0	4	4
HP_E_068B	2.0	0.0	4	4
HP_E_068B1	2.0	0.0	4	4
HP_E_068C	2.0	0.0	4	4
HP_E_069	2.0	0.0	4	4
HP_E_069A	2.0	0.0	4	4
HP_E_070	2.0	0.0	4	4
HP_E_070A	2.0	0.0	4	4
HP_E_073	2.0	3.0	4	3
HP_E_073_1	2.4	0.0	4	4
HP_E_073_2	2.3	3.0	4	3
HP_E_073_3	2.4	0.0	4	4
HP_E_073_4	2.0	0.0	4	4
HP_E_074	2.1	3.0	4	3
HP_E_075	2.2	0.0	4	4
HP_E_076	2.3	0.0	4	4
HP_E_077	2.3	0.0	4	4
HP_E_078	2.0	0.0	4	4
HP_E_079	2.0	0.0	4	4
HP_E_080	2.0	0.0	4	4
HP_E_081	2.3	0.0	4	4
HP_E_082	2.0	0.0	4	4
HP_E_083	2.2	0.0	4	4
HP_E_084	2.4	2.0	4	4
HP_E_085	2.3	3.0	4	3
HP_E_086	2.5	0.0	4	4
HP_E_087	2.2	0.0	4	4
HP_E_088	2.3	3.0	4	3
HP_E_089	2.4	0.0	4	4
HP_E_090	2.2	0.0	4	4
HP_E_091	2.6	0.0	4	4
HP_E_092	2.5	5.0	4	3
HP_E_093	2.6	0.0	4	4

Pipeline segment ref:	O_M Rating	Structural Rating	O&M Rank	Structural Rank
HP_E_094	2.2	0.0	4	4
HP_E_095	3.0	0.0	3	4
HP_E_096	2.5	0.0	4	4
HP_E_097	2.1	0.0	4	4
HP_E_098	2.0	3.0	4	3
HP_E_099	2.2	3.0	4	3
HP_E_100	2.0	0.0	4	4
HP_E_58A	2.0	0.0	4	4
HP_SE_1	2.2	0.0	4	4
HP_SE_2	2.0	0.0	4	4
HP_SE_3	2.0	5.0	4	3
HP_SE_4REG	2.0	5.0	4	3
HP_W_02	2.0	0.0	4	4
HP_W_03	2.0	0.0	4	4
HP_W_04	2.0	0.0	4	4
HP_W_05	2.0	0.0	4	4
HP_W_06	2.5	0.0	4	4
HP_W_07	2.0	0.0	4	4
HP_W_08	2.0	0.0	4	4
HP_W_09	2.1	0.0	4	4
HP_W_10	2.2	0.0	4	4
HP_W_11REG	2.8	0.0	2	4
NR_N_02	2.1	1.8	4	4
NR_N_05	2.1	2.0	4	4
NR_N_06	2.1	1.5	4	4
NR_N_07	2.0	1.2	4	4
NR_N_08	2.1	1.9	4	4
NR_N_09	2.0	2.2	4	4
NR_N_10	2.1	2.0	4	4
NR_N_11	2.0	2.0	4	4
NR_N_12	2.4	0.0	4	4
NR_N_13	2.3	0.0	4	4
NR_N_14	2.2	0.0	4	4
NR_N_15	2.0	0.0	4	4
NR_N_16	2.0	0.0	4	4
NR_N_18	2.0	0.0	4	4
NR_N_19	2.3	0.0	4	4
NR_N_20	2.7	0.0	4	4
NR_N_21	2.2	0.0	4	4
NR_N_22	2.0	0.0	4	4
NR_N_23	1.9	0.0	4	4
NR_N_24	2.0	0.0	4	4
NR_N_25	2.0	0.0	4	4
NR_N_26	2.3	0.0	4	4
NR_S_03	2.0	2.2	4	4
NR_S_04	2.0	2.0	4	4
NR_S_05	2.2	2.3	4	4

Pipeline segment ref:	O_M Rating	Structural Rating	O&M Rank	Structural Rank
NR_S_06	2.0	3.0	4	3
NR_S_08	2.3	0.0	4	4
NR_S_09	2.0	1.0	4	4
NR_S_10	2.0	2.0	4	4
NR_S_11	2.0	2.0	4	4
NR_S_12	2.0	1.5	4	4
NR_S_13	2.0	2.0	4	4
NR_S_14	2.0	0.0	4	4
NR_S_15	2.0	0.0	4	4
NR_S_16	2.0	0.0	4	4
NR_S_17	2.0	0.0	4	4
NR_S_18	2.0	0.0	4	4
NR_S_19	1.9	0.0	4	4
NR_S_20	2.0	0.0	4	4
NR_S_21	2.0	0.0	4	4
NR_S_22	2.6	5.0	4	3
NR_S_23	2.0	0.0	4	4
NR_S_24	2.0	0.0	4	4
NR_S_25	2.1	0.0	4	4
NR_S_26	2.1	0.0	4	4
NR_S_27	2.0	0.0	4	4
NR_S_28	2.0	5.0	4	3
NR_S_29	2.0	0.0	4	4
NR_S_2A	2.0	1.8	4	4
NR_S_30	2.0	0.0	4	4
NR_S_31	2.0	0.0	4	4
NR_S_32	2.2	0.0	4	4
NR_S_33	2.0	0.0	4	4
NR_S_34	2.0	0.0	4	4
NR_S_35	2.0	0.0	4	4
NR_S_36	2.3	0.0	4	4
NR_S_37	2.0	0.0	4	4
NR_S_38	2.5	0.0	4	4
OB_E_10	2.0	0.0	4	4
OB_E_11	2.2	0.0	4	4
OB_E_12	2.0	0.0	4	4
OB_E_13	2.0	0.0	4	4
OB_E_14	2.0	0.0	4	4
OB_E_15	2.0	0.0	4	4
OB_E_16	2.2	0.0	4	4
OB_E_17	2.0	0.0	4	4
OB_E_18	2.0	0.0	4	4
OB_E_19	2.0	0.0	4	4
OB_E_20	2.0	4.2	4	3
OB_E_21	2.0	0.0	4	4
OB_E_22	2.0	0.0	4	4
OB_E_23	2.0	0.0	4	4

Pipeline segment ref:	O_M Rating	Structural Rating	O&M Rank	Structural Rank
OB_E_24	2.0	0.0	4	4
OB_E_25	2.0	0.0	4	4
OB_E_26	2.0	0.0	4	4
OB_E_27	2.1	0.0	4	4
OB_E_28	2.0	0.0	4	4
OB_E_29	2.0	0.0	4	4
OB_E_30	2.0	0.0	4	4
OB_E_31	2.0	0.0	4	4
OB_E_32	2.0	0.0	4	4
OB_E_33	2.0	0.0	4	4
OB_E_34	2.0	0.0	4	4
OB_E_35	2.0	0.0	4	4
OB_E_36	2.0	0.0	4	4
OB_W_13	2.0	0.0	4	4
OB_W_14	2.0	0.0	4	4
OB_W_15	2.0	0.0	4	4
OB_W_16	2.0	0.0	4	4
OB_W_17	2.0	0.0	4	4
OB_W_18	2.0	0.0	4	4
OB_W_19	2.0	0.0	4	4
OB_W_20	2.0	0.0	4	4
OB_W_21	2.0	0.0	4	4
OB_W_21A	2.2	0.0	4	4
OB_W_22	2.1	0.0	4	4
OB_W_23	2.0	0.0	4	4
OB_W_24	2.0	0.0	4	4
OB_W_25	2.3	0.0	4	4
OB_W_25A	2.0	0.0	4	4
OB_W_25B	2.0	0.0	4	4
OB_W_25C	2.0	0.0	4	4
OB_W_26	2.0	0.0	4	4
OB_W_27	2.0	0.0	4	4
OB_W_28	2.0	0.0	4	4
OB_W_28A	2.0	0.0	4	4
OB_W_29	2.0	2.0	4	4
OB_W_30	2.0	0.0	4	4
OB_W_31	2.0	0.0	4	4
OB_W_34	2.0	0.0	4	4
OB_W_35	2.0	0.0	4	4
OB_W_36	2.0	3.0	4	3
OB_W_38	2.1	0.0	4	4
OB_W_40	2.0	0.0	4	4
OB_W_41	2.0	0.0	4	4
OB_W_42	2.0	0.0	4	4
OB_W_44	2.0	2.0	4	4
OB_W_45	2.0	0.0	4	4
OB_W_46	2.0	0.0	4	4

Pipeline segment ref:	O_M Rating	Structural Rating	O&M Rank	Structural Rank
OB_W_47	2.1	0.0	4	4
OB_W_48	2.0	0.0	4	4
OB_W_51	2.0	2.0	4	4
OB_W_52	2.0	0.0	4	4
OB_W_53	2.0	0.0	4	4
OB_W_54	2.0	0.0	4	4
OB_W_55	2.1	0.0	4	4
OB_W_56	2.0	0.0	4	4
OB_W_57	2.0	0.0	4	4
OB_W_58	2.0	0.0	4	4
OB_W_59	2.1	0.0	4	4
OB_W_60	2.0	1.0	4	4
OB_W_61	2.4	0.0	4	4
OB_W_62	2.0	2.0	4	4
OB_W_64	2.0	0.0	4	4
OB_W_65	2.0	0.0	4	4
OB_W_66	2.0	0.0	4	4
OB_W_67	2.0	0.0	4	4
OB_W_68	2.1	0.0	4	4
OB_W_69	2.0	0.0	4	4
OB_W_70	2.0	0.0	4	4
OB_W_71	2.0	0.0	4	4
OB_W_72	2.3	0.0	4	4
OB_W_85	2.0	0.0	4	4
RH_04	2.1	0.0	4	4
RH_08	2.3	0.0	4	4
RH_12	2.0	0.0	4	4
RH_13	2.0	0.0	4	4
RH_19	2.2	0.0	4	4
RH_20	2.0	0.0	4	4
RH_21	2.0	0.0	4	4
RH_22	2.0	0.0	4	4
RH_23	2.0	0.0	4	4
RH_24	2.0	0.0	4	4
RH_25	2.0	0.0	4	4
RH_26	2.0	0.0	4	4
RH_27	2.0	0.0	4	4
RH_28	2.0	0.0	4	4
RH_29	2.0	0.0	4	4
RH_29A	2.0	0.0	4	4
RH_30	2.0	0.0	4	4
RH_31	2.0	0.0	4	4

Appendix 2.2.4: 2020 Asset Repair List

Asset Name	Date Inspected	Length (ft)	Defect	Structural Index	Comments	Final Decision	Corrective Action By
N/A					No assets found in need of repair		



Appendix 3:

- Appendix 3.1:Key Regulator Monitoring Report CY2020 Summary
- Appendix 3.2: Wet Weather Throttling Summary – CY2020
- Appendix 3.3: Estimation of Wet-Weather Capture

Appendix 3.1: KEY REGULATOR MONITORING REPORT CY2020 SUMMARY

CY2020 Key Regulator Monitoring Report

Regulator 2BW-01	Potential CSO Discharges Outside the Period of a Critical Wet Weather Event						WWTP Event Capacity (MGD)	Critical Wet Weather Event			
	Event #	Start Time	End Time	Duration (hrs)	WWTP Flow at Start (MGD)	WWTP Max Flow (MGD)		Start Time	End Time	WWTP Event Max Flow (MGD)	WWTP Event Avg Flow (MGD)
Nov-20	1	11/1/20 3:30 PM	11/1/20 4:00 PM	0.50	72	80	127.5	11/1/20 4:15 PM	11/1/20 7:45 PM	135	131
	2	11/11/20 9:00 PM	11/11/20 9:00 PM	0.00*	104	104	127.5	11/11/20 9:15 PM	11/12/20 12:00 AM	135	129
	3	11/15/20 9:15 PM	11/15/20 10:00 PM	0.75	50	60	127.5	11/15/20 10:15 PM	11/15/20 11:45 PM	140	131

CY2020 Key Regulator Monitoring Report

Regulator 26W-02	Potential CSO Discharges Outside the Period of a Critical Wet Weather Event						WWTP Event Capacity (MGD)	Critical Wet Weather Event			
	Event #	Start Time	End Time	Duration (hrs)	WWTP Flow at Start (MGD)	WWTP Max Flow (MGD)		Start Time	End Time	WWTP Event Max Flow (MGD)	WWTP Event Avg Flow (MGD)
Feb-20	1	2/27/20 4:00 AM	2/27/20 5:15 AM	1.25	127	127	127.5	2/27/20 2:30 AM	2/27/20 3:45 AM	131	124
Mar-20	1	3/19/20 9:30 AM	3/19/20 11:45 AM	2.25	127	127	127.5	3/19/20 3:45 AM	3/19/20 9:30 AM	138	132
	2	3/23/20 11:00 PM	3/24/20 3:45 AM	4.75	122	122	127.5	3/23/20 1:30 PM	3/23/20 10:45 PM	138	132
May-20	1a	5/23/20 12:00 PM	5/23/20 12:00 PM	0.00*	113	113	127.5	5/23/20 12:15 PM	5/23/20 1:45 PM	135	130
	1b	5/23/20 2:00 PM	5/23/20 3:15 PM	1.25	96	118	127.5				
Jun-20	1a	6/29/20 7:15 PM	6/29/20 7:15 PM	0.00*	85	85	127.5	6/29/2020 7:30 PM	6/29/2020 8:45 PM	139	132
	1b	6/29/20 9:00 PM	6/29/20 10:45 PM	1.75	109	109	127.5				
Jul-20	1	7/10/20 7:30 PM	7/10/20 7:45 PM	0.25	126	126	127.5	7/10/2020 1:30 PM	7/10/2020 7:15 PM	143	130
	2	7/22/20 11:30 PM	7/23/20 4:45 AM	5.25	126	126	127.5	7/22/2020 7:30 PM	7/22/2020 11:15 PM	141	132
Sep-20	1	9/4/20 12:30 AM	9/4/20 4:00 AM	3.50	116	116	127.5	9/3/20 9:30 PM	9/4/20 12:00 AM	134	131
	2	9/10/20 9:30 PM	9/10/20 9:30 PM	0.00*	112	112	127.5	9/10/20 9:45 PM	9/11/20 12:15 AM	141	135
Nov-20	1	11/1/20 3:45 PM	11/1/20 4:00 PM	0.25	72	80	127.5	11/1/20 4:15 PM	11/1/20 7:45 PM	135	131
	2	11/11/20 9:00 PM	11/11/20 9:00 PM	0.00*	104	104	127.5	11/11/20 9:15 PM	11/12/20 12:00 AM	135	129
	3a	11/15/20 10:00 PM	11/15/20 10:00 PM	0.00*	60	60	127.5	11/15/20 10:15 PM	11/15/20 11:45 PM	140	131
	3b	11/16/20 12:00 AM	11/16/20 2:45 AM	2.75	126	126	127.5				
	4	11/26/20 9:30 AM	11/26/20 11:15 AM	1.75	127	127	127.5	11/26/20 5:45 AM	11/26/20 9:15 AM	139	132
	5	11/30/20 4:45 PM	11/30/20 5:00 PM	0.25	117	127	127.5	11/30/20 11:00 AM	11/30/20 4:30 PM	140	133
Dec-20	1	12/5/20 3:45 PM	12/5/20 4:45 PM	1.00	127	127	127.5	12/5/20 4:45 AM	12/5/20 3:30 PM	137	132

CY2020 Key Regulator Monitoring Report

Regulator BBH-02	Potential CSO Discharges Outside the Period of a Critical Wet Weather Event						WWTP Event Capacity (MGD)	Critical Wet Weather Event			
	Event #	Start Time	End Time	Duration (hrs)	WWTP Flow at Start (MGD)	WWTP Max Flow (MGD)		Start Time	End Time	WWTP Event Max Flow (MGD)	WWTP Event Avg Flow (MGD)
Oct-20	1a	10/13/20 8:15 AM	10/13/20 9:00 AM	0.75	161	165	300	N/A	N/A	N/A	N/A
	1b	10/13/20 3:00 PM	10/13/20 4:15 PM	1.25	146	152					

CY2020 Key Regulator Monitoring Report

Regulator BBH-06	Potential CSO Discharges Outside the Period of a Critical Wet Weather Event						WWTP Event Capacity (MGD)	Critical Wet Weather Event			
	Event #	Start Time	End Time	Duration (hrs)	WWTP Flow at Start (MGD)	WWTP Max Flow (MGD)		Start Time	End Time	WWTP Event Max Flow (MGD)	WWTP Event Avg Flow (MGD)
Jan-20	1	1/25/20 1:45 PM	1/25/20 1:45 PM	0.00*	281	281	300	1/25/20 2:00 PM	1/25/20 6:15 PM	357	320
Feb-20	1	2/7/20 10:15 AM	2/7/20 11:00 AM	0.75	239	239	300	N/A	N/A	N/A	N/A
	2	2/10/20 3:45 PM	2/10/20 3:45 PM	0.00*	296	266	300	2/10/20 4:00 PM	2/10/20 5:30 PM	312	308
	3	2/11/20 7:45 AM	2/11/20 7:45 AM	0.00*	266	266	300	2/11/20 8:00 AM	2/11/20 9:00 AM	316	311
	4	2/13/20 12:45 AM	2/13/20 12:45 AM	0.00*	297	297	300	2/13/20 1:00 AM	2/13/20 2:45 AM	318	311
	5	2/27/20 1:45 AM	2/27/20 1:45 AM	0.00*	289	289	300	2/27/20 2:00 AM	2/27/20 6:00 AM	315	311
Mar-20	1	3/3/20 11:15 PM	3/3/20 11:15 PM	0.00*	261	261	300	3/3/20 11:30 PM	3/4/20 12:15 AM	315	309
Apr-20	1	4/21/20 3:15 PM	4/21/20 3:15 PM	0.00*	261	261	300	4/21/20 3:30 PM	4/22/20 5:00 PM	333	319
	2	4/30/20 8:45 AM	4/30/20 8:45 AM	0.00*	183	183	284	4/30/20 9:00 AM	11/3/20 12:00 AM	308	298
May-20	1	5/23/20 11:15 AM	5/23/20 11:30 AM	0.25	88	155	300	5/23/20 11:45 AM	5/23/20 3:30 PM	324	307
Jul-20	1	7/24/20 10:30 AM	7/24/20 10:45 AM	0.25	104	189	284	7/24/2020 11:00 AM	7/24/2020 1:30 PM	325	314
	2	7/31/20 2:15 AM	7/31/20 2:45 AM	0.50	116	283	284	7/31/2020 3:00 AM	7/31/2020 4:45 AM	350	324
Aug-20	1	8/4/20 5:15 AM	8/4/20 6:15 AM	1.00	61	117	284	8/4/20 7:00 AM	8/4/20 7:30 AM	293	289
	2	8/12/20 4:00 PM	8/12/20 4:45 PM	0.75	220	299	284	8/12/20 4:15 PM	8/12/20 8:00 PM	335	309
	3	8/17/20 9:30 PM	8/17/20 9:30 PM	0.00*	217	217	284	8/17/20 9:45 PM	8/18/20 12:45 AM	343	318
	4	8/25/20 7:00 PM	8/25/20 7:15 PM	0.25	220	299	284	8/25/20 7:15 PM	8/25/20 9:30 PM	323	312
Sep-20	1	9/30/20 2:00 AM	9/30/20 2:00 AM	0.00*	293	293	300	9/30/20 2:15 AM	9/30/20 7:30 AM	330	309
Oct-20	1	10/16/20 11:45 AM	10/16/20 11:45 AM	0.00*	279	279	300	10/16/20 11:00 PM	10/16/20 6:30 PM	320	313
Nov-20	1	11/15/20 9:00 PM	11/15/20 9:30 PM	0.50	132	132	284	11/15/20 10:45 PM	11/16/20 1:00 AM	337	310
	2	11/30/20 11:15 AM	11/30/20 11:15 AM	0.00*	169	169	300	11/30/20 11:30 AM	11/30/20 5:30 PM	353	328
Dec-20	1	12/5/20 5:15 AM	12/5/20 5:15 AM	0.00*	259	259	300	12/5/20 5:30 AM	12/5/20 1:30 PM	337	314

CY2020 Key Regulator Monitoring Report

Regulator BBL-04	Potential CSO Discharges Outside the Period of a Critical Wet Weather Event						WWTP Event Capacity (MGD)	Critical Wet Weather Event			
	Event #	Start Time	End Time	Duration (hrs)	WWTP Flow at Start (MGD)	WWTP Max Flow (MGD)		Start Time	End Time	WWTP Event Max Flow (MGD)	WWTP Event Avg Flow (MGD)
Feb-20	1	2/5/20 1:45 AM	2/5/20 2:15 AM	0.75	138	277	300	2/5/20 2:30 AM	2/5/20 5:45 AM	334	317
	2	2/27/20 1:15 AM	2/27/20 1:45 AM	0.50	150	289	300	2/27/20 2:00 AM	2/27/20 6:00 AM	315	311
Mar-20	1	3/3/20 10:45 PM	3/3/20 11:15 PM	0.50	148	261	300	3/3/20 11:30 PM	3/4/20 12:15 AM	315	309
	2	3/13/20 7:30 AM	3/13/20 8:00 AM	0.50	265	265	300	3/13/20 10:00 AM	3/13/20 10:00 AM	300	300
Apr-20	1	4/8/20 5:30 AM	4/8/20 5:45 AM	0.25	265	265	300	N/A	N/A	N/A	N/A
	2	4/9/20 2:30 PM	4/9/20 2:30 PM	0.00*	260	260	300	4/9/20 3:00 PM	4/9/20 3:45 PM	317	310
	3	4/21/20 3:15 PM	4/21/20 3:15 PM	0.00*	261	261	300	4/21/20 3:30 PM	4/22/20 5:00 PM	333	319
	4	4/30/20 9:45 PM	4/30/20 10:00 PM	0.25	174	208	284	4/30/20 10:15 PM	4/30/20 11:45 PM	360	325
Jul-20	1	6/3/20 4:45 AM	6/3/20 5:15 AM	0.50	181	210	300	N/A	N/A	N/A	N/A
	2	6/5/20 1:30 AM	6/5/20 1:45 AM	0.25	229	259	300	N/A	N/A	N/A	N/A
	3	6/28/20 7:45 PM	6/28/20 8:15 PM	0.50	162	193	300	N/A	N/A	N/A	N/A
	4a	6/29/20 7:00 PM	6/29/20 7:30 PM	0.50	243	277	300	6/29/2020 8:00 PM	6/29/2020 8:00 PM	310	310
Jul-20	4b	6/29/20 8:30 PM	6/29/20 9:00 PM	0.50	277	288	300				
	1	7/11/20 7:30 PM	7/11/20 8:00 PM	0.50	128	159	300	7/10/2020 1:45 PM	7/10/2020 11: PM	338	318
	2a	7/22/20 1:45 AM	7/22/20 2:15 AM	0.50	99	103	284	7/22/2020 7:45 PM	7/22/2020 11:30 PM	361	312
	2b	7/22/20 7:15 PM	7/22/20 7:30 PM	0.25	143	143	284				
Aug-20	3	7/31/20 2:15 AM	7/31/20 2:45 AM	0.50	116	283	284	7/31/2020 3:00 AM	7/31/2020 4:45 AM	350	324
	4	7/31/20 7:15 AM	7/31/20 7:45 AM	0.50	140	257	284	7/31/2020 8:00 AM	7/31/2020 8:15 AM	311	298
	1a	8/13/20 11:00 AM	8/13/20 11:00 AM	0.00*	198	198	284	8/13/20 11:15 AM	8/13/20 11:45 AM	298	289
	1b	8/13/20 12:00 PM	8/13/20 12:30 PM	0.50	280	280	284				
Aug-20	2a	8/17/20 9:15 PM	8/17/20 9:30 PM	0.25	152	217	284	8/17/20 9:45 PM	8/18/20 12:45 AM	343	318
	2b	8/18/20 4:00 AM	8/18/20 5:30 AM	1.50	130	288	284				
	3	8/19/20 10:30 AM	8/19/20 11:45 AM	1.25	100	281	284	8/19/20 12:15 PM	8/16/20 12:30 PM	285	285
	4	8/25/20 7:00 PM	8/25/20 7:00 PM	0.00*	220	220	284	8/25/20 7:15 PM	8/25/20 9:30 PM	323	312
	5	8/27/20 8:30 PM	8/27/20 8:30 PM	0.00*	128	128	284	8/27/20 8:45 PM	8/28/20 12:00 AM	331	308
Sep-20	1	9/1/20 5:45 AM	9/1/20 6:15 AM	0.50	74	106	300	N/A	N/A	N/A	N/A
	2	9/3/20 9:30 PM	9/3/20 9:30 PM	0.00*	272	272	300	9/3/20 9:45 PM	9/4/20 12:45 AM	338	325
	3	9/10/20 5:45 AM	9/10/20 6:15 AM	0.50	92	190	300	9/10/20 6:30 AM	9/10/20 11:30 AM	335	311
	4	9/10/20 9:00 PM	9/10/20 9:15 PM	0.25	178	203	300	9/10/20 9:30 PM	9/11/20 12:45 AM	334	308
	5a	9/29/20 10:00 PM	9/29/20 10:30 PM	0.50	177	196					
Sep-20	5b	9/29/20 11:00 PM	9/30/20 12:15 AM	1.25	232	284	300	9/30/20 2:15 AM	9/30/20 7:00 AM	330	309
	5c	9/30/20 2:00 AM	9/30/20 2:00 AM	0.00*	283	293					
Oct-20	1	10/16/20 11:15 AM	10/16/20 11:45 AM	0.50	200	279	300	10/16/20 12:00 PM	10/16/20 6:30 PM	320	313
Nov-20	1	11/11/20 7:45 PM	11/11/20 7:45 PM	0.00*	221	221	284	11/11/20 8:00 PM	11/12/20 1:00 AM	324	307
	2	11/15/20 9:00 PM	11/15/20 10:15 PM	1.25	132	170	284	11/15/20 10:45 PM	11/16/20 1:00 AM	337	310
	3	11/23/20 5:45 AM	11/23/20 6:30 AM	0.75	89	109	300	11/23/20 6:45 AM	11/23/20 10:45 AM	327	315
	4	11/26/20 5:30 AM	11/26/20 5:30 AM	0.00*	72	72	300	11/26/20 5:45 AM	11/26/20 9:30 AM	328	315
	5a	11/30/20 10:45 AM	11/30/20 11:15 AM	0.50	105	169					
Nov-20	5b	11/30/20 6:00 PM	11/30/20 6:30 PM	0.50	287	287	300	11/30/20 11:30 AM	11/30/20 5:30 PM	352	328
Dec-20	1	12/5/20 5:00 AM	12/5/20 5:15 AM	0.25	214	259	300	12/5/20 5:30 AM	12/5/20 1:30 PM	334	314
	2	12/24/20 11:30 PM	12/25/20 12:15 AM	0.75	119	275	300	12/25/20 12:30 AM	2/25/20 11:30 AM	369	317

CY2020 Key Regulator Monitoring Report

Regulator BBL-22	Potential CSO Discharges Outside the Period of a Critical Wet Weather Event						WWTP Event Capacity (MGD)	Critical Wet Weather Event			
	Event #	Start Time	End Time	Duration (hrs)	WWTP Flow at Start (MGD)	WWTP Max Flow (MGD)		Start Time	End Time	WWTP Event Max Flow (MGD)	WWTP Event Avg Flow (MGD)
Mar-20	1	3/28/20 7:30 PM	3/28/20 7:43 PM	0.23	187	230	300	3/28/20 8:00 PM	3/28/20 9:13 PM	314	308
Apr-20	1	4/21/20 2:43 PM	4/21/20 3:13 PM	0.30	243	261	300	4/21/20 3:30 PM	4/22/20 5:00 PM	333	319
Jun-20	1	6/29/20 7:00 PM	6/29/20 7:30 PM	0.30	243	277	300	6/29/2020 8:00 PM	6/29/2020 8:00 PM	310	310
Aug-20	1	8/13/20 10:43 AM	8/13/20 11:00 AM	0.23	114	198	284	8/13/20 11:13 AM	8/13/20 11:43 AM	298	289
	2	8/23/20 6:43 PM	8/23/20 7:00 PM	0.23	141	220	284	8/23/20 7:13 PM	8/23/20 9:30 PM	323	312
	3	8/27/20 8:30 PM	8/27/20 8:30 PM	0.00*	128	128	284	8/27/20 8:43 PM	8/28/20 12:00 AM	331	308
Sep-20	1	9/10/20 8:43 PM	9/10/20 9:13 PM	0.30	123	209	300	9/10/20 9:30 PM	9/11/20 12:43 AM	334	308

CY2020 Key Regulator Monitoring Report

Regulator HP-05	Potential CSO Discharges Outside the Period of a Critical Wet Weather Event						WWTP Event Capacity (MGD)	Critical Wet Weather Event			
	Event #	Start Time	End Time	Duration (hrs)	WWTP Flow at Start (MGD)	WWTP Max Flow (MGD)		Start Time	End Time	WWTP Event Max Flow (MGD)	WWTP Event Avg Flow (MGD)
Jan-20	1	1/25/20 2:45 PM	1/25/20 6:45 PM	4.00	377	393	400	N/A	N/A	N/A	N/A
Feb-20	1	2/27/20 6:15 AM	2/27/20 7:45 AM	1.50	307	307	400	N/A	N/A	N/A	N/A
Apr-20	1a	4/13/20 7:45 AM	4/13/20 8:00 AM	0.25	384	397	400	4/13/20 8:30 AM	4/13/20 12:00 PM	416	410
	1b	4/13/20 12:15 PM	4/13/20 12:15 PM	0.00*	387	387	400	4/13/20 3:15 PM	4/13/20 4:45 PM	415	409
	1c	4/13/20 8:00 PM	4/13/20 10:45 PM	2.75	264	264	400	N/A	N/A	N/A	N/A
	2	4/30/20 9:30 AM	4/30/20 12:45 PM	3.25	370	396	400	N/A	N/A	N/A	N/A
May-20	1	5/9/20 4:30 AM	5/9/20 6:00 AM	1.50	253	253	400	N/A	N/A	N/A	N/A
	2	5/23/20 7:15 PM	5/23/20 6:15 PM	4.00	309	309	400	N/A	N/A	N/A	N/A
Jun-20	1	6/6/20 3:30 PM	6/6/20 5:45 PM	2.15	299	299	400	N/A	N/A	N/A	N/A
Jul-20	1	7/6/20 6:30 PM	7/6/20 7:30 PM	1.00	358	358	400	N/A	N/A	N/A	N/A
	2	7/10/20 8:00 PM	7/10/20 9:45 PM	1.75	392	392	400	7/10/2020 2:30 PM	7/10/2020 7:45 PM	425	411
	3	7/31/20 3:00 AM	7/31/20 5:00 AM	2.00	388	399	400	7/31/2020 2:45 AM	7/31/2020 2:45 AM	400	400
Aug-20	1	8/18/20 1:45 AM	8/18/20 4:15 AM	2.50	325	325	330	8/17/20 9:30 PM	8/18/20 1:30 AM	355	332
	2	8/19/20 9:30 PM	8/19/20 5:15 PM	1.75	319	319	330	8/19/20 10:45 AM	8/19/20 3:00 PM	355	331
	3	8/25/20 9:30 PM	8/25/20 10:45 PM	1.25	317	317	330	8/25/20 6:45 PM	8/25/20 9:15 PM	343	330
	4	8/27/20 11:15 PM	8/28/20 12:00 AM	0.75	314	314	400	8/27/20 9:15 PM	8/27/20 10:15 PM	451	421
Sep-20	1	9/10/20 9:15 AM	9/10/20 9:15 AM	0.00*	354	354	400	9/10/20 9:30 AM	9/10/20 10:45 AM	418	386
	2	9/30/20 3:45 AM	9/30/20 6:30 AM	1.75	397	327	400	9/30/20 2:30 AM	9/30/20 3:30 AM	415	408
Oct-20	1	10/12/20 12:30 PM	10/12/20 1:00 PM	0.50	373	373	400	N/A	N/A	N/A	N/A
	2	10/16/20 3:15 PM	10/16/20 3:45 PM	0.50	372	372	400	10/16/20 12:00 PM	10/16/20 3:00 PM	424	394
	3	10/29/20 3:45 PM	10/29/20 6:30 PM	2.75	382	382	400	10/29/20 11:45 AM	10/29/20 3:30 PM	418	401
Nov-20	1	11/1/20 5:00 PM	11/1/20 6:00 PM	1.00	362	362	400	N/A	N/A	N/A	N/A
	2	11/23/20 8:00 AM	11/23/20 9:00 AM	1.00	367	367	400	N/A	N/A	N/A	N/A
	3a	11/26/20 6:30 AM	11/26/20 6:30 AM	0.00*	290	290	400	11/26/20 6:45 AM	11/26/20 8:15 AM	415	400
	3b	11/26/20 8:30 AM	11/26/20 8:30 AM	0.00*	399	399	400				
	4a	11/30/20 12:15 PM	11/30/20 12:15 PM	0.00*	317	317					
	4b	11/30/20 4:00 PM	11/30/20 4:45 PM	0.75	393	393	400	11/30/20 12:30 PM	11/30/20 3:45 PM	447	416
	4c	11/30/20 5:00 PM	11/30/20 8:30 PM	3.50	321	337					

CY2020 Key Regulator Monitoring Report

Regulator HP-10	Potential CSO Discharges Outside the Period of a Critical Wet Weather Event						WWTP Event Capacity (MGD)	Critical Wet Weather Event			
	Event #	Start Time	End Time	Duration (hrs)	WWTP Flow at Start (MGD)	WWTP Max Flow (MGD)		Start Time	End Time	WWTP Event Max Flow (MGD)	WWTP Event Avg Flow (MGD)
Jan-20	1	1/25/20 2:45 PM	1/25/20 5:15 PM	2.50	277	393	400	N/A	N/A	N/A	N/A
Apr-20	1	4/13/20 7:45 AM	4/13/20 8:00 AM	0.25	384	397	400	4/13/20 8:30 AM	4/13/20 12:00 PM	416	410
	2	4/30/20 9:15 AM	4/30/20 9:45 AM	0.50	367	396	400	N/A	N/A	N/A	N/A
May-20	1	5/8/20 9:30 PM	5/8/20 10:00 PM	0.50	256.00	278	400	N/A	N/A	N/A	N/A
Jun-20	1	6/6/20 3:15 PM	6/6/20 4:30 PM	1.25	306	308	400	N/A	N/A	N/A	N/A
Jul-20	1	7/22/20 7:45 PM	7/22/20 9:15 PM	1.50	260	358	400	N/A	N/A	N/A	N/A
	2a	7/31/20 2:30 AM	7/31/20 2:30 AM	0.00*	212	212	400	7/31/2020 2:45 AM	7/31/2020 2:45 AM	400	400
	2b	7/31/20 3:00 AM	7/31/20 3:30 AM	0.50	388	399	400				
Sep-20	1	9/30/20 2:15 AM	9/30/20 2:15 AM	0.00*	370	370	400	9/30/20 2:30 AM	9/30/20 3:30 AM	415	408
Nov-20	1	11/30/20 12:00 PM	11/30/20 12:15 PM	0.25	314	317	400	11/30/20 12:30 PM	11/30/20 3:45 PM	447	416

CY2020 Key Regulator Monitoring Report

Regulator HP-13	Potential CSO Discharges Outside the Period of a Critical Wet Weather Event						WWTP Event Capacity (MGD)	Critical Wet Weather Event			
	Event #	Start Time	End Time	Duration (hrs)	WWTP Flow at Start (MGD)	WWTP Max Flow (MGD)		Start Time	End Time	WWTP Event Max Flow (MGD)	WWTP Event Avg Flow (MGD)
Jan-20	1	1/25/20 2:15 PM	1/25/20 9:45 PM	7.50	318	393	400	N/A	N/A	N/A	N/A
	2	2/6/20 2:30 AM	2/6/20 4:30 AM	2.00	183	357	400	N/A	N/A	N/A	N/A
	3	2/11/20 7:45 AM	2/11/20 9:00 AM	1.25	295	303	400	N/A	N/A	N/A	N/A
Feb-20	1	3/3/20 11:15 PM	3/4/20 12:30 AM	1.25	278	284	400	N/A	N/A	N/A	N/A
	2	3/13/20 8:00 AM	3/13/20 11:30 AM	3.50	247	247	400	N/A	N/A	N/A	N/A
	3	3/19/20 3:45 AM	3/19/20 5:30 AM	1.75	350	393	400	3/19/20 5:45 AM	3/19/20 7:30 AM	416	411
	4	3/23/20 8:15 PM	3/23/20 10:00 PM	1.75	399	399	400	3/23/20 3:30 PM	3/23/20 8:00 PM	418	410
Mar-20	1	4/8/20 5:45 AM	4/8/20 7:00 AM	1.25	195	230	400	N/A	N/A	N/A	N/A
	2a	4/13/20 7:45 AM	4/13/20 8:00 AM	0.25	384	397	400	4/13/20 8:30 AM	4/13/20 12:00 PM	416	410
	2b	4/13/20 12:15 PM	4/13/20 1:00 PM	0.75	387	358	400	N/A	N/A	N/A	N/A
	3	4/21/20 3:45 PM	4/21/20 5:00 PM	1.25	284	298	400	N/A	N/A	N/A	N/A
	4a	4/30/20 9:15 AM	4/30/20 11:15 AM	2.00	367	367	400	N/A	N/A	N/A	N/A
	4b	4/30/20 10:30 PM	4/30/20 11:30 PM	1.00	342	344	400	N/A	N/A	N/A	N/A
Apr-20	1a	5/23/20 1:15 PM	5/23/20 4:00 PM	0.75	352	352	400	N/A	N/A	N/A	N/A
	1b	5/23/20 5:15 PM	5/23/20 6:00 PM	0.75	278	295	400	N/A	N/A	N/A	N/A
May-20	1a	6/5/20 7:15 PM	6/5/20 8:45 PM	1.50	168	168	400	N/A	N/A	N/A	N/A
	1b	6/6/20 3:15 PM	6/6/20 5:45 PM	2.25	306	283	400	N/A	N/A	N/A	N/A
Jun-20	1	7/3/20 5:45 PM	7/3/20 7:00 PM	1.25	254	301	400	N/A	N/A	N/A	N/A
	2	7/6/20 5:30 PM	7/6/20 7:45 PM	2.25	239	366	400	N/A	N/A	N/A	N/A
	3	7/22/20 8:00 PM	7/22/20 9:30 PM	1.50	274	358	400	N/A	N/A	N/A	N/A
	4a	7/31/20 2:30 AM	7/31/20 2:30 AM	0.00*	212	212	400	7/31/20 2:45 AM	7/31/20 2:45 AM	400	400
	4b	7/31/20 3:00 AM	7/31/20 5:15 AM	2.25	388	399	400	N/A	N/A	N/A	N/A
Jul-20	1	8/7/20 7:30 AM	8/7/20 8:30 AM	1.00	270	281	400	N/A	N/A	N/A	N/A
	2	8/13/20 12:45 PM	8/13/20 2:00 PM	1.25	229	277	400	N/A	N/A	N/A	N/A
	3a	8/18/20 1:45 AM	8/18/20 2:45 AM	1.00	325	325	330	8/17/20 9:30 PM	8/18/20 1:30 AM	355	332
	3b	8/18/20 4:30 AM	8/18/20 5:45 AM	1.25	244	276	330	N/A	N/A	N/A	N/A
	4	8/19/20 3:15 PM	8/19/20 3:45 PM	0.50	328	328	330	8/19/20 10:45 AM	8/19/20 3:00 PM	355	331
	5	8/27/20 11:15 PM	8/27/20 11:30 PM	1.00	314	314	400	8/27/20 9:15 PM	8/27/20 10:15 PM	451	421
Aug-20	1	9/3/20 9:45 PM	9/3/20 10:15 PM	0.50	292	389	400	9/3/20 10:30 PM	9/4/20 12:00 AM	432	431
	2	9/10/20 8:45 AM	9/10/20 9:15 AM	0.50	356	356	400	9/10/20 9:30 AM	9/10/20 10:45 AM	418	386
	3a	9/30/20 2:15 AM	9/30/20 2:15 AM	0.00*	370	370	400	9/30/20 2:30 AM	9/30/20 3:30 AM	415	408
	3b	9/30/20 3:45 AM	9/30/20 6:45 AM	3.00	397	397	400	N/A	N/A	N/A	N/A
	4	10/12/20 11:00 AM	10/12/20 2:00 PM	3.00	361	389	400	N/A	N/A	N/A	N/A
Sep-20	1	10/16/20 3:15 PM	10/16/20 6:15 PM	3.00	372	372	400	10/16/20 12:00 PM	10/16/20 3:00 PM	424	394
	2	11/1/20 3:45 PM	11/2/20 5:45 PM	2.00	225	375	400	N/A	N/A	N/A	N/A
	3	11/23/20 8:00 AM	11/23/20 10:00 AM	2.00	367	367	400	N/A	N/A	N/A	N/A
Oct-20	2a	11/23/20 10:15 AM	11/23/20 11:00 AM	0.75	273	277	400	N/A	N/A	N/A	N/A
	2b	11/26/20 6:00 AM	11/26/20 6:30 AM	0.50	195	290	400	11/26/20 6:45 AM	11/26/20 8:15 AM	415	400
	3	11/30/20 6:15 PM	11/30/20 8:15 PM	2.00	293	337	400	11/30/20 12:30 PM	11/30/20 3:45 PM	447	416
	4	12/25/20 12:30 AM	12/25/20 2:15 AM	1.75	326	383	400	12/25/20 3:00 AM	12/25/20 3:45 AM	413	408
Nov-20	1a	12/25/20 4:00 AM	12/25/20 4:45 AM	0.75	392	392	400	N/A	N/A	N/A	N/A
	2	12/31/20 7:30 AM	12/31/20 9:45 AM	2.25	184	380	400	N/A	N/A	N/A	N/A

CY2020 Key Regulator Monitoring Report

Regulator JA-03	Potential CSO Discharges Outside the Period of a Critical Wet Weather Event						WWTP Event Capacity (MGD)	Critical Wet Weather Event			
	Event #	Start Time	End Time	Duration (hrs)	WWTP Flow at Start (MGD)	WWTP Max Flow (MGD)		Start Time	End Time	WWTP Event Max Flow (MGD)	WWTP Event Avg Flow (MGD)
Jan-20	1	1/25/20 3:30 PM	1/25/20 4:30 PM	1.00	188	199	200	N/A	N/A	N/A	N/A
Mar-20	1	3/19/20 5:45 AM	3/19/20 6:30 AM	0.75	191	193	200	N/A	N/A	N/A	N/A
May-20	1	5/23/20 11:30 AM	5/23/20 12:15 PM	0.75	84	134	200	N/A	N/A	N/A	N/A
Jul-20	1	7/10/20 2:00 PM	7/10/20 2:15 PM	0.25	189	189	200	7/10/2020 2:30 PM	7/10/2020 6:30 PM	219	210
	2	7/22/20 8:00 PM	7/22/20 9:00 PM	1.00	144	198	200	7/22/2020 9:15 PM	7/22/2020 10:15 PM	218	215
	3	7/24/20 11:15 AM	7/24/20 11:30 AM	0.25	109	144	200	7/24/2020 11:45 AM	7/31/2020 2:15 PM	211	205
	4	7/31/20 2:15 AM	7/31/20 2:30 AM	0.25	122	139	150	7/31/2020 2:45 AM	7/31/2020 5:45 AM	197	177
Aug-20	1	8/4/20 5:30 AM	8/4/20 6:00 AM	0.50	83	106	200	N/A	N/A	N/A	N/A
	2	8/17/20 10:00 PM	8/17/20 10:30 PM	0.50	124	151	200	N/A	N/A	N/A	N/A
	3	8/27/20 8:45 PM	8/27/20 9:30 PM	0.75	78	140	200	8/27/20 8:00 PM	8/27/20 8:00 PM	202	202
Sep-20	1	9/3/20 9:45 PM	9/3/20 10:30 PM	0.75	156	191	200	N/A	N/A	N/A	N/A
	2	9/10/20 9:15 AM	9/10/20 9:30 AM	0.25	192	199	200	9/10/20 9:45 AM	9/10/20 9:45 AM	200	200
	3	9/10/20 10:00 PM	9/10/20 11:00 PM	1.00	122	171	200	N/A	N/A	N/A	N/A
	4	9/30/20 4:30 AM	9/30/20 5:00 AM	0.50	85	85	200	N/A	N/A	N/A	N/A
Oct-20	1	10/16/20 12:00 PM	10/16/20 1:00 PM	1.00	142	198	200	10/16/20 1:15 PM	10/16/20 4:45 PM	220	212
Nov-20	1	11/15/20 9:30 PM	11/15/20 10:00 PM	0.50	106	106	200	N/A	N/A	N/A	N/A
	2	11/30/20 11:30 AM	11/30/20 12:00 PM	0.50	113	143	200	11/30/20 1:30 PM	11/30/20 4:00 PM	216	209

CY2020 Key Regulator Monitoring Report

Regulator NCB-01	Potential CSO Discharges Outside the Period of a Critical Wet Weather Event						WWTP Event Capacity (MGD)	Critical Wet Weather Event			
	Event #	Start Time	End Time	Duration (hrs)	WWTP Flow at Start (MGD)	WWTP Max Flow (MGD)		Start Time	End Time	WWTP Event Max Flow (MGD)	WWTP Event Avg Flow (MGD)
Feb-20	1	2/27/20 2:00 AM	2/27/20 3:00 AM	1.00	628	670	700	N/A	N/A	N/A	N/A
Apr-20	1a	4/13/20 5:45 AM	4/13/20 5:45 AM	0.00*	600	600	700	4/13/20 6:00 AM	4/13/20 6:00 PM	723	723
	1b	4/13/20 2:30 PM	4/13/20 3:15 PM	0.75	588	693	700	4/13/20 7:15 AM	4/13/20 12:30 PM	770	753
	2	4/21/20 4:00 PM	4/21/20 4:15 PM	0.15	859	859	700	4/13/20 3:45 PM	4/13/20 4:00 PM	715	708
May-20	1	5/23/20 12:00 PM	5/23/20 1:30 PM	1.50	446	689	700	N/A	N/A	N/A	N/A
Jun-20	1	6/28/20 7:45 PM	6/28/20 7:45 PM	0.00*	401	401	700	N/A	N/A	N/A	N/A
	2a	6/29/20 7:00 PM	6/29/20 7:15 PM	0.15	277	388	700	6/29/2020 7:30 PM	6/29/2020 7:30 PM	725	725
	2b	6/29/20 7:45 PM	6/29/20 8:15 PM	0.50	647	673	700	N/A	N/A	N/A	N/A
	3	6/30/20 1:45 PM	6/30/20 2:15 PM	0.50	371	632	700	N/A	N/A	N/A	N/A
Jul-20	1	7/24/20 11:00 AM	7/24/20 12:00 PM	1.00	398	682	700	N/A	N/A	N/A	N/A
	2	7/31/20 2:00 AM	7/31/20 2:00 AM	0.00*	256	256	700	7/31/2020 2:15 AM	7/31/2020 4:00 AM	770	750
Aug-20	1	8/3/20 9:45 PM	8/3/20 10:00 PM	0.15	264	542	700	8/3/20 10:15 PM	8/3/20 10:45 PM	812	772
	2	8/4/20 12:00 PM	8/4/20 12:00 PM	0.15	277	277	700	8/4/20 12:15 PM	8/4/20 2:15 PM	820	776
Sep-20	1a	9/10/20 5:45 AM	9/10/20 6:30 AM	0.75	302	688	700	9/10/20 9:15 AM	9/10/20 11:00 AM	763	741
	1b	9/10/20 8:30 AM	9/10/20 9:00 AM	0.50	505	614	700	9/10/20 9:30 PM	9/10/20 11:00 PM	753	724
	1c	9/10/20 9:15 PM	9/10/20 9:15 PM	0.00*	630	671	700	9/30/20 2:30 AM	9/30/20 5:15 AM	787	768
	2	9/30/20 2:15 AM	9/30/20 2:15 AM	0.00*	505	505	700	10/16/20 11:45 AM	10/16/20 4:00 PM	774	740
Oct-20	1	10/16/20 11:30 AM	10/16/20 11:30 AM	0.00*	422	422	700	10/29/20 11:30 AM	10/29/20 4:15 PM	778	740
	2	10/29/20 11:00 AM	10/29/20 11:15 AM	0.15	515	665	700	11/1/20 4:45 PM	11/1/20 5:00 PM	723	713
Nov-20	1	11/1/20 3:30 PM	11/1/20 4:15 PM	0.75	321	440	700	11/11/20 9:30 PM	11/11/20 10:45 PM	789	771
	2	11/11/20 8:15 PM	11/11/20 9:15 PM	1.00	437	614	700	11/15/20 9:15 PM	11/15/20 10:30 PM	722	630
	3	11/15/20 9:00 PM	11/15/20 9:00 PM	0.00*	205	205	700	11/26/20 6:15 AM	11/26/20 9:30 AM	825	763
	4	11/26/20 6:00 AM	11/26/20 6:00 AM	0.00*	400	400	700	11/30/20 11:15 AM	11/30/20 3:15 PM	828	748
	5	11/30/20 11:00 AM	11/30/20 11:00 AM	0.00*	325	325	700	12/5/20 5:45 AM	12/5/20 8:45 AM	797	767
Dec-20	1	12/5/20 5:15 AM	12/5/20 5:30 AM	0.15	563	670	700				

CY2020 Key Regulator Monitoring Report

Regulator NCB-04	Potential CSO Discharges Outside the Period of a Critical Wet Weather Event						WWTP Event Capacity (MGD)	Critical Wet Weather Event			
	Event #	Start Time	End Time	Duration (hrs)	WWTP Flow at Start (MGD)	WWTP Max Flow (MGD)		Start Time	End Time	WWTP Event Max Flow (MGD)	WWTP Event Avg Flow (MGD)
Feb-20	1	2/10/20 3:15 PM	2/27/20 5:00 PM	1.75	535	478	700	N/A	N/A	N/A	N/A
	2	2/27/20 2:15 AM	2/27/20 5:00 AM	2.75	670	670	700	N/A	N/A	N/A	N/A
Mar-20	1	3/19/20 8:15 AM	3/19/20 9:45 AM	1.50	513	513	700	3/19/20 4:30 AM	3/19/20 8:15 AM	781	749
	2a	3/23/20 3:00 PM	3/23/20 3:15 PM	0.25	682	696	700	3/23/20 3:30 PM	3/23/20 9:00 PM	807	778
	2b	3/23/20 9:45 PM	3/23/20 10:15 PM	0.50	661	661	700				
Apr-20	1a	4/13/20 6:15 AM	4/13/20 6:45 AM	0.50	665	665	700	4/13/20 6:00 AM	4/13/20 6:00 PM	723	723
	1b	4/13/20 3:15 PM	4/13/20 3:15 PM	0.00*	693	693	700	4/13/20 7:15 AM	4/13/20 12:30 PM	770	753
	1c	4/13/20 4:00 PM	4/13/20 5:15 PM	1.25	659	659	700	4/13/20 3:45 PM	4/13/20 4:00 PM	715	708
May-20	1	5/23/20 12:15 PM	5/23/20 3:30 PM	3.25	689	689	700	N/A	N/A	N/A	N/A
Jun-20	1	6/3/20 7:00 AM	6/3/20 12:45 PM	5.75	242	289	700	6/3/2020 4:45 AM	6/3/2020 5:45 AM	731	531
	2	6/5/20 1:45 AM	6/5/20 2:30 AM	0.75	512	617	700	N/A	N/A	N/A	N/A
	3	6/28/20 9:00 PM	6/28/20 9:45 PM	0.75	616	616	700	6/28/2020 8:00 PM	6/28/2020 8:45 PM	732	646
	4a	6/29/20 7:15 PM	6/29/20 7:15 PM	0.00*	388	388	700				
	4b	6/29/20 7:45 PM	6/29/20 10:00 PM	2.25	647	673	700	6/29/2020 7:30 PM	6/29/2020 7:30 PM	725	725
Jul-20	1	7/10/20 7:15 PM	7/10/20 7:30 PM	0.25	666	666	700	7/10/2020 1:45 PM	7/10/2020 7:00 PM	749	743
	2	7/24/20 11:30 AM	7/24/20 12:45 PM	1.25	682	682	700	N/A	N/A	N/A	N/A
Aug-20	1a	8/3/20 10:00 PM	8/3/20 10:00 PM	0.00*	542	542	700	8/3/20 10:15 PM	8/3/20 10:45 PM	812	772
	1b	8/3/20 11:00 PM	8/4/20 12:15 AM	1.25	654	654	700				
	2	8/4/20 2:30 PM	8/4/20 4:30 PM	2.00	688	688	700	8/4/20 12:15 PM	8/4/20 2:15 PM	820	776
Sep-20	1a	9/10/20 6:00 AM	9/10/20 6:30 AM	0.50	551	688	700	9/10/20 9:15 AM	9/10/20 11:00 AM	763	741
	1b	9/10/20 8:45 AM	9/10/20 9:00 AM	0.25	590	614	700				
	2	9/30/20 2:15 AM	9/30/20 2:15 AM	0.00*	505	505	700	9/30/20 2:30 AM	9/30/20 5:15 AM	787	768
Oct-20	1a	10/29/20 11:15 AM	10/29/20 11:15 AM	0.00*	665	665	700	10/29/20 11:30 AM	10/29/20 4:15 PM	778	740
	1b	10/29/20 6:30 PM	10/29/20 7:00 PM	0.50	692	692	700	10/29/20 5:30 PM	10/29/20 6:15 PM	764	752
	2	10/30/20 10:15 AM	10/30/20 2:00 PM	3.75	687	687	700	10/30/20 8:00 AM	10/30/20 10:00 AM	766	736
Nov-20	1	11/23/20 7:00 AM	11/23/20 7:30 AM	0.50	430	625	700	N/A	N/A	N/A	N/A
	2	11/30/20 3:30 PM	11/30/20 3:45 PM	0.25	659	659	700	11/30/20 11:15 AM	11/30/20 3:15 PM	828	748
Dec-20	1	12/5/20 5:30 AM	12/5/20 5:30 AM	0.00*	670	670	700	12/5/20 5:45 AM	12/5/20 8:45 AM	797	767

CY2020 Key Regulator Monitoring Report

Regulator NCM-47	Potential CSO Discharges Outside the Period of a Critical Wet Weather Event						WWTP Event Capacity (MGD)	Critical Wet Weather Event			
	Event #	Start Time	End Time	Duration (hrs)	WWTP Flow at Start (MGD)	WWTP Max Flow (MGD)		Start Time	End Time	WWTP Event Max Flow (MGD)	WWTP Event Avg Flow (MGD)
May-20	1	5/23/20 11:45 AM	5/23/20 2:45 PM	3.00	367	689	700	N/A	N/A	N/A	N/A
Jun-20	1	6/5/20 1:00 AM	6/5/20 5:30 AM	4.50	195	617	700	N/A	N/A	N/A	N/A
Jul-20	1	7/6/20 4:45 PM	7/6/20 5:15 PM	0.50	237	496	700	N/A	N/A	N/A	N/A
Aug-20	1	8/7/20 6:15 AM	8/7/20 6:45 AM	0.50	251	282	700	N/A	N/A	N/A	N/A
	2	8/7/20 7:30 AM	8/7/20 8:30 AM	1.00	454	474	700	N/A	N/A	N/A	N/A
	3	8/12/20 4:45 PM	8/12/20 5:15 PM	0.50	247	454	700	N/A	N/A	N/A	N/A
	4	8/13/20 10:30 AM	8/13/20 12:00 PM	1.50	234	581	700	N/A	N/A	N/A	N/A
	5	8/18/20 4:30 AM	8/18/20 5:15 AM	0.75	476	641	700	N/A	N/A	N/A	N/A
Sep-20	1a	9/10/20 5:45 AM	9/10/20 7:00 AM	1.25	302	688	700	9/10/20 9:15 AM	9/10/20 11:00 AM	763	741
	1b	9/10/20 8:15 AM	9/10/20 9:00 AM	0.75	502	614		9/10/20 9:30 PM	9/10/20 11:00 PM	753	724
	1c	9/10/20 8:30 PM	9/10/20 9:15 PM	0.75	410	630		N/A	N/A	N/A	N/A
	2	9/24/20 8:15 PM	9/24/20 10:30 PM	2.25	193	194	700	N/A	N/A	N/A	N/A
	3	9/25/20 12:15 PM	9/25/20 1:00 PM	0.75	197	202	700	N/A	N/A	N/A	N/A
	4a	9/26/20 1:00 PM	9/26/20 2:00 PM	1.00	213	213	700	N/A	N/A	N/A	N/A
	4b	9/26/20 7:45 PM	9/27/20 3:45 AM	8.00	189	193		N/A	N/A	N/A	N/A
	5a	9/27/20 7:45 AM	9/27/20 3:00 PM	7.25	138	214		N/A	N/A	N/A	N/A
	5b	9/27/20 9:00 PM	9/28/20 4:15 AM	7.25	218	218	700	N/A	N/A	N/A	N/A
	6a	9/28/20 7:45 AM	9/28/20 4:45 PM	9.00	145	221		N/A	N/A	N/A	N/A
	6b	9/28/20 9:00 PM	9/29/20 6:15 AM	9.25	187	198		N/A	N/A	N/A	N/A
	7a	9/30/20 12:00 AM	9/30/20 2:15 AM	2.25	564	565		9/30/20 2:30 AM	9/30/20 5:15 AM	787	768
Oct-20	1a	10/16/20 11:30 AM	10/16/20 11:30 AM	0.00*	422	422	700	10/16/20 11:45 AM	10/16/20 4:00 PM	774	740
	1b	10/16/20 4:15 PM	10/16/20 6:00 PM	1.75	696	696	700	10/29/20 11:30 AM	10/29/20 4:15 PM	778	740
	2	10/29/20 10:30 AM	10/29/20 11:15 AM	0.75	384	665		11/1/20 4:45 PM	11/1/20 5:00 PM	723	713
Nov-20	1a	11/1/20 12:15 PM	11/1/20 4:30 PM	4.25	205	564	700	11/11/20 9:30 PM	11/11/20 10:45 PM	789	771
	1b	11/1/20 5:15 PM	11/1/20 7:45 PM	2.50	697	697		11/26/20 6:15 AM	11/26/20 9:30 AM	825	763
	2a	11/11/20 8:30 PM	11/11/20 9:15 PM	0.75	431	614	700	11/30/20 11:15 AM	11/30/20 3:15 PM	828	748
	2b	11/11/20 11:00 PM	11/12/20 4:00 AM	5.00	697	697		12/5/20 5:45 AM	12/5/20 8:45 AM	797	767
	3	11/26/20 9:45 AM	11/26/20 11:00 AM	1.25	582	582	700				
Dec-20	1	12/5/20 3:00 AM	12/5/20 5:30 AM	2.50	357	670	700				

CY2020 Key Regulator Monitoring Report

Regulator NR-16	Potential CSO Discharges Outside the Period of a Critical Wet Weather Event						WWTP Event Capacity (MGD)	Critical Wet Weather Event			
	Event #	Start Time	End Time	Duration (hrs)	WWTP Flow at Start (MGD)	WWTP Max Flow (MGD)		Start Time	End Time	WWTP Event Max Flow (MGD)	WWTP Event Avg Flow (MGD)
Apr-20	1	4/13/20 4:00 PM	4/13/20 4:45 PM	0.75	250	251	340	4/13/20 8:00 AM	4/13/20 12:45 PM	351	311
Jun-20	1	6/6/20 3:00 PM	6/6/20 3:30 PM	0.50	140	140	255	N/A	N/A	N/A	N/A
	2	6/30/20 12:30 PM	6/30/20 1:00 PM	0.50	110	160	255	N/A	N/A	N/A	N/A
Jul-20	1	7/6/20 5:00 PM	7/6/20 5:30 PM	0.50	175	250	340	7/6/2020 5:45 PM	7/6/2020 8:45 PM	363	288
	2	7/31/20 2:15 AM	7/31/20 2:30 AM	0.50	179	190	255	7/31/2020 2:45 AM	7/31/2020 6:15 AM	283	272
Aug-20	1	8/4/20 12:00 PM	8/4/20 12:00 PM	0.00*	250	250	255	8/4/20 12:15 PM	8/4/20 6:30 PM	281	258
	2	8/17/20 9:15 PM	8/17/20 9:45 PM	0.50	243	258	340	N/A	N/A	N/A	N/A
	3	8/25/20 6:30 PM	8/25/20 7:00 PM	0.50	193	223	340	N/A	N/A	N/A	N/A
	4	8/27/20 8:15 PM	8/27/20 8:45 PM	0.50	188	225	340	N/A	N/A	N/A	N/A
Sep-20	1	9/10/20 8:30 PM	9/10/20 9:00 PM	0.50	174	264	340	9/10/20 9:30 PM	9/10/20 11:15 PM	374	352
	2	9/30/20 2:15 AM	9/30/20 2:15 AM	0.00*	281	281	340	9/30/20 2:30 AM	9/30/20 7:30 AM	373	355
Oct-20	1	10/29/20 12:45 PM	10/29/20 1:00 PM	0.25	317	317	340	10/29/20 1:15 PM	10/29/20 9:30 PM	329	308
Nov-20	1	11/30/20 11:00 AM	11/30/20 11:00 AM	0.00*	328	328	340	11/30/20 11:15 AM	11/30/20 5:30 PM	348	315
Dec-20	1a	12/5/20 5:15 AM	12/5/20 5:45 AM	0.50	190	284	340	N/A	N/A	N/A	N/A
	1b	12/5/20 6:30 AM	12/5/20 7:30 AM	1.00	286	287					
	2	12/24/20 11:30 PM	12/25/20 12:00 AM	0.50	109	161	340	12/25/20 3:15 AM	12/25/20 8:45 AM	353	311

CY2020 Key Regulator Monitoring Report

Regulator NR-23	Potential CSO Discharges Outside the Period of a Critical Wet Weather Event						WWTP Event Capacity (MGD)	Critical Wet Weather Event			
	Event #	Start Time	End Time	Duration (hrs)	WWTP Flow at Start (MGD)	WWTP Max Flow (MGD)		Start Time	End Time	WWTP Event Max Flow (MGD)	WWTP Event Avg Flow (MGD)
Apr-20	1	4/13/20 4:15 PM	4/13/20 5:00 PM	0.75	231	231	340	4/13/20 8:00 AM	4/13/20 12:45 PM	331	311
Jun-20	1	6/29/20 6:45 PM	6/29/20 7:15 PM	0.30	201	201	255	N/A	N/A	N/A	N/A
Jul-20	1	7/6/20 5:00 PM	7/6/20 5:30 PM	0.30	175	364	340	7/6/2020 5:45 PM	7/6/2020 8:45 PM	363	288
	2	7/8/20 5:00 PM	7/8/20 5:30 PM	0.30	118	187	340	N/A	N/A	N/A	N/A
	3	7/10/20 2:15 PM	7/10/20 2:45 PM	0.30	294	303	340	7/10/2020 3:00 PM	7/10/2020 8:45 PM	353	316
	4	7/31/20 2:15 AM	7/31/20 2:30 AM	0.30	179	190	255	7/31/2020 2:45 AM	7/31/2020 6:15 AM	283	272
Aug-20	1	8/3/20 9:45 PM	8/3/20 9:45 PM	0.00 ^a	243	243	255	N/A	N/A	N/A	N/A
	2	8/17/20 9:15 PM	8/17/20 9:45 PM	0.30	243	238	340	N/A	N/A	N/A	N/A
	3	8/25/20 6:45 PM	8/25/20 7:15 PM	0.30	208	222	340	N/A	N/A	N/A	N/A
	4	8/27/20 8:30 PM	8/27/20 9:00 PM	0.30	206	243	340	N/A	N/A	N/A	N/A
Sep-20	1	9/10/20 8:30 PM	9/10/20 9:00 PM	0.30	174	264	340	9/10/20 9:30 PM	9/10/20 11:15 PM	374	352

CY2020 Key Regulator Monitoring Report

Regulator NR-33	Potential CSO Discharges Outside the Period of a Critical Wet Weather Event						WWTP Event Capacity (MGD)	Critical Wet Weather Event			
	Event #	Start Time	End Time	Duration (hrs)	WWTP Flow at Start (MGD)	WWTP Max Flow (MGD)		Start Time	End Time	WWTP Event Max Flow (MGD)	WWTP Event Avg Flow (MGD)

Regulator NR-33 has had no potential discharges outside the period of a critical wet weather event.

CY2020 Key Regulator Monitoring Report

Regulator OH-01	Potential CSO Discharges Outside the Period of a Critical Wet Weather Event						WWTP Event Capacity (MGD)	Critical Wet Weather Event			
	Event #	Start Time	End Time	Duration (hrs)	WWTP Flow at Start (MGD)	WWTP Max Flow (MGD)		Start Time	End Time	WWTP Event Max Flow (MGD)	WWTP Event Avg Flow (MGD)
Jan-20	1a	1/25/20 1:30 PM	1/25/20 2:30 PM	1.00	232	233	240	1/25/20 2:45 PM	1/25/20 3:45 PM	246	236
	1b	1/25/20 4:15 PM	1/25/20 5:00 PM	0.75	224	224	240				
Feb-20	1	2/27/20 2:15 AM	2/27/20 3:45 AM	1.50	192	192	240	N/A	N/A	N/A	N/A
Mar-20	1	3/3/20 5:00 PM	3/3/20 6:00 PM	1.00	188	188	240	N/A	N/A	N/A	N/A
Sep-20	1	9/10/20 8:15 AM	9/10/20 9:15 AM	1.00	154	155	180	9/10/20 8:45 PM	9/11/20 1:45 AM	184	182
	2	9/30/20 2:15 AM	9/30/20 3:15 AM	1.00	154	154	180	9/29/20 11:00 PM	9/30/20 8:45 AM	185	181

CY2020 Key Regulator Monitoring Report

Regulator OH-06	Potential CSO Discharges Outside the Period of a Critical Wet Weather Event						WWTP Event Capacity (MGD)	Critical Wet Weather Event			
	Event #	Start Time	End Time	Duration (hrs)	WWTP Flow at Start (MGD)	WWTP Max Flow (MGD)		Start Time	End Time	WWTP Event Max Flow (MGD)	WWTP Event Avg Flow (MGD)
May-20	1	5/8/20 10:45 PM	5/9/20 12:45 AM	2.00	186	189	240	5/23/20 12:00 PM	5/23/20 1:45 PM	243	241
Jul-20	1	7/1/20 1:15 PM	7/1/20 2:30 PM	1.25	145	189	240	N/A	N/A	N/A	N/A
Sep-20	1	9/10/20 8:45 AM	9/10/20 9:30 AM	0.75	152	152	180	9/10/20 8:45 PM	9/11/20 1:45 AM	184	182

CY2020 Key Regulator Monitoring Report

Regulator PR-06W	Potential CSO Discharges Outside the Period of a Critical Wet Weather Event						WWTP Event Capacity (MGD)	Critical Wet Weather Event			
	Event #	Start Time	End Time	Duration (hrs)	WWTP Flow at Start (MGD)	WWTP Max Flow (MGD)		Start Time	End Time	WWTP Event Max Flow (MGD)	WWTP Event Avg Flow (MGD)
Jan-20	1a	1/25/20 1:30 PM	1/25/20 2:45 PM	1.25	63	103	120	1/25/20 3:00 PM	1/25/20 3:30 PM	121	120
	1b	1/25/20 3:45 PM	1/25/20 4:30 PM	0.75	99	99	120				
Mar-20	1	3/19/20 6:15 AM	3/19/20 10:00 AM	3.75	111	111	120	N/A	N/A	N/A	N/A
	2	3/23/20 1:15 PM	3/23/20 3:00 PM	1.75	80	84	120	N/A	N/A	N/A	N/A
Apr-20	1	4/9/20 2:45 PM	4/9/20 3:15 PM	0.50	50	50	120	N/A	N/A	N/A	N/A
	2a	4/13/20 5:45 AM	4/13/20 6:30 AM	0.75	60	88	120	N/A	N/A	N/A	N/A
	2b	4/13/20 3:00 PM	4/13/20 5:30 PM	2.50	76	87	120	N/A	N/A	N/A	N/A
	3	4/24/20 2:15 AM	4/24/20 4:00 AM	1.75	62	95	120	N/A	N/A	N/A	N/A
	4	4/30/20 10:00 PM	4/30/20 11:00 PM	1.00	44	82	120	N/A	N/A	N/A	N/A
May-20	1	5/8/20 11:45 PM	5/9/20 1:45 AM	2.00	81	81	120	N/A	N/A	N/A	N/A
	2	5/23/20 12:15 PM	5/23/20 2:15 PM	2.00	78	121	120	N/A	N/A	N/A	N/A
Jun-20	1	6/5/20 1:30 AM	6/5/20 2:15 AM	0.75	51	58	120	N/A	N/A	N/A	N/A
Jul-20	1	7/1/20 12:15 PM	7/1/20 12:45 PM	0.50	40	71	120	N/A	N/A	N/A	N/A
	2	7/3/20 10:15 PM	7/3/20 11:00 PM	0.75	86	86	120	N/A	N/A	N/A	N/A
	3	7/6/20 4:30 PM	7/6/20 5:30 PM	1.00	65	93	120	N/A	N/A	N/A	N/A
	4	7/11/20 7:30 PM	7/11/20 8:15 PM	0.75	58	71	120	7/10/2020 1:45 PM	7/10/2020 7:15 PM	133	129
	5	7/22/20 7:45 PM	7/22/20 8:15 PM	0.50	77	82	120	N/A	N/A	N/A	N/A
	6	7/24/20 1:00 PM	7/24/20 1:30 PM	0.50	111	111	120	N/A	N/A	N/A	N/A
	7	7/31/20 1:45 AM	7/31/20 2:45 AM	1.00	95	118	120	N/A	N/A	N/A	N/A
Aug-20	1	8/4/20 12:15 PM	8/4/20 3:45 PM	3.50	58	91	120	N/A	N/A	N/A	N/A
	2	8/19/20 11:00 AM	8/19/20 12:15 PM	1.25	90	90	120	N/A	N/A	N/A	N/A
Sep-20	1	9/10/20 8:30 PM	9/10/20 10:15 PM	1.75	29	32	120	9/10/20 9:30 PM	9/10/20 10:45 PM	133	131
	2	9/30/20 2:15 AM	9/30/20 4:45 AM	2.50	26	45	120	N/A	N/A	N/A	N/A
Oct-20	1a	10/16/20 11:30 AM	10/16/20 12:45 PM	1.25	62	113	120	10/16/20 1:00 PM	10/16/20 1:45 PM	121	121
	1b	10/16/20 2:00 PM	10/16/20 3:45 PM	1.75	119	119					
	2a	10/29/20 11:00 AM	10/29/20 11:45 AM	0.75	29	97					
	2b	10/29/20 12:15 PM	10/29/20 3:15 PM	3.00	119	119	120	10/29/20 12:00 PM	10/29/20 12:00 PM	120	120
	2c	10/29/20 5:15 PM	10/29/20 6:00 PM	0.75	107	107					
Nov-20	3b	10/30/20 11:00 AM	10/30/20 1:15 PM	2.25	106	106	120	10/30/20 9:00 AM	10/30/20 10:00 AM	121	120
	1	11/1/20 3:15 PM	11/1/20 4:15 PM	1.00	68	93	120	N/A	N/A		
	2a	11/30/20 11:00 AM	11/30/20 12:00 PM	1.00	86	119					
Dec-20	2b	11/30/20 1:15 PM	11/30/20 2:45 PM	1.50	115	115	120	11/30/20 12:15 PM	11/30/20 1:00 PM	122	121
	1	12/5/20 4:45 AM	12/5/20 9:00 AM	4.25	69	112	120	N/A	N/A	N/A	N/A
	2	12/15/20 1:00 AM	12/15/20 1:30 AM	0.50	93	94	120	N/A	N/A	N/A	N/A

CY2020 Key Regulator Monitoring Report

Regulator PR-13E	Potential CSO Discharges Outside the Period of a Critical Wet Weather Event						WWTP Event Capacity (MGD)	Critical Wet Weather Event							
	Event #	Start Time	End Time	Duration (hrs)	WWTP Flow at Start (MGD)	WWTP Max Flow (MGD)		Start Time	End Time	WWTP Event Max Flow (MGD)	WWTP Event Avg Flow (MGD)				
Jan-20	1a	1/25/20 12:45 PM	1/25/20 2:45 PM	2.00	31	103	120	1/25/20 3:00 PM	1/25/20 3:30 PM	121	120				
	1b	1/25/20 3:45 PM	1/25/20 5:00 PM	1.25	99	99	120								
Feb-20	1	2/6/20 1:45 AM	2/6/20 2:45 AM	1.00	28	81	90	2/6/20 3:00 AM	2/6/20 3:30 AM	98	94				
	2	2/11/20 5:30 AM	2/11/20 6:45 AM	1.25	34	61	90	2/11/20 8:00 AM	2/11/20 8:15 AM	91	91				
	3	2/27/20 1:45 AM	2/27/20 2:45 AM	1.00	35	56	120	N/A	N/A	N/A	N/A				
Mar-20	1	3/3/20 10:45 PM	3/3/20 11:30 PM	0.75	37	45	120	N/A	N/A	N/A	N/A				
	2	3/19/20 6:30 AM	3/19/20 7:15 AM	0.75	110	110	120	N/A	N/A	N/A	N/A				
	3	3/23/20 2:00 PM	3/23/20 5:45 PM	3.75	79	113	120	3/23/20 6:00 PM	3/23/20 6:00 PM	120	120				
Apr-20	1	4/9/20 2:30 PM	4/9/20 3:15 PM	0.75	55	55	120	N/A	N/A	N/A	N/A				
	2a	4/13/20 5:00 AM	4/13/20 6:30 AM	1.50	50	88	120	N/A	N/A	N/A	N/A				
	2b	4/13/20 7:30 AM	4/13/20 10:45 AM	3.25	67	95									
	2c	4/13/20 11:00 AM	4/13/20 11:30 AM	0.50	80	86									
	2d	4/13/20 1:45 PM	4/13/20 5:00 PM	3.25	88	93									
	2e	4/13/20 5:45 PM	4/13/20 7:15 PM	1.50	86	86	120	N/A	N/A	N/A	N/A				
	3	4/21/20 3:15 PM	4/21/20 4:15 PM	1.00	80	80									
	4a	4/24/20 1:30 AM	4/24/20 5:30 AM	4.00	39	95									
	4b	4/24/20 11:00 AM	4/24/20 11:45 AM	0.75	81	92									
	5	4/26/20 5:30 PM	4/26/20 6:30 PM	1.00	65	66	120	N/A	N/A	N/A	N/A				
	6a	4/30/20 8:30 AM	4/30/20 9:00 AM	0.50	31	31	120	N/A	N/A	N/A	N/A				
	6b	4/30/20 9:45 PM	4/30/20 11:00 PM	1.25	37	82									
May-20	1	5/8/20 11:15 PM	5/9/20 1:00 AM	1.75	83	83	120	N/A	N/A	N/A	N/A				
	2	5/23/20 11:45 AM	5/23/20 2:00 PM	2.25	54	121	120	N/A	N/A	N/A	N/A				
Jun-20	1a	6/3/20 3:30 AM	6/3/20 4:15 AM	0.75	65	103	120	N/A	N/A	N/A	N/A				
	1b	6/3/20 9:45 PM	6/3/20 10:30 PM	0.75	49	65	120								
	2a	6/5/20 1:15 AM	6/5/20 2:30 AM	1.25	47	59	120								
Jul-20	2b	6/6/20 12:45 AM	6/6/20 1:15 AM	0.50	25	32	120	N/A	N/A	N/A	N/A				
	3	6/20/20 1:00 AM	6/20/20 5:30 AM	4.50	20	20	120	N/A	N/A	N/A	N/A				
	1	7/1/20 1:15 PM	7/1/20 2:00 PM	0.75	88	89	120	N/A	N/A	N/A	N/A				
Aug-20	2	7/3/20 9:30 PM	7/3/20 10:00 PM	0.50	85	87	120	N/A	N/A	N/A	N/A				
	3	7/5/20 3:45 AM	7/5/20 4:30 AM	0.75	23	27	120	N/A	N/A	N/A	N/A				
	4	7/6/20 4:30 PM	7/6/20 5:45 PM	1.25	65	93	120	N/A	N/A	N/A	N/A				
	5	7/11/20 7:30 PM	7/11/20 8:30 PM	1.00	58	77	120	7/10/2020 1:45 PM	7/10/2020 7:15 PM	133	129				
	6	7/31/20 2:00 AM	7/31/20 3:00 AM	1.00	118	118	120	N/A	N/A	N/A	N/A				
Sep-20	1	8/4/20 12:00 PM	8/4/20 2:45 PM	2.75	48	91	120	N/A	N/A	N/A	N/A				
	2a	8/7/20 5:15 AM	8/7/20 5:45 AM	0.50	26	27	120	N/A	N/A	N/A	N/A				
	2b	8/7/20 6:15 AM	8/7/20 7:15 AM	1.00	29	41	120	N/A	N/A	N/A	N/A				
	3	8/13/20 10:45 AM	8/13/20 11:45 AM	1.00	54	84	120	N/A	N/A	N/A	N/A				
	4	8/19/20 10:30 AM	8/19/20 11:15 AM	0.75	65	90	120	N/A	N/A	N/A	N/A				
Sep-20	5	8/27/20 9:00 PM	8/27/20 9:30 PM	0.50	40	48	120	N/A	N/A	N/A	N/A				
	1a	9/3/20 11:00 PM	9/3/20 11:15 PM	0.25	67	62	120	9/3/20 9:30 PM	9/3/20 10:45 PM	133	131				
	2a	9/10/20 3:45 AM	9/10/20 4:45 AM	1.00	21	21	120	9/10/20 9:30 PM	9/10/20 10:45 PM	135	133				
	2b	9/10/20 5:15 AM	9/10/20 5:45 AM	0.50	22	24									
	2c	9/10/20 6:45 AM	9/10/20 7:15 AM	0.50	25	25									
	2d	9/10/20 8:15 AM	9/10/20 9:30 AM	1.25	28	41									
	2e	9/10/20 8:30 PM	9/10/20 9:15 PM	0.75	29	31	120								
	3a	9/29/20 7:45 PM	9/29/20 10:30 PM	2.75	29	32									
	3b	9/29/20 11:00 PM	9/30/20 1:00 AM	2.00	28	28	N/A	N/A	N/A	N/A					
4	9/30/20 2:00 AM	9/30/20 6:00 AM	4.00	25	49	120	N/A	N/A	N/A	N/A					

CY2020 Key Regulator Monitoring Report

Regulator PR-13E	Potential CSO Discharges Outside the Period of a Critical Wet Weather Event						WWTP Event Capacity (MGD)	Critical Wet Weather Event			
	Event #	Start Time	End Time	Duration (hrs)	WWTP Flow at Start (MGD)	WWTP Max Flow (MGD)		Start Time	End Time	WWTP Event Max Flow (MGD)	WWTP Event Avg Flow (MGD)
Oct-20	1a	10/12/20 7:45 AM	10/12/20 8:15 AM	0.50	46	55	120	N/A	N/A	N/A	N/A
	1b	10/12/20 10:00 AM	10/12/20 12:45 PM	2.75	68	91	120	N/A	N/A	N/A	N/A
	2a	10/16/20 11:00 AM	10/16/20 12:45 PM	1.75	33	113	120	10/16/20 1:00 PM	10/16/20 1:45 PM	121	121
	2b	10/16/20 2:00 PM	10/16/20 4:15 PM	2.25	119	119	120	10/16/20 1:00 PM	10/16/20 1:45 PM	121	121
	3a	10/29/20 10:30 AM	10/29/20 11:45 AM	1.25	29	97	120	10/29/20 12:00 PM	10/29/20 12:00 PM	120	120
	3b	10/29/20 12:15 PM	10/29/20 7:00 PM	6.75	119	119	120	10/29/20 12:00 PM	10/29/20 12:00 PM	120	120
	3c	10/29/20 9:45 PM	10/29/20 10:30 PM	0.75	89	89	120	10/29/20 12:00 PM	10/29/20 12:00 PM	120	120
	4a	10/30/20 6:15 AM	10/30/20 8:00 AM	1.75	61	110	120	10/30/20 9:00 AM	10/30/20 10:00 AM	121	120
Nov-20	4b	10/30/20 10:15 AM	10/30/20 12:00 PM	1.75	117	117	120	10/30/20 9:00 AM	10/30/20 10:00 AM	121	120
	1	11/1/20 2:45 PM	11/1/20 4:45 PM	2.00	54	93	120	N/A	N/A	N/A	N/A
	2	11/11/20 7:45 PM	11/11/20 9:45 PM	2.00	66	98	120	N/A	N/A	N/A	N/A
	3a	11/23/20 6:00 AM	11/23/20 6:45 AM	0.75	24	46	120	N/A	N/A	N/A	N/A
	3b	11/23/20 8:00 AM	11/23/20 9:00 AM	1.00	74	74	120	N/A	N/A	N/A	N/A
	4	11/26/20 5:45 AM	11/26/20 7:15 AM	1.50	81	103	120	N/A	N/A	N/A	N/A
	5a	11/30/20 10:15 AM	11/30/20 12:00 PM	1.75	60	119	120	11/30/20 12:15 PM	11/30/20 1:00 PM	122	121
	5b	11/30/20 1:15 PM	11/30/20 2:15 PM	1.00	115	115	120	11/30/20 12:15 PM	11/30/20 1:00 PM	122	121
Dec-20	1	12/5/20 4:15 AM	12/5/20 9:15 AM	5.00	56	112	120	N/A	N/A	N/A	N/A
	2	12/24/20 11:15 PM	12/25/20 1:45 AM	2.50	49	94	120	N/A	N/A	N/A	N/A

CY2020 Key Regulator Monitoring Report

Regulator RH-02	Potential CSO Discharges Outside the Period of a Critical Wet Weather Event						WWTP Event Capacity (MGD)	Critical Wet Weather Event			
	Event #	Start Time	End Time	Duration (hrs)	WWTP Flow at Start (MGD)	WWTP Max Flow (MGD)		Start Time	End Time	WWTP Event Max Flow (MGD)	WWTP Event Avg Flow (MGD)

Regulator RH-02 has had no potential discharges outside the period of a critical wet weather event.

CY2020 Key Regulator Monitoring Report

Regulator	Potential CSO Discharges Outside the Period of a Critical Wet Weather Event						WWTP Event Capacity (MGD)	Critical Wet Weather Event			
	Event #	Start Time	End Time	Duration (hrs)	WWTP Flow at Start (MGD)	WWTP Max Flow (MGD)		Start Time	End Time	WWTP Event Max Flow (MGD)	WWTP Event Avg Flow (MGD)

Regulator RH-20 has had no potential discharges outside the period of a critical wet weather event.

CY2020 Key Regulator Monitoring Report

Regulator TI-09	Potential CSO Discharges Outside the Period of a Critical Wet Weather Event						WWTP Event Capacity (MGD)	Critical Wet Weather Event			
	Event #	Start Time	End Time	Duration (hrs)	WWTP Flow at Start (MGD)	WWTP Max Flow (MGD)		Start Time	End Time	WWTP Event Max Flow (MGD)	WWTP Event Avg Flow (MGD)
Jan-20	1	1/25/20 5:45 PM	1/25/20 6:15 PM	0.50	146	146	160	1/25/20 3:30 PM	1/25/20 5:15 PM	164	162
	2	2/6/20 3:30 AM	2/6/20 5:15 AM	1.75	146	146	160	N/A	N/A	N/A	N/A
	3	2/27/20 4:15 AM	2/27/20 5:00 AM	0.75	133	133	160	N/A	N/A	N/A	N/A
Feb-20	1	2/27/20 4:15 AM	2/27/20 5:00 AM	0.75	133	133	160	N/A	N/A	N/A	N/A
	2	3/13/20 10:00 AM	3/13/20 11:00 AM	1.00	132	133	160	N/A	N/A	N/A	N/A
	3	3/19/20 8:15 AM	3/19/20 9:00 AM	0.75	158	158	160	3/19/20 6:15 AM	3/19/20 8:00 AM	160	157
Mar-20	3a	3/23/20 4:15 PM	3/23/20 4:15 PM	0.00*	159	159	160	N/A	N/A	N/A	N/A
	3b	3/23/20 9:30 PM	3/23/20 11:00 PM	1.50	147	147	160	3/23/20 4:45 PM	3/23/20 9:00 PM	164	162
	4	4/13/20 6:30 AM	4/13/20 9:30 AM	3.00	138	156	160	4/13/20 9:45 AM	4/13/20 1:30 PM	164	161
Apr-20	1a	4/13/20 1:45 PM	4/13/20 2:30 PM	0.75	143	153	160	4/13/20 2:45 PM	4/13/20 4:45 PM	164	160
	1b	4/13/20 5:00 PM	4/13/20 5:15 PM	0.25	153	153	160	N/A	N/A	N/A	N/A
	2	4/21/20 3:30 PM	4/21/20 5:30 PM	0.75	115	139	160	N/A	N/A	N/A	N/A
May-20	3	4/24/20 4:15 AM	4/24/20 5:45 AM	0.50	137	139	160	N/A	N/A	N/A	N/A
	1	5/23/20 11:45 AM	5/23/20 1:45 PM	2.00	53	53	160	N/A	N/A	N/A	N/A
	1a	7/10/20 2:15 PM	7/10/20 3:15 PM	1.00	131	159	160	7/10/20 3:15 PM	7/10/20 6:45 PM	170	164
Jul-20	1b	7/10/20 7:00 PM	7/10/20 7:30 PM	0.50	158	158	160	N/A	N/A	N/A	N/A
	2	7/22/20 8:30 PM	7/22/20 10:30 PM	2.00	154	146	160	N/A	N/A	N/A	N/A
	1	8/4/20 5:15 AM	8/4/20 6:30 AM	1.25	52	154	160	N/A	N/A	N/A	N/A
Aug-20	2	8/17/20 9:30 PM	8/17/20 9:45 PM	0.25	99	137	160	8/17/20 10:00 PM	8/17/20 11:00 PM	166	163
	3	8/17/20 11:15 PM	8/17/20 11:45 PM	0.50	159	159	160	N/A	N/A	N/A	N/A
	4	8/27/20 8:45 PM	8/27/20 10:15 PM	1.50	90	156	160	N/A	N/A	N/A	N/A
Sep-20	1a	9/10/20 7:15 AM	9/10/20 9:15 AM	2.00	136	157	160	9/10/20 9:30 AM	9/10/20 10:45 AM	169	165
	1b	9/10/20 11:00 AM	9/10/20 11:45 AM	0.75	159	159	160	N/A	N/A	N/A	N/A
	1c	9/10/20 10:00 PM	9/11/20 12:00 AM	2.00	115	151	160	N/A	N/A	N/A	N/A
Oct-20	2	9/30/20 4:15 AM	9/30/20 6:30 AM	2.25	150	157	160	10/16/20 12:30 PM	10/16/20 5:45 PM	166	160
	1	10/16/20 6:00 PM	10/16/20 7:00 PM	1.00	143	143	160	10/29/20 12:15 PM	10/29/20 4:00 PM	167	163
	2	10/29/20 11:30 AM	10/29/20 12:00 PM	0.50	137	153	160	N/A	N/A	N/A	N/A
Nov-20	1a	11/1/20 4:15 PM	11/1/20 5:15 PM	1.00	95	150	160	N/A	N/A	N/A	N/A
	1b	11/1/20 5:30 PM	11/1/20 6:15 PM	0.75	151	153	160	N/A	N/A	N/A	N/A
	2a	11/11/20 8:15 PM	11/11/20 9:15 PM	1.00	121	138	160	N/A	N/A	N/A	N/A
Dec-20	2b	11/11/20 9:30 PM	11/11/20 10:30 PM	1.00	146	156	160	N/A	N/A	N/A	N/A
	3a	11/15/20 9:15 PM	11/15/20 9:45 PM	0.50	56	57	160	N/A	N/A	N/A	N/A
	3b	11/15/20 10:00 PM	11/15/20 10:30 PM	0.50	60	95	160	N/A	N/A	N/A	N/A
Nov-20	4a	11/23/20 8:15 AM	11/23/20 9:00 AM	0.75	128	136	160	N/A	N/A	N/A	N/A
	4b	11/23/20 9:15 AM	11/23/20 10:00 AM	0.75	138	148	160	11/26/20 8:15 AM	11/26/20 9:00 AM	165	163
	5	11/26/20 6:30 AM	11/26/20 8:00 AM	1.50	69	157	160	11/30/20 12:15 PM	11/30/20 4:00 PM	173	168
Dec-20	6	11/30/20 11:15 AM	11/30/20 12:00 PM	1.75	58	86	160	12/5/20 6:45 AM	12/5/20 8:30 AM	163	161
	1a	12/5/20 5:30 AM	12/5/20 6:30 AM	1.00	138	157	160	N/A	N/A	N/A	N/A
	1b	12/5/20 8:45 AM	12/5/20 11:30 AM	2.75	158	158	160	N/A	N/A	N/A	N/A
Dec-20	2a	12/25/20 3:15 AM	12/25/20 4:15 AM	1.00	141	148	160	N/A	N/A	N/A	N/A
	2b	12/25/20 8:30 AM	12/25/20 9:45 AM	1.25	137	149	160	N/A	N/A	N/A	N/A
	2c	12/25/20 10:00 AM	12/25/20 10:45 AM	0.75	148	148	160	N/A	N/A	N/A	N/A
Dec-20	3	12/31/20 9:15 AM	12/31/20 11:30 AM	2.25	150	152	160	N/A	N/A	N/A	N/A

CY2020 Key Regulator Monitoring Report

Regulator	Potential CSO Discharges Outside the Period of a Critical Wet Weather Event						WWTP Event Capacity (MGD)	Critical Wet Weather Event			
	Event #	Start Time	End Time	Duration (hrs)	WWTP Flow at Start (MGD)	WWTP Max Flow (MGD)		Start Time	End Time	WWTP Event Max Flow (MGD)	WWTP Event Avg Flow (MGD)

Regulator TI-10A has had no potential discharges outside the period of a critical wet weather event.

CT2020 Key Regulator Monitoring Report

Regulator	Potential CSO Discharges Outside the Period of a Critical Wet Weather Event						WWTP Event Capacity (MGD)	Critical Wet Weather Event			
	Event #	Start Time	End Time	Duration (hrs)	WWTP Flow at Start (MGD)	WWTP Max Flow (MGD)		Start Time	End Time	WWTP Event Max Flow (MGD)	WWTP Event Avg Flow (MGD)

Regulator WIB-53 has had no potential discharges outside the period of a critical wet weather event.

CY2020 Key Regulator Monitoring Report

Regulator WB-67	Potential CSO Discharges Outside the Period of a Critical Wet Weather Event						WWTP Event Capacity (MGD)	Critical Wet Weather Event			
	Event #	Start Time	End Time	Duration (hrs)	WWTP Flow at Start (MGD)	WWTP Max Flow (MGD)		Start Time	End Time	WWTP Event Max Flow (MGD)	WWTP Event Avg Flow (MGD)
Apr-20	1a	4/13/20 8:00 AM	4/13/20 8:45 AM	0.75	516	542	550	4/13/20 9:00 AM	4/13/20 10:45 AM	562	542
	1b	4/13/20 11:00 AM	4/13/20 7:30 PM	8.5	547	547					
	2a	4/30/20 9:30 AM	4/30/20 10:45 AM	1.25	529	529		4/30/20 9:00 AM	4/30/20 9:15 AM	600	383
	2b	4/30/20 10:00 PM	4/30/20 11:15 PM	1.25	437	493					
May-20	1	5/5/20 2:15 AM	5/5/20 3:00 AM	0.75	230	259	480	N/A	N/A	N/A	N/A
	2a	5/23/20 12:15 PM	5/23/20 1:30 PM	1.25	107	124	480	N/A	N/A	N/A	N/A
	2b	5/23/20 1:45 PM	5/23/20 2:15 PM	0.50	132	132	480	N/A	N/A	N/A	N/A
Jul-20	1	7/6/20 3:00 PM	7/6/20 6:45 PM	3.75	246	404	550	N/A	N/A	N/A	N/A
	2	7/8/20 3:15 PM	7/8/20 6:00 PM	2.75	228	468	550	N/A	N/A	N/A	N/A
	3	7/10/20 8:15 PM	7/11/20 1:00 AM	4.75	416	441	550	N/A	N/A	N/A	N/A
Aug-20	1	8/4/20 1:30 PM	8/4/20 3:45 PM	2.25	417	437	550	N/A	N/A	N/A	N/A
Sep-20	1	9/29/20 10:45 PM	9/29/20 10:45 PM	0.00 ^a	462	462	550	N/A	N/A	N/A	N/A
Oct-20	1	10/30/20 11:00 AM	10/30/20 2:00 PM	3.00	408	408	550	N/A	N/A	N/A	N/A
Nov-20	1a	11/1/20 1:00 PM	11/1/20 2:15 PM	1.25	220	271	550	N/A	N/A	N/A	N/A
	1b	11/1/20 6:45 PM	11/1/20 9:15 PM	2.50	327	327		N/A	N/A	N/A	N/A

CY2020 Key Regulator Monitoring Report

Regulator WIM-23	Potential CSO Discharges Outside the Period of a Critical Wet Weather Event						WWTP Event Capacity (MGD)	Critical Wet Weather Event			
	Event #	Start Time	End Time	Duration (hrs)	WWTP Flow at Start (MGD)	WWTP Max Flow (MGD)		Start Time	End Time	WWTP Event Max Flow (MGD)	WWTP Event Avg Flow (MGD)
Jun-20	1	6/29/20 9:00 PM	6/29/20 11:00 PM	2.00	339	339	550	N/A	N/A	N/A	N/A
Jul-20	1	7/10/20 8:15 PM	7/10/20 8:15 PM	0.00*	416	416	550	7/10/2020 2:15 PM	7/10/2020 8:00 PM	562	516
	2	7/22/20 7:30 PM	7/22/20 7:30 PM	0.00*	425	425	550	7/22/2020 7:45 PM	7/22/2020 8:00 PM	502	495
Dec-20	1	12/5/20 8:00 AM	12/5/20 8:45 AM	0.75	542	542	550	12/5/20 6:45 AM	12/5/20 7:45 AM	671	566

Appendix 3.2: WET WEATHER THROTTLING SUMMARY – CY 2020

28TH WARD - WET WEATHER THROTTLING SUMMARY

		Plant Throttling Information					Critical Wet Weather Event					
Storm Dates	WET WEATHER PLANT CAPACITY (MGD)	Did Plant Throttle? Yea/No	Flow at Start of Throttling (MGD)	Throttling Max Flow (MGD)	Throttling Avg Flow (MGD)	Bypass Item No.	Critical Event Start Date & Time		Critical Event End Date & Time	Critical Event Max Flow (MGD)	Critical Event Avg Flow (MGD)	
1/25/2020	127.5 (Interim Limit)	YES	128	133	131	N/A	1/25/2020	2:15 PM	1/25/2020	5:30 PM	133	131
2/6/2020	127.5 (Interim Limit)	YES	127	133	128	N/A	2/6/2020	3:15 PM	2/6/2020	6:45 PM	133	128
2/27/2020	127.5 (Interim Limit)	YES	134	133	133	N/A	2/27/2020	1:45 AM	2/27/2020	3:45 AM	133	130
	127.5 (Interim Limit)	YES	135	131	130	N/A						
3/19/2020	127.5 (Interim Limit)	YES	135	138	132	N/A	3/19/2020	3:45 AM	3/19/2020	9:30 AM	138	132
3/23/2020	127.5 (Interim Limit)	YES	133	138	133	N/A	3/23/2020	1:30 PM	3/23/2020	10:45 PM	138	132
4/13/2020	127.5 (Interim Limit)	YES	134	142	132	N/A	4/13/2020	5:45 AM	4/13/2020	5:30 PM	142	132
	127.5 (Interim Limit)	NO	n/a	n/a	n/a	N/A	4/13/2020	6:30 PM	4/13/2020	7:30 PM	135	133
4/21/2020	127.5 (Interim Limit)	YES	138	140	137	N/A	4/21/2020	3:45 PM	4/21/2020	5:00 PM	140	134
4/24/2020	127.5 (Interim Limit)	YES	130	131	130	N/A	4/24/2020	3:30 AM	4/24/2020	6:00 AM	131	130
4/30/2020	127.5 (Interim Limit)	YES	130	135	128	N/A	4/30/2020	9:00 AM	4/30/2020	10:15 AM	131	130
5/8/2020	127.5 (Interim Limit)	NO	n/a	n/a	n/a	N/A	5/8/2020	11:00 PM	5/8/2020	12:00 AM	135	134
5/23/2020	127.5 (Interim Limit)	YES	135	135	130	N/A	5/23/2020	12:15 PM	5/23/2020	1:45 PM	135	130
6/3/2020	127.5 (Interim Limit)	YES	135	140	132	N/A	6/3/2020	4:45 AM	6/3/2020	8:30 AM	140	132
6/28/2020	127.5 (Interim Limit)	YES	134	135	132	N/A	6/28/2020	8:00 PM	6/28/2020	9:15 PM	135	133
6/29/2020	127.5 (Interim Limit)	YES	134	134	131	N/A	6/29/2020	7:30 PM	6/29/2020	8:45 PM	139	132
7/1/2020	127.5 (Interim Limit)	YES	133	134	130	N/A	7/1/2020	11:00 AM	7/1/2020	12:45 PM	138	131
7/10/2020	127.5 (Interim Limit)	YES	138	143	130	N/A	7/10/2020	1:30 PM	7/10/2020	7:15 PM	143	130
7/22/2020	127.5 (Interim Limit)	YES	135	141	132	N/A	7/22/2020	7:30 PM	7/22/2020	11:15 PM	141	132
7/24/2020	80 (3 P&Ts only)	YES	88	92	89	N/A	7/24/2020	10:45 AM	7/24/2020	9:00 PM	100	89
7/31/2020	127.5 (Interim Limit)	YES	132	137	134	N/A	7/31/2020	2:00 AM	7/31/2020	6:00 AM	137	133
	127.5 (Interim Limit)	YES	134	141	136	N/A	7/31/2020	7:30 AM	7/31/2020	10:00 AM	141	136
8/4/2020	127.5 (Interim Limit)	YES	137	154	133	N/A	8/4/2020	5:00 AM	8/4/2020	9:30 AM	154	133
	127.5 (Interim Limit)	YES	137	145	136	N/A	8/4/2020	12:00 PM	8/4/2020	4:45 PM	145	133
8/7/2020	127.5 (Interim Limit)	NO	n/a	n/a	n/a	N/A	8/7/2020	10:00 PM	8/7/2020	10:00 PM	126	126
8/17/2020	127.5 (Interim Limit)	YES	134	134	134	N/A	8/17/2020	10:15 PM	8/17/2020	11:00 PM	134	132
8/19/2020	127.5 (Interim Limit)	YES	133	135	132	N/A	8/19/2020	10:45 AM	8/19/2020	1:00 PM	135	132
8/27/2020	127.5 (Interim Limit)	YES	132	137	130	N/A	8/27/2020	8:45 PM	8/27/2020	11:45 PM	137	130

28TH WARD - WET WEATHER THROTTLING SUMMARY

		Plant Throttling Information					Critical Wet Weather Event					
Storm Dates	WET WEATHER PLANT CAPACITY (MGD)	Did Plant Throttle? Yea/No	Flow at Start of Throttling (MGD)	Throttling Max Flow (MGD)	Throttling Avg Flow (MGD)	Bypass Item No.	Critical Event Start Date & Time		Critical Event End Date & Time		Critical Event Max Flow (MGD)	Critical Event Avg Flow (MGD)
9/1/2020	127.5 (Interim Limit)	YES	135	141	132	N/A	9/1/2020	5:30 AM	9/1/2020	8:15 AM	147	133
9/3/2020	127.5 (Interim Limit)	YES	134	134	131	N/A	9/3/2020	9:30 PM	9/4/2020	12:00 AM	134	131
9/10/2020	127.5 (Interim Limit)	YES	132	152	132	N/A	9/10/2020	5:45 AM	9/10/2020	1:15 PM	152	132
	127.5 (Interim Limit)	YES	135	141	135	N/A	9/10/2020	9:45 PM	9/10/2020	12:15 AM	141	135
9/30/2020	127.5 (Interim Limit)	YES	136	140	134	N/A	9/30/2020	2:30 AM	9/30/2020	7:00 AM	141	134
10/12/2020	127.5 (Interim Limit)	YES	133	137	132	N/A	10/12/2020	10:00 AM	10/12/2020	8:00 PM	137	132
10/16/2020 - 10/17/2020	127.5 (Interim Limit)	YES	135	136	130	N/A	10/16/2020	11:45 AM	10/16/2020	7:30 PM	136	130
	127.5 (Interim Limit)	YES	132	133	130	N/A	10/17/2020	1:30 AM	10/17/2020	3:00 AM	133	130
10/29/2020 - 10/30/2020	127.5 (Interim Limit)	YES	140	139	134	N/A	10/29/2020	11:00 AM	10/29/2020	1:30 AM	139	131
	127.5 (Interim Limit)	YES	134	139	133	N/A	10/30/2020	7:15 AM	10/30/2020	2:30 PM	139	133
11/1/2020	127.5 (Interim Limit)	YES	134	135	131	N/A	11/1/2020	4:15 PM	11/1/2020	7:45 PM	135	131
11/1/2020	127.5 (Interim Limit)	YES	135	135	129	N/A	11/1/2020	9:15 PM	11/12/2020	12:00 AM	135	129
11/15/2020	127.5 (Interim Limit)	YES	135	140	132	N/A	11/15/2020	10:15 PM	11/15/2020	11:45 PM	140	131
11/23/2020	127.5 (Interim Limit)	YES	136	140	134	N/A	11/23/2020	8:30 AM	11/23/2020	10:15 AM	140	134
11/29/2020	127.5 (Interim Limit)	YES	139	139	132	N/A	11/29/2020	5:45 AM	11/29/2020	9:15 AM	139	132
11/30/2020	127.5 (Interim Limit)	YES	139	140	133	N/A	11/30/2020	11:00 AM	11/30/2020	4:30 PM	140	133
12/5/2020	127.5 (Interim Limit)	YES	135	136	132	N/A	12/5/2020	4:45 AM	12/5/2020	3:30 PM	137	132
12/25/2020	127.5 (Interim Limit)	YES	134	135	132	N/A	12/25/2020	12:15 AM	12/25/2020	1:15 PM	135	132
12/31/2020	127.5 (Interim Limit)	YES	134	136	131	N/A	12/31/2020	8:45 AM	12/31/2020	12:00 PM	136	131

BOWERY BAY - WET WEATHER THROTTLING SUMMARY

		Plant Throttling Information					Critical Wet Weather Event					
Storm Dates	WET WEATHER PLANT CAPACITY (MGD)	Did Plant Throttle? Yes/No	Flow at Start of Throttling (MGD)	Throttling Max Flow (MGD)	Throttling Avg Flow (MGD)	Bypass Item No.	Critical Event Start Date & Time		Critical Event End Date & Time		Critical Event Max Flow (MGD)	Critical Event Avg Flow (MGD)
1/25/2020	300	NO	n/a	n/a	n/a	N/A	1/25/2020	2:00 PM	1/25/2020	8:15 PM	357	320
2/6/2020	300	NO	n/a	n/a	n/a	N/A	2/6/2020	2:30 AM	2/6/2020	5:45 AM	324	317
2/10/2020	300	NO	n/a	n/a	n/a	N/A	2/10/2020	4:00 PM	2/10/2020	5:30 PM	312	308
2/11/2020	300	NO	n/a	n/a	n/a	N/A	2/11/2020	8:00 AM	2/11/2020	9:00 AM	318	311
2/13/2020	300	NO	n/a	n/a	n/a	N/A	2/13/2020	1:00 AM	2/13/2020	2:45 AM	318	311
2/27/2020	300	NO	n/a	n/a	n/a	N/A	2/27/2020	2:00 AM	2/27/2020	8:00 AM	315	311
3/3/2020 - 3/4/2020	300	NO	n/a	n/a	n/a	N/A	3/3/2020	11:30 PM	3/4/2020	12:15 AM	315	309
3/13/2020	300	NO	n/a	n/a	n/a	N/A	3/13/2020	10:00 AM	3/13/2020	10:00 AM	300	300
3/19/2020	300	YES	310	328	309	N/A	3/19/2020	4:00 AM	3/19/2020	10:15 AM	328	308
3/23/2020	300	NO	n/a	n/a	n/a	N/A	3/23/2020	1:45 PM	3/23/2020	8:15 PM	338	319
3/29/2020	300	NO	n/a	n/a	n/a	N/A	3/29/2020	8:00 PM	3/29/2020	9:15 PM	314	308
4/9/2020	300	NO	n/a	n/a	n/a	N/A	4/9/2020	3:00 PM	4/9/2020	3:45 PM	317	310
4/13/2020	300	YES	318	333	325	N/A	4/13/2020	5:45 AM	4/13/2020	7:30 PM	333	319
4/21/2020	300	NO	n/a	n/a	n/a		4/21/2020	3:30 PM	4/21/2020	5:00 PM	328	318
4/24/2020	284 (2 LL MSPs o/s)	NO	n/a	n/a	n/a	N/A	4/24/2020	2:30 AM	4/24/2020	6:30 AM	315	301
	284 (2 LL MSPs o/s)	NO	n/a	n/a	n/a	N/A	4/24/2020	10:30 AM	4/24/2020	12:30 PM	311	301
4/30/2020 - 5/1/2020	284 (2 LL MSPs o/s)	YES	302	308	303	N/A	4/30/2020	9:00 AM	4/30/2020	12:30 PM	308	298
	284 (2 LL MSPs o/s)	NO	n/a	n/a	n/a	N/A	4/30/2020	10:15 PM	5/1/2020	12:45 AM	380	325
5/8/2020	284 (2 LL MSPs o/s)	NO	n/a	n/a	n/a	N/A	5/8/2020	10:15 PM	5/8/2020	2:30 AM	352	305
5/23/2020	300	YES	308	324	307	N/A	5/23/2020	11:45 AM	5/23/2020	3:30 PM	324	307
6/29/2020	300	NO	n/a	n/a	n/a	N/A	6/29/2020	8:00 PM	6/29/2020	8:00 PM	310	310
7/10/2020	300	YES	320	338	320	N/A	7/10/2020	1:45 PM	7/10/2020	11:00 PM	338	318
7/22/2020	284 (2 LL MSPs o/s)	NO	n/a	n/a	n/a	N/A	7/22/2020	7:45 PM	7/22/2020	11:30 PM	381	312
7/24/2020	284 (2 LL MSPs o/s)	NO	n/a	n/a	n/a	N/A	7/24/2020	11:00 AM	7/24/2020	1:30 PM	325	314
7/31/2020	284 (2 LL MSPs o/s)	NO	n/a	n/a	n/a	N/A	7/31/2020	3:00 AM	7/31/2020	4:45 AM	350	324
	284 (2 LL MSPs o/s)	NO	n/a	n/a	n/a	N/A	7/31/2020	8:00 AM	7/31/2020	9:00 AM	311	298
8/3/2020 - 8/4/2020	284 (2 LL MSPs o/s)	YES	318	325	308	N/A	8/3/2020	10:15 PM	8/4/2020	12:30 AM	325	303
	284 (2 LL MSPs o/s)	NO	n/a	n/a	n/a	N/A	8/4/2020	7:00 AM	8/4/2020	7:30 AM	293	288

BOWERY BAY - WET WEATHER THROTTLING SUMMARY

		Plant Throttling Information					Critical Wet Weather Event					
Storm Dates	WET WEATHER PLANT CAPACITY (MGD)	Did Plant Throttle? Yes/No	Flow at Start of Throttling (MGD)	Throttling Max Flow (MGD)	Throttling Avg Flow (MGD)	Bypass Item No.	Critical Event Start Date & Time		Critical Event End Date & Time		Critical Event Max Flow (MGD)	Critical Event Avg Flow (MGD)
8/12/2020	284 (2 LL MSPs o/s)	YES	287	321	293	N/A	8/4/2020	12:15 PM	8/4/2020	5:00 PM	321	293
	284 (2 LL MSPs o/s)	YES	317	335	318	N/A	8/12/2020	4:15 PM	8/12/2020	8:00 PM	335	309
8/13/2020	284 (2 LL MSPs o/s)	NO	n/a	n/a	n/a	N/A	8/13/2020	11:15 AM	8/13/2020	11:45 AM	298	289
8/17/2020 - 8/18/2020	284 (2 LL MSPs o/s)	NO	n/a	n/a	n/a	N/A	8/17/2020	9:45 PM	8/18/2020	12:45 AM	343	318
	284 (2 LL MSPs o/s)	NO	n/a	n/a	n/a	N/A	8/18/2020	5:00 PM	8/18/2020	5:30 PM	310	295
8/19/2020	284 (2 LL MSPs o/s)	NO	n/a	n/a	n/a	N/A	8/19/2020	12:15 PM	8/19/2020	12:30 PM	285	285
8/25/2020	284 (2 LL MSPs o/s)	NO	n/a	n/a	n/a	N/A	8/25/2020	7:15 PM	8/25/2020	9:30 PM	323	312
8/27/2020	284 (2 LL MSPs o/s)	YES	228	331	312	N/A	8/27/2020	8:45 PM	8/28/2020	12:00 AM	331	308
8/30/2020	300	YES	314	338	329	N/A	8/30/2020	9:45 PM	9/4/2020	12:45 AM	338	325
9/10/2020	300	YES	304	317	307	N/A	9/10/2020	6:30 AM	9/10/2020	11:30 AM	335	311
9/10/2020	300	YES	330	334	309	N/A	9/10/2020	9:30 PM	9/11/2020	12:45 AM	334	308
9/30/2020	300	YES	323	330	308	N/A	9/30/2020	2:15 AM	9/30/2020	7:30 AM	330	309
10/12/2020	300	YES	315	315	307	N/A	10/12/2020	11:15 AM	10/12/2020	5:45 PM	319	309
10/15/2020	300	YES	312	320	313	N/A	10/15/2020	12:00 PM	10/15/2020	6:30 PM	320	313
10/29/2020 - 10/30/2020	284 (2 LL MSPs o/s)	YES	310	327	313	N/A	10/29/2020	11:00 AM	10/29/2020	11:00 PM	327	312
	284 (2 LL MSPs o/s)	YES	328	324	318	N/A	10/30/2020	6:30 AM	10/30/2020	12:45 PM	324	314
11/1/2020	284 (2 LL MSPs o/s)	YES	313	316	310	N/A	11/1/2020	3:15 PM	11/1/2020	8:15 PM	316	307
11/11/2020	284 (2 LL MSPs o/s)	YES	301	324	311	N/A	11/11/2020	8:00 PM	11/22/2020	1:00 AM	324	307
11/15/2020	284 (2 LL MSPs o/s)	NO	n/a	n/a	n/a	N/A	11/15/2020	10:45 PM	11/19/2020	1:00 AM	337	310
11/23/2020	300	YES	325	327	318	N/A	11/23/2020	8:45 AM	11/23/2020	10:45 AM	327	315
11/28/2020	300	YES	303	328	317	N/A	11/28/2020	5:45 AM	11/28/2020	9:30 AM	328	315
11/30/2020	300	YES	330	352	335	N/A	11/30/2020	11:30 AM	11/30/2020	5:30 PM	352	328
12/5/2020	300	YES	330	335	309	N/A	12/5/2020	5:30 AM	12/5/2020	1:30 PM	337	314
12/14/2020	300	YES	247	257	201	Cancelled Item No. 5585	12/14/2020	3:45 PM	12/14/2020	4:45 PM	257	201
12/25/2020	300	YES	320	324	317	N/A	12/25/2020	12:30 AM	12/25/2020	11:30 AM	324	317
12/31/2020	300	YES	315	322	320	N/A	12/31/2020	8:30 AM	12/31/2020	11:30 AM	322	314

CONEY ISLAND - WET WEATHER THROTTLING SUMMARY

Storm Dates	WET WEATHER PLANT CAPACITY (MGD)	Plant Throttling Information					Critical Wet Weather Event					
		Did Plant Throttle? Yes/No	Flow at Start of Throttling (MGD)	Throttling Max Flow (MGD)	Throttling Avg Flow (MGD)	Bypass Item No.	Critical Event Start Date & Time		Critical Event End Date & Time		Critical Event Max Flow (MGD)	Critical Event Avg Flow (MGD)
1/25/2020	198 (consent order)	YES	212	212	210	N/A	1/25/2020	3:30 PM	1/26/2020	12:45 AM	212	210
3/19/2020	198 (consent order)	YES	203	210	207	N/A	3/19/2020	8:00 AM	3/19/2020	3:00 PM	210	207
3/23/2020	198 (consent order)	YES	212	214	210	N/A	3/23/2020	5:15 PM	3/24/2020	3:45 AM	214	210
4/13/2020	198 (consent order)	YES	213	213	203	N/A	4/13/2020	9:45 AM	4/14/2020	1:30 AM	213	203
6/29/2020	198 (consent order)	YES	200	203	199	N/A	6/29/2020	8:00 PM	6/30/2020	4:30 AM	203	199
7/10/2020	198 (consent order)	YES	200	212	205	N/A	7/10/2020	1:30 PM	7/11/2020	2:30 AM	212	205
7/22/2020	198 (consent order)	YES	196	200	192	N/A	7/22/2020	1:30 PM	7/23/2020	8:10 AM	200	192
7/24/2020	198 (consent order)	YES	208	210	208	N/A	7/24/2020	11:45 AM	7/24/2020	9:00 PM	210	208
7/31/2020	198 (consent order)	YES	206	206	187	N/A	7/31/2020	2:15 AM	7/31/2020	8:45 PM	206	187
9/5/2020	198 (consent order)	YES	200	207	201	N/A	9/5/2020	10:15 PM	9/4/2020	2:15 AM	207	201
9/10/2020	198 (consent order)	YES	200	210	200	N/A	9/10/2020	6:30 AM	9/10/2020	5:30 PM	210	200
	198 (consent order)	YES	200	267	216	N/A	9/10/2020	11:00 PM	9/11/2020	2:15 AM	267	216
9/30/2020	198 (consent order)	YES	204	204	201	N/A	9/30/2020	4:45 AM	9/30/2020	10:00 AM	204	201
10/12/2020	198 (consent order)	YES	196	206	206	N/A	10/12/2020	12:30 PM	10/12/2020	9:45 PM	206	206
10/16/2020	198 (consent order)	YES	204	211	207	N/A	10/16/2020	12:30 PM	10/17/2020	4:15 AM	211	207
10/29/2020	198 (consent order)	YES	201	215	207	N/A	10/29/2020	12:00 PM	12/30/2020	7:00 PM	215	207
11/23/2020	198 (consent order)	YES	201	201	183	N/A	11/23/2020	8:30 AM	11/23/2020	12:30 PM	201	183
11/30/2020	198 (consent order)	YES	202	212	203	N/A	11/30/2020	12:00 PM	11/30/2020	11:00 PM	212	203
12/5/2020	198 (consent order)	YES	199	206	204	N/A	12/5/2020	7:45 AM	12/5/2020	6:00 PM	206	204
12/25/2020	198 (consent order)	YES	157	157	109	N/A	12/25/2020	3:15 AM	12/26/2020	2:30 AM	157	109
12/31/2020	198 (consent order)	YES	198	199	158	N/A	12/31/2020	9:45 AM	12/31/2020	12:45 PM	199	158

HUNTS POINT - WET WEATHER THROTTLING SUMMARY

		Plant Throttling Information					Critical Wet Weather Event					
Storm Dates	WET WEATHER PLANT CAPACITY (MGD)	Did Plant Throttle? Yes/No	Flow at Start of Throttling (MGD)	Throttling Max Flow (MGD)	Throttling Avg Flow (MGD)	Bypass Item No.	Critical Event Start Date & Time		Critical Event End Date & Time		Critical Event Max Flow (MGD)	Critical Event Avg Flow (MGD)
3/18/2020	400	NO	n/a	n/a	n/a	N/A	3/18/2020	5:45 AM	3/18/2020	7:30 AM	416	411
3/23/2020	400	NO	n/a	n/a	n/a	N/A	3/23/2020	3:30 PM	3/23/2020	8:00 PM	416	410
4/13/2020	400	NO	n/a	n/a	n/a	N/A	4/13/2020	8:30 AM	4/13/2020	12:00 PM	416	410
							4/13/2020	3:15 PM	4/13/2020	4:45 PM	415	409
7/10/2020	400	YES	418	425	411	N/A	7/10/2020	2:30 PM	7/10/2020	7:45 PM	425	411
7/31/2020	400	NO	n/a	n/a	n/a	N/A	7/31/2020	2:45 AM	7/31/2020	2:45 AM	400	400
8/12/2020	400	YES	423	430	426	N/A	8/12/2020	4:15 PM	8/12/2020	5:15 PM	430	418
8/17/2020	350	YES	348	355	350	N/A	8/17/2020	9:30 PM	8/18/2020	1:30 AM	355	332
8/19/2020	350	YES	348	355	351	N/A	8/19/2020	10:45 AM	8/19/2020	3:00 PM	355	331
8/25/2020	350	YES	343	343	330	N/A	8/25/2020	6:45 PM	8/25/2020	9:15 PM	343	330
8/27/2020	400	NO	n/a	n/a	n/a	N/A	8/27/2020	9:15 PM	8/27/2020	10:15 PM	451	421
9/3/2020	400	NO	n/a	n/a	n/a	N/A	9/3/2020	10:30 PM	9/4/2020	12:00 AM	432	421
9/10/2020	400	YES	425	418	364	N/A	9/10/2020	9:30 AM	9/10/2020	10:45 AM	418	388
9/30/2020	400	YES	418	415	408	N/A	9/30/2020	2:30 AM	9/30/2020	3:30 AM	415	408
10/16/2020	400	YES	424	424	394	N/A	10/16/2020	12:00 PM	10/16/2020	3:00 PM	424	394
10/29/2020	400	YES	421	418	401	N/A	10/29/2020	12:00 PM	10/29/2020	3:30 PM	418	401
11/11/2020	400	YES	433	465	424	N/A	11/11/2020	9:15 PM	11/11/2020	11:30 PM	465	424
11/28/2020	400	YES	418	415	400	N/A	11/28/2020	6:45 AM	11/28/2020	8:15 AM	415	400
11/30/2020	400	YES	433	447	427	N/A	11/30/2020	12:30 PM	11/30/2020	3:45 PM	447	416
12/5/2020	400	YES	418	418	404	N/A	12/5/2020	6:00 AM	12/5/2020	8:15 PM	422	408
12/25/2020	400	NO	n/a	n/a	n/a	N/A	12/25/2020	3:00 AM	12/25/2020	3:45 PM	413	408

JAMAICA - WET WEATHER THROTTLING SUMMARY

		Plant Throttling Information					Critical Wet Weather Event					
Storm Dates	WET WEATHER PLANT CAPACITY (MGD)	Did Plant Throttle? Yes/No	Flow at Start of Throttling (MGD)	Throttling Max Flow (MGD)	Throttling Avg Flow (MGD)	Bypass Item No.	Critical Event Start Date & Time		Critical Event End Date & Time		Critical Event Max Flow (MGD)	Critical Event Avg Flow (MGD)
3/23/2020	200	NO	n/a	n/a	n/a	N/A	3/23/2020	6:00 PM	3/23/2020	9:30 PM	218	210
7/19/2020	200	Yes	211	219	215	N/A	7/19/2020	2:30 PM	7/19/2020	6:30 PM	218	215
7/22/2020	200	NO	n/a	n/a	n/a	N/A	7/22/2020	9:15 PM	7/22/2020	10:15 PM	211	205
7/24/2020	200	NO	n/a	n/a	n/a	N/A	7/24/2020	11:45 AM	7/24/2020	2:15 PM	197	177
7/31/2020	150	Yes	175	177	173	N/A	7/31/2020	2:45 AM	7/31/2020	5:45 AM	177	171
7/31/2020	150	NO	n/a	n/a	n/a	N/A	7/31/2020	8:15 AM	7/31/2020	10:00 AM	186	181
8/27/2020	200	NO	n/a	n/a	n/a	N/A	8/27/2020	8:00 PM	8/27/2020	8:00 PM	202	202
9/10/2020	200	NO	n/a	n/a	n/a	N/A	9/10/2020	9:45 AM	9/10/2020	9:45 AM	200	200
10/18/2020	200	NO	n/a	n/a	n/a	N/A	10/18/2020	1:15 PM	10/18/2020	4:45 PM	220	212
11/1/2020	200	NO	n/a	n/a	n/a	N/A	11/30/2020	1:30 PM	11/30/2020	4:00 PM	218	208

NEWTOWN CREEK - WET WEATHER THROTTLING SUMMARY

		Plant Throttling Information							Critical Wet Weather Event				
Storm Dates	WET WEATHER PLANT CAPACITY (MGD)	Did Plant Throttle? Year/No (SIG)	OCT Flow at Start of SIG Throttling (MGD)	Did Plant Throttle? Year/No (MPS)	MPS Flow at Start of MPS Throttling (MGD)	Throttling Max Flow (MGD)	Throttling Avg Flow (MGD)	Bypass Item No.	Critical Event Start Date & Time	Critical Event End Date & Time	Critical Event Max Flow (MGD)	Critical Event Avg Flow (MGD)	
1/25/2020	700	YES	527	YES	380	692	664	N/A	1/25/2020 2:45 PM	1/25/2020 4:00 PM	692	664	
2/6/2020	700	YES	668	NO	n/a	n/a	n/a	N/A	n/a	n/a	n/a	n/a	
2/27/2020	700	YES	647	NO	n/a	n/a	n/a	N/A	n/a	n/a	n/a	n/a	
3/13/2020	700	YES	453	NO	n/a	n/a	n/a	N/A	n/a	n/a	n/a	n/a	
3/19/2020	700	YES	722	YES	385	761	759	N/A	3/19/2020 4:30 AM	3/19/2020 6:15 AM	761	746	
3/23/2020	700	YES	752	YES	391	807	797	N/A	3/23/2020 3:30 PM	3/23/2020 6:00 PM	807	776	
4/13/2020	700	NO	n/a	NO	n/a	n/a	n/a	N/A	4/13/2020 6:00 AM	4/13/2020 6:00 AM	723	723	
	700	YES	736	YES	365	765	754	N/A	4/13/2020 7:15 AM	4/13/2020 12:30 PM	770	763	
	700	NO	n/a	NO	n/a	n/a	n/a	N/A	4/13/2020 3:45 PM	4/13/2020 4:00 PM	715	708	
5/23/2020	700	YES	732	NO	n/a	n/a	n/a	N/A	n/a	n/a	n/a	n/a	
6/3/2020	700	YES	731	YES	346	731	531	Cancelled Item No. 5672	6/3/2020 4:45 AM	6/3/2020 5:45 AM	731	531	
6/26/2020	700	YES	732	YES	480	732	646	N/A	6/26/2020 8:00 PM	6/26/2020 8:45 PM	732	646	
6/29/2020	700	YES	725	NO	n/a	n/a	n/a	N/A	6/29/2020 7:30 PM	6/29/2020 7:30 PM	725	725	
7/1/2020	700	YES	732	NO	n/a	n/a	n/a	N/A	7/1/2020 1:45 PM	7/1/2020 1:45 PM	718	718	
7/10/2020	700	YES	766	YES	390	769	743	N/A	7/10/2020 1:45 PM	7/10/2020 7:00 PM	746	743	
7/22/2020	700	YES	716	YES	391	756	736	N/A	7/22/2020 7:45 PM	7/22/2020 9:45 PM	756	736	
7/31/2020	700	YES	770	YES	385	770	754	N/A	7/31/2020 2:15 AM	7/31/2020 4:00 AM	770	750	
8/5/2020	700	YES	763	NO	n/a	n/a	n/a	N/A	8/5/2020 10:15 PM	8/5/2020 10:45 PM	812	772	
8/4/2020	700	YES	760	YES	395	804	780	N/A	8/4/2020 12:15 PM	8/4/2020 2:15 PM	820	776	
8/17/2020	700	YES	n/a	YES	404	n/a	n/a	N/A	n/a	n/a	n/a	n/a	
8/27/2020	700	YES	752	NO	n/a	n/a	n/a	N/A	8/27/2020 8:45 PM	8/27/2020 9:30 PM	752	744	
9/6/2020	700	YES	764	YES	404	806	797	N/A	9/6/2020 9:30 PM	9/6/2020 11:45 PM	829	791	
9/10/2020	700	YES	764	NO	n/a	n/a	n/a	N/A	9/10/2020 9:15 AM	9/10/2020 11:00 AM	763	741	
	700	YES	603	YES	390	753	724	N/A	9/10/2020 9:30 PM	9/10/2020 11:00 PM	753	724	
9/30/2020	700	YES	737	YES	404	767	766	N/A	9/30/2020 2:30 AM	9/30/2020 5:15 AM	767	766	
10/12/2020	700	NO	n/a	NO	n/a	n/a	n/a	N/A	10/12/2020 1:00 PM	10/12/2020 1:00 PM	721	721	
10/16/2020	700	YES	752	YES	381	774	739	N/A	10/16/2020 11:45 AM	10/16/2020 4:00 PM	774	740	
10/29/2020	700	YES	722	YES	395	758	743	N/A	10/29/2020 11:30 AM	10/29/2020 4:15 PM	779	740	
	700	YES	746	NO	n/a	n/a	n/a	N/A	10/29/2020 5:30 PM	10/29/2020 6:15 PM	754	742	
10/30/2020	700	YES	729	NO	n/a	n/a	n/a	N/A	10/30/2020 8:00 AM	10/30/2020 10:00 AM	766	736	
11/1/2020	700	NO	n/a	NO	n/a	n/a	n/a	N/A	11/1/2020 4:45 PM	11/1/2020 5:00 PM	723	713	
11/11/2020	700	YES	759	YES	395	769	779	N/A	11/11/2020 9:30 PM	11/11/2020 10:45 PM	789	771	
11/15/2020	700	YES	722	YES	392	722	630	N/A	11/15/2020 9:15 PM	11/15/2020 10:30 PM	722	630	
11/23/2020	700	YES	620	NO	n/a	n/a	n/a	N/A	n/a	n/a	n/a	n/a	
11/26/2020	700	YES	744	YES	381	825	786	N/A	11/26/2020 5:15 AM	11/26/2020 9:30 AM	825	783	

NEWTOWN CREEK - WET WEATHER THROTTLING SUMMARY

Event Dates	WET WEATHER PLANT CAPACITY (MGD)	Plant Throttling Information							Critical Wet Weather Event					
		Did Plant Throttle? Yes/No (SQ)	OOT Flow at Start of SQ Throttling (MGD)	Did Plant Throttle? Yes/No (MPS)	MPS Flow at Start of MPS Throttling (MGD)	Throttling Max Flow (MGD)	Throttling Avg Flow (MGD)	Bypass Item No.	Critical Event Start Date & Time		Critical Event End Date & Time		Critical Event Max Flow (MGD)	Critical Event Avg Flow (MGD)
11/30/2020	700	YES	626	YES	361	625	751	N/A	11/30/2020	11:15 AM	11/30/2020	3:15 PM	626	746
12/5/2020	700	YES	753	NO	n/a	n/a	n/a	N/A	12/5/2020	5:45 AM	12/5/2020	5:45 AM	757	767
12/25/2020	700	YES	624	NO	n/a	n/a	n/a	N/A	n/a	n/a	n/a	n/a	n/a	n/a
	700	YES	794	YES	380	822	745	N/A	12/25/2020	3:00 AM	12/25/2020	4:45 PM	822	733
12/31/2020	700	YES	728	NO	n/a	n/a	n/a	N/A	n/a	n/a	n/a	n/a	n/a	n/a

NORTH RIVER - WET WEATHER THROTTLING SUMMARY

		Plant Throttling Information					Critical Wet Weather Event				
Storm Dates	WET WEATHER PLANT CAPACITY (MGD)	Did Plant Throttle? Yes/No	Flow at Start of Throttling (MGD)	Throttling Max Flow (MGD)	Throttling Avg Flow (MGD)	Bypass Item No.	Critical Event Start Date & Time	Critical Event End Date & Time	Critical Event Max Flow (MGD)	Critical Event Avg Flow (MGD)	
2/6/2020	340	YES	265	250	243	N/A	2/6/2020 2:50 AM	2/6/2020 5:32 AM	250	243	
3/18/2020	340	NO	n/a	n/a	n/a	N/A	3/18/2020 7:00 AM	3/18/2020 8:15 AM	358	350	
3/23/2020	340	YES	341	347	328	N/A	3/23/2020 4:45 PM	3/24/2020 12:15 AM	347	330	
4/13/2020	340	YES	341	351	303	N/A	4/13/2020 8:00 AM	4/13/2020 12:45 PM	351	311	
4/30/2020	340	NO	n/a	n/a	n/a	N/A	4/30/2020 10:45 PM	4/30/2020 11:00 PM	345	344	
5/23/2020	340	NO	n/a	n/a	n/a	N/A	5/23/2020 2:00 PM	5/23/2020 2:15 PM	347	346	
7/6/2020	340	YES	353	n/a	n/a	N/A	7/6/2020 5:45 PM	7/6/2020 8:45 PM	353	288	
7/10/2020	340	YES	353	353	316	N/A	7/10/2020 3:00 PM	7/10/2020 8:45 PM	353	316	
7/11/2020	340	YES	326	347	314	N/A	7/11/2020 3:15 PM	7/11/2020 5:30 PM	347	314	
7/22/2020 - 7/23/2020	170 (3 MSPs on)	YES	191	205	189	N/A	7/22/2020 7:15 PM	7/23/2020 7:30 AM	205	188	
	170 (3 MSPs on)	NO	n/a	n/a	n/a	N/A	7/23/2020 11:00 AM	7/23/2020 11:30 AM	193	190	
7/31/2021	170 (2 MSPs on)	NO	n/a	n/a	n/a	N/A	7/31/2020 2:45 AM	7/31/2020 6:15 AM	283	272	
8/9/2020 - 8/12/2020	170 (2 MSPs on)	YES	277	277	235	N/A	8/9/2020 10:00 PM	8/4/2020 1:15 AM	277	238	
	170 (2 MSPs on)	YES	271	261	258	N/A	8/4/2020 12:15 PM	8/4/2020 6:30 PM	261	258	
8/12/2020	340	YES	277	312	267	N/A	8/12/2020 4:30 PM	8/12/2020 7:30 PM	312	287	
9/3/2020	340	YES	352	353	341	N/A	9/3/2020 10:15 PM	9/4/2020 12:15 AM	370	348	
9/10/2020	340	YES	346	354	350	N/A	9/10/2020 9:30 PM	9/10/2020 11:15 PM	374	352	
9/29/2020	340	NO	n/a	n/a	n/a	N/A	9/29/2020 3:00 AM	9/29/2020 4:15 AM	343	342	
9/30/2020	340	YES	343	363	352	N/A	9/30/2020 2:30 AM	9/30/2020 7:30 AM	373	355	
10/12/2020	340	NO	n/a	n/a	n/a	N/A	10/12/2020 12:45 PM	10/12/2020 1:15 PM	358	352	
10/16/2020	340	YES	355	355	331	N/A	10/16/2020 12:15 PM	10/16/2020 7:30 PM	355	331	
10/29/2020	340	YES	329	329	308	N/A	10/29/2020 1:15 PM	10/29/2020 9:30 PM	329	308	
11/11/2020	340	YES	322	322	289	N/A	11/11/2020 9:15 PM	11/12/2020 12:00 AM	322	289	
11/26/2020	340	YES	348	348	224	N/A	11/26/2020 6:00 AM	11/26/2020 11:45 AM	348	224	
11/30/2020	340	YES	345	348	315	N/A	11/30/2020 11:15 AM	11/30/2020 5:30 PM	348	315	
12/25/2020	340	YES	347	353	311	N/A	12/25/2020 3:15 AM	12/25/2020 8:45 AM	353	311	
12/31/2020	340	NO	n/a	n/a	n/a	N/A	12/31/2020 9:30 AM	12/31/2020 10:00 AM	358	348	

OAKWOOD BEACH - WET WEATHER THROTTLING SUMMARY

		Plant Throttling Information					Critical Wet Weather Event					
Storm Dates	WET WEATHER PLANT CAPACITY (MGD)	Did Plant Throttle? Yea/No	Flow at Start of Throttling (MGD)	Throttling Max Flow (MGD)	Throttling Avg Flow (MGD)	Bypass Item No.	Critical Event Start Date & Time		Critical Event End Date & Time		Critical Event Max Flow (MGD)	Critical Event Avg Flow (MGD)
1/25/2020	79.8	NO	N/A	N/A	N/A	N/A	1/25/2020	4:00 PM	1/25/2020	4:00 PM	80	80
3/23/2020	79.8	NO	N/A	N/A	N/A	N/A	3/23/2020	6:15 PM	3/23/2020	9:30 PM	100	90
7/10/2020	79.8	NO	N/A	N/A	N/A	N/A	7/10/2020	2:00 PM	7/10/2020	2:30 PM	90	88
10/18/2020	79.8	NO	N/A	N/A	N/A	N/A	10/18/2020	2:30 PM	10/18/2020	3:15 PM	84	83
10/30/2020	79.8	NO	N/A	N/A	N/A	N/A	10/30/2020	9:45 AM	10/30/2020	10:00 AM	83	82
11/30/2020	79.8	NO	N/A	N/A	N/A	N/A	11/30/2020	1:00 PM	11/30/2020	1:15 PM	83	82

OWLS HEAD - WET WEATHER THROTTLING SUMMARY

		Plant Throttling Information					Critical Wet Weather Event					
Storm Dates	WET WEATHER PLANT CAPACITY (MGD)	Did Plant Throttle? Yea/No	Flow at Start of Throttling (MGD)	Throttling Max Flow (MGD)	Throttling Avg Flow (MGD)	Bypass Item No.	Critical Event Start Date & Time		Critical Event End Date & Time		Critical Event Max Flow (MGD)	Critical Event Avg Flow (MGD)
1/25/2020	240	YES	246	246	238	N/A	4/8/55	2:45 PM	1/25/2020	3:45 PM	246	238
2/8/2020	240	YES	244	244	208	N/A	2/8/2020	2:15 AM	2/8/2020	7:30 AM	244	210
2/11/2020	240	YES	244	245	243	N/A	2/11/2020	7:45 AM	2/11/2020	9:15 AM	245	243
2/13/2020	240	YES	248	248	235	N/A	2/13/2020	12:15 AM	2/13/2020	2:15 AM	248	235
3/19/2020	240	YES	244	244	238	N/A	3/19/2020	3:30 AM	3/19/2020	9:30 AM	244	238
3/23/2020	240	YES	241	242	241	N/A	3/23/2020	12:15 PM	3/23/2020	10:15 PM	242	241
4/13/2020	240	YES	240	247	241	N/A	4/13/2020	5:15 AM	4/13/2020	1:45 PM	247	241
	240	YES	244	241	237	N/A	4/13/2020	2:45 PM	4/13/2020	5:45 PM	244	237
4/24/2020	240	YES	247	247	242	N/A	4/24/2020	10:45 AM	4/24/2020	12:45 PM	247	242
4/30/2020	240	YES	244	242	239	N/A	4/30/2020	10:00 PM	4/30/2020	11:45 PM	242	239
5/8/2020	240	YES	241	241	235	N/A	5/8/2020	10:15 PM	5/9/2020	1:15 AM	241	235
5/23/2020	240	YES	243	243	241	N/A	5/23/2020	12:00 PM	5/23/2020	1:45 PM	243	241
6/3/2020	240	YES	240	240	240	N/A	6/3/2020	4:00 AM	6/3/2020	7:00 AM	240	240
6/3/2020	240	YES	250	250	243	N/A	6/3/2020	9:45 PM	6/3/2020	11:15 PM	250	243
6/5/2020	240	YES	241	241	240	N/A	6/5/2020	1:45 AM	6/5/2020	3:15 AM	241	240
6/6/2020	240	YES	230	230	179	N/A	6/6/2020	1:45 AM	6/6/2020	3:30 AM	230	179
6/11/2020	240	YES	242	242	241	N/A	6/11/2020	3:30 PM	6/11/2020	5:15 PM	242	241
7/8/2020	240	YES	240	241	232	N/A	7/8/2020	5:15 PM	7/8/2020	6:00 PM	241	232
7/10/2020	240	YES	242	248	241	N/A	7/10/2020	12:30 PM	7/10/2020	7:45 PM	248	241
7/22/2020	240	YES	244	246	244	N/A	7/22/2020	8:30 AM	7/22/2020	10:00 AM	246	244
7/24/2020	240	YES	247	247	241	N/A	7/24/2020	10:45 AM	7/24/2020	2:00 PM	247	241
7/31/2020	240	YES	240	243	242	N/A	7/31/2020	1:45 AM	7/31/2020	4:15 AM	243	242
8/3/2020	240	YES	240	240	228	N/A	8/3/2020	10:00 PM	8/3/2020	11:30 PM	240	241
8/4/2020	240	YES	246	247	238	N/A	8/4/2020	12:30 PM	8/4/2020	3:45 PM	247	238
8/19/2020	180 (1 PST a/s)	YES	186	187	180	N/A	8/19/2020	10:45 AM	8/19/2020	1:00 PM	187	180
8/27/2020	240	YES	243	244	243	N/A	8/27/2020	9:00 AM	8/27/2020	10:30 AM	244	243
9/1/2020	180 (interim limit)	YES	180	181	178	N/A	9/1/2020	5:45 AM	9/1/2020	8:00 AM	181	178
9/3/2020	180 (interim limit)	YES	185	188	184	N/A	9/3/2020	8:45 PM	9/4/2020	2:00 AM	188	184

OWLS HEAD - WET WEATHER THROTTLING SUMMARY

		Plant Throttling Information					Critical Wet Weather Event					
Storm Dates	WET WEATHER PLANT CAPACITY (MGD)	Did Plant Throttle? Yes/No	Flow at Start of Throttling (MGD)	Throttling Max Flow (MGD)	Throttling Avg Flow (MGD)	Bypass Item No.	Critical Event Start Date & Time		Critical Event End Date & Time		Critical Event Max Flow (MGD)	Critical Event Avg Flow (MGD)
9/10/2020	180 <i>(Interim limit)</i>	YES	184	183	182	N/A	9/10/2020	8:45 PM	9/11/2020	1:45 AM	184	182
9/29/2020	180 <i>(Interim limit)</i>	YES	185	184	181	N/A	9/29/2020	11:00 PM	9/30/2020	8:45 AM	185	181
10/12/2020	180 <i>(Interim limit)</i>	YES	187	188	183	N/A	10/12/2020	7:45 AM	10/12/2020	9:45 PM	208	184
	180 <i>(Interim limit)</i>	YES	187	208	185	N/A						
10/16/2020	180 <i>(Interim limit)</i>	YES	183	184	187	N/A	10/16/2020	11:15 AM	10/16/2020	11:15 PM	184	187
10/26/2020	180 <i>(Interim limit)</i>	YES	181	181	178	N/A	10/26/2020	2:30 PM	10/26/2020	4:15 PM	181	178
10/29/2020 - 10/30/2020	180 <i>(Interim limit)</i>	YES	183	184	181	N/A	10/29/2020	10:15 AM	10/30/2020	2:45 AM	184	181
	180 <i>(Interim limit)</i>	YES	181	184	170	N/A	10/30/2020	6:00 AM	10/30/2020	3:30 PM	184	170
11/1/2020	180 <i>(Interim limit)</i>	YES	188	188	182	N/A	11/1/2020	3:00 PM	11/1/2020	8:45 PM	188	182
11/11/2020 - 11/12/2020	180 <i>(Interim limit)</i>	YES	183	189	178	N/A	11/11/2020	3:45 PM	11/12/2020	12:30 AM	189	178
	180 <i>(Interim limit)</i>	YES	182	182	173	N/A	11/12/2020	8:30AM	11/12/2020	11:45 AM	182	173
	180 <i>(Interim limit)</i>	YES	184	184	174	N/A	11/12/2020	8:45 PM	11/12/2020	8:45 PM	184	174
11/15/2020	180 <i>(Interim limit)</i>	YES	184	184	179	N/A	11/15/2020	8:00 PM	11/16/2020	12:00 AM	184	179
11/23/2020	180 <i>(Interim limit)</i>	YES	181	183	179	N/A	11/23/2020	6:00 AM	11/23/2020	11:30 AM	183	179
11/26/2020	240	YES	241	243	240	N/A	11/26/2020	5:45 AM	11/26/2020	7:45 AM	243	240
11/30/2020	180 <i>(Interim limit)</i>	YES	180	181	180	N/A	11/30/2020	10:15 AM	11/30/2020	5:30 PM	181	180
12/5/2020	180 <i>(Interim limit)</i>	YES	181	188	183	N/A	12/5/2020	4:00 AM	12/5/2020	3:45 PM	188	183
12/14/2020	180 <i>(Interim limit)</i>	YES	182	182	181	N/A	12/14/2020	1:45 PM	12/14/2020	6:15 PM	182	181
12/24/2020 - 12/25/2020	180 <i>(Interim limit)</i>	YES	183	183	180	N/A	12/24/2020	11:45 PM	12/25/2020	2:45 PM	183	180
12/31/2020	180 <i>(Interim limit)</i>	YES	184	184	181	N/A	12/31/2020	7:45 AM	12/31/2020	2:15 PM	184	181

PORT RICHMOND - WET WEATHER THROTTLING SUMMARY

Storm Dates	WET WEATHER PLANT CAPACITY (MGD)	Plant Throttling Information					Critical Wet Weather Event					
		Did Plant Throttle? Yes/No	Flow at Start of Throttling (MGD)	Throttling Max Flow (MGD)	Throttling Avg Flow (MGD)	Bypass Item No.	Critical Event Start Date & Time		Critical Event End Date & Time		Critical Event Max Flow (MGD)	Critical Event Avg Flow (MGD)
1/25/2020	120	YES	121	120	120	N/A	1/25/2020	3:00 PM	1/25/2020	3:30 PM	121	120
2/5/2020	90 (2 MBPs c/s)	NO	n/a	n/a	n/a	N/A	2/5/2020	3:00 AM	2/5/2020	3:30 AM	98	94
2/11/2020	90 (2 MBPs c/s)	NO	n/a	n/a	n/a	N/A	2/11/2020	8:00 AM	2/11/2020	8:15 AM	91	91
3/23/2020	120	NO	n/a	n/a	n/a	N/A	3/23/2020	8:00 PM	3/23/2020	8:00 PM	120	120
	120	NO	n/a	n/a	n/a	N/A	3/23/2020	8:45 PM	3/23/2020	9:00 PM	125	124
7/10/2020	120	YES	133	133	129	N/A	7/10/2020	1:45 PM	7/10/2020	7:15 PM	133	129
8/3/2020	120	YES	123	133	131	N/A	8/3/2020	9:30 PM	8/3/2020	10:45 PM	133	131
8/10/2020	120	YES	135	135	133	N/A	8/10/2020	9:30 PM	8/10/2020	10:45 PM	135	133
10/16/2020	120	NO	n/a	n/a	n/a	N/A	10/16/2020	1:00 PM	10/16/2020	1:45 PM	121	121
10/29/2020	120	NO	n/a	n/a	n/a	N/A	10/29/2020	12:00 PM	10/29/2020	12:00 PM	120	120
10/30/2020	120	NO	n/a	n/a	n/a	N/A	10/30/2020	9:00 AM	10/30/2020	10:00 AM	121	120
11/30/2020	120	NO	n/a	n/a	n/a	N/A	11/30/2020	12:15 PM	11/30/2020	1:00 PM	122	121

RED HOOK - WET WEATHER THROTTLING SUMMARY

Storm Dates	WET WEATHER PLANT CAPACITY (MGD)	Plant Throttling Information					Critical Wet Weather Event					
		Did Plant Throttle? Yes/No	Flow at Start of Throttling (MGD)	Throttling Max Flow (MGD)	Throttling Avg Flow (MGD)	Bypass Item No.	Critical Event Start Date & Time		Critical Event End Date & Time		Critical Event Max Flow (MGD)	Critical Event Avg Flow (MGD)
1/25/2020	120	YES	114	121	117	N/A	1/25/2020	1:45 PM	1/25/2020	5:45 PM	121	117
2/6/2020	120	YES	122	127	122	N/A	2/6/2020	2:30 AM	2/6/2020	5:00 AM	127	122
2/13/2020	120	YES	126	127	122	N/A	2/13/2020	12:15 AM	2/13/2020	1:15 AM	127	123
2/27/2020	120	YES	124	124	121	N/A	2/27/2020	1:45 AM	2/27/2020	3:00 AM	124	121
3/19/2020	120	YES	125	128	123	N/A	3/19/2020	3:45 AM	3/19/2020	9:15 AM	126	123
3/23/2020	120	YES	124	128	126	N/A	3/23/2020	3:15 PM	3/23/2020	10:00 PM	126	126
4/13/2020	120	YES	125	126	125	N/A	4/13/2020	5:45 AM	4/13/2020	6:45 AM	126	125
	120	YES	126	130	125	N/A	4/13/2020	7:45 AM	4/13/2020	1:30 PM	130	125
4/21/2020	120	NO	n/a	n/a	n/a	N/A	4/21/2020	4:00 PM	4/21/2020	4:00 PM	120	120
4/21/2020	120	NO	n/a	n/a	n/a	N/A	4/24/2020	10:45 AM	4/24/2020	10:45 AM	124	124
4/30/2020	120	NO	n/a	n/a	n/a	N/A	4/30/2020	10:15 AM	4/30/2020	11:00 AM	126	124
	120	YES	126	126	125	N/A	4/30/2020	10:00 PM	4/30/2020	11:00 PM	127	125
5/23/2020	120	YES	126	126	123	N/A	5/23/2020	12:00 PM	5/23/2020	2:15 PM	126	123
6/3/2020	120	YES	125	125	125	N/A	6/3/2020	4:15 AM	6/3/2020	6:30 AM	125	125
6/5/2020	120	YES	124	124	124	N/A	6/5/2020	2:00 AM	6/5/2020	2:15 AM	124	124
6/29/2020	120	YES	126	126	123	N/A	6/29/2020	7:30 PM	6/29/2020	9:00 PM	126	123
7/1/2020	120	YES	126	126	125	N/A	7/1/2020	1:00 PM	7/1/2020	3:30 PM	129	125
7/6/2020	120	YES	126	127	124	N/A	7/6/2020	4:45 PM	7/6/2020	7:45 PM	127	124
7/10/2020	120	YES	126	126	122	N/A	7/10/2020	1:45 PM	7/10/2020	7:45 PM	126	122
7/22/2020	120	YES	125	127	123	N/A	7/22/2020	7:30 PM	7/22/2020	10:30 PM	127	123
7/24/2020	120	YES	126	127	124	N/A	7/24/2020	10:30 AM	7/24/2020	1:00 PM	127	124
7/31/2020	120	YES	126	126	122	N/A	7/31/2020	2:00 AM	7/31/2020	4:45 AM	126	122
8/3/2020	120	YES	126	126	124	N/A	8/3/2020	9:45 PM	8/3/2020	11:30 PM	126	124
8/4/2020	120	YES	132	125	125	N/A	8/4/2020	2:00 PM	8/4/2020	3:00 PM	125	125
8/18/2020	120	YES	126	126	120	N/A	8/18/2020	4:45 AM	8/18/2020	6:00 AM	126	120
8/27/2020	12	NO	n/a	n/a	n/a	N/A	8/27/2020	10:00 PM	8/27/2020	10:00 PM	126	126
9/3/2020	120	YES	124	127	124	N/A	9/3/2020	9:15 PM	9/4/2020	12:45 AM	127	124

RED HOOK - WET WEATHER THROTTLING SUMMARY

		Plant Throttling Information					Critical Wet Weather Event					
Storm Dates	WET WEATHER PLANT CAPACITY (MGD)	Did Plant Throttle? Yes/No	Flow at Start of Throttling (MGD)	Throttling Max Flow (MGD)	Throttling Avg Flow (MGD)	Bypass Item No.	Critical Event Start Date & Time		Critical Event End Date & Time		Critical Event Max Flow (MGD)	Critical Event Avg Flow (MGD)
9/10/2020	120	YES	123	123	122	N/A	9/10/2020	5:45 AM	9/10/2020	7:15 AM	123	122
	120	YES	97	138	125	N/A	9/10/2020	8:45 AM	9/10/2020	11:30 AM	136	125
	120	YES	125	126	125	N/A	9/10/2020	9:00 PM	9/11/2020	12:15 AM	126	125
9/21/2020	120	NO	n/a	n/a	n/a	N/A	9/21/2020	4:00 PM	9/21/2020	4:00 PM	120	120
9/24/2020	120	NO	n/a	n/a	n/a	N/A	9/24/2020	10:45 AM	9/24/2020	10:45 AM	124	124
9/30/2020	120	YES	127	127	123	N/A	9/30/2020	2:15 AM	9/30/2020	7:00 AM	127	123
	120	NO	n/a	n/a	n/a	N/A	9/30/2020	10:15 AM	9/30/2020	11:00 AM	126	124
10/12/2020	120	YES	125	125	122	N/A	10/12/2020	12:45 PM	10/12/2020	1:30 PM	125	122
10/16/2020	120	YES	128	128	126	N/A	10/16/2020	11:45 AM	10/16/2020	8:00 PM	128	126
10/29/2020	120	YES	127	127	123	N/A	10/29/2020	11:00 AM	10/29/2020	7:45 PM	127	123
10/30/2020	120	YES	125	124	122	N/A	10/30/2020	8:30 AM	10/30/2020	10:45 AM	124	122
11/1/2020	120	YES	125	125	121	N/A	11/1/2020	3:45 PM	11/1/2020	5:00 PM	125	121
11/11/2020	120	YES	125	125	122	N/A	11/11/2020	8:30 PM	11/11/2020	10:15 PM	125	122
11/15/2020	90 (1 P&T only)	YES	100	114	107	N/A	11/15/2020	9:15 PM	11/16/2020	12:15 AM	114	107
11/23/2020	120	YES	124	124	121	N/A	11/23/2020	6:30 AM	11/23/2020	8:00 AM	124	121
11/26/2020	120	YES	121	124	120	N/A	11/26/2020	6:00 AM	11/26/2020	8:30 AM	124	120
11/30/2020	120	YES	127	127	122	N/A	11/30/2020	11:00 AM	11/30/2020	3:30 PM	127	122
12/5/2020	120	YES	127	127	124	N/A	12/5/2020	5:15 AM	12/5/2020	10:15 AM	127	124
12/25/2020	120	YES	128	127	122	N/A	12/25/2020	3:00 AM	12/25/2020	5:45 AM	127	122
12/31/2020	120	YES	125	125	122	N/A	12/31/2020	8:30 AM	12/31/2020	11:15 AM	125	122

TALLMAN ISLAND - WET WEATHER THROTTLING SUMMARY

		Plant Throttling Information					Critical Wet Weather Event					
Storm Dates	WET WEATHER PLANT CAPACITY (MGD)	Did Plant Throttle? Yes/No	Flow at Start of Throttling (MGD)	Throttling Max Flow (MGD)	Throttling Avg Flow (MGD)	Bypass Item No.	Critical Event Start Date & Time		Critical Event End Date & Time		Critical Event Max Flow (MGD)	Critical Event Avg Flow (MGD)
1/25/2020	180	YES	181	184	182	N/A	1/25/2020	3:30 PM	1/25/2020	5:15 PM	184	182
3/19/2020	180	NO	180	180	157	N/A	3/19/2020	8:15 AM	3/19/2020	8:00 AM	180	157
3/23/2020	180	YES	181	184	182	N/A	3/23/2020	4:45 PM	3/23/2020	9:00 PM	184	182
4/13/2020	180	YES	183	184	181	N/A	4/13/2020	9:45 AM	4/13/2020	1:30 PM	184	181
	180	NO	182	184	180	N/A	4/13/2020	2:45 PM	4/13/2020	4:45 PM	184	180
7/10/2020	180	NO	185	170	165	N/A	7/10/2020	3:15 PM	7/10/2020	6:45 PM	170	164
8/17/2020	180	YES	184	188	183	N/A	8/17/2020	10:00 PM	8/17/2020	11:00 PM	188	183
9/3/2020	180	NO	185	188	184	N/A	9/3/2020	10:00 PM	9/4/2020	12:00 AM	188	184
9/10/2020	180	NO	n/a	n/a	n/a	N/A	9/10/2020	9:30 AM	9/10/2020	10:45 AM	189	185
10/16/2020	180	NO	185	188	180	N/A	10/16/2020	12:30 PM	10/16/2020	5:45 PM	188	180
10/29/2020	180	NO	185	187	183	N/A	10/29/2020	12:15 PM	10/29/2020	4:00 PM	187	183
11/28/2020	180	YES	n/a	n/a	n/a	N/A	11/28/2020	8:15 AM	11/28/2020	9:00 AM	185	183
11/30/2020	180	YES	188	173	168	N/A	11/30/2020	12:15 PM	11/30/2020	4:00 PM	173	167
12/5/2020	180	NO	n/a	n/a	n/a	N/A	12/5/2020	6:45 AM	12/5/2020	5:30 AM	183	181

WARDS ISLAND - WET WEATHER THROTTLING SUMMARY

		Plant Throttling Information							Critical Wet Weather Event				
Event Dates	WET WEATHER PLANT CAPACITY (MGD)	Did MGC Throttle? Year/No.	Flow at Start of MGC Throttling (MGD)	Did BGC Throttle? Year/No.	Flow at Start of BGC Throttling (MGD)	Throttling Max Flow (MGD)	Throttling Avg Flow (MGD)	Bypass Run No.	Critical Event Start Date & Time	Critical Event End Date & Time	Critical Event Max Flow (MGD)	Critical Event Avg Flow (MGD)	
1/25/2020	550	YES	523	YES	526	524	514	N/A	1/25/2020 3:00 PM	1/25/2020 4:30 PM	524	514	
2/11/2020	550	NO	n/a	NO	n/a	n/a	n/a	N/A	2/11/2020 8:00 AM	2/11/2020 8:00 AM	563	563	
3/19/2020	550	YES	555	NO	n/a	n/a	n/a	N/A	3/19/2020 5:30 AM	3/19/2020 6:45 AM	567	559	
4/13/2020	550	YES	553	YES	558	552	536	N/A	4/13/2020 9:00 AM	4/13/2020 11:45 AM	562	542	
4/29/2020	550	NO	n/a	NO	n/a	n/a	n/a	N/A	4/29/2020 9:00 AM	4/30/2020 9:15 AM	500	553	
7/19/2020	550	YES	552	YES	554	552	514	N/A	7/19/2020 2:15 PM	7/19/2020 5:00 PM	562	518	
7/22/2020	550	YES	425	YES	554	502	485	N/A	7/22/2020 7:45 PM	7/22/2020 8:00 PM	502	485	
8/17/2020	550	YES	528	YES	528	554	528	N/A	8/17/2020 5:45 PM	8/17/2020 11:15 PM	557	535	
8/19/2020	550	YES	530	YES	530	547	538	N/A	8/19/2020 10:45 AM	8/19/2020 11:30 AM	547	538	
8/25/2020	550	YES	n/a	NO	n/a	n/a	n/a	N/A	n/a	n/a	n/a	n/a	
8/27/2020	550	NO	n/a	NO	n/a	n/a	n/a	N/A	8/27/2020 9:00 PM	8/27/2020 9:15 PM	591	585	
9/3/2020	550	YES	511	YES	519	578	561	N/A	9/3/2020 9:45 PM	9/3/2020 11:15 PM	578	561	
9/10/2020	550	NO	n/a	NO	n/a	n/a	n/a	N/A	9/10/2020 9:00 PM	9/10/2020 10:00 PM	606	590	
9/30/2020	550	NO	n/a	NO	n/a	n/a	n/a	N/A	9/30/2020 2:30 AM	9/30/2020 3:15 AM	599	583	
	550	NO	n/a	NO	n/a	n/a	n/a	N/A	9/30/2020 4:15 AM	9/30/2020 4:45 AM	571	563	
10/15/2020	550	YES	550	YES	550	554	554	N/A	10/15/2020 12:15 PM	10/16/2020 3:15 PM	554	554	
10/29/2020	550	YES	572	NO	n/a	n/a	n/a	N/A	10/29/2020 11:00 AM	10/29/2020 12:00 PM	577	562	
									10/29/2020 1:30 PM	10/29/2020 2:15 PM	554	553	
11/11/2020	550	YES	545	YES	544	550	544	N/A	11/11/2020 9:00 PM	11/11/2020 10:00 PM	550	544	
11/23/2020	550	NO	n/a	NO	n/a	n/a	n/a	N/A	11/23/2020 7:45 AM	11/23/2020 8:15 AM	565	556	
11/26/2020	550	NO	n/a	NO	n/a	n/a	n/a	N/A	11/26/2020 7:00 AM	11/26/2020 8:15 AM	613	583	
11/30/2020	550	YES	575	YES	568	585	588	N/A	11/30/2020 12:15 PM	11/30/2020 3:45 PM	588	564	
12/5/2020	550	NO	n/a	NO	n/a	n/a	n/a	N/A	12/5/2020 6:45AM	12/5/2020 7:45 AM	571	565	
12/25/2020	550	YES	n/a	YES	565	n/a	n/a	N/A	12/25/2020 3:15 AM	12/25/2020 3:30 AM	568	568	
12/31/2020	550	YES	n/a	YES	565	n/a	n/a	N/A	12/31/2020 8:00 AM	12/31/2020 8:00 AM	551	551	

Appendix 3.3: ESTIMATION OF WET-WEATHER CAPTURE

Appendix 3.3.1: Estimation Of Wet-Weather Capture

This section provides a description of analyses used to calculate the wet-weather capture of combined-sewage (CS) flow and associated floatables at the New York City (NYC) treatment facilities (referred to as Wastewater Resource Recovery Facilities, WRRFs) during calendar year (CY) 2019. Section 3.1 describes the difference between runoff capture and combined-sewage capture. Section 3.2 discusses the scenarios used to evaluate the capture. Section 3.3 summarizes the modeling approach: InfoWorks ICM is an advanced integrated catchment modeling software used to calculate flow volume capture for CY2019 at all drainage areas served wholly or partially by combined sewers. Section 3.4 describes the CY2019 wet-weather combined-sewage percent capture results for these drainage areas. References are listed in Section 3.5.

The Environmental Protection Agency (EPA) issued the current guidance pertaining to the intent and calculation of “combined-sewage capture” in 1995. Prior to that time, a different parameter, known as “runoff capture”, was used to assess the operation of the collection/treatment system. As detailed in a subsequent section, runoff capture measured the ratio of runoff treated to runoff collected in a sewer system. For the NYC WRRFs, historically speaking, the runoff capture values were typically about 15 percentage points less than the corresponding CS capture values. The runoff capture remains a useful parameter in the calculation of floatables capture. CS capture has replaced runoff capture as the pertinent measure of flow-capture performance, and as such, runoff capture is no longer reported. However, runoff capture is used in the calculation of floatables capture.

Since 1998, capture of CS floatables has also been calculated and reported. Initially, the basis for this measurement was the floatables passing into combined sewers from the catch basins (see Figure 3-1), but because the catch basins themselves are considered part of the sewer system, an estimate of catch basin retention was added to the calculation of the floatables-capture. As a result, the basis for floatables capture is now what enters the catch basins.

Historically, capture of flow and floatables has been simulated and reported for three different scenarios. The first simulation scenario reflects actual operation of

the collection/treatment system (in terms of the flow rates treated at a WRRF during wet weather) and the actual rainfall (and tides) affecting the system during the subject, calendar-year period. The results of this simulation scenario indicate the actual capture performance for the period.

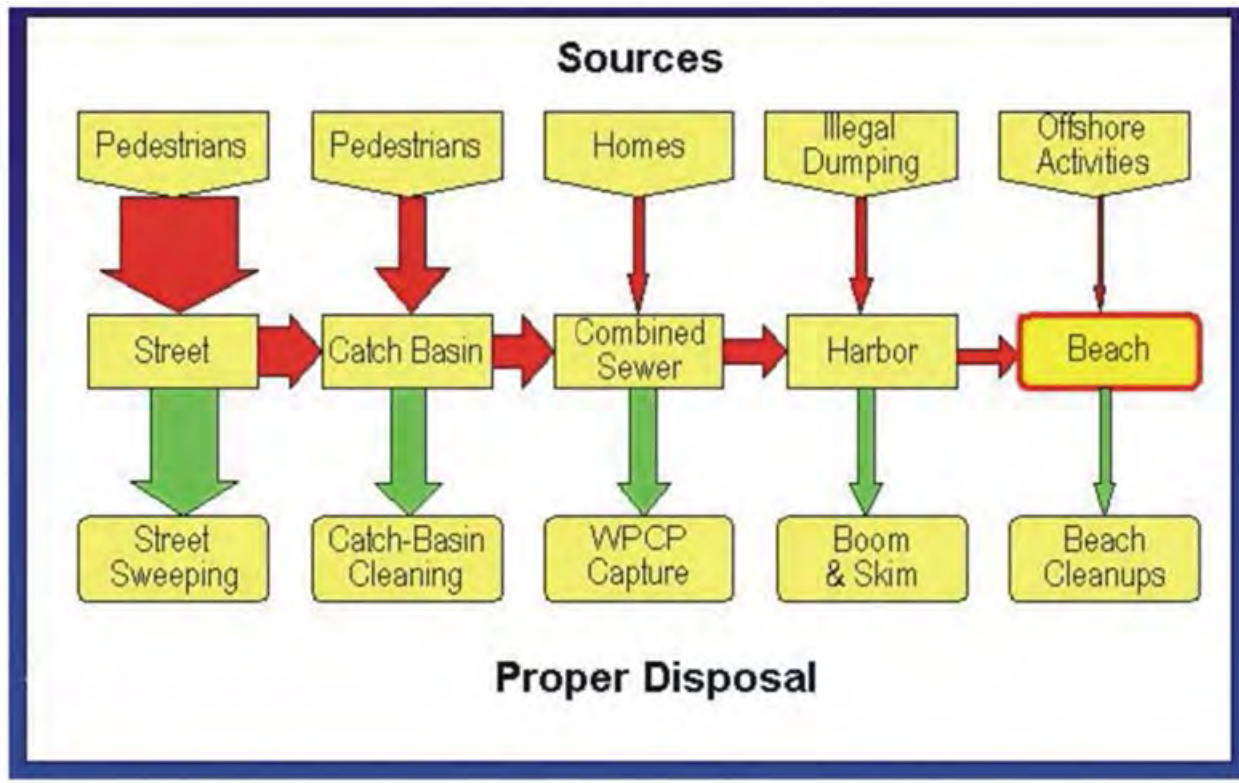


Figure 3-1. Sources and Fate of Floatables in New York City of New York DEP

The methodology for calculation of flow capture has evolved historically with the advent of improved modeling tools and increasing computing power. Initially, flow capture was estimated using the "Statistical Method" (Hydroscience, 1978), an approach relying on drainage area/runoff-coefficient information from a calibrated sewer-system rainfall-runoff model (such as the EPA's Storm Water Management Model, SWMM), but which can be used without the complicated set-up and computational runtimes associated with those models. Finally, as part of the CSO Long Term Control Plan (LTCP) project, DEP adopted an InfoWorks modeling framework to support facility-planning analyses citywide. InfoWorks is a state-of-the-art hydrology and hydraulics linked model that will provide the most sophisticated and accurate representation of the NYC drainage areas. Although model set up and calibration do require extensive effort, advancements in computing have lessened run-time requirements so that the use of these models becomes reasonable for planning and design-level analyses.

For 2019, the percent-capture analyses utilize the InfoWorks modeling framework for all drainage areas wholly or partially served by combined sewers. Section 3.3 provides a more detailed discussion of the InfoWorks model.

InfoWorks models constructed for various WRRF drainage areas have undergone a major recalibration process in the 2009-11 period and the DEP had submitted a detailed report on this recalibration effort to New York State DEC in June 2012 along with additional calibration and validation being done as part of developing the CSO Long Term Control Plans (LTCs). DEP adopted the updated models to support the capture calculations for CY2019. Table 3-1 shows these statistics for the new typical rainfall conditions used in the current year. Based on the model updates and the use of different standard rainfall conditions, the percent capture information presented in this report may not be directly comparable with those reported in previous calendar years.

For the CY2019 analysis, a new rainfall dataset from NOAA/NSSL called Quantitative Precipitation Estimates (QPE) was used instead of DEP or NOAA rain gauges, as have been used in the past. This decision was made for several reasons. First, the NOAA rain gauges (CPK, JFK, LGA, and EWR) are often very far from the WRRFs model areas to which they are applied. Second, the DEP WRRF rain gauges frequently suffer from outages and other reporting issues, leading to incomplete or inaccurate datasets. Therefore, the new NOAA/NSSL QPE data was used, which is described below:

- The new NOAA/NSSL product provides spatially distributed, hourly estimates of precipitation is based on multiple radars, satellite and numerical weather prediction models, surface and upper air observations, lightning detection systems and rain gauges. In addition to hourly, QPE is available in other time increments (such as 3 hr, 6 hr, 12 hr, daily, 48 hr and 72 hr) and in spatial resolution of roughly 1 km x 1 km.
- Most common application of radar QPE data is to simulate or predict flash flood events using rainfall-runoff models [Willie, D. et al. 2017; Zhang et al. 2016; Rafieeinasab et al. 2015; Chen and Chandrasekar 2015].
- Validation of the high resolution radar QPE data was made against the ground-based precipitation data obtained from the NOAA stations rain gauge data: Central Park (CPK), Newark Airport (EWR), JFK Airport (JFK) and LaGuardia Airport (LGA).
- The high resolution and broad spatial coverage of the radar QPE data provides more realistic forcing at the time scales relevant to the CY2019 wet-weather capture modeling analysis.
- Processing methodology for NOAA/NSSL QPE data:

Processing Flowchart

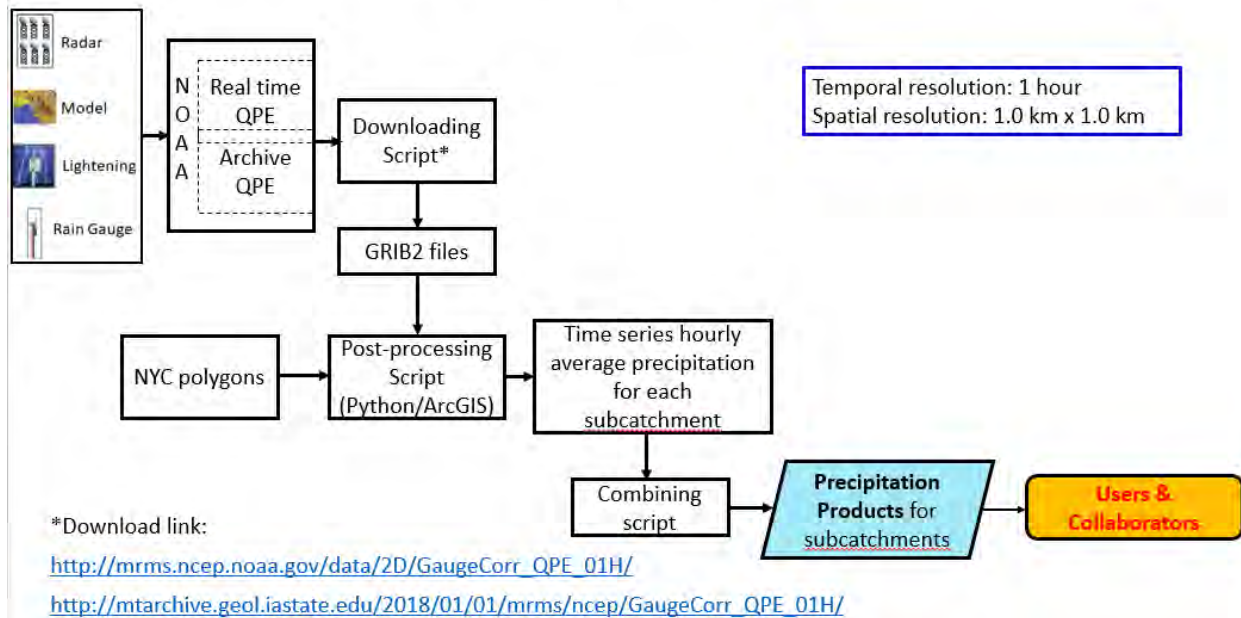


Table 3-1 Annual NYC drainage areas rainfall Statistics, 2019⁽⁴⁾

WRRF Drainage Areas ⁽¹⁾	Period	Number of Storms Avg.	Rainfall (in)			Storm Intensity (inch/hr)		Storm duration (hour)		Delta ⁽²⁾ (hour)	
			Annual total	Storm Avg.	COV ⁽³⁾	Avg.	COV ⁽³⁾	Avg.	COV ⁽³⁾	Avg.	COV ⁽³⁾
26W	2019	162	49.98	0.31	1.29	0.0426	0.86	6.38	0.96	54.2	0.94
BB	2019	168	49.07	0.29	1.32	0.0424	1.02	6.3	1.01	52.26	0.83
CI	2019	156	53.64	0.34	1.25	0.547	1.17	6.26	0.98	56.3	0.86
HP	2019	177	53.22	0.3	1.41	0.0416	1.06	6.37	1.02	49.59	0.86
JA	2019	158	49.71	0.31	1.27	0.0433	0.9	6.65	0.94	55.58	0.96
NC	2019	168	51.31	0.31	1.29	0.0492	1.17	6.14	1	52.26	0.87
NR	2019	164	48.73	0.3	1.37	0.0393	0.92	6.3	1	53.47	0.88
OH	2019	165	54.44	0.33	1.29	0.0508	1.06	6.13	1.02	53.14	0.9
PR	2019	163	59.03	0.36	1.3	0.0547	1.28	6.48	1.01	53.8	0.84
RH	2019	162	49.55	0.31	1.26	0.0471	1.03	6.3	0.99	54.13	0.9
TI	2019	169	51.78	0.31	1.36	0.0411	1.04	6.63	0.99	51.88	0.87
WI	2019	169	52.88	0.31	1.32	0.0452	1.12	6.53	1	51.95	0.85
⁽¹⁾ NOAA/NSSL Product - QPE data											
⁽²⁾ Delta refers to time between storms midpoints											
⁽³⁾ Coefficient of Variation (average/standard deviation)											
⁽⁴⁾ Statistics calculated using EPA's SYNOP package with inputs for interevent time of 4 hours and zero minimum rainfall depth											

Table 3-1: Annual NYC Rainfall Statistics, 2018 (5)

Gage Location ⁽¹⁾	Period	Number of Storms Avg.	Liquid-Equivalent Precipitation (Rainfall) (inch)			Storm Intensity (inch/hr)		Storm Duration (hour)		Delta ⁽²⁾ (hour)	
			Annual Total	Storm Avg.	Storm COV ⁽³⁾	Avg.	COV ⁽³⁾	Avg.	COV ⁽³⁾	Avg.	COV ⁽³⁾
Central Park	2018	144	63.43	0.44	1.33	0.063	1.34	7.18	0.99	60.08	0.87
LaGuardia Airport	2018	140	57.55	0.41	1.29	0.0581	1.14	6.83	1.03	61.81	0.92
JFK Airport	2018	146	56.17	0.38	1.35	0.0654	1.66	6.56	1.13	59.26	0.91
Newark Airport	2018	148	58.18	0.39	1.39	0.0552	1.1	6.55	1.06	58.45	0.99
JFK Airport	"Standard" 2008	130	46.25	0.36	1.48	0.0565	1.14	5.86	1.06	67.90	1.02
Central Park	1955-2018	117	47.35	0.40	1.56	0.0586	1.35	6.53	1.03	75.52	1.11
LaGuardia Airport	1955-2018	116	43.15	0.37	1.56	0.0572	1.40	6.30	1.02	76.07	1.02
JFK Airport	1970-2018	115	42.37	0.37	1.52	0.0571	1.36	6.18	1.03	76.67	1.01
Newark Airport	1955-2018	118	44.33	0.37	1.58	0.0558	1.42	6.38	1.04	74.80	1.01
NYC Metro ⁽⁴⁾	Historical	-	-	-	-	0.0560	1.35	-	-	-	-

- National Oceanic and Atmospheric Administration Data Center rain gauges
- Delta refers to time between storms midpoints
- Coefficient of Variation (average/standard deviation)
- Values reported as "Typical for NYC Metropolitan Area, circa 1950 through 1976" (from Hydrosience 1978)
- Statistics calculated using EPA's SYNOP package with inputs for interevent time of 4 hours and zero minimum rainfall depth

Appendix 3.3.2: Definitions Of Combined-Sewage Capture And Runoff Capture

Previous EPA guidance defined wet-weather capture at combined-sewer treatment facilities in terms of the ratio of runoff captured to the total runoff generated. This ratio, expressed as a percentage, is herein referred to as “runoff capture”. For the purposes of this study, the runoff capture is estimated as the ratio of total treated volume of runoff from combined-sewer areas (the sum of the runoff treated by the plant and the runoff treated by any off-line storage facilities) to the total volume of runoff generated from combined-sewer areas during wet weather. More recent EPA guidance (EPA 1995) suggests an alternate definition of capture in terms of both runoff and sanitary sewage. One of the Presumptive Approach criteria is:

“The elimination or the capture for treatment of no less than 85% by volume of the combined sewage collected in the CSS [combined-sewer system] during precipitation events on a system-wide annual basis.”

This definition of capture, herein referred to as “combined-sewage capture,” is the ratio of CS volume captured at the WRRF to the total runoff and sanitary sewage entering the combined-sewer system during wet-weather periods.

Figure 3-2 presents a schematic representation of both runoff capture and CS capture. With runoff capture, WRRF flow rates exceeding average diurnal (dry-weather) sanitary flows during wet-weather periods were assumed to represent captured runoff. In reality, the flow in the sewer system is a mixture of runoff and sanitary flow, and a portion of CSOs is sanitary in nature. The combined-sewage capture definition takes into account the sanitary flow already in the sewer system during wet weather, and hence is a more realistic measure of the capture at WRRFs during wet-weather periods.

In NYC, values for CS capture are typically about 15 percent points higher than those for runoff capture. EPA’s CSO guidance (EPA 1995) has established a target criterion of 85 percent CS capture for the presumptive approach to CSO control.

Appendix 3.3.3: Percent-Capture Evaluation – Two Scenarios

Wet-weather capture depends upon the particular weather patterns within the subject period, the state of a sewer system and wet-weather operation of the WRRFs. Capture values tend to increase when storm patterns produce sustained, low-level flows to the plant. Capture values also increase when sewer-system restrictions are eliminated and flows to the WRRF are maximized. If the interceptors and combined sewers are not surcharged, when the plant inflows reach 2XDDWF levels in certain drainage areas, those may provide some additional in-line

storage for wet-weather flow and, as such, can increase the wet weather capture rate. Although it is important to record the actual capture achieved at WRRFs each year, it is also useful to isolate the effect of the uncontrollable, year-to-year rainfall variations from the controllable aspects related to the operation and maintenance of the collection system and treatment plant. To address these issues, the model results presented herein represent two different scenarios:

- the “Actual” captures, reflecting the “state and operation of the collection/ treatment system” during the subject period, as well as the actual rainfall and tidal conditions during the subject period,
- the “Standardized” captures, reflecting the “state and operation of the collection/treatment system” during the subject period, but with rainfall and tide conditions representing the standardized (typical) rainfall year, and

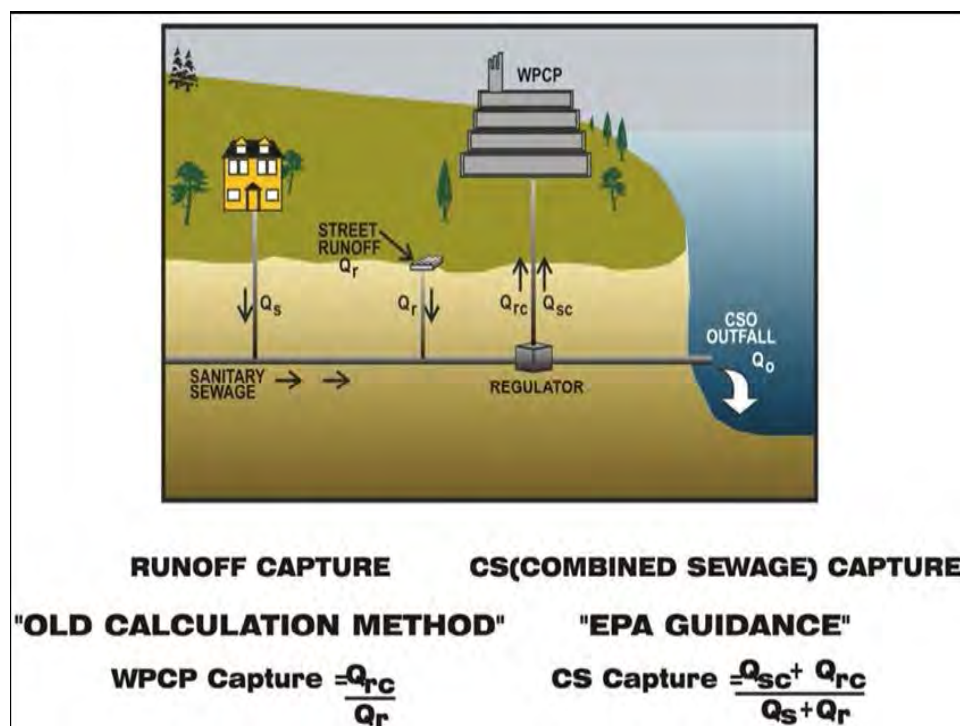


Figure 3-2. Wet Weather Flow Capture at WRRF

Appendix 3.3.4: Tools To Calculate Wet-Weather Flow Capture

Although the definitions presented in Section 3.1 and the equations on Figure 3-2 are relatively simple, actual application to calculate CS capture can be rather complicated. Because the capture must be evaluated over a long-term (annual)

period, and with hundreds of potential CSO outfalls City-wide, direct measurements of all parameters would be impractical. Furthermore, measurements of flow and rainfall distribution over a large geographical area have proved to be less than reliable. A more practical approach is to estimate the terms presented on Figure 3-2 using calibrated sewer-system models to simulate (instead of directly measuring through monitoring) system performance during the subject period. The following section describes the modeling approach applied for 2019 calculations, namely, InfoWorks ICM. As indicated earlier, InfoWorks was adopted for citywide use and has been calibrated for all service areas that are wholly or partially served by combined sewers.

Appendix 3.3.5: InfoWorks Model

The InfoWorks model, distributed by Innovyze from the U.K., has been used in DEP projects since 2001. The model engine is a FORTRAN program, linked with a front interface that contains both relational databases of the sewer network and GIS databases of the geographic attributes such as latitude, longitude, and ground elevations. Based on comparative evaluations performed in 2002-03 by the DEP and its consultants, this interface appeared to offer several advantages over other commercial models such as easy interfacing with GIS for graphical and input/output data analysis and faster computational times for annual simulations. The model utilizes an implicit finite difference-based numerical solution technique to provide more stable modeling of key elements of the sewer systems. The model incorporates full Saint-Venant's equations for continuity and momentum for hydraulic routing and, as such, is well suited for modeling of the backwater effects and reverse flow, open channels, sewers, detention ponds, complex pipe connections and complex ancillary structures such as culverts, orifices and weirs.

Similar to other urban drainage models, the InfoWorks model calculates runoff volumes first using the same algorithms used in the SWMM model and routes the runoff over sub-areas (subcatchments) to generate runoff hydrographs. The hydrographs are then applied to the channel-sewer system for hydraulic routing. Dry weather flows (DWF) are added at the respective manholes for routing towards the treatment plant. Figure 3-3 presents a schematic of the InfoWorks model linkage and outputs used to calculate the wet-weather and runoff percent captures.

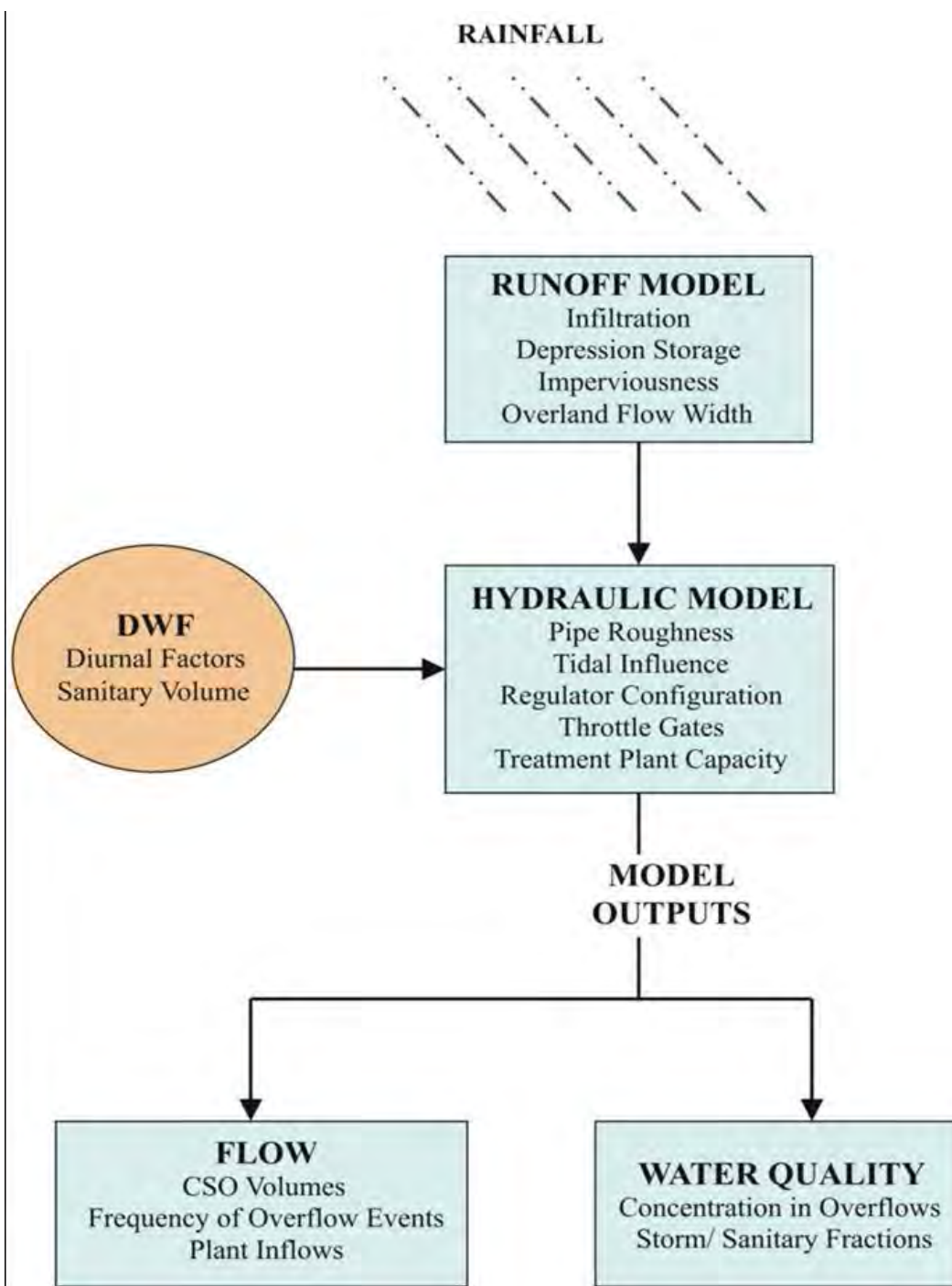


Figure 3-3. Schematic Representation of InfoWorks Model

The SWMM RUNOFF option has been chosen as the InfoWorks runoff simulation algorithm. Each WRRF drainage area was divided into component regulator drainage areas. All pipes larger than 48 inches were included in all WRRF models, and some pipes in the range of 12 to 42 inches in selected WRRF models that were expanded based on local hydraulic conditions. The pipe network was used to further divide the regulator drainage area into smaller sub-catchments that drain to individual manholes. Each sub-catchment was then divided into impervious and pervious areas, based on geographical features including rooftops,

driveways, roadways, lawns, parking lots, and parks/open spaces. An example representation of pipes, manholes and surface features is shown in Figure 3-4.

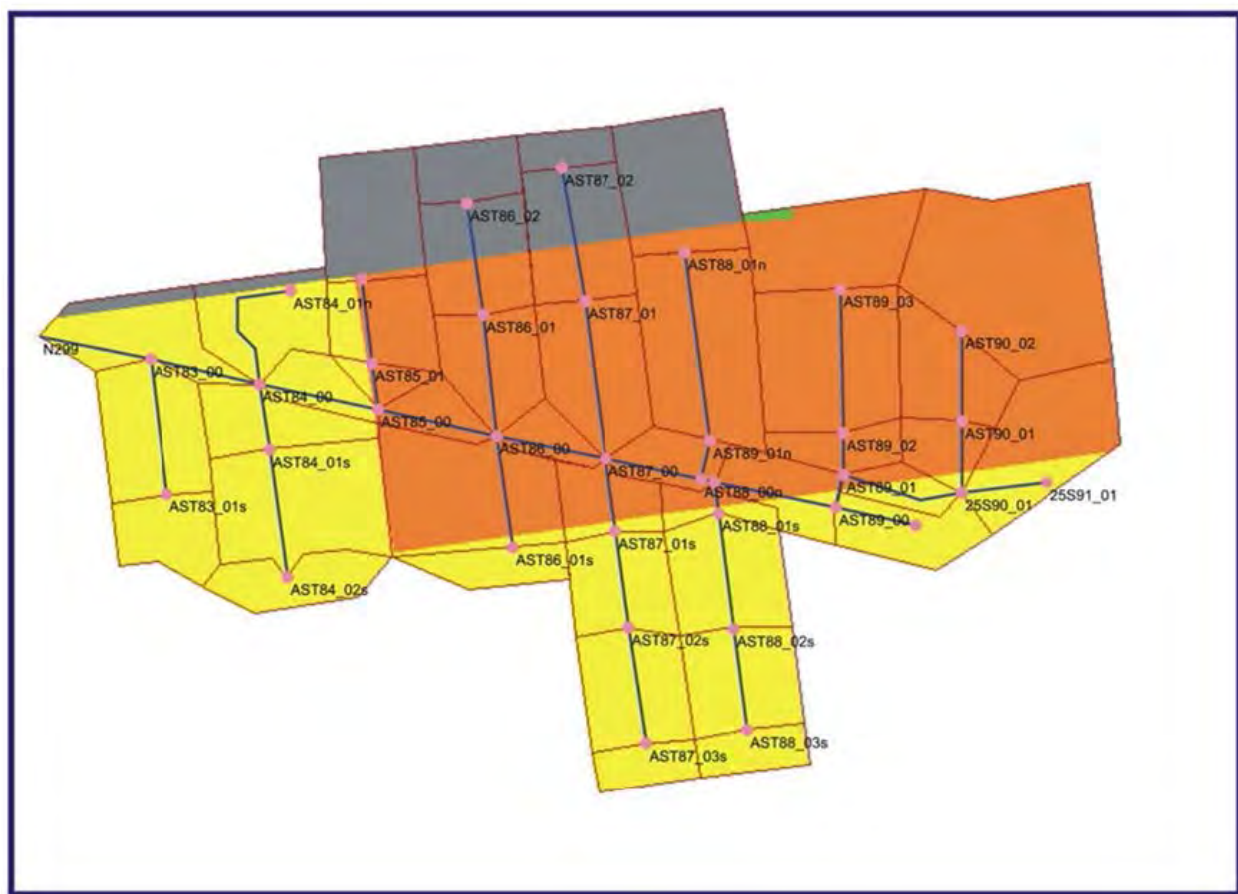


Figure 3-4. Geographical and Sewer System Data in InfoWorks Model

A major component of the 2011 InfoWorks model update was the satellite-imagery based imperviousness estimate. This process was well documented in the 2011 recalibration report submittal to the DEC. Although this estimate represents the total impervious area in each subcatchment, the flow monitoring performed by DEP confirmed that only a fraction of this area was contributing runoff directly to the sewer system. This fraction is referred to as the directly connected impervious area (DCIA) for each subcatchment, which is one of the calibration parameters. The DCIA, in essence, is equivalent to the runoff coefficient used in traditional sewer design principles with a standard rational approach. Hydrologic parameters included in the InfoWorks model for impervious surfaces are: DCIA, depression storage (initial losses), and surface roughness.

Similarly, the pervious areas were represented with the same three parameters – only difference being that the pervious areas were divided into open surfaces (parks, cemeteries or large open areas) and non-open surfaces (pervious areas in residential, commercial, industrial landuses). Soil compaction due to several

factors in these two distinct surfaces presents different runoff loss rates, which led to the explicit representation of open and non-open areas with different runoff coefficients in the InfoWorks models. Runoff is generated from each of these three surfaces within a subcatchment for a given rainfall intensity/volume. An example image and associated definition of pervious and impervious (complement of pervious areas) from the Newtown Creek WRRF drainage area is shown in Figure 3-5. The areas within red boundaries represent the catchment areas to two flow metering locations within this WRRF drainage area.



Figure 3-5. Landcover Definitions Using Remote Sensing Data

Monthly evaporation data was obtained from the Northeast Climate Center at Cornell University for all the four NOAA rain gage locations. This data was further processed based on the geographical proximity of WRRF service areas and used to develop the inputs for evaporation rates in the model.

The InfoWorks model uses the SWMM's non-linear reservoir model to route the runoff through urban landscapes to the sewer entry-point (catch basin/manhole included in the model). Sub-catchments are modeled as idealized rectangular areas with the slope of a sub-basin perpendicular to the width. The routing is performed according to the equation:

$$Q = \frac{1.486}{n} W (d - d_s)^{\frac{5}{3}} S^{\frac{1}{2}}$$

where:

Q is surface runoff (cfs);

W is width of sub-area (ft);

S is average slope of sub-area (ft/ft);

d is depth in the non-linear reservoir (ft);

d_s is the depression storage depth in the non-linear reservoir (ft); and

n is the Manning's roughness coefficients.

For hydraulic routing, the model uses the Saint-Venant equations to describe the conservation of mass and momentum:

$$\frac{\partial A}{\partial t} + \frac{\partial Q}{\partial x} = 0$$

$$\frac{\partial Q}{\partial t} + \frac{\partial}{\partial x} \left(\frac{Q^2}{A} \right) + gA \left(\cos \theta \frac{\partial g}{\partial x} - S_o + \frac{Q|Q|}{K^2} \right) = 0$$

with: Q Discharge (m³/s)
 A Cross-sectional area (m²)
 g Acceleration due to gravity (m/s²)
 θ Angle of bed to horizontal (°)
 S_o Bed slope
 K Conveyance

With the use of the Saint Venant equations, the following complex phenomena that occur in a sewer system can be dynamically characterized:

Presence of sewer sediments

- Pump-station operations (variable, step-wise, etc.), along with wet-well controls

- Inverted siphon
- Bifurcations
- Regulator operations during tidal conditions
- Throttling at treatment plants during wet weather to limit inflows
- Behavior of in-line regulators
- Street and basement flooding
- Groundwater infiltration into combined and separately sewers.

Depending on the complexity of each WRRF drainage area, some or all of the above processes were modeled in InfoWorks. Available CSO and in-system flow and depth monitoring data compiled during development of waterbody-watershed facility planning studies and CSO LTCPs was used to update the sewer system models of the 12 WRRF drainage areas with combined sewers and the Rockaway WRRF service area with separate sewers. The system-wide calibration involved the use of flow and depth data compiled at several in-system locations, selected outfalls, DEP SCADA locations, and at the influent of a WRRF. The City has been using a grid-based radar rainfall data framework to characterize the spatial-temporal variability. Selected storms ranging in intensity and total volumes observed during the calibration period were used to calibrate the appropriate hydrologic (e.g., runoff coefficient (DCIA), depression storage, and roughness) and hydraulic (pipe roughness, pump operations, weir coefficients and gate controls) model parameters. Additional wet weather events (storms) were used to independently validate the model performance. DEP used a weight-of-evidence approach to assess the adequacy of model calibration including correlation plots between observed and modeled runoff volumes, flow rates, and water depths in sewers; and also the temporal comparisons of flows during wet events at various calibration points including the plant influent. Figure 3-6 illustrates the detailed calibration/validation approach that involves assessing correlations at different spatial scales and also using a variety of flow/depth monitoring data.

The input parameters necessary for InfoWorks application to compute percent capture include: (a) maximum WRRF capacity that can be varied on a monthly basis – represented in the form of a wet well elevation versus pump capacity curve; (b) precipitation at hourly or shorter intervals; (c) dry weather flow at each regulator and its diurnal pattern that can be varied on a monthly basis; (d) distribution of land uses within each subcatchment along with losses such as evaporation and depression storage; (e) operation of throttling/slucice gates within a system; (f) tide conditions near the various outfalls within a system. Since the model accounts for surcharging and backups within sewers, such complex aspects as in-line storage are modeled accurately.

Tide data were developed from the three permanent tide gages maintained by NOAA near New York City – namely, King's Point, The Battery, and Sandy Hook. NOAA also publishes tidal correction factors in terms of differences in time and amplitude at several locations in the NY-NJ Harbor. The correction factors were tabulated for the locations of the waterbody near each or a set of outfalls, and then the data from the nearest NOAA station were used to develop the tidal boundary conditions for each or a set of outfalls within a drainage area.

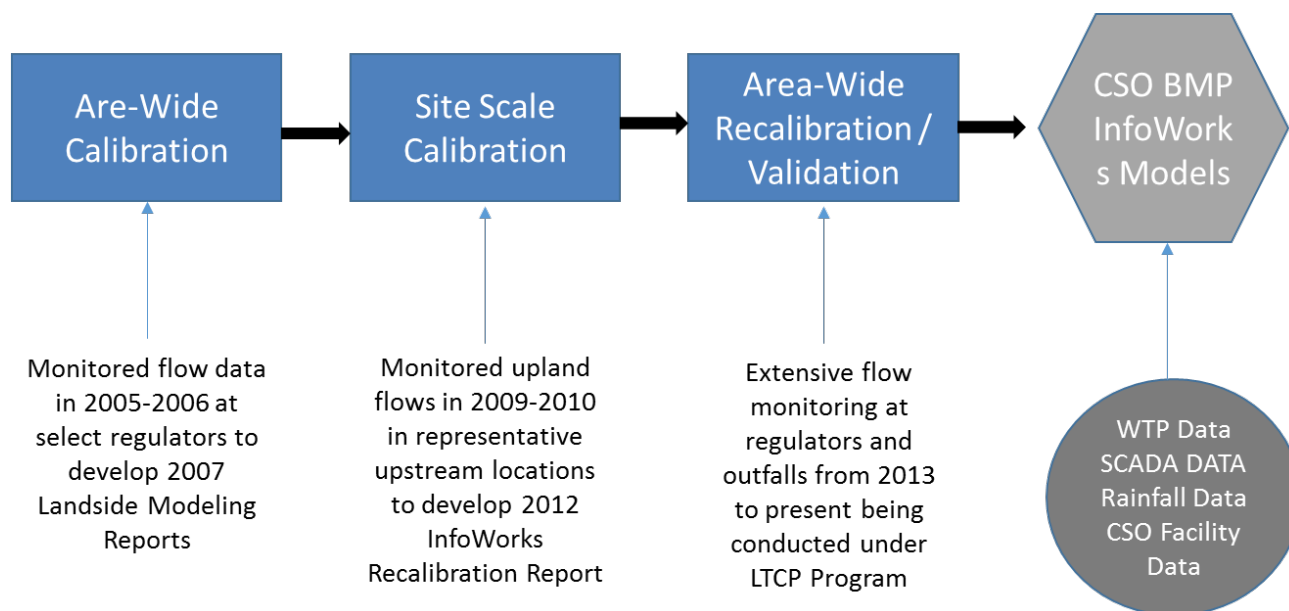


Figure 3-6. Comprehensive InfoWorks Model Calibration Approach

As a first step, the plant flow data at each WRRF was reviewed to develop the wet-well elevation versus pump discharge curves on a monthly basis. Appropriate dry weather flows and diurnal patterns were used for all regulators within the drainage area. The modeled and monitored plant flows were compared to confirm the adequacy of calibration of plant influent in the InfoWorks model for CY2019 conditions. If needed, the pump rating curves were adjusted to better match the monitored and modeled flows. Similarly, the rule curves associated with throttling gates, if appropriate, were modified to achieve better agreement between modeled and observed inflows at the plant. No other hydrologic or hydraulic model parameters were adjusted in the drainage area during this model application process. Specific hydraulic adjustments of the models have been made in select WRRF models to account for changes to the conveyance system, such as the operation of the Alley Creek, Flushing Creek, Paerdegat Basin and Spring Creek CSO retention facilities. The modeled inputs used in the InfoWorks model for all drainage areas with combined sewers are summarized in Table 3-2. Figure 3-7 shows an example correlation between measured and modeled inflows to the Bowery Bay WRRF, for CY2019.

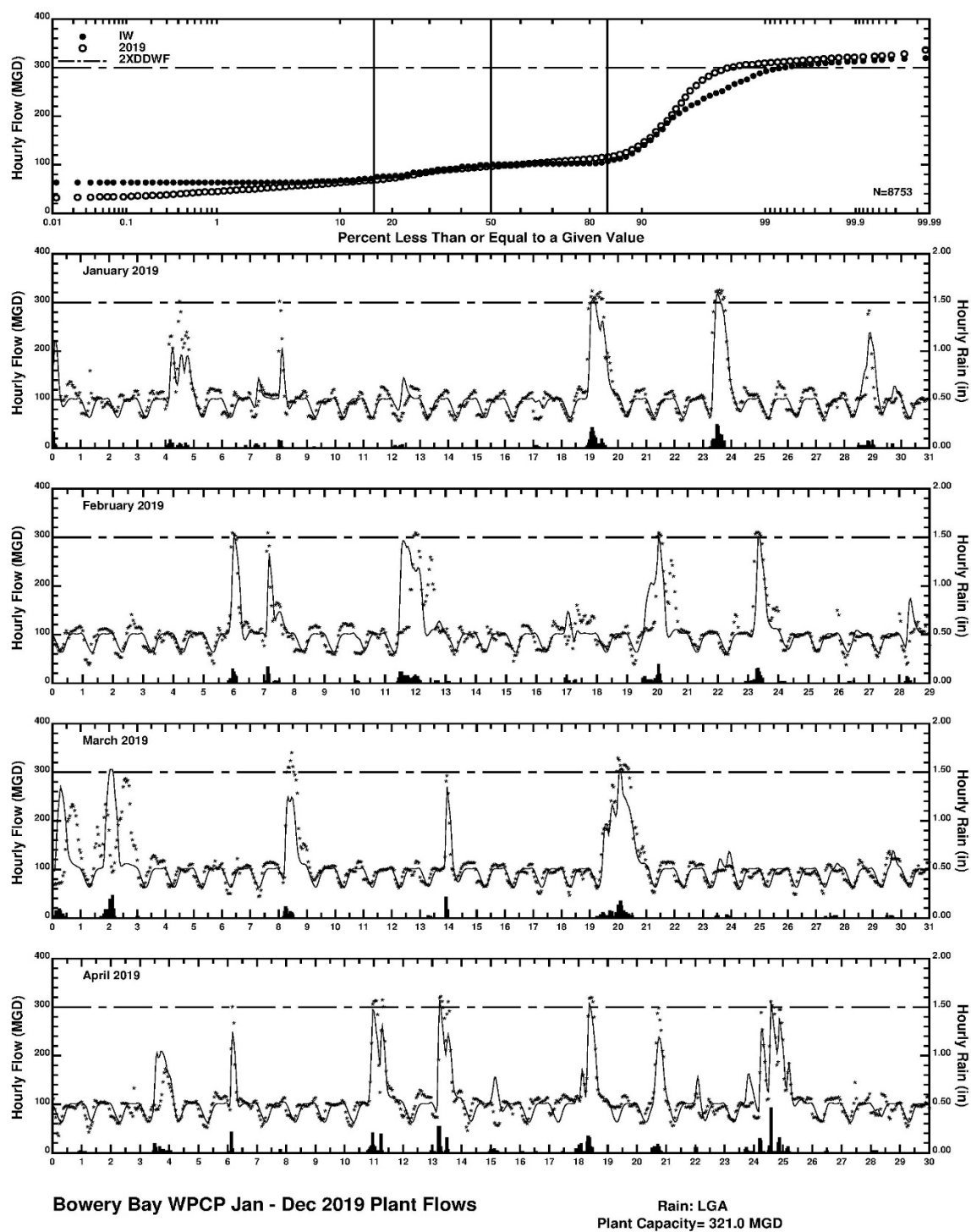


Figure 3-7. InfoWorks Sample Results 2019

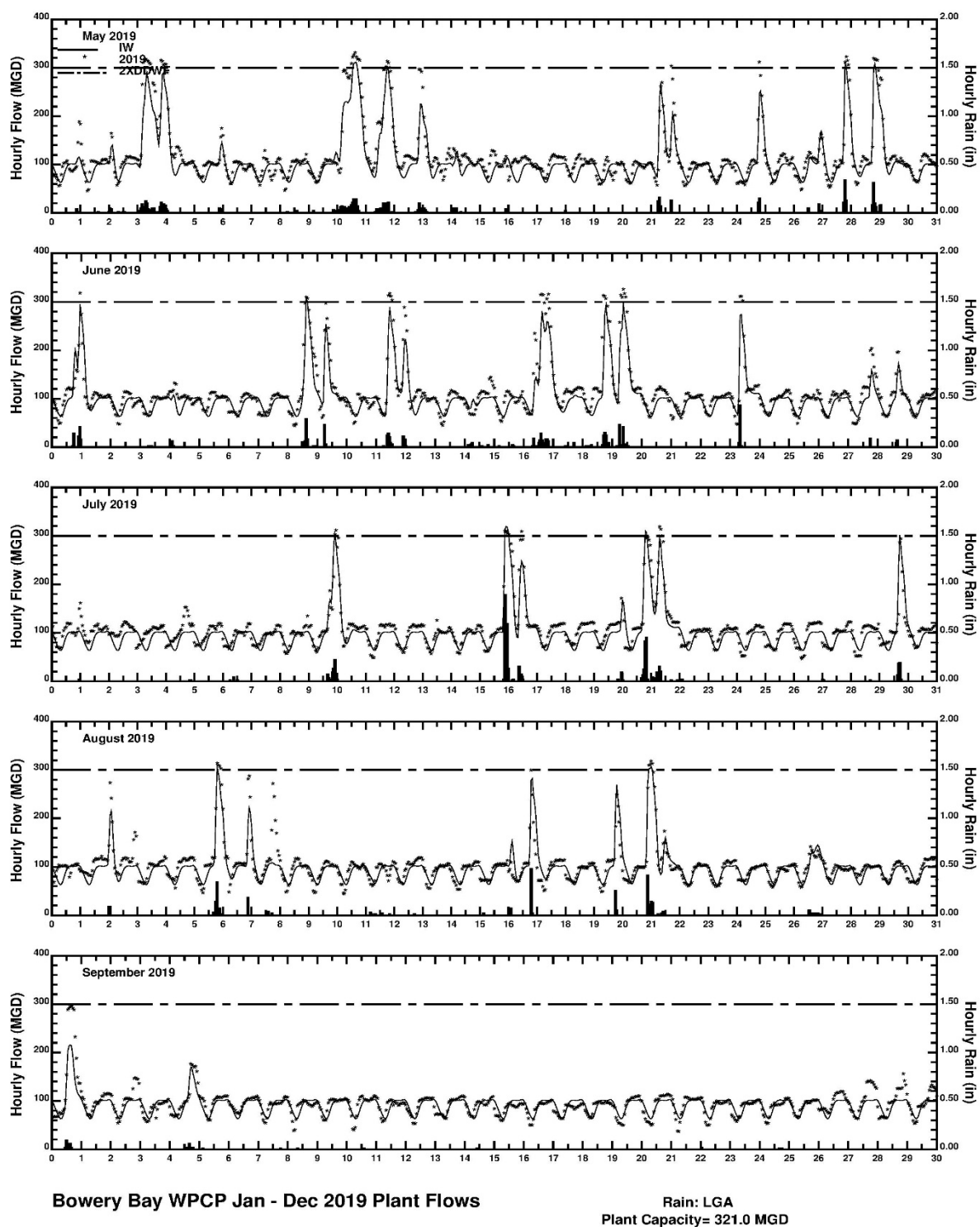


Figure 3-7. InfoWorks Sample Results 2019

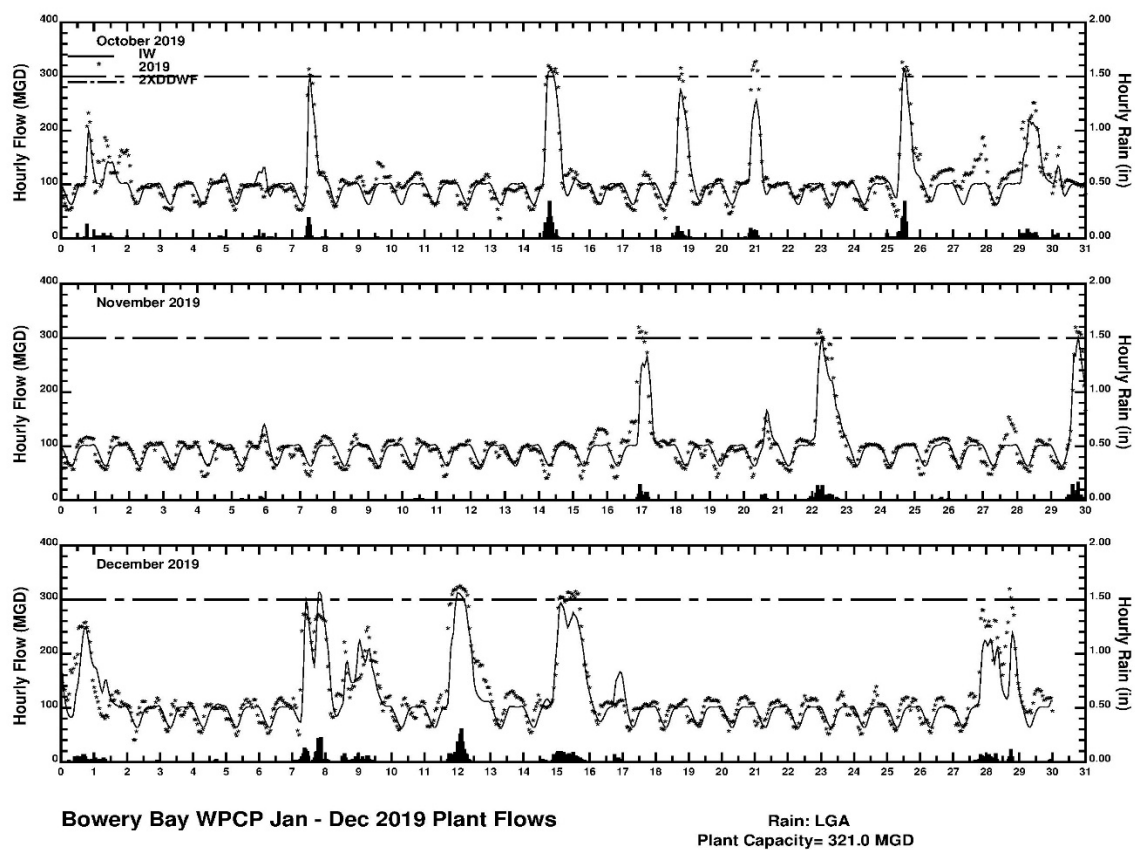


Figure 3-7. InfoWorks Sample Results 2019

Appendix 3.4: COMBINED-SEWAGE CAPTURE RESULTS - 2019 FLOW VOLUME

Table 3-2 presents the results of the combined-sewage volume percent capture evaluation performed for CY2019. The InfoWorks models were used to analyze drainage areas for the two scenarios, as discussed in Section 3.2 - "Actual" refers to the actual conveyance/treatment system performance and rainfall in 2019.

As shown in Table 3-3, the "Actual" scenario capture of combined-sewage volume in 2019 averaged 87 percent citywide. Combined-sewage capture at individual, combined area WRRFs varied from a low at Owls Head (74 percent each) to a high at North River (98 percent each). Combined-sewage flow capture is not applicable at the separately sewerage WRRFs (Oakwood Beach and Rockaway).

Table 3-2. As-Modeled WRRF Service Area Characteristics – CY 2019

WRRF	Total Drainage Area (acres)	Combined Sewage Drainage Area (acres)	Average Dry Weather Flow (MGD)	Design Dry Weather Flow (MGD)	Maximum Wet Weather Flow ⁽¹⁾ (MGD)	Permitted Wet Weather Flow ⁽²⁾ (MGD)
26W	5,787	4,358	41.6	85	136	170
BB	14,232	12,446	89.4	150	321	300
CI	6,779	6,070	95.0	110	230	220
HP	22,543	11,546	115.9	200	406	400
JA	26,421	5,451	78.9	100	199	200
NC	15,103	13,562	194.6	350	789	700
NR	5,572	4,448	102.3	170	347	340
OH	10,078	9,448	81.6	120	244	240
PR	11,541	3,575	26.2	60	124	120
RH	3,738	2,991	26.2	60	126	120
TI	18,314	8,721	58.5	80	164	160
WI	15,799	12,822	181.6	275	571	550
NYC CS Total	155,907	95,438	1,090.9	1,760	3,657	

Separate Areas						
RO	5,710	NA	20.8	45	47	90
OB ⁽³⁾	10,779	NA	30.7	40	100	80
NYC overall	172,396	95,438	1,142.4	1,845	3,804	

- The maximum 99.9th percentile wet weather flows were used to set the peak pumping capacity to be used in the InfoWorks model.
- Permitted flow is max design flow, or twice design dry-weather flow (2xDDWF), except as noted.
- Certain statistics excluded for RO and OB because these areas are separately sewered.

Table 3-3. Combined-Sewage Capture Results – Flow Volume Calendar Year 2019

WRRF	Actual ⁽¹⁾ (2019)
26W	96%
BB	79%
CI	96%
HP	84%
JA	88%
NC	93%
NR	98%
OH	74%
PR	80%
RH	92%
TI	83%
WI	89%
NYC Avg. ⁽²⁾	87%

Notes:

- The "actual" case capture results reflect the —state and operation of the collection/treatment system during the subject period, as well as the actual rainfall patterns during the subject period.
- Averages are combined sewage drainage-area weighted, and exclude separately (Oakwood Beach and Rockaway).

Appendix 3.5: REFERENCES

Chen, H. and Chandrasekar, V. May 2015. The quantitative precipitation estimation system for Dallas–Fort Worth (DFW) urban remote sensing network, *Journal of Hydrology*, 531: 259-271.

DiToro, D.M. and Small, M.J., June 1977. Theory of Storage and Treatment Plant Overflows, *Journal of the Environmental Division, ASCE*, Vol. 102, NO. EE3.

Driscoll, E.D. et. al., November 1989. Analysis of Storm Event Characteristics for Selected Rainfall Gages Throughout the United States, prepared for the USEPA Office of Water.

HydroQual, Inc., June 1997. City-wide Floatables Plan, Prepared for the New York City Department of Environmental Protection.

HydroQual, Inc., January 1992. City-wide Floatables Study: Third Interim Report, Sources, Fate and Control of Floatable Materials: Preliminary Findings. Prepared for the New York City Department of Environmental Protection.

Hydroscience, Inc., March 1978. NYC 208 Study Task Report: Rainfall-Runoff and Statistical Receiving Water Models, (PCP Task 225), p110. Prepared for Hazen & Sawyer, Engineers on behalf of New York City Department of Environmental Protection.

Rafieeinasab, A., Norouzi, A., Seo, D-J and Nelson, B. May 2015. Improving high-resolution quantitative precipitation estimation via fusion of multiple radar-based precipitation products, *Journal of hydrology*, 531: 320-336

USEPA, August 1995. Combined-Sewer Overflows: Guidance for Long-Term Control Plan, p.2-11. EPA 832-B-95-002.

USEPA, May 1995. Combined-Sewer Overflows: Guidance for Nine Minimum Controls, p.1-4. EPA 832-B-95-003.

Willie, D. et al. 2017. Evaluation of Multisensor Quantitative Precipitation Estimation in Russian River Basin, Journal of Hydrologic Engineering, 22(5): E5016002, DOI: 10.1061/(ASCE)HE.1943-5584.0001422.

Zhang J. et al. April 2016. MULTI-RADAR MULTI-SENSOR (MRMS) QUANTITATIVE PRECIPITATION ESTIMATION, American Meteorological Society, 621-637, DOI:10.1175/BAMS-D-14-00174.1

<https://www.nssl.noaa.gov/projects/mrms/>

Appendix 4:

- Appendix 4.1: Table 1 - Wet Weather Operating Plan (WWOP) Submittal Schedule - WRRF's
- Appendix 4.2: Table 2 - Wet Weather Operating Plan (WWOP) Submittal Schedule - CSO Facilities

**Appendix 4.1: TABLE 1 - WET WEATHER OPERATING PLAN (WWOP)
SUBMITTAL SCHEDULE - WRRF's**

Facilities	Submittal Dates		Status
	Original	Revisions	
Wards Island	Jul-03	Sept. 2004, April 2007, Aug. 2007, June 2008 (submitted Sept. 2008), Dec. 2008, June 2009, Jan. 2011, Oct. 2014, Dec. 2014	Jun 2009 version Approved (Mar. 2010) Awaiting DEC approval of the Dec. 2014 version
North River	Apr-04	July 2011, Dec. 2014	April 2004 version Approved (Jan. 2006) July 2011 submittal was an <u>amendment</u> to WWOP due to fire Awaiting DEC approval of the Dec. 2014 version
Hunts Point	Jul-03	Sept. 2004, April 2010, Aug. 2010, Dec. 2014	Aug. 2010 version Approved (Oct. 2010) Awaiting DEC approval of the Dec. 2014 version
26th Ward	Jul-03	Sept. 2004, May 2007, Oct. 2007, Feb. 2009, Aug. 2009, July 2010, Dec. 2014, Oct. 2015, Mar. 2016	Mar. 2016 version Approved (Mar. 2016)
Coney Island	Apr-05	Dec. 2007, May 2010, Oct. 2010, Dec. 2014	Dec. 2007 version Approved (Mar. 2008) Awaiting DEC approval of the Dec. 2014 version
Owls Head	Apr-05	Dec. 2007, Sept. 2008, Dec. 2008, Dec. 2014	Dec. 2008 version Approved (Jan. 2009) Awaiting DEC approval of the Dec. 2014 version
Newtown Creek	Jun-03	April 2005, March 2009, April 2010, Oct. 2011, April 2013, Dec. 2014	April 2013 version Approved (Jun. 2013) Awaiting DEC approval of the Dec. 2014 version
Red Hook	Feb. 2005	Dec. 2014	WWOP Approved (Jan. 2006) Awaiting DEC approval of the Dec. 2014 version
Jamaica	Apr-05	April 2007, June 2007, Dec. 2014	June 2007 version Approved (Sept. 2007) Awaiting DEC approval of the Dec. 2014 version
Tallman Island	Jul-03	Sept. 2004, May 2007, Oct. 2007, Aug. 2009, April 2010, July 2010, July 2011, Dec. 2014	July 2010 version Approved (Sept. 2010) Awaiting DEC approval of the Dec. 2014 version
Bowery Bay	Jul-03	Sept. 2004, March 2009, Dec. 2014, Mar. 2016	March 2009 version Conditionally Approved (May 2009)

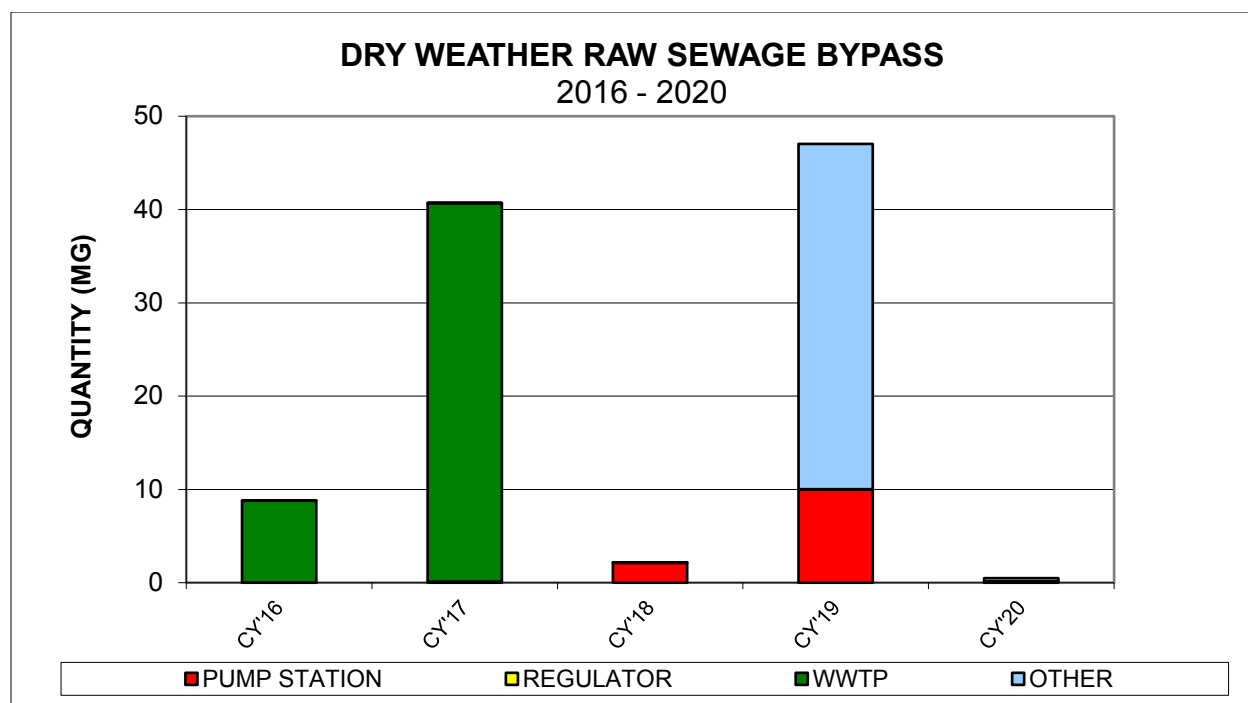
			Awaiting DEC approval of the Mar. 2016 version
Rockaway	Apr-05	Dec. 2007, Dec. 2014	Dec. 2007 version Approved (Mar. 2008) Awaiting DEC approval of the Dec. 2014 version
Oakwood Beach	Apr-05	Dec. 2007, Dec. 2014	Dec. 2007 version Approved (Mar. 2008) Awaiting DEC approval of the Dec. 2014 version
Port Richmond	Apr-05	Dec. 2007, Dec. 2014	Dec. 2007 version Approved (Mar. 2008) Awaiting DEC approval of the Dec. 2014 version

**Appendix 4.2: TABLE 2 - WET WEATHER OPERATING PLAN (WWOP)
SUBMITTAL SCHEDULE - CSO FACILITIES**

	Submittal Dates		
Facilities	Original	Revisions	Status
Spring Creek	Jun-03	May 2007, Oct. 2007, Feb. 2009, Aug. 2009, July 2010, Dec 2014, Oct. 2015, Mar. 2016	appended to 26W WWOP
Flushing Bay	Dec. 2003	May 2007, Oct. 2007, Aug. 2009, April 2010, July 2010, July 2011, Dec-14	appended to TI WWOP
Alley Creek	Dec. 2003	May 2007, Oct. 2007, Aug. 2009, April 2010, July 2010, July 2011, Dec-14	appended to TI WWOP
Peardegat Basin	Dec. 2003	May 2010, Oct. 2010, Dec 2014	appended to CI WWOP
Corona Avenue	Dec. 2003	March 2009, Dec 2014, Mar. 2016	appended to BB WWOP

Appendix 5:

- Figure 1: Dry Weather Raw Sewage Bypass Graph (CY2013-2020)
- Table 1: Dry Weather Bypassing CY'16-CY'20
- Table 2: Dry Weather Raw Sewage Bypasses CY-2020 - Pump Station
- Table 3: Dry Weather Raw Sewage Bypasses CY-2020 - Regulator
- Table 4: Dry Weather Raw Sewage Bypasses CY-2020 - WRRF
- Table 5: Dry Weather Raw Sewage Bypasses CY-2020 - Other Location
- Table 6: Pump Station Bypassing Summary CY2020 by Location
- Table 7: Pump Station Bypassing Summary CY2020 by Cause Code
- Table 8: Regulator Bypassing Summary CY2020 by Location
- Table 9: Regulator Bypassing Summary CY2020 by Cause Code
- Table 10: WRRF Bypass Summary CY2020

Figure 1: Dry Weather Raw Sewage Bypass Graph (CY2016 – 2020)**Table 1: Dry Weather Bypassing CY'16-CY'20**

SOURCE	CY'16	CY'17	CY'18	CY'19	CY'20
PUMP STATION	0.02	0.02	2.13	10.00	0.05
REGULATOR	0.01	0.09	0.01	0.01	0.08
WWTP	8.76	40.60	n/a	0.00	0.00
OTHER	0.01	0.02	0.01	37.01	0.35
TOTAL	8.80	40.72	2.16	47.01	0.49

Other locations include: bypasses from outfalls, street locations, etc.

*In 2016, there were Bypasses during Wet Weather at Newtown Creek, Tallman Island and Bowery Bay which are included in the above totals.

*In 2016, there were bypasses that occurred from private sewers which overflowed to DEP-owned catch basins/ outfalls which are included in the above totals. Some of these events had unknown amounts and end times; these are included in the # of events but the amount and duration are unknown.

*In 2017, there were Bypasses during Wet Weather at Hunts Point and Bowery Bay which are included in the above totals.

*In 2019, there was a Potential Raw Sewage Bypass at Jamaica, but it was not confirmed.

Table 2: Dry Weather Raw Sewage Bypasses CY-2020 - Pump Station

Years	# Of Events	Total Bypass (MG)	Duration (Hrs)
CY2016	2	0.0221	0.67
CY2017	2	0.0153	6.50
CY2018	2	2.1320	13.33
CY2019	4	10.00	67.23
CY2020	3	0.05	5.50

Table 3: Dry Weather Raw Sewage Bypasses CY-2020 – Regulator

Years	# Of Events	Total Bypass (MG)	Duration (Hrs)
CY2016	3	0.0072	4.50
CY2017	2	0.0861	9.08
CY2018	3	0.0127	3.83
CY2019	3	0.0092	5.92
CY2020	4	0.08	9.05

Table 4: Dry Weather Raw Sewage Bypasses CY-2020 – WWTP

Years	# Of Events	Total Bypass (MG)	Duration (Hrs)
CY2016	4	8.76	16.6
CY2017	2	40.60	19.3
CY2018	0	n/a	n/a
CY2019	1	n/a	1.4
CY2020	0	n/a	n/a

Table 5: Dry Weather Raw Sewage Bypasses CY-2020 - Other Location

Years	# Of Events	Total Bypass (MG)	Duration (Hrs)
CY2016	5	0.0063	23.58
CY2017	7	0.0186	39.48
CY2018	0	n/a	n/a
CY2019	6	37.01	395.47
CY2020	4	0.35	59.25

Table 6: Pump Station Bypassing Summary CY2020 by Location

Location	Events	% Events	MG	% MG	Hours	% Hours
TI-154th Street Pumping Station	1	33%	0.0038	7%	3.00	55%
Hannah Street Pumping Station	1	33%	0.050	93%	1.75	32%
Canterbury Avenue Pump Station	1	33%	0.000225	0.42%	0.75	14%
TOTAL	3	100%	0.054	100%	5.50	100%

Table 7: Pump Station Bypassing Summary CY2020 by Cause Code

Cause Code	Code Description	Events	% Events	MG	% MG	Hours	% Hours
2A	Electrical Utility Failure: Feeder	1	33%	0.0038	7%	3.00	55%
3E	Electricity Equipment Failure: Other	1	33%	0.050	93%	1.75	32%
2A	Electrical Utility Failure: Feeder	1	33%	0.000225	0%	0.75	14%
Total		3	100%	0.054	100%	5.50	100%

Table 8: Regulator Bypassing Summary CY2020 by Location

Location	Events	% Events	MG	% MG	Hours	% Hours
TI-Reg. No. 57	2	50%	0.0728	87%	6.57	73%
NC-Reg. NCB-05A	2	50%	0.01074	13%	2.48	27%
TOTAL	4	100%	0.0835	100%	9.05	100%

Table 9: Regulator Bypassing Summary CY2020 by Cause Code

Cause Code	Code Description	Events	% Events	MG	% MG	Hours	% Hours
6A	Blockages: Regulator	3	75%	0.0151	18%	5.05	56%
6C	Blockages: Branch Interceptor	1	25%	0.0684	82%	4.00	44%
Total		4	100%	0.0835	100%	9.05	100%

Table 10: WWTP Bypass Summary CY2020 by Location – N/A

Appendix 6:

- Appendix 6.1: Exhibit 1 – Letter to Industrial Users Amending
- Appendix 6.2: Exhibit 2 – Trends in Metals Loadings to New York City WRRFs

Appendix 6.1: EXHIBIT 1 – LETTER TO INDUSTRIAL USERS AMENDING



**Department of
Environmental
Protection**

39-17 Junction Boulevard
Flushing, New York
11373-5108

**Christopher O. Ward
Commissioner**

**Alfonso R. Lopez, P.E.
Deputy Commissioner
Bureau of Wastewater
Treatment**

Tel: (718) 595-5950
(Fax: (718) 595-5950
Alopez@dep.nyc.gov

September 1, 2004

**Re: Industrial Wastewater Discharge
Permit/Commissioner's Order and
Directive Amendments**

Certified Mail/Return Receipt Requested

Dear Industrial User:

This is to notify you that the New York City Department of Environmental Protection (DEP) is hereby amending the requirements of your Industrial Wastewater Discharge Permit/Commissioner's Order and Directive (Permit/Directive) as follows:

1. Your establishment is now required to hold its process wastewater and non-contact cooling water to the maximum extent practicable during heavy wet weather events.

The reason for this is that in New York City, combined sewers carry both wastewater and storm water to the City's Water Pollution Control Plants (WPCP). Combined Sewer Overflows (CSOs) can occur during heavy wet weather events, causing wastewater and storm water to be discharged to the receiving waters, without treatment at a WPCP, due to the inability of the WPCP to accept the increased flow. This has an adverse effect on New York City's waterways. DEP has made significant reductions in the size and frequency of CSO events within the City; however, this problem can still occur during heavy rainfall.

2. Part II, Section A of your Permit/Directive is hereby amended, raising the maximum civil and misdemeanor penalties from \$1,000.00 to \$10,000.00, as per an amendment to the New York City Administrative Code.

3. Part II, Section C (2) (e) is amended to require inclusion of the dates of analysis for each sample and the laboratory's sample identification for each sample in the laboratory report. Please see the amended Industrial User Self Monitoring Report Form and the Sample Laboratory Report Form enclosed for all information establishment is required to submit.

All other requirements of your Permit/Directive remain in effect.

If you have any questions regarding this matter, please telephone Ms. Frances Leung at (718) 595-4763.

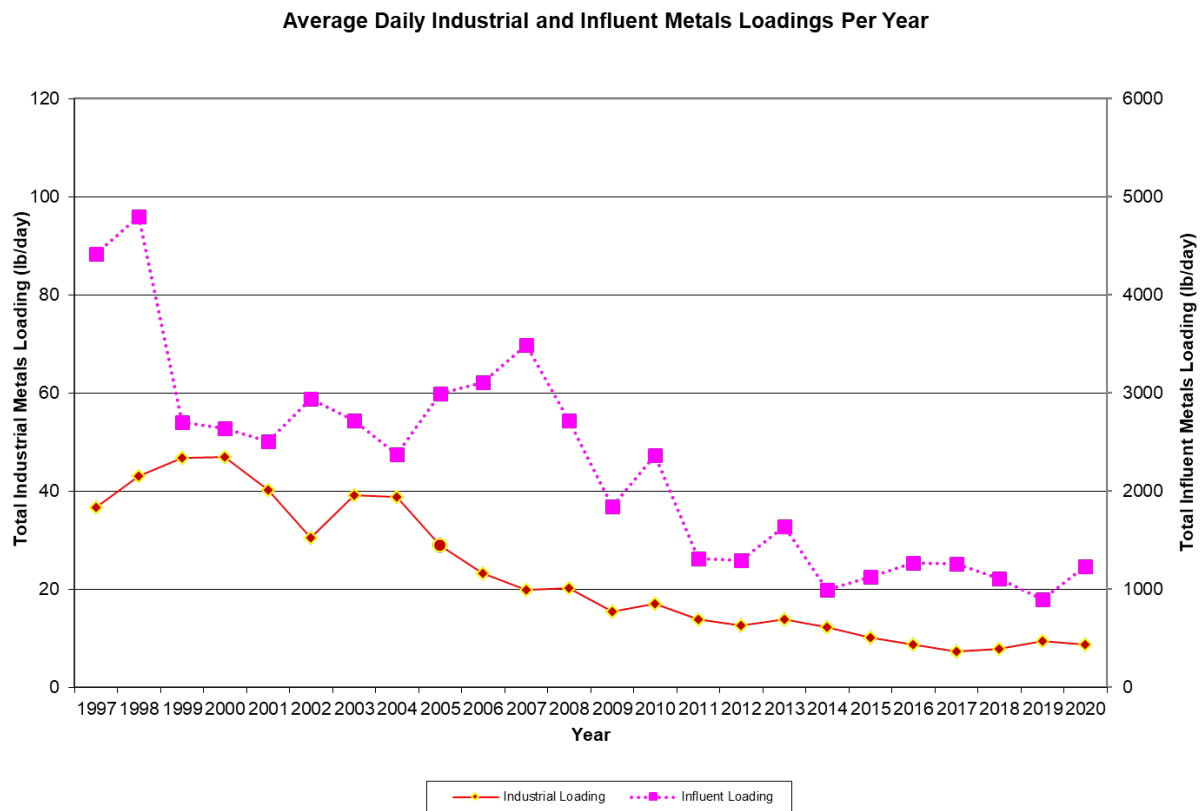
Sincerely,

Leslie Lipton, Esq., Chief
Division of Pollution Control and Monitoring

Enc. Industrial User Self Monitoring Report Form
Sample Laboratory Report Form



Appendix 6.2: EXHIBIT 2 – TRENDS IN METALS LOADINGS TO NEW YORK CITY WRRFs



Appendix 7.1: BWSO

- Appendix 7.1.1: Table 7.1-A - CY2020 Catch Basin Survey & Cleaning
- Appendix 7.1.2: Table 7.1-B CY2020 Catch Basin Hooding

Appendix 7.2: BWT

:

- Appendix 7.2.1: Table 7.2-A - City-Wide Floatable Material Recovery
- Appendix 7.2.2: Table 7.2-B - City-Wide Floatable Material Recovery per CSO Site
- Appendix 7.2.3: Table 7.2-C - City-Wide Floatable Material Recovery per Containment Sites
- Appendix 7.2.4: Table 7.3-D - NYC DEP CSO Floatables Removal Program via Skimmer Vessels
- Appendix 7.2.5: Figure 7.2-A - Floatables Booming, Netting, and Offloading Sites
- Appendix 7.2.6: Figure 7.2-B - City-Wide Floatables Material Recovery 2004-2018
- Appendix 7.2.7: Figure 7.2-C - NYC DSNY Scorecard 2017

Appendix 6.3: BWSO

Appendix 7.1.1: Table 7.1-A - CY2020 Catch Basin Survey & Cleaning

Borough	Total CB Inspections	Scheduled CB Cleanings	Complaint Based CB Cleaned	Total CB Cleaned
Bronx	7,899	3,228	285	3,513
Brooklyn	12,051	4,795	1,322	6,117
Manhattan	5,995	3,134	583	3,717
Queens	23,621	14,170	2,467	16,637
Staten Island	9,923	3,430	364	3,794
Total	59,489	28,757	5,021	33,778

Appendix 7.1.2: Table 7.1-B - CY2020 Catch Basin Hooding

Wastewater Resource Recovery Facility (WRRF) Drainage Area	Quantity
26th Ward	49
Bowery Bay	60
Coney Island	150
Hunts Point	19
Jamaica	723
Newtown Creek	126
North River	166

Oakwood Beach	230
Owls Head	140
Port Richmond	115
Red Hook	31
Rockaway	116
Tallman Island	98
Wards Island	101
Total	2,124

Appendix 7.2: BWT

Appendix 7.2.1: Table 7.2-A - City-Wide Floatable Material Recovery 2004-2020

	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
No. Sites⁽¹⁾																	
FCP ⁽²⁾																	
Permanent	21.00	21.00	22.00	21.00	21.00	24.00	23.00	23.00	23.00	23.00	23.00	22.00	22.00	22.00	22.00	22.00	22.00
FCP Temporary ⁽³⁾	2.00	2.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Other Sites								N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	2.00	2.00	3.00	4.00	4.00	3.00	12.00	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	25.00	25.00	26.00	27.00	27.00	29.00	36.00	24.00	24.00	24.00	24.00	23.00	23.00	23.00	23.00	23.00	23.00
Volume [cy]⁽⁴⁾																	
FCP Permanent	1,460.00	1,047.50	1,614.50	2,131.30	1,881.75	1,368.75	1774.50	1,988.25	1,384.00	921.00	437.75	246.5	454.625	579.625	513.00	349.50	444.75
FCP Temporary	2.00	3.00	18.00	25.50	18.25	1.00	5.00	1.50	9.00	6.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Other Sites								N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	32.00	80.25	70.50	151.50	136.50	207.50	523.00	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Total	1,494.00	1,130.75	1,703.00	2,308.30	2,036.50	1,577.25	2,302.50	1,989.75	1,393.00	927.00	437.75	246.50	454.625	579.625	513.00	349.50	444.75

⁽¹⁾ Maximum number of sites operating during calendar year period.

⁽²⁾ Floatables Containment Program.

⁽³⁾ “Temporary” status refers to sites which do not have a permanent floatables containment installation - Gowanus Canal.

⁽⁴⁾ Total volume of floatables retrieved from sites during period

Appendix 7.2.2: Table 7.2-B - City-Wide Floatable Material Recovery Per CSO Floatable Containment Sites, 2020

Month-Year	FRESH CREEK	BERGEN BASIN	THURSTON BASIN	FLUSHING BAY I	FLUSHING BAY II	FLUSHING CREEK I	FLUSHING CREEK II	BRONX RIVER	CRYDERS POINT	HENDRIX CREEK	ENGLISH KILLS	CONEY ISLAND	GOWANUS CANAL
Jan-20	0	0	0	0	0	0	0	0	0	0	0	0	0
Feb-20	0	0	0	0	0	0	0	48	0	0	0	0	0
Mar-20	6	24	0	0	0	0	1	25	2	0	0	0	0
Apr-20	2	0	0	0	0	0	0	36	0	0	0	0	0
May-20	6	0	3	0	0	0	0	75	0	0	0	0	0
Jun-20	0	9	0	0	0	0	2	34	1	0	1	0	0
Jul-20	0	0	0	0	0	0	0	27	0	0	0	0	0
Aug-20	0	0	0	0	0	0	0	12	0	0	0	0	0
Sep-20	1	0	0	0	0	0	1.5	0	0	0	0	0	0
Oct-20	0	0	0	0	0	0	0	36	0	0	0	0	0
Nov-20	0	0	0	0	0	0	0	18	0	0	0	0	0
Dec-20	0	0	0	0	0	0	0	48	0	0	0	0	0
2020 Total	15	33	3	0	0	0	4.5	359	3	0	1	0	0

Month-Year	MA SPETH CREEK	BOWERY BAY	BUSHWICK INLET	EAST BRANCH	HUNTS POINT		OWLS HEAD	WALLABOUT 1	WALLABOUT 2	WESTCHESTER CREEK	CLASON POINT	OUTSIDE CONTAINMENT (1)	2020 Total
Jan-20	0	0	0	0	0		0	0	0	0	0	0	0
Feb-20	0	0	0	0	0		0	0	0	0	0	0	48
Mar-20	0	0	0	0	0		0	0	0	0	0	0	58
Apr-20	0	0	0	0	0		0	0	0	0	0	0	38
May-20	0	0	0	0	0		0	0	0	0	0	6	90
Jun-20	0.5	0	0	0.25	0		0	0	0	0	0	0	47.75
Jul-20	0	0	0	0	0		0	0	0	0	0	7	34
Aug-20	0	0	0	0	0		0	0	0	0	0	0.5	12.5
Sep-20	0	0	0	0	0		0	0	0	0	0	6	8.5
Oct-20	0	0	0	0	0		0	0	0	0	0	6	42
Nov-20	0	0	0	0	0		0	0	0	0	0	0	18
Dec-20	0	0	0	0	0		0	0	0	0	0	0	48
2020 Total	0.5	0	0	0.25	0		0	0	0	0	0	25.5	444.75

Appendix 7.2.3: Table 7.2-C - City-Wide Floatable Material Recovery While Navigating to Containment Sites, 2020

Month-Year	BRONX RIVER	WHALE CREEK	NEWTOWN CREEK	SHEEPSHEAD BAY	2020 Total
Jan-20	0	0	0	0	0
Feb-20	0	0	0	0	0
Mar-20	0	0	0	0	0
Apr-20	0	0	0	0	0
May-20	0	0	0	6	6
Jun-20	0	0	0	0	0
Jul-20	2	2	3	0	7
Aug-20	0	0.5	0	0	0.5
Sep-20	3	1.5	1.5	0	6
Oct-20	1	0	5	0	6
Nov-20	0	0	0	0	0
Dec-20	0	0	0	0	0
2020 Total	6	4	9.5	6	25.5

Appendix 7.2.4: Table 7.3-D - NYCDEP CSO Floatables Removal Program via Skimmer Vessels Collection Summary

MONTH	ZONE I	ZONE II/III	ZONE IV	TOTAL
January	0	0	0	0
February	0	0	48	48
March	30	0	28	58
April	2	0	36	38
May	15	0	75	90
June	9	1.75	37	47.75
July	0	5	29	34
August	0	0.5	12	12.5
September	1	3	4.5	8.5
October	0	5	37	42
November	0	0	18	18
December	0	0	48	48
2020 TOTAL YTD	57	15.25	372.5	444.75

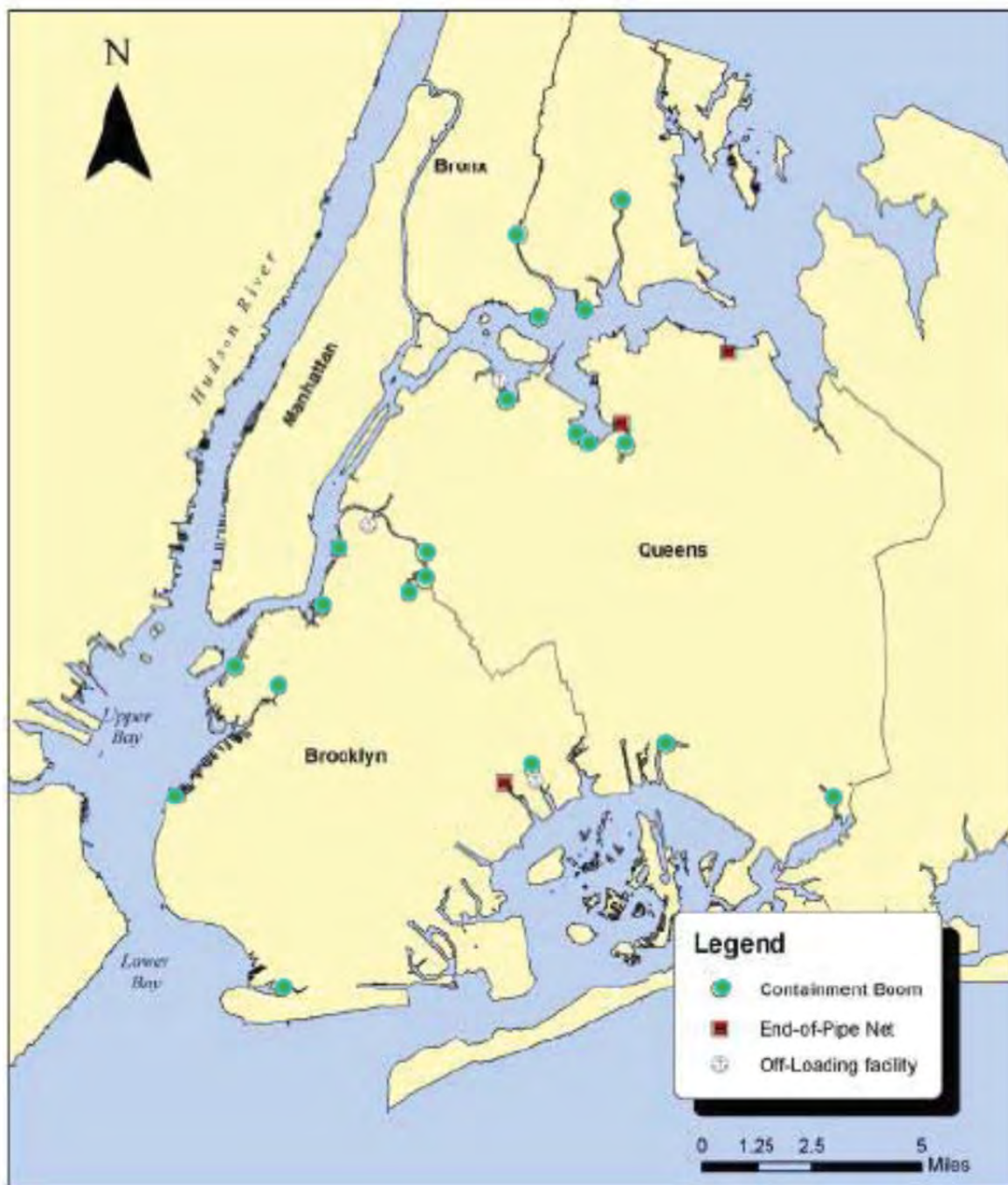
ZONE I	ZONE II/III	ZONE IV
	CONEY ISLAND	BOWERY BAY
FRESH CREEK	OWLS HEAD	FLUSHING BAY I
HENDRIX CREEK	GOWANUS CANAL	FLUSHING BAY II
BERGEN BASIN	WALLABOUT I	FLUSHING CREEK I
THURSTON BASIN	WALLABOUT II	FLUSHING CREEK II
GRAVESEND BAY	BUSHWICK INLET	WESTCHESTER CREEK
SHEEPSHEAD BAY	UPPER NY BAY	CLASON POINT
JAMAICA BAY	MASPETH CREEK	BRONX RIVER
	EAST BRANCH	HUNTS POINT
	ENGLISH KILLS	CRYDERS LANE
	WHALE CREEK	EAST RIVER
	NEWTOWN CREEK	BOWERY BAY



Red - Open Water

Blue - Temporary site

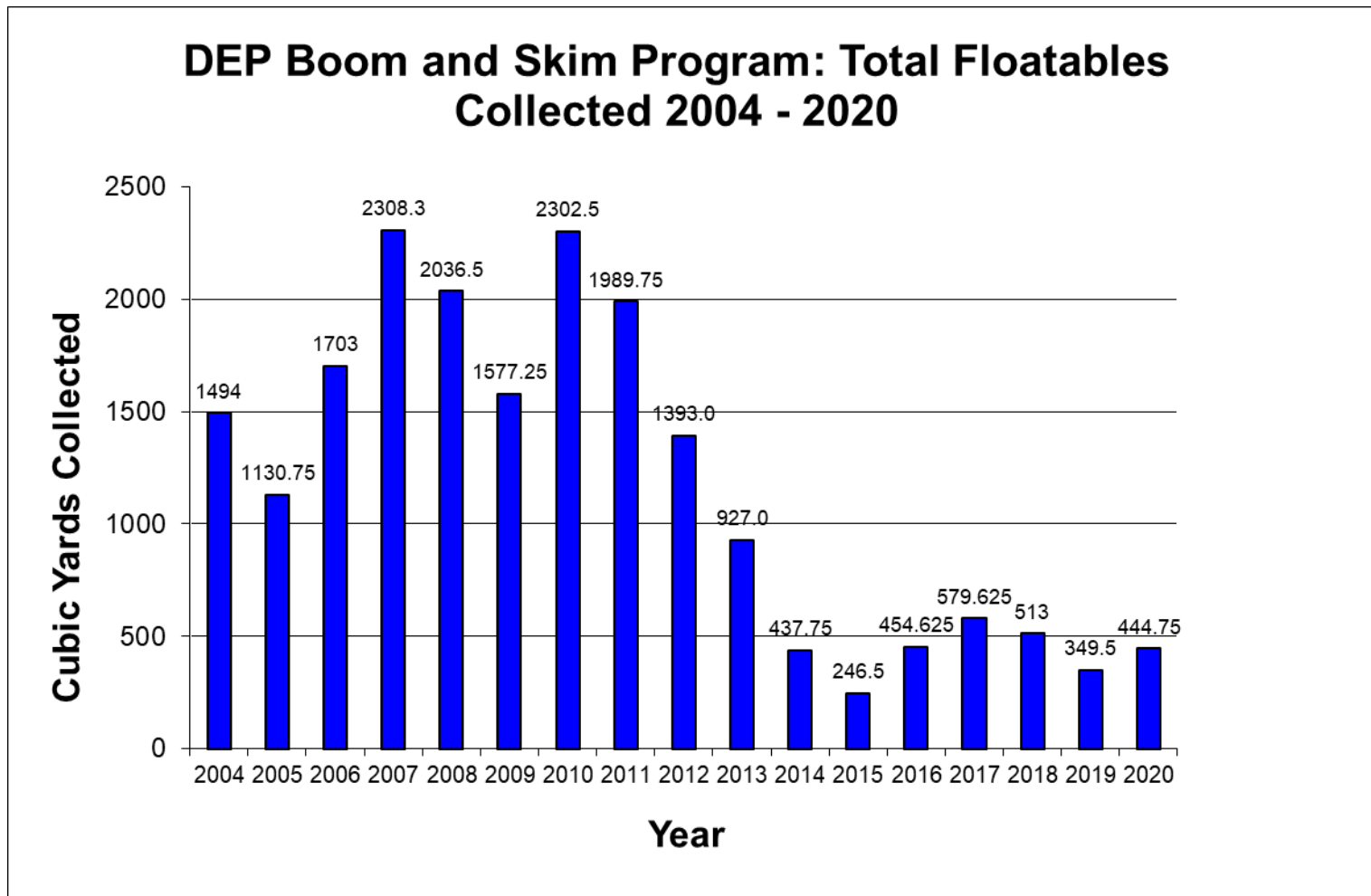
Black - CSO floatable containment

Appendix 7.2.5: Figure 7.2-A - Floatables Booming, Netting, and Offloading Sites



 <p>1200 MacArthur Boulevard Mahwah, New Jersey 07430 (201) 328-0101 F (201) 328-0728</p>	<p>Figure 7-2 Floatables Booming, Netting and Offloading Sites</p> <p>Annual Report on Best Management Practices for CSO's</p>	
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Appendix 7.2.6: Figure 7.2-B - City-Wide Floatables Material Recovery 2004-2020



Appendix 7.2.7: Figure 7.2-C - NYC DSNY Scorecard Fiscal 1975 - 2020