

CHAPTER 3

HARLEM RIVER

The Harlem River flows from its intersection with the Hudson River at Spuyten Duyvil to its convergence with the East River, which for this Report has been designated as occurring at the leg of the Triborough Bridge between Manhattan and the Bronx. The Bronx Kill, a small waterbody that separates the Bronx from the northern end of Randalls Island, has also been included in this chapter. The Harlem River, like the East River, is contained entirely within the State of New York. The Commission's classification of the Harlem River is "B-1." It was upgraded by the Commission from "B-2" to "B-1", with portions of the East River, in 1986.

Approximately 48 combined sewer outfalls discharge into the Harlem River and Bronx Kill. These CSOs are primarily in the Wards Island drainage basin, although 12 outfalls on the upper part of the River fall within the North River drainage basin (permit NY0026247). The outfalls in this area are shown on Map 3-1 and listed on Table 3-1.

Bronx Kill

Three outfalls from the Wards Island drainage basin discharge into the Bronx Kill: 068, 069, and 073. All three of these outfalls have been inspected for the Task 2.5.2. Outfall 068 is large measuring 12' x 9'10". The inspection report for outfall 073 at St. Anns Avenue in the Bronx and Bronx Kill noted that it contained "heavy silt" and "autoparts."¹ This outfall is a 12' diameter double outfall.

Harlem River Above Triborough Bridge to Highbridge Park

The segment of the Harlem River above the Triborough Bridge to the drainage area boundary of Wards Island and North River contains 25 CSOs, all of which are within the Wards Island drainage basin. Ten of these are on the



BRONX

HUDSON RIVER
MANHATTAN

Wards Island

NORTH RIVER
HARLEM RIVER
Bronx Kill
EAST RIVER

LEGEND:

●	POTW Location
■ 002	Approximate Outfall Location
- - - - -	Segment Boundary
— — — — —	Sub-segment Boundary
- - - - -	POTW Drainage Area Boundary
004/003	1 Outfall with 2 SPDES Numbers

MAP 3-1

TABLE 3-1

COMBINED SEWER OUTFALLS IN THE HARLEM RIVER
WATERWAY SEGMENT 3Treatment Plant Drainage Basin: Wards Island, NY0026131¹

MANHATTAN

Outfall SPDES	Number Local	Location of Outfall		Size	Comments/ Notes
036	R-36	E. 129th Street	Harlem River	42" dia.	
037	R-37	E. 130th Street	" "	2'8" x 4'	3
038	R-38	E. 135th Street	" "	8'6" x 6'	3
039	R-39	E. 140th Street	" "	2'8" x 4'	3
040	R-40	W. 141st Street	" "	2'4" x 5'	3
041	R-41	W. 142nd Street	" "	2'8" x 4'	3
042	R-42	W. 143rd Street	" "	2'4" x 3'6"	3
044	R-44	W. 45th Street	" "	5' x 6'	3
045	R-45	W. 149th Street	" "	72" dia.	3
046	R-46	W. 151st Street	" "	8'6" x 8'	3
047	R-47	W. 154th Street	" "	2'8" x 4'	3
048	R-48	W. 155th Street	" "	2'4" x 4'	3
050	R-50	W. 156th Street	" "	2'8" x 4'	3
051	R-51	W. 167th Street	" "	48" dia.	3
052	R-52	W. 176th Street	" "	5' x 5'	3

¹ SPDES number assignment, street location, and size are taken from the Wards Island permit, Part I, pages 9 and 10 of 33.

² "NYC Outfall Table." Wards Island. October 6, 1988; See also, "Supplemental Memo." Outfall Table 2. June 1985.

³ Inspected as part of Task 2.5.2.

TABLE 3-1. (continued)

Treatment Plant Drainage Basin: Wards Island, NY0026131 (continued)

BRONX

Outfall Number		Location of Outfall		Size	Comments/ Notes
SPDES	Local				
049	R-60A	Jerome Avenue & Macombs Dam Park	Harlem River	8'6"x7'8"*	3
056	R-67	W. 192nd Street	" "	Dbl. 15' x 9'2 1/8" ²	3
057	R-66	Landing Road	" "	66" dia.	3
058	R-65	W. 178th Street	" "	57" dia.	3
059	R-64	W. 176th Street	" "	45" dia.	
060	R-62	Webster Avenue	" "	14' x 11'	3
061	R-61	W. 167th Street	" "	42" dia.	3
062	R-60	Jerome Avenue	" "	10' x 8'6"	3
063	R-72	s/o Macombs Dam Br.	" "	48" dia.	3
064	R-59	E. 149th Street	" "	60" dia.	3
065	R-57	Park Avenue	" "	36" dia.	3
066	R-56	Third Avenue	" "	2'8" x 4'	3
067	R-55	Lincoln Avenue	" "	60" dia.	3
068	R-53,54	Brook Avenue	Bronx Kill	12' x 9'10"	3
069	R-71	Cypress Avenue	" "	2'2" x 3'	3
073	R-73	St. Anns Avenue	" "	Dbl.12' dia	

* This dimension is taken from DRAFT, Task 2.5.2, Table 3A.

TABLE 3-1 (continued)

Treatment Plant Drainage Basin: Wards Island, NY0026131 (continued)

BRONX

Outfall Number		Location of Outfall		Size	Comments/ Notes
SPDES	Local				
074	CSO	Landing Avenue	Harlem River	72" dia.	
075	R-58	E. 138th Street	" "	12' x 6'3"	3
076	MH-1	n/o Bradley Terrace	" "	54" dia.	3
077	MH-2	Ewen Avenue	" "	8'6" x 7'	3
078	MH-3	W. 225th Street	" "	4'6" x 5'	3

TABLE 3-1 (continued)

Treatment Plant Drainage Basin: North River, NY0026247⁴

Outfall Number		Location of Outfall		Size	Comments/ Notes
SPDES	Local				
007	N-15	W. 218th Street	Harlem River	4' x 2'4"	
008	N-14	W. 216th Street	" "	4' x 5'	
009	N-13	W. 215th Street	" "	2'4" x 3'6"	
010	N-10, N-11, N-12	W. 211th Street	" "	4'1" x 4'6"	3
011	N-9	W. 209th Street	" "	48" dia.	
012	N-7, N-8	W. 207th Street	" "	2'4" x 3'6"	Two Outfalls*
013	N-6	W. 206th Street	" "	2'4" x 3'6"	
014	N-5	W. 205th Street	" "	48" dia.	
016	N-4	W. 203rd Street	" "	2'4" x 3'6"	
017	N-3	W. 201st Street	" "	4' x 6'	3
018	N-1	Highbridge Park	" "	48" dia.	
045	N-2	Academy Street	" "	Dbl. 7' x 6'	

⁴ SPDES number assignment, street location, and size are taken from the North River permit, Part I, page 9 of 33.

* Information from Task 1-Drawings, North River. pp. NR-35, NR-40.

Bronx side of the River and fifteen are on the Manhattan side. Twenty-four of these were inspected either visually or by television for Task 2.5.2. The outfall not inspected was outfall 036, at 129th Street and the Harlem River, which, according to the Summary Report, bypasses in wet weather due to inadequate capacity in the R-36 regulator.²

Of the 24 outfalls inspected for the Task 2.5.2, the inspection reports on four of them noted some amount of debris accumulated in the outfall pipe. In addition, some structural problems were also noted. Outfall 051 was listed as being in "poor condition." Outfall 061 was specifically in need of repair with "severe cracks in the ceiling." Outfall 063 was characterized as "collapsed" with heavy silt.³ Dry weather bypassing has been identified in two of the regulators in this segment due to inadequate equipment.⁴ These regulators are associated with outfalls 060 and 075. Outfall 060 is the largest outfall in this subsegment, measuring 14' x 11'. Other large outfalls include 038, 045, 046, 049, 062, and 075. Their dimensions are contained in Table 3-1.

One apparent outfall discrepancy in this subsegment should be noted. The permit issued in 1983 placed 049 at 156th Street and the Harlem River and 050 at 159th Street and the Harlem River. In the Task 2.5.2, the street locations were reversed, so that 050 was located at 156th Street. Both outfalls, according to the Task 2.5.2, measure 2'8" x 4'.⁵ In the "Supplemental Memo", the 049 outfall disappeared. According to the "Supplemental Memo", SPDES number 049 was assigned to a regulator or an outfall not in service.⁶ Consequently, in the "Supplemental Memo" and the permit renewal, 049 was assigned to the outfall for R-60A,⁷ which is apparently adjacent to the outfall for R-60. No dimensions are listed in the permit for this outfall, however. Moreover, reference to Task 1 leaves a question as to whether two outfalls actually exist or whether there is only one at that location.⁸

Uppermost Segment of the Harlem River

There are 20 outfalls into the remaining segment of the Harlem River to its confluence with the Hudson River. Eight of these, on the Bronx side of the Harlem River, are in the Wards Island drainage basin. The twelve on the Manhattan side of the River fall within the North River drainage basin. Eight of the 20 have been inspected for the Task 2.5.2. A number of outfalls within the Wards Island drainage basin are relatively large. Outfall 056 is comprised of two pipes each measuring 15' x 9'2 1/8". Outfalls 057 and 077 measure 66" in diameter and 8'6" x 7', respectively. The outfall for 078 measures 4'6" x 5'. One other relatively large discharge point in the Wards Island drainage basin is 074 at Landing Avenue. It measures 72" in diameter and is adjacent to 057.

The two North River drainage basin discharge points in this subsegment which have been inspected are outfalls 010 and 017. Outfall 017, at West 201st and the Harlem River, appears in the Task 2.5.2 as a 4' x 6' outfall "in poor shape."⁹ Outfall 010, at approximately West 211th Street and the Harlem River, is a 4'1" x 4'6" outfall with "heavy debris."¹⁰ Both 017 and 045 are identified in the Summary Report as having inadequate equipment in the regulators, leading to dry weather bypass.¹¹ Outfall 045 is a double 7' x 6' discharge point.

Of these ten uninspected outfalls contained within the North River drainage basin, there is a question on only one of these that should be resolved. It is unclear whether outfall 012 is one outfall pipe or two. Old sewer maps, information obtained from Commission records, and at least one City document indicate that two distinct outfalls exist, one for R-8 on the north side of West 207th Street and one for R-7 on the south side of West 207th Street.¹²

CONCLUSION

The Harlem River is a relatively short and narrow strait that provides a vital connection between the East River and the Hudson River. As evidenced by the recent upgrading of its classification, the water quality in the Harlem River has improved in recent years. However, as a river 8 miles long with 48 CSOs, some of which are quite large, it easily ranks as a highly stressed waterbody during wet weather overflows. This pollutant loading does not only effect the water quality of the Harlem River, but, because of its proximity to the Hudson River undoubtedly effects water quality in that waterbody as well. Degradation in the Harlem River may, in fact, be one reason that swimming is not yet possible along the upper Hudson River.

Because of the concentration of overflows in this area, these CSOs should receive some attention. Abatement, and where possible elimination, of any number should lead to an improvement in water quality. Coordination of efforts for the Harlem River may be somewhat simpler than for most waterbodies in the District because it falls entirely within the City of New York and involves only two drainage basins. Steps toward this goal would be one recommendation by the Commission.

FOOTNOTES

- ¹ New York City Department of Environmental Protection. Regulator Improvement Program, Task 2.5.2 - Outfall Inspection. Prepared by Hazen and Sawyer. April 1985. Table 3.
- ² New York City Department of Environmental Protection. Summary Report, City-Wide Regulator Improvement Program Inventory and Assessment. Prepared by Hazen and Sawyer. April 1985. p. 3-215.
- ³ Task 2.5.2 - Outfall Inspection. Table 3.
- ⁴ Summary Report. p. 3-216.
- ⁵ Task 2.5.2 - Outfall Inspection. Table 3.
- ⁶ New York City Department of Environmental Protection. "New York City Regulator Improvement Program, Supplemental Memo, State Pollutant Discharge Elimination System (SPDES) Permit Discrepancies." Prepared by Hazen and Sawyer. April 1985. Table 2, n.2.
- ⁷ Ibid. Table 2.
- ⁸ Task 1 - Drawings, Wards Island. pp. W1B-40, W1B-45.
- ⁹ Task 2.5.2 - Outfall Inspection. Table 3.
- ¹⁰ Ibid.
- ¹¹ Summary Report. p. 3-216.
- ¹² Task 1 - Drawings, North River. pp. NR-35, NR-40.