REPORT OF CHANNEL CONDITIONS (FOR CHANNELS 400 FEET WIDE OR GREATER)

 PAGE
 1
 OF
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 DATE
 5 February 2016

TO: The Record U.S. Army Corps of Engineers

26 Federal Plaza, ATTN: CENAN-OP-ST

New York, NY 10278-0090

RIVER/HARBOR NAME AND STATE:

Harlem River, New York

MINIMUM DEPTHS IN EACH ¼ WIDTH OF CHANNEL ENTERING FROM SEAWARD

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NAME OF CHANNEL	DATE OF SURVEY	AUTHORIZED PROJECT			LEFT OUTSIDE	LEFT INSIDE	RIGHT INSIDE	RIGHT OUTSIDE
		WIDTH (feet)	LENGTH (n miles)	DEPTH (feet)	QUARTER (feet)	QUARTER (feet)	QUARTER (feet)	QUARTER (feet)
Reach A: From approximately the seaward end of the 103 Street Footbridge to approximately 550 feet landward of the Third Avenue Bridge	Map 38, Sheets 2 thru 9 of 28; 2-8 May 2015	400	1.60	15	2.2	7.9	12.9	2.6
Reach B: From approximately 550 feet landward of the Third Avenue Bridge to approximately 1,770 feet seaward of the University Heights Bridge (207 Street Bridge)	Map 38, Sheets 9 thru 20 of 28; 2-8 May 2015	400-354	3.17	15	9.5	12.1	9.3	4.6
Reach C: From approximately 1,770 feet seaward of University Heights Bridge (207 Street Bridge) to the approximate location of the Broadway Bridge	Map 38, Sheets 20 thru 25 of 28; 2-8 May 2015	400-350	1.03	15	8.8	9.7	13.2	1.6
Reach D (18 Foot Project): From the approximate location of the Broadway Bridge to a point approximately 1,250 feet landward of the start of this reach	Map 38, Sheet 25 of 28; 2-8 May 2015	350	0.21	18	15.2	16.8	15.8	14.8
Reach D (15 Foot Project): From approximately 1,250 feet landward of the Broadway Bridge to the approximate location of the Spuyten Duyvill R.R. Bridge	Map 38, Sheets 25 thru 27 of 28; 2-8 May 2015	350-400	0.54	15	10.2	16.0	15.2	1.6
Reach E: From the approximate location of the Spuyten Duyvill R.R. Bridge to the junction of the Harlem River with the Hudson River, approximately 550 feet landward of the start of this reach	Map 38, Sheets 27 & 28 of 28; 2-8 May 2015	400	0.10	15	14.6	18.5	18.5	14.2

REMARKS:

- All reported depths are relative to Mean Lower Low Water datum.
- Channel reach lengths are in nautical miles.

HARLEM RIVER:

• Reach A: Shoaling exists at the entrance of the channel approximately at the 103 Street Footbridge in the Right Outside and Right Inside Quarters, continuing approximately 250 feet landward, thence tapering into the Right Outside Quarter for approximately 1,140 feet landward. Shoaling exists in the Left Outside Quarter commencing approximately 1,520 feet landward of the 103 Street Footbridge, thence tapering in the Left Inside Quarter, extending 2,100 feet landward and then tapering back into the Left Outside Quarter for approximately 630 feet landward. Shoaling exists in the Left Outside Quarter commencing approximately 1,320 feet seaward of the Robert F. Kennedy Bridge and continues landward for approximately 810 feet, having a maximum width of approximately 55 feet. Shoaling exists in the Right Outside Quarter commencing approximately 2,000 feet seaward of the Robert F. Kennedy Bridge and continues approximately 810 feet landward. Shoaling exists in the Right Outside Quarter, continuing approximately 650 feet seaward of the Robert F. Kennedy Bridge, partially extending into the Right Inside Quarter, continuing approximately 1,600 feet landward, having a maximum width of approximately 140 feet. Shoaling exists along the channel's toe in the Right Outside Quarter commencing approximately 190 feet landward of the Willis Ave Bridge and continues approximately 225 feet landward, having a maximum width of approximately 20 feet. Shoaling commences along the channel's toe in the Left Outside Quarter approximately 440 feet landward of the Willis Ave Bridge and continues approximately 1,200 feet landward, having a maximum width of approximately 55 feet.

HARLEM RIVER (continued): Page 2 of 2

Shoaling then exists along the channel's toe in the Left Outside Quarter commencing approximately 575 feet landward of the Third Ave Bridge and continues approximately 110 feet landward to the end of the reach, having a maximum width of approximately 20 feet.

- Reach B: Shoaling exists in the Left Outside Quarter commencing approximately 365 feet seaward of the Park Ave Bridge and continues landward to the same bridge, having a maximum width of approximately 15 feet. Shoaling exists across the Left Inside and Right Inside Quarters commencing approximately 70 feet seaward of the 145 Street Bridge and continuing landward approximately 25 feet, having a maximum width of approximately 90 feet. Shoaling exists along the channel's toe in the Left Outside Quarter commencing approximately 230 feet landward of the 145 Street Bridge and continues approximately 575 feet landward, having a maximum width of approximately 50 feet. Shoaling exists in the Left Outside Quarter, along the channel's tow commencing approximately 1,230 feet seaward of the Macombs Dam Bridge and continues landward for approximately 135 feet, having a maximum width of approximately 55 feet. Shoaling exists along the channel's toe in the Left outside Quarter commencing approximately 780 feet landward of the Macombs Dam Bridge and continues landward for approximately 420 feet, having a maximum width of approximately 50 feet. Shoaling exists along the channel's toe in the Right Outside Quarter commencing approximately 1,620 feet landward of the Macombs Dam Bridge and continues landward for approximately 1,280 feet, having a maximum width of approximately 45 feet. Shoaling continues along the channel's toe in the Right Outside Quarter commencing approximately 3,235 feet landward of the Macombs Dam Bridge and continues landward for approximately 2,000 feet, partially extending into the Right Inside Quarter, having a maximum width of approximately 125 feet. Shoaling exists in the Left Outside, Left Inside and Right Inside Quarters commencing approximately 2,660 feet seaward of the Alexander Hamilton Bridge and continues landward for approximately 100 feet, having a maximum width of approximately 165 feet. Shoaling exists along the channel's toe in the Right Outside Quarter commencing approximately 100 feet landward of the Washington Bridge and continues landward for approximately 715 feet, having a maximum width of approximately 60 feet. Shoaling exists along the channel's toe in the Right Outside Quarter commencing approximately 1,600 feet landward of the Washington Bridge and continues landward for approximately 465 feet, having a maximum width of approximately 25 feet.
- Reach C: Shoaling exists in the Right Outside Quarter, along the channel's toe, commencing approximately 1,100 feet seaward of the University Heights Bridge and continues landward for approximately 510 feet, having a maximum width of approximately 90 feet. Shoaling exists in the Right Inside and Right Inside Quarters commencing approximately 950 feet seaward of the University Heights Bridge and continues approximately 90 feet landward, having a maximum width of approximately 60 feet. Shoaling exists in the Right Outside Quarter, along the channel's toe, commencing approximately 695 feet landward of the University Heights Bride and continues landward for approximately 2,075 feet, having a maximum width of approximately 80 feet. Additional shoaling exists in the Right Outside Quarter commencing approximately 1,050 feet seaward of the Broadway Bridge and continues landward for approximately 360 feet, having a maximum width of approximately 25 feet. Shoaling exist along the channel's tow in the Left Outside Quarter and extending into the Left Inside Quarter commencing approximately 1,475 feet seaward of the Broadway Bridge and continues landward to the same bridge, having a maximum width of approximately 155 feet.
- Reach D (18 Foot Project): Shoaling exists along the channel's toe in the Left Outside Quarter commencing approximately at the Broadway Bridge and continues landward for approximately 755 feet, having a maximum width of approximately 80 feet. Additional shoaling exists in the Right Outside Quarter commencing approximately 1,100 feet landward of the Broadway Bridge and continues approximately 230 feet landward and having a maximum width of approximately 50 feet.
- Reach D (15 Foot Project): Shoaling exists in the Right Outside Quarter commencing approximately 1,070 feet landward of the Broadway Bridge and continues landward for approximately 370 feet, having a maximum width of approximately 100 feet. Shoaling then exists along the channel's toe in the Left Outside Quarter commencing approximately 1,740 feet seaward of the Henry Hudson Bridge and continues landward for approximately 250 feet, having a maximum width of approximately 30 feet. Shoaling exists along the channel's toe in the Right Outside Quarter commencing approximately 600 feet seaward of the Henry Hudson Bridge and continues landward for approximately 200 feet, having a maximum width of approximately 20 feet. Thence, shoaling continues in the Right Outside Quarter along the channel's toe, commencing approximately 70 feet seaward of the Henry Hudson Bridge and continues landward for approximately 910 feet, having a maximum width of approximately 65 feet. Shoaling exists in the Left Outside Quarter commencing approximately 630 feet seaward of the Spuyten Duvil R.R. Bridge and continues landward for approximately 200 feet. Shoaling then exists along the channel's toe in the Left Outside Quarter commencing approximately 1,740 feet seaward of the Henry Hudson Bridge and continues landward for approximately 250 feet, having a maximum width of approximately 30 feet. Shoaling exists along the channel's toe in the Right Outside Quarter commencing approximately 600 feet seaward of the Henry Hudson Bridge and continues landward for approximately 200 feet, having a maximum width of approximately 20 feet. Thence, shoaling continues in the Right Outside Quarter along the channel's toe, commencing approximately 70 feet seaward of the Henry Hudson Bridge and continues landward for approximately 910 feet, having a maximum width of approximately 65 feet. Shoaling exists in the Left Outside Quarter commencing approximately 630 feet seaward of the Spuyten Duvil R.R. Bridge and continues landward for approximately 200 feet.
- Reach E: Shoaling does not exist in this reach.