

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

DATE 24 September 2021

TO:
The Record

FROM: U.S. Army Corps of Engineers
26 Federal Plaza, ATTN: CENAN-OP-ST
New York, NY 10278-0090

RIVER/HARBOR NAME AND STATE: New York and New Jersey Channels;
Arthur Kill, NY & NJ

**MINIMUM DEPTHS IN EACH ¼ WIDTH OF
CHANNEL ENTERING FROM SEAWARD**

NAME OF CHANNEL	DATE OF SURVEY	AUTHORIZED PROJECT			LEFT OUTSIDE QUARTER (feet)	MID-CHANNEL		RIGHT OUTSIDE QUARTER (feet)
		WIDTH (feet)	LENGTH (n miles)	DEPTH (feet)		LEFT INSIDE QUARTER (feet)	RIGHT INSIDE QUARTER (feet)	
Reach D: Begins at the approximate location of RED #18 W/LIGHT FLOOD and continues to approximately 830 feet landward of RED #24 EBB.	File No. 5103, Pg. 20-22 of 22; 18-31 Dec 2020, 4-7, 15, 19 Jan 2021, 16-17 Aug 2021, 7, 9, Sep 2021	550 – 1200	1.07	50	43.5	46.3	49.1	46.6
Reach F: Begins approximately 830 feet landward of RED #24 EBB and continues to approximately 240 feet seaward of the STATEN ISLAND R.R./CONRAIL BRIDGE.	File No. 5103, Pg. 18-20 of 22; 18-31 Dec 2020, 4-7, 15, 19 Jan 2021, 16-17 Aug 2021, 7, 9, Sep 2021	500 – 700	0.93	50	46.2	51.2	49.6	47.1
Reach G: Begins approximately 240 feet seaward of the STATEN ISLAND R.R./CONRAIL BRIDGE and continues for approximately 4,360 feet.	File No. 5103, Pg. 17-18 of 22; 18-31 Dec 2020, 4-7, 15, 19 Jan 2021, 16-17 Aug 2021, 7, 9, Sep 2021	500 – 600	0.74	40	27.1	41.4	42.8	41.5
SEAWARD is oriented towards New York Harbor in the preceding reaches and to Raritan Bay in the following reaches.								
Reach H: Begins at the approximate location of RED #36 W/LIGHT FLOOD and continues to approximately 1,555 feet landward of GREEN #43 W/LIGHT EBB.	File No. 5103, Pg. 14-17 of 22; 18-31 Dec 2020, 4-7, 15, 19 Jan 2021, 16-17 Aug 2021, 7, 9, Sep 2021	500 – 770	1.67	35	26.4	35.1	36.2	27.8
Reach I: Begins at the approximate location of RED #30 W/LIGHT EBB and continues to the approximate location of RED #36 W/LIGHT FLOOD.	File No. 5103, Pg. 12-14 of 22; 18-31 Dec 2020, 4-7, 15, 19 Jan 2021, 16-17 Aug 2021, 7, 9, Sep 2021	500 – 600	0.85	35	28.2	36.2	36.0	32.3
Reach J: Begins at the approximate location of GREEN #21 W/LIGHT FLOOD and continues to the approximate location of RED #30 W/LIGHT EBB.	File No. 5103, Pg. 9-12 of 22; 18-31 Dec 2020, 4-7, 15, 19 Jan 2021, 16-17 Aug 2021, 7, 9, Sep 2021	500	1.66	35	32.5	35.0	35.7	31.8

<p>Reach K: Begins at the approximate location of GREEN #11 W/LIGHT and continues to the approximate location of GREEN #21 W/LIGHT FLOOD.</p>	<p>File No. 5103, Pg. 5-9 of 22; 18-31 Dec 2020, 4-7, 15, 19 Jan 2021, 16-17 Aug 2021, 7, 9, Sep 2021</p>	<p>500 – 850</p>	<p>1.82</p>	<p>35</p>	<p>27.2</p>	<p>34.9</p>	<p>34.8</p>	<p>24.4</p>
<p>Reach L: Begins approximately 80 feet landward of GREEN #5 W/LIGHT EBB and continues to the approximate location of GREEN #11 W/LIGHT.</p>	<p>File No. 5103, Pg. 4-5 of 22; 18-31 Dec 2020, 4-7, 15, 19 Jan 2021, 16-17 Aug 2021, 7, 9, Sep 2021</p>	<p>600 – 800</p>	<p>0.80</p>	<p>35</p>	<p>34.4</p>	<p>36.0</p>	<p>35.0</p>	<p>32.0</p>
<p>Partial Reach M: Survey coverage begins approximately 640 feet seaward of RED #2 W/LIGHT EBB and continues to approximately 80 feet landward of GREEN #5 W/LIGHT EBB.</p>	<p>File No. 5103, Pg. 2-4 of 22; 18-31 Dec 2020, 4-7, 15, 19 Jan 2021, 16-17 Aug 2021, 7, 9, Sep 2021</p>	<p>600-850</p>	<p>0.96</p>	<p>35</p>	<p>33.9</p>	<p>34.4</p>	<p>35.4</p>	<p>34.4</p>

REMARKS:

- All reported depths are relative to Mean Lower Low Water (MLLW) datum.
- Channel reach lengths are in nautical miles.
- Landward is oriented towards the intersection of Reaches G and H, where authorized project depth changes from 40 to 35 feet.

ARTHUR KILL:

- **REACH D:** Shoaling exists in the Right Outside Quarter extending into the Right Inside Quarter and in the Left Outside Quarter extending into the Left Inside Quarter. The controlling depth of -43.5 feet MLLW exists near the toe of the channel in Left Outside Quarter, approximately 1,465 feet seaward of GREEN/RED JUNCTION "A" FLOOD.
- **REACH F:** Shoaling exists in the Right Outside and Left Outside Quarters. Shoaling also exists at the border between Reach F and Reach G. The controlling depth of -46.2 feet MLLW exists along the toe of the channel in the Left Outside Quarter, approximately 1,755 feet landward from the beginning of this reach.
- **REACH G:** Shoaling exists in the Left Outside Quarter around the GOETHALS BRIDGE abutment. The controlling depth of -27.1 feet MLLW exists along the toe of the channel in the Left Outside Quarter, approximately 840 feet landward of the beginning of this reach.
- **REACH H:** Sporadic shoaling exists along the channel's toe in the Left Outside and Right Outside Quarter and in the Left Outside Quarter. The controlling depth of -26.4 feet MLLW exists along the toe of the channel in the Left Outside Quarter, approximately 1,525 feet seaward of GREEN BOUY #43 W/LIGHT EBB.
- **REACH I:** Sporadic shoaling exists along the channel's toe in the Left Outside and Right Outside Quarter.-The controlling depth of -28.2 feet MLLW exists along the toe of the channel in the Left Outside Quarter, approximately 915 feet seaward of RED #34 W/LIGHT EBB.
- **REACH J:** Edge shoaling exists in the Left Outside Quarter and the Right Outside Quarter. The controlling depth of -31.8 feet MLLW exists along the toe of the channel in the Right Outside Quarter, approximately 2,534 feet seaward of RED #30 W/LIGHT EBB.
- **REACH K:** Sporadic shoaling exists in the Left Inside Quarter and Right Inside Quarter. Shoaling exists in the Left Outside Quarter and the Right Outside Quarter of this reach. The controlling depth of -24.4 feet MLLW exists along the toe of the channel in the Right Outside Quarter, approximately 1,495 feet seaward of RED #20 W/LIGHT FLOOD.
- **REACH L:** Sporadic shoaling exists along the channel's toe of Left Outside Quarter and the Right Outside Quarter. The controlling depth of -32.0 feet MLLW exists along the toe of the channel in the Right Outside Quarter, approximately 70 feet landward of RED #10 W/LIGHT EBB.
- **PARTIAL REACH M:** Sporadic shoaling exists along the channel's toe of the Left Outside Quarter. Sporadic spot shoaling exists in the Left Inside Quarter and Right Outside Quarter. The controlling depth of -33.9 feet MLLW exists at two locations along the toe of the channel in the Left Outside Quarter, approximately 150 feet seaward of Green #5 W/LIGHT EBB, and 1,195 feet seaward of RED #4 W/LIGHT EBB.