

**U.S. ARMY ENGINEER DISTRICT, NEW ENGLAND  
CORPS OF ENGINEERS  
696 Virginia Road  
Concord, Massachusetts 01742-2751**

JANUARY 25, 2008

CENAE-EP-DS (11-2-240a)

MEMORANDUM FOR: See Distribution

SUBJECT: Results of Survey

1. In accordance with department regulations there is enclosed a drawing showing results of survey in the following Federal project:

Merrimack River, MA

2. Controlling depth information for the above project is shown on the enclosed copy of navigation and chart data.

FOR THE COMMANDER:

STEPHEN A. JOHNSTON  
Chief, Survey Section

2 Enclosures:

1. ENG Form 4020-R
2. Dwg. No. MR-179

DISTRIBUTION:

GENERAL

Chief Operations Division, Lyn Preston, Nautical Data Branch/NOAA, N/C26, Station 7350  
1315 East-West Highway, Silver Springs, MD 20910-3282 - 1 copy of drawing, 1 copy of form

USCG Cutter Willow, LT JG Chmielecki - NETC Pier 2 - ATTN: Desiree Atnip, Newport,  
RI 02841 - 1 copy of drawing, 1 copy of form

Capt. E. Howard McVay Jr. - Northeast Marine Pilots Incorporated, 243 Spring Street,  
Newport, RI 02840 - 1 copy of drawing,

  
JOHNSTON  
PROOFREAD

Kevin J. Blount Chief, Waterways Management & Marine Information Section – First Coast  
Guard District 1 (oan) - 408 Atlantic Ave. Boston, MA 02110 – 3350  
1 copy of drawing, 1 copy of form

**MASSACHUSETTS**

(The following address receive information for all project in MASS.)

Director - Kevin P. Mooney - DCR Waterways 349 Lincoln St. Building # 45  
Hingham, MA 02043 1 copy of drawing, 1 copy of form

**REPORT OF CHANNEL CONDITIONS  
100 TO 400 FEET WIDE  
(ER 1130-2-316)**

PAGE 1 OF 2 PAGES

DATE: JANUARY 25, 2008

T0:

**FROM: U.S. Army Corps of Engineers  
New England District  
696 Virginia Road  
Concord, MA. 01742-2751**

RIVER/HARBOR NAME AND STATE: Merrimack River, MA

Dwg. No. MR-179, Sheets 1-27 of 27, Dated 25 January 2008

MINIMUM DEPTHS IN  
CHANNEL ENTERING FROM SEAWARD

NAME OF CHANNEL	DATE OF SURVEY	AUTHORIZED PROJECT			LEFT OUTSIDE QUARTER (feet)	MIDDLE HALF (feet)	RIGHT OUTSIDE QUARTER (feet)
		WIDTH (feet)	LENGTH Nautical (miles)	MLLW DEPTH (feet)			
<b><u>CONDITION SURVEY</u></b> <b><u>7-Foot Channel</u></b>							
From about 345' seaward of U.S. Highway Rte. 1 Bridge upstream about 755'	07-09/04	210 to 95 to 65 to 150	.12	7.0	7.0	7.0	7.0
Thence upstream 12,165'	07-09/04	150	2.00	7.0	7.0	7.0	7.0
Thence upstream 550' (in the vicinity of Essex Merrimac Swing Bridge)	07-09/04	138.31	.09	7.0	7.0	(1) 7.0	7.0
Thence upstream 12,645' to about 720' upstream of Buoy RN-38	07-09/04	150	2.08	7.0	(2) 7.0	7.0	7.0
Thence upstream 730'	07-09/04	150	.12	7.0	5.3	6.5	6.5
Thence upstream 5,934' to about 290' upstream of Buoy RN-42	07-09/04	150	.98	7.0	7.0	7.0	7.0
Thence upstream 325'	07-09/04	150	.05	7.0	7.0	6.2	7.0
Thence upstream 6,580' to about 20' seaward of Buoy GC-45	07-09/04	150	1.08	7.0	(3) 7.0	7.0	7.0
Thence upstream 8,846' to about 520' upstream of Buoy GC-53	07-09/04	150	1.46	7.0	2.7	5.4	3.9

**GENERAL NOTE:** The information shown on this sheet(s) represents the results of surveys made on the dates indicated and can only be considered as indicating the general conditions existing at that time.

**FOOT NOTES:**

- (1). 50' width clearance on north and south sides of swing bridge pier in the channel limit.
- (2). Except for isolated shoaling to 3.2' and 5.2' along the west channel limit from about 50' to about 100' seaward of Buoy GR-C SCN.
- (3). Except for isolated shoaling to 6.8' on the south channel limit at about 40' seaward of Buoy GC-43A.

**REPORT OF CHANNEL CONDITIONS  
100 TO 400 FEET WIDE  
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PAGE 2 OF 2 PAGES

DATE: JANUARY 25, 2008

TO:

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New England District  
696 Virginia Road  
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RIVER/HARBOR NAME AND STATE: Merrimack River, MA

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MINIMUM DEPTHS IN  
CHANNEL ENTERING FROM SEAWARD

NAME OF CHANNEL	DATE OF SURVEY	AUTHORIZED PROJECT			LEFT OUTSIDE QUARTER (feet)	MIDDLE HALF (feet)	RIGHT OUTSIDE QUARTER (feet)
		WIDTH (feet)	LENGTH Nautical (miles)	MLLW DEPTH (feet)			
<b><u>CONDITION SURVEY</u></b> <b><u>7-Foot Channel</u></b>							
Thence upstream 250' (in the vicinity of Rocks Village Swing Bridge)	07-09/04	135	.04	7.0	4.9	<sup>(4)</sup> East 4.2 West 4.5	4.5
Thence upstream 20,324' (about 315' seaward of William H. Bates Bascule Bridge)	07-09/04	150	3.34	7.0	<sup>(5)</sup> 3.8	<sup>(6)</sup> 3.4	<sup>(6)</sup> 1.9
Thence upstream 644' (in the vicinity of William H. Bates Bascule Bridge)	07-09/04	150 to 67 to 150	.11	7.0	6.7	6.3	7.0
Thence upstream 14,483' (about 225' seaward of Ralph T. Basiliere Fixed Bridge)	07-09/04 & 09/06	150	2.38	7.0	3.5	4.8	5.5
Thence upstream 448' (in the vicinity of Ralph T. Basiliere Fixed Bridge)	09/06	150 to 66 to 150	.07	7.0	5.1	5.6	6.6
Thence upstream 2,549' to upstream end of Federal Navigation Project	09/06	150	.42	7.0	1.5	2.3	<sup>(7)</sup> 2.2

**GENERAL NOTE:** The information shown on this sheet(s) represents the results of surveys made on the dates indicated and can only be considered as indicating the general conditions existing at that time.

**FOOT NOTES:**

- (4). 50' width clearance on east and west sides of swing bridge pier in the channel limit.
- (5). Except for rock or shoaling to 2.2' within 25' along the east channel limit from about 250' seaward to about 250' upstream of Buoy GC-61.
- (6). In upstream shoaling area and adjacent to Rocks Village Swing Bridge suspect shoaling.
- (7). Except for shoaling to 0.8' within 20' along north channel limit from about 1,000' to about 1,300' seaward of Rail Road Fixed Bridge.