

For the following, please check all categories that apply to you:

Waterway(s):

- Annisquam River
- Bigelow Bight
- Hampton Harbors
- Joppa Flats
- Merrimack River
- Merrimack River Ent.
- Plum Island Point
- Salisbury Point

Vessel Type(s):

- Commercial
- Deep Draft
- Ferry
- Recreational
- Sail
- Tug
- Other

Vessel Length & Vessel Draft:

Navigation Tools Used:

- DGPS
- Electronic Chartlets
- Fathometer
- Gyro Compass
- Magnetic Compass
- Paper Charts
- Radar
- RDF
- SATNAV
- Other

Transit / use frequency:

- Daily
- Weekly
- Bimonthly
- Semi-Annually
- Annually

Transit Speed:

- 6-15 knots
- 16-25 knots
- 26+ knots

Transit / use period:

- Year around
- Seasonal
- Other

1. What special environmental conditions exist in this waterway(s)? (weather, current, visibility, etc.)

2. What is the most difficult part of navigating this waterway safely? (sea conditions, shoaling, visibility, submerged hazards, vessel traffic, etc.)

3. Do you use the federally maintained channel as marked or do you use the aids as reference for alternate routes?

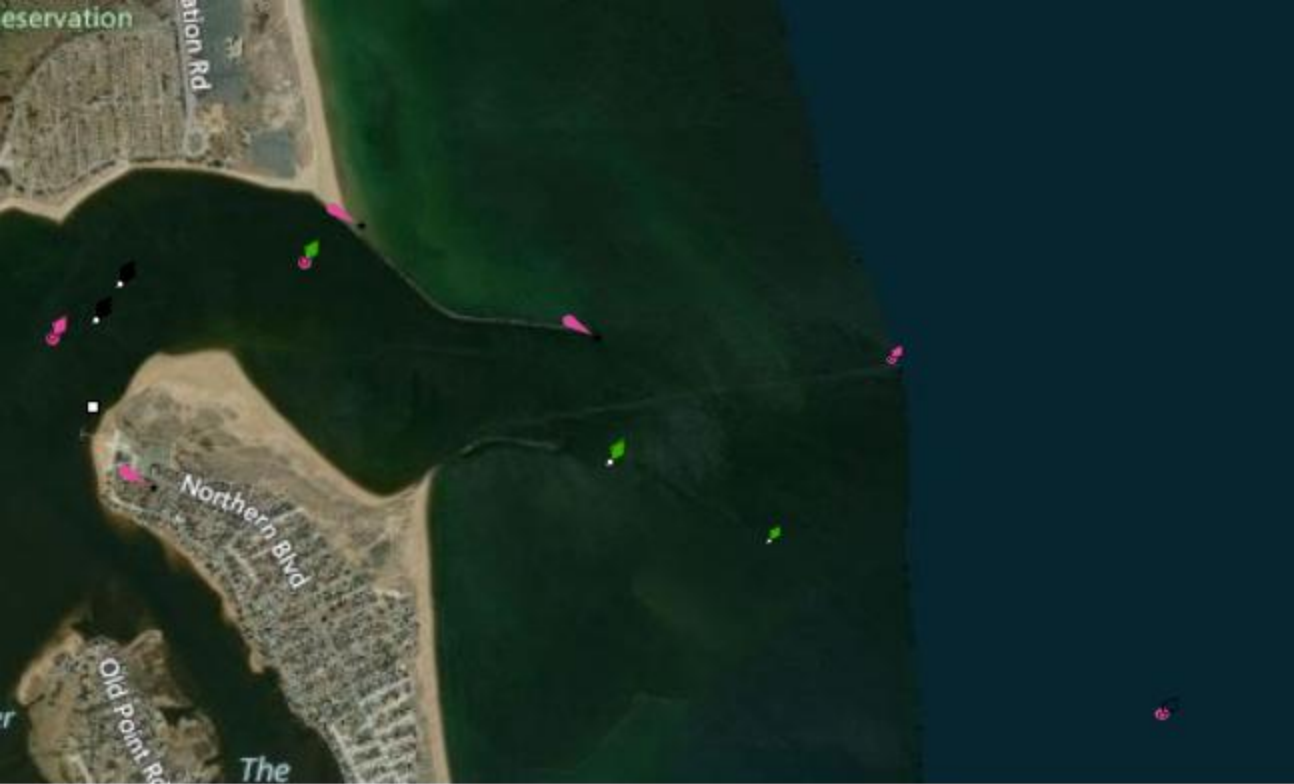
4. Which aids to navigation do you feel are the most critical in your transits and why?

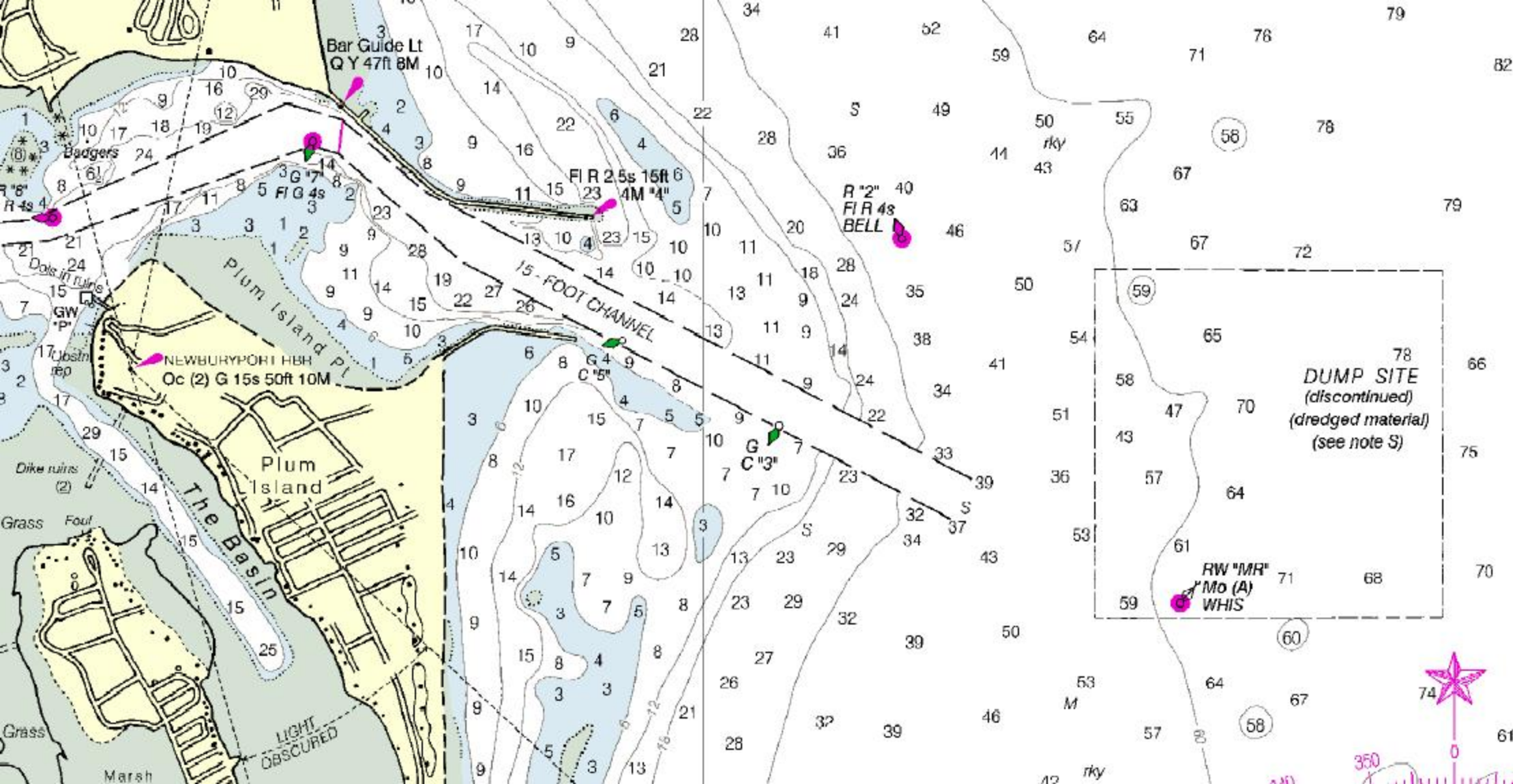
5. What, if any, would help improve the safety of this transit?

6. Are there any aids to navigation that create an interference with the safe navigation of the channel?

7. Is there a plan to expand / disestablish operations at your facility, marina, company, etc.?

8. Please add any other comments here or in the back of this survey. List any other organizations, groups, or individuals (include points or contact and e-mail/ mailing addresses) that might also be interested in this waterway.





MASSACHUSETTS - First District

NEWBURYPORT HARBOR AND PLUM ISLAND SOUND (Chart 13282)

Merrimack River

Aids maintained from May 1 to Oct. 15.

8990	- Entrance Lighted Whistle	42-48-34.332N	Mo (A) W		4	Red and white stripes with red spherical topmark.	
265	Buoy MR	070-47-03.181W					
8995	- Entrance Lighted Bell Buoy 2	42-49-06.297N	FI R 4s		4	Red.	
		070-47-36.364W					
9005	- Entrance Buoy 3	42-48-49.863N				Green can.	
		070-47-50.972W					
9006	- NORTH JETTY LIGHT 4	42-49-08.124N	FI R 2.5s	15	4	TR on skeleton tower.	
		070-48-13.956W					
9010	- Entrance Buoy 5	42-48-57.318N				Green can.	
		070-48-09.611W					
9020	- Lighted Buoy 7	42-49-14.780N	FI G 4s		3	Green.	Replaced by can from Oct 15 to May 1.
	On northeast edge of spit.	070-48-46.634W					
9025	- BAR GUIDE LIGHT	42-49-18.000N	Q Y	47	8	NW on skeleton tower worded DANGER ROUGH BAR.	Light flashing; bar condition, two feet breaking seas or greater. Light extinguished for lesser sea conditions; but with no guarantee bar is safe.
		070-48-43.000W					
9030	Plum Island Point Daybeacon P	42-49-01.122N				NG on dolphin.	
		070-49-13.356W					
9035	- Lighted Buoy 8	42-49-08.134N	FI R 4s		3	Red.	Replaced by nun from Oct 15 to May 1.
		070-49-17.362W					

many other conveniences are nearby. There is a small-craft launching ramp north of the basin.

(403) A State park is across the road. Motels, restaurants, lodging, markets, and other conveniences are available at the village at Hampton Beach.

(404) Taxi and bus services are available.

(405) There are a town wharf and two service wharves with 3 feet reported alongside at Seabrook at the southern end of the harbor from which a number of party and charter fishing boats operate. Water is available at the floats of the service wharves. A snack bar and refreshments are on the wharves, and a restaurant is nearby. A narrow dredged channel leads southward to it from the inlet. Numerous small craft are usually found moored in the channel as well as barges and workboats used in the construction of the Seabrook Nuclear Power Station, Public Service Company of New Hampshire.

(406) From Hampton Harbor, **Seabrook Beach** and **Salisbury Beach** extend 4.3 miles in a southerly direction to the entrance of Merrimack River. Unmarked ledges and foul and broken ground extend up to 0.8 mile offshore and among them a number of rocks awash, including **Thomas Rock** and **Round Rock**. **Breaking Rocks**, a ledge covered 3 feet, is 0.7 mile offshore and nearly 2 miles south of Hampton River. It is marked at its northeast end by a buoy.

(406.01)

Charts 13282, 13274

(408) **Merrimack River** is the largest river in the eastern part of Massachusetts. It is the approach to the cities of Newburyport and Haverhill, and to the towns of Amesbury, Merrimacport, Groveland, and Bradford. The river is used by vessels of 6-foot draft at high water up to Haverhill and about 12-foot draft at high water to Newburyport. The head of navigation is at the dam just above Broadway Bridge in Lawrence, 25.7 miles above the mouth. The river is seldom entered for refuge and has virtually no commercial traffic.

(409) The shifting bar at the entrance is usually dangerous to cross in heavy weather. The whole entrance breaks in easterly gales. A lighted fairway whistle buoy, about 1 mile off the jetties, marks the approach.

(410) A bar guide light, established by the Coast Guard, is shown from a skeleton tower at the inner end of the north jetty. A diamond-shaped, white and orange dayboard, with the words **Danger Rough Bar** is at the light. The light is activated only when there are two foot breaking seas or greater at the bar. Small-boat operators are cautioned that if the light is extinguished, there is no guarantee that the bar is safe.

(411) **Newburyport** is a city on the south bank of the river, 3 miles above the entrance. It had no trade by water in 1979, except some fishing.

(412) **Merrimack River Coast Guard Station** is on the south side of the river west of the American Yacht Club.

(412.01)

Prominent features

(413) In the approach to the entrance of Merrimack River, the most important objects are the elevated water tank 1.5 miles north of the entrance and the large bathing pavilion and bath houses of the State park near the southern end of Salisbury Beach, just north of the entrance. A large water tank, three-bladed wind turbine, standpipe, the bridges, church spires, several stacks, and a cupola, all in Newburyport, are conspicuous.

(414) **Newburyport Harbor Light** (42°48.9'N., 70°49.1'W.), 50 feet above the water, is shown from a white conical tower near the western end of **Plum Island Point**, the southern point of the entrance. The light is obscured in several sectors by shore structures.

(414.01)

Channels

(415) Merrimack River is entered through a Federal project that provides for a channel 15 feet deep through the bar between two jetties at the entrance, thence 9 feet deep in the marked channel to the highway bridge at Newburyport, about 3 miles above the jetties. (See Notice to Mariners and latest editions of the chart for controlling depths.) From Newburyport to Deer Island, in 2004-2006, controlling depth was 7 feet, thence 1.2 feet (2.3 feet at midchannel) to Haverhill. In 1978, numerous obstructions and shoaling were reported in the channel between the bridge at Groveland and Haverhill. In 1986, a submerged obstruction was reported in the center of the channel near Merrimack River Buoy 53 in about 42°48'44"N., 71°00'03"W. In 1987, shoaling to an unknown depth was reported in the vicinity of Merrimack River Lighted Buoy 8.

(416) The jetties extend from both points at the entrance out to the bar and are difficult to see at high water, particularly at night and in periods of low visibility. About 240 yards of the outer end of the north jetty is submerged at high water.

(416.01)

Anchorage

(417) At Newburyport the usual and best anchorage is in the channel about 400 yards below the highway bridge, favoring the north side of the channel and keeping clear of the two charted cable areas. The current is reported to run strongest along the south shore here. The holding ground is good.

(418) The yacht club maintains guest moorings as do many of the service facilities and marinas. Numerous private moorings are maintained off Newburyport and in the upper river as far as Haverhill. They are under control of the **harbormasters** at Newburyport, Amesbury, and Haverhill.

(419) Public floats are along the south side of the river at Newburyport, about 0.2 mile west of **Merrimack River Coast Guard Station**. In 1979, 8 feet was reported

alongside the floats. Berthing is under the control of the Newburyport harbormaster.

(419.01)

Dangers

(420) Endangered North Atlantic right whales have been reported swimming in shallow waters off of Plum Island and Ipswich, MA.

(420.01)

Bridges

(421) Merrimack River from the entrance to Haverhill is crossed by 10 bridges, 8 of which are highway and 2 are railroad. U.S. Route 1 highway bridge, which crosses the river at Newburyport, has a bascule span with a clearance of 35 feet. In the open position, the draws overhang the channel above a height of 55 feet. The bridgetender monitors VHF-FM channel 16 and works on channel 13; call sign WQA-806. The railroad bridge immediately westward has a swing span with a clearance of 13 feet. The channel is through the north draw. (See **117.1 through 117.59 and 117.605**, chapter 2, for drawbridge regulations on Merrimack River from Newburyport to Haverhill.)

(422) About 1.5 miles above the Newburyport bridges, the river is divided into a main or north channel, and a south channel by **Eagle Island** and **Deer Island**, and the shoals west of it.

(423) About 2 miles above Newburyport, a suspension highway bridge with a clearance of 28 feet crosses the south channel from Belleville to Deer Island. This bridge was originally built in 1810 with chain suspension. The bridge crossing the north channel from Deer Island to **Salisbury Point** is under construction (2010).

(424) About 300 yards westward of the swing bridge, the Interstate Route 95 (New Hampshire-Massachusetts Turnpike) bridge crosses the river from Salisbury Point to Belleville. The fixed span over the north channel (main passage) has a clearance of 55 feet, and that over the south channel, 32 feet.

(425) At **Rocks Village** on the north bank, about 8 miles above Newburyport, a highway bridge which has a hand-operated swing span with a clearance of 17 feet, crosses the river to **West Newbury**. An overhead power cable crossing the river about 0.1 mile downstream from Rocks Village Bridge has a clearance of 76 feet.

(426) At **Groveland**, about 11 miles above Newburyport, State Route 113 highway bridge crosses the river to **Riverside** on the north bank; the bridge is under construction (2010).

(427) At Haverhill three bridges cross the river; the lowest one, the Bradford Highway Bridge, has a 34-foot fixed span with a clearance of 25 feet.

(428) The railroad bridge about 0.5 mile above Bradford Bridge has a clearance of 31 feet, and the County highway bridge, close above the railroad bridge, has a 35-foot fixed span with a clearance of 30 feet. Overhead power cables crossing the river above the bridge have minimum clearances of about 30 feet.

(428.01)

Routes

(429) A lighted whistle buoy is about 1 mile outside the bar at the entrance to Merrimack River and a lighted bell buoy is at the bar. The channel across the bar is marked by lights, lighted and unlighted buoys; the chart should be the guide following the aids. Considerable chop is experienced on the bar with the wind against the tide.

(430) Small craft may enter when the sea is smooth and on a rising tide, following the buoys. The river cannot be entered during a heavy sea. The outer ends of the jetties are awash at high water.

(431) After the bar is crossed, the channel is well marked and easily followed to Newburyport.

(432) The channel between Newburyport and Haverhill is marked by buoys at the most difficult points, but is narrow and crooked, and leads close to rocks in places. Local knowledge is required to keep in it.

(434) The Coast Guard provided the following information to assist the mariner in crossing the bar when outbound from the Merrimack River.

(435) The bar area between the beach and Bell Buoy 2, both north and south of each jetty, is subject to breaking seas, particularly on an ebb tide with easterly winds. The ebb tide runs out of Merrimack River from 3 to 6 knots. Vessels should proceed slowly through the channel, evaluating the bar well inside of the two jetties. If the decision is made to cross, proceed all the way out beyond the breakers and do not attempt to turn around if the bar is breaking.

(436) The area southward of the outer 240 yards of the submerged north jetty and the channel is a shoaling sand bar subject to constant change in depth. This area and a portion of the channel just south are extremely hazardous. Avoid crossing the sunken jetty or sandbar, and use caution in the channel to the south of it.

(437) Ocean swells meeting an outgoing tide in the river mouth result in breaking seas. The most dangerous period is from about 1 hour before low water and 1 hour after low water. Even on the calmest days the tidal conditions may be such that small boats will be endangered at this period. Mariners should learn the stages of the tide when local conditions are the most favorable for bar crossing.

(438) Due to the sandy nature of the river bottom, one can expect unannounced changes in the bar shoals depending upon prevailing winds and currents. These changing bars and shallow areas may not be marked on the charts.

(438.01)

Currents

(440) Currents are strong in the river, and yachts sometimes drag when anchored off the American Yacht Club. Strangers should use a mooring, if available. Current predictions for the entrance and at Newburyport are given in the Tidal Current Tables.