

South Shore Geographic Response Plan – Site Survey for New Inlet, North River & South River
Thursday, August 25th, 2011

Attendees:

Ed Vacha – Scituate Harbormaster Department
Jaime Goncalves – MassDEP
Ross Kessler – Mass Division of Marine Fisheries
Elise DeCola – Nuka Research & Planning Group
Caleb Queen – Nuka Research & Planning Group

Vessel:

This site survey was conducted using a vessel owned by the Scituate Harbormaster's department.

Weather:

Partly cloudy skies. Winds around 9kts from south southwest. Calm waters in protected areas on the North River, but intensified slightly near the opening of New Inlet and South River.

Tactics:

New Inlet

DV-01

Deploy two legs of boom across the mouth of South River. Extend 1100ft of boom from Truants Island to the marsh and 700ft of boom from the marsh to the shore on Humarock. Shoreside recovery should be set up on the shore on the Humarock side of the opening to South River. This would prevent oil from moving into South River and entering the sensitive marshes.

FO-02

Deploy free-oil recovery tactics near the opening to New Inlet.

SR

Deploy shoreside recovery tactics on the shore on the Scituate side (northern) of New Inlet. This area is a natural collection point for the North River and New Inlet. However, this area may be difficult to access.

North River

DV-01

Deploy boom in a closed chevron formation. Divert incoming oil to the southern shore. The boom should be angled to withstand the current. There is vehicle access to the end of the road where the railroad bridge ends. From this point, shoreside recovery tactics could be deployed. There is a red navigational buoy that could possibly be used for a mid-chevron anchor. Responders might need

permission from Marshfield or USCG, depending upon who sets that particular navigational aid (likely USCG).

DV-01alt

In the event that DV-01 is not feasible or the current is too strong, deploy DV-01alt. This tactic would require additional boom. There might not be an opportunity to deploy shoreside recovery tactics, therefore the tactic would be considered an exclusion tactic.

EX-02a

Deploy boom in a straight leg to exclude oil from moving through the opening in the old railroad tracks. This would prevent oil from migrating further upstream.

EX-02b

Deploy 400ft of boom on each side of the Rt 3A bridge. This tactic would be deployed in the event of a spill originating from the bridge.

EX-02c

Deploy 300ft of boom across the opening to Herring River on the northern side of North River. Due to the tidal range and exposed tidal flats, line each side of the boom with sorbent material.

South River

DV-01a

Deploy two segments boom across the river at the South River Yacht Yard at the end of Webster Street. This would prevent oil from migrating further into South River. There is a small boat ramp located here where boom could be deployed. It may be possible to establish shoreside recovery at this location.

DV-01b

Deploy two segments of boom across the river, south of the river at Revere Street. This tactic could be combined with DV-01a, in the event of a spill that originates at the bridge or in the marina. This would also prevent oil from moving further down South River. Shoreside recovery should be set up on the western shore along Ferry St.

EX-02a

Deploy two segments of boom across the river at Garfield Street. In the event that all other tactics fail, this would be the last line of defense against oil migrating further down the river and entering the sensitive marsh system at the head of South River.

The location of these two exclusion tactics could be modified based on the spill origination point.

EX-02b

Deploy two segments of boom across the opening to Broad Creek and Littles Creek. At low tide, there are exposed tidal flats at both entrances, therefore it would be necessary to deploy sorbent material on each side of the boom.

Other Considerations

New Inlet

- The current opening, New Inlet, is very dynamic with a lot of shoaling and sand flats at low tide. The shoaling combined with the exposure to the open water of Massachusetts Bay makes sea states very rough there, with breaking waves and standing waves common. Boom deployment in the area of the New Inlet opening would be unsafe and ineffective.
- The diversion tactics located at the mouth of the South River may need to be altered if wind direction changes.
- There is better road access on the Truant's Island side than on the Humarock side. However, access is a gravel road.

North River

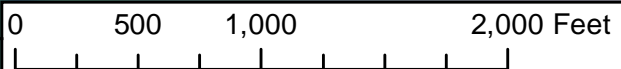
- The old railroad bridge is accessible by road. There is some opportunity to work here and because it is a bit more wide open, current may be easier to deal with than 3A bridge. Current is still pretty fast mid-channel, but can work outside of it. Still need to survey further out toward New Inlet, especially Herring River.
- There are boat ramps located at Mary's Marine Livery (southern side of North River), North River Marine (northern side of North River) and off of Driftway in Herring River. Both are Mary's Marine Livery and North River Marine are directly off of Rt 3A.
- During a Full Moon-Spring tide, the water level can completely cover the marsh system at the mouth of North River.
- The current flowing through the larger opening in the railroad tracks is usually between 5-6kts.
- At low tide, the smaller opening is an exposed tidal flat with no water flowing.

South River

- There is good access and a small boat ramp near the South River Yacht Yard that could be used for recover or to load boom off a trailer. There is also a boat ramp located at 11 Ridge Road.
- There are two major spill considerations for South River. One being from outside the river, from a tanker or other vessel. The other possibility of a spill would originate from a tanker truck crossing over one of the bridges in South River. Home heating oil trucks regularly travel over the 2 bridges that go over the South River.
- There is a considerable amount of shellfishing that exists in South River as well as high recreational use.

70°43'0"W

70°42'30"W



New Inlet



42°10'0"N

FO
02

SR

New Inlet

42°9'30"N

Truants
Island

Silver Road

Cliff Road?

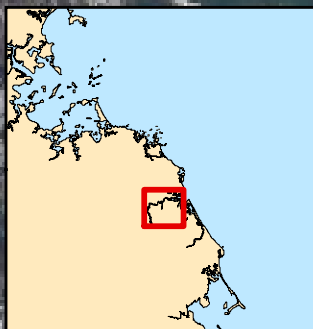
SR

700 ft

1100 ft

DV
01

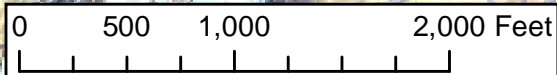
42°9'0"N



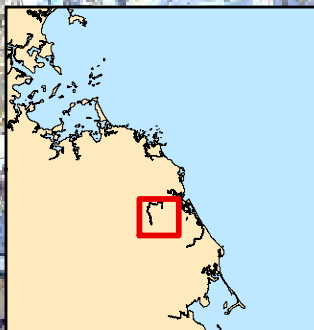
70°44'30"W

70°44'0"W

70°43'30"W



North River



70°42'30"W

70°42'0"W

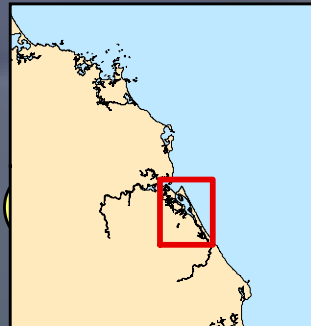
70°41'30"W

70°41'0"W

0 360 720 1,440 Feet



42°9'0"N



42°8'30"N

42°8'0"N

42°7'30"N

South River

Broad Creek

400 ft

EX 02b

300 ft

Little's Creek

DV 01a

SR

600 ft

DV 01b

SR

450 ft

500 ft

EX 02a

South River

