

# MassDEP North Shore Geographic Response Strategy

# Salem Harbor NS25

## Tactics Legend

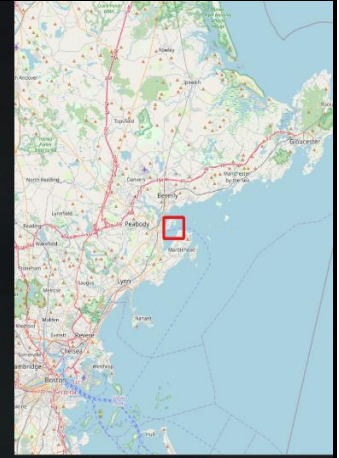
- DF** Deflection Booming
- DV** Diversion Booming
- EX** Exclusion Booming
- FO** Free Oil Recovery
- PR** Passive Recovery
- SR** Shoreside Recovery
- S** Staging Area
-  Boat Ramp
- BB** Beach Berm
- TG** Tide Gate
-  Protected-Water Boom
-  Open-Water Boom
-  Snare/ Sorbent Boom

## Equipment - All Tactics

Boom(ft)	5700
Marine anchors	29
Shore anchors	9
Sorbent Boom(ft)	600
FO Recovery Sys	1
Shore Responders	2
Boat Responders	9
Boats	3

## Version

2/22/2022



## Response Trailer, Tactics Deployment, and Responder Safety Information











A total of 6 state response trailers are required to implement all the tactics in this GRS. Responders should always consider on-scene conditions before deploying GRP tactics. Tactics may not be safe or effective under certain conditions. Responder safety should always be the first priority.

## Location

**Latitude:** 42°31'24" N  
**Longitude:** 70°52'14" W  
**NOAA Chart #** 13275

# Geographic Response Strategy

# Salem Harbor NS25

Tactic #	Purpose	Response Equipment	Deployment Resources	Deployment Notes
<b>DV-01a</b> 	Redirect spilled oil from one location or direction of travel to a specific site for recovery.	1200 ft protected water boom 6 marine anchor system 2 shoreline anchor system	2 shore responders 2 response boats 6 boat responders	Tend through tidal changes. Deploy boom as depicted to divert incoming oil to the collection site. Anchor every 200-300'. Adjust angle as necessary to reduce entrainment. Set up shoreside recovery and tend throughout tide. Deploy shoreside anchor first.
		N/A	Testing Date	
<b>DV-01alt</b> 	Redirect spilled oil from one location or direction of travel to a specific site for recovery.	1000 ft protected water boom 5 marine anchor system 2 shoreline anchor system	2 shore responders 2 response boats 6 boat responders	Tend through tidal changes. Deploy boom as depicted to divert incoming oil to the collection site. Anchor every 200-300'. Adjust angle as necessary to reduce entrainment. Set up shoreside recovery and tend throughout tide. Deploy shoreside anchor first.
		N/A	Testing Date	
<b>DV-01b</b> 	Redirect spilled oil from one location or direction of travel to a specific site for recovery.	1200 ft protected water boom 6 marine anchor system 2 shoreline anchor system	2 shore responders 2 response boats 6 boat responders	Tend through tidal changes. Deploy boom as depicted to divert incoming oil to the collection site. Anchor every 200-300'. Adjust angle as necessary to reduce entrainment. Set up shoreside recovery and tend throughout tide. Deploy shoreside anchor first.
		N/A	Testing Date	
<b>EX-02a</b> 	Prohibit oil slicks from entering a sensitive area	400 ft protected water boom 2 marine anchor system 4 shoreline anchor system	2 shore responders 1 response boats 3 boat responders	Tend through tidal changes. Deploy boom as depicted to exclude oil from sensitive areas. Anchor every 200-300'. Not tide dependent Deploy shoreside anchor first.
		N/A	Testing Date	
<b>EX-02b</b> 	Prohibit oil slicks from entering a sensitive area	1100 ft protected water boom 6 marine anchor system 4 shoreline anchor system	2 shore responders 2 response boats 6 boat responders	Tend through tidal changes. Deploy boom as depicted to exclude oil from sensitive areas. Anchor every 200-300'. Not tide dependent Deploy shoreside anchor first.
		N/A	Testing Date	
<b>EX-02c</b> 	Prohibit oil slicks from entering a sensitive area	800 ft protected water boom 4 marine anchor system 4 shoreline anchor system	2 shore responders 1 response boats 3 boat responders	Tend through tidal changes. Deploy boom as depicted to exclude oil from sensitive areas. Anchor every 200-300'. Not tide dependent Deploy shoreside anchor first. Readjust boom angle as needed to reduce entrainment
		N/A	Testing Date	
<b>CB-03</b> 	Prevent oil that has entered drainage systems from impacting waterways and sensitive areas	1 inflatable plug, sand bag, or plywood	2 shore responders	At low tide deploy appropriate size inflatable culvert plug in the culvert. Monitor to ensure blocking integrity. Without culvert plug, place plywood or similar sheeting material across the culvert. Use plastic sheeting to ensure the seal. Stack sandbags against plywood to counter outflow pressure
		N/A	Testing Date	
<b>PR-04</b> 	Remove spilled oil by collecting it in a sorbent material	600 ft sorbent boom 600 ft sorbent pom-poms 17 anchor stakes	2 shore responders	Place and stake snare or sorbent boom in areas that are likely to pool and collect oil and across the mouths of the streams and intertidal areas. Use snare boom for persistent oils and sorbent boom for non-persistent oils. Approach the streams and intertidal areas on rising tide. Replace as necessary to maximize oil recovery.
		N/A	Testing Date	
<b>FO-05</b> 	Contain and recover spilled oil on the water in the offshore & nearshore environment	1 or more onwater skimming systems		Deploy on-water recovery task force(s) in configuration suitable for types of vessels used and sea conditions, with skimming system(s) and temporary storage for recovered oil and water. Location not exact, will move to chase oil.
		N/A	Testing Date	
<b>SR-06</b> 	Remove spilled oil that has been diverted to a designated recovery site accessible from shore	3 skimming system 3 storage tank or bladder 3 hoses, pumps, fittings	2 shore responders	Set up shoreside recovery tactic at general location depicted on map. Some access points located at private residences. Access may be difficult
		N/A	Testing Date	



Local contacts

Salem Fire Department	<a href="tel:978-744-1235">978-744-1235</a>
Salem Harbormaster	<a href="tel:978-741-0098">978-741-0098</a>
Salem DPW	<a href="tel:978-744-3302">978-744-3302</a>
Salem Sound Coastwatch	<a href="tel:978-741-7900">978-741-7900</a>
U.S.C.G. Station Gloucester	<a href="tel:978-283-0705">978-283-0705</a>
Mass Division of Marine Fisheries	<a href="tel:617-626-1520">617-626-1520</a>
Environmental Police	<a href="tel:800-632-8075">800-632-8075</a>
Marblehead Harbormaster	<a href="tel:978-631-2386">978-631-2386</a>



Mouth of South River at mid-tide on 02 June 2009. View looks west.

Resources Protected

Marine Mammals	None identified
Fish	None identified
Invertebrates	Shellfish, Urchins
Birds	Seabirds
Threat/End. Species	None identified
Cultural	None identified
Subsistence	None identified
Human Use	Boat Ramp, Marina, Water Intake, Port/Harbor
Commercial Fishing	None identified
Land Management	None identified
Coastal Habitat	Tidal Flats, Beach, Rocky Shore



Winter Island (Waikiki Beach) collection site at mid-tide on 02 June 2009. View looks west.

Special Considerations & Navigational Hazards

Two water intakes located at the Dominion Salem Harbor Station and Cat Cove Marine Research Station. CB-03: Location of Cat Cove Hatchery. Coordinate closing of hatchery water intake with Salem State. College. Tidal range 7-11ft. Vessel operators should have local knowledge.