

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

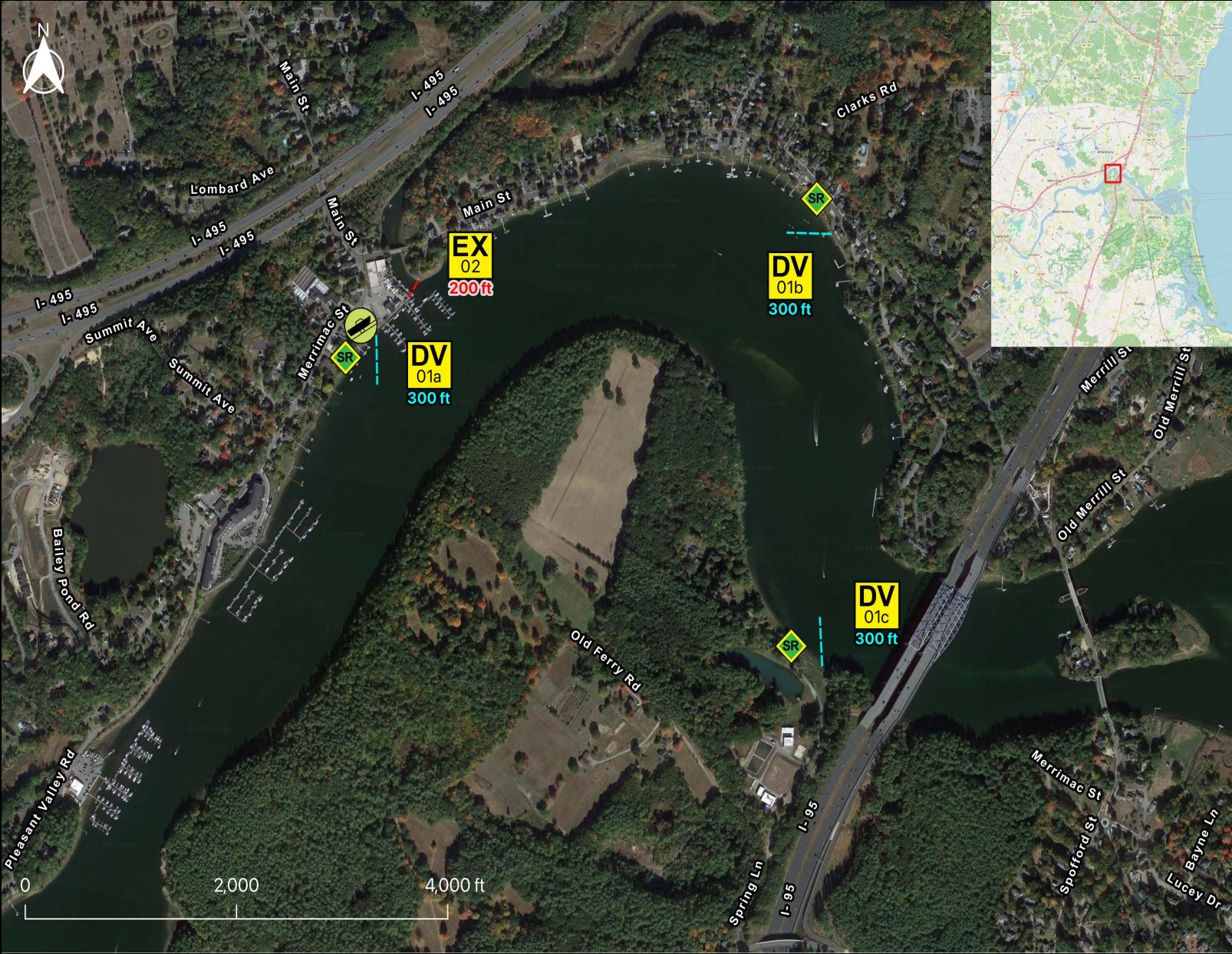
Tide Gate
- Protected-Water Boom
- Open-Water Boom
- Snare/ Sorbent Boom

Equipment - All Tactics

Boom(ft)	1100
Marine anchors	7
Shore anchors	5
Sorbent Boom(ft)	0
FO Recovery Sys	0
Shore Responders	2
Boat Responders	3
Boats	2

Version

2/15/2023



Response Trailer, Tactics Deployment, and Responder Safety Information

A total of 2 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°50'15" N

Longitude:






70°55'9" W

NOAA Chart #

13282

Geographic Response Strategy

Upper Merrimack River NS01A

Tactic #	Purpose	Response Equipment	Deployment Resources	Deployment Notes
DV-01a 	Redirect spilled oil from one location or direction of travel to a specific site for recovery.	300 ft protected water boom 2 marine anchor system 1 shoreline anchor system	2 shore responders 1 response boats 3 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. Alternate deployment with tide - reset during slack.
		10/21/2014 Testing Date	Y Tested	
DV-01b 	Redirect spilled oil from one location or direction of travel to a specific site for recovery.	300 ft protected water boom 2 marine anchor system 1 shoreline anchor system	2 shore responders 1 response boats 3 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. Alternate deployment with tide - reset during slack.
		Testing Date	N Tested	
DV-01c 	Redirect spilled oil from one location or direction of travel to a specific site for recovery.	300 ft protected water boom 2 marine anchor system 1 shoreline anchor system	2 shore responders 1 response boats 3 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. Alternate deployment with tide - reset during slack.
		Testing Date	N Tested	
EX-02 	Prohibit oil slicks from entering a sensitive area	200 ft protected water boom 1 marine anchor system 2 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
		10/21/14 Testing Date	Y Tested	
SR-03 	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	Tested	

Geographic Response Strategy

Upper Merrimack River NS01A

Local contacts

Newburyport Fire Department	978-465-4427
Newburyport Harbormaster	978-462-3746
Salisbury Fire Department	978-465-3631
Salisbury Harbormaster	978-499-0740
Mass Bays Estuary Assn	978-374-0519
USCG Station Merrimack	978-462-3428
Mass Division of Marine Fisheries	617-626-1520
Environmental Police	800-632-8075



Carr Island Channel looking north at high tide on 20 May 2009. Site of DF-03b

Resources Protected

Marine Mammals	None identified
Fish	Anadromous, finfish
Invertebrates	None identified
Birds	Bald Eagle, Seabirds
Threat/End. Species	None identified
Cultural	None identified
Subsistence	None identified
Human Use	Boat Ramps, Marinas
Commercial Fishing	None identified
Land Management	None identified
Coastal Habitat	Fresh Water River, Muddy Banks, Marsh/Swamp, Riprap



Collection site west of Newburyport Boat Basin at high tide on 20 May 2009. Site of DV-01e

Special Considerations & Navigational Hazards

Tidal range of 6-8 ft. Tidal current max speed 4-5 kts in constricted areas 1.5 - 2 kts elsewhere. Vessel operators should have local knowledge and experience in operating in strong currents.

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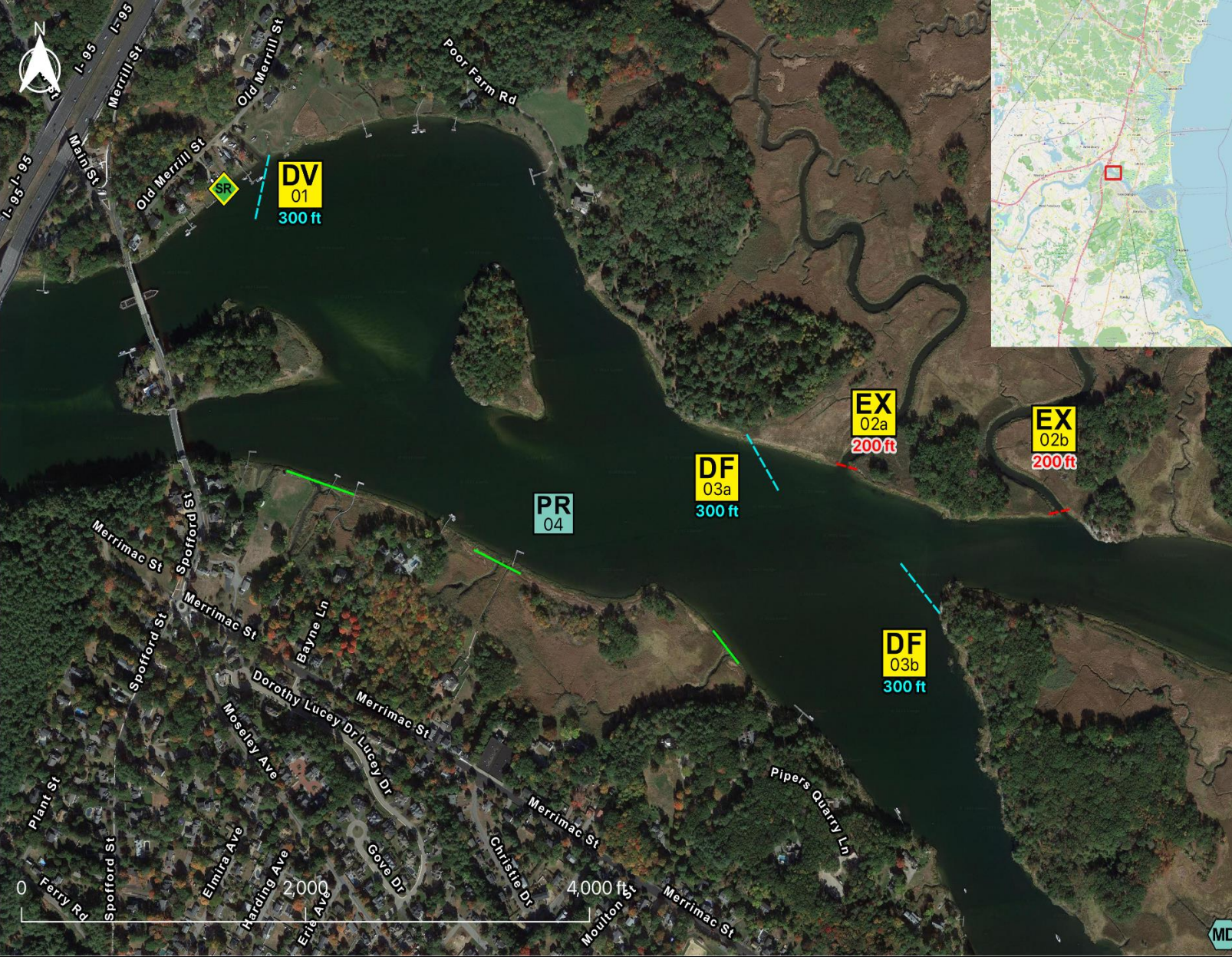
Beach Berm
- TG

Tide Gate
- Protected-Water Boom
- Open-Water Boom
- Snare/ Sorbent Boom

Equipment - All Tactics

Boom(ft)	1300
Marine anchors	8
Shore anchors	7
Sorbent Boom(ft)	250
FO Recovery Sys	0
Shore Responders	2
Boat Responders	6
Boats	2

Version
2/15/2023



Response Trailer, Tactics Deployment, and Responder Safety Information








A total of 2 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°49'59" N
Longitude: 70°53'54" W
NOAA Chart # 13282

Geographic Response Strategy

Upper Merrimack River NS01B

Tactic #	Purpose	Response Equipment	Deployment Resources	Deployment Notes
DV-01 	Redirect spilled oil from one location or direction of travel to a specific site for recovery.	300 ft protected water boom 2 marine anchor system 1 shoreline anchor system	2 shore responders 1 response boats 3 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. Alternate deployment with tide - reset during slack.
		Testing Date	N Tested	
EX-02a 	Prohibit oil slicks from entering a sensitive area	200 ft protected water boom 1 marine anchor system 2 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.
		Testing Date	N Tested	
EX-02b 	Prohibit oil slicks from entering a sensitive area	200 ft protected water boom 1 marine anchor system 2 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.
		Testing Date	N Tested	
DF-03a 	Direct spilled oil away from a location to be protected or to change the course of the slick.	300 ft protected water boom 2 marine anchor system 1 shoreline anchor system	2 shore responders 2 response boats 6 boat responders	Tend through tidal changes. Deploy boom as depicted to deflect incoming oil away from sensitive areas. Anchor every 200-300'. Deploy shoreside anchor first. Alternate deployment with tide - reset during slack.
		Testing Date	N Tested	
DF-03b 	Direct spilled oil away from a location to be protected or to change the course of the slick.	300 ft protected water boom 2 marine anchor system 1 shoreline anchor system	2 shore responders 2 response boats 6 boat responders	Tend through tidal changes. Deploy boom as depicted to deflect incoming oil away from sensitive areas. Anchor every 200-300'. Deploy shoreside anchor first. Alternate deployment with tide - reset during slack.
		Testing Date	N Tested	
PR-04 	Remove spilled oil by collecting it in a sorbent material	250 ft sorbent boom 250 ft sorbent pom-poms 7 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	
SR-05 	Remove spilled oil that has been diverted to a designated recovery site accessible from shore	1 skimming system 1 storage tank or bladder 1 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	

Geographic Response Strategy

Upper Merrimack River NS01B

Local contacts

Newburyport Fire Department	978-465-4427
Newburyport Harbormaster	978-462-3746
Salisbury Fire Department	978-465-3631
Salisbury Harbormaster	978-499-0740
Mass Bays Estuary Assn	978-374-0519
USCG Station Merrimack	978-462-3428
Mass Division of Marine Fisheries	617-626-1520
Environmental Police	800-632-8075



Carr Island Channel looking north at high tide on 20 May 2009. Site of DF-03b

Resources Protected

Marine Mammals	None identified
Fish	Anadromous, finfish
Invertebrates	None identified
Birds	Bald Eagle, Seabirds
Threat/End. Species	None identified
Cultural	None identified
Subsistence	None identified
Human Use	Boat Ramps, Marinas
Commercial Fishing	None identified
Land Management	None identified
Coastal Habitat	Fresh Water River, Muddy Banks, Marsh/Swamp, Riprap



Collection site west of Newburyport Boat Basin at high tide on 20 May 2009. Site of DV-01e

Special Considerations & Navigational Hazards

Tidal range of 6-8 ft. Tidal current max speed 4-5 kts in constricted areas 1.5 - 2 kts elsewhere. Vessel operators should have local knowledge and experience in operating in strong currents.

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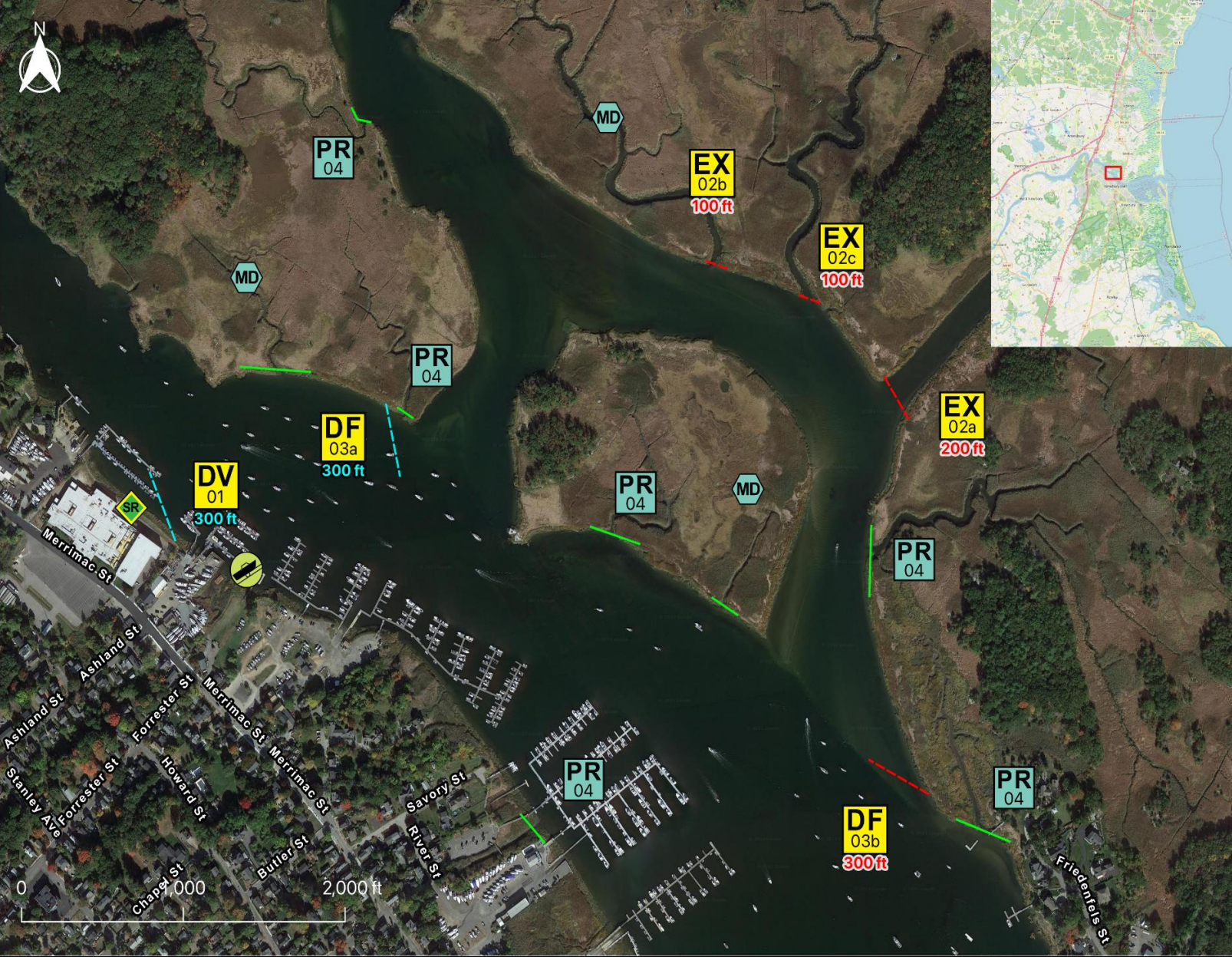
Tide Gate
- Protected-Water Boom
- Open-Water Boom
- Snare/ Sorbent Boom

Equipment - All Tactics

Boom(ft)	1300
Marine anchors	9
Shore anchors	9
Sorbent Boom(ft)	1500
FO Recovery Sys	0
Shore Responders	2
Boat Responders	6
Boats	2

Version

2/15/2023



Response Trailer, Tactics Deployment, and Responder Safety Information

A total of 2 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°49'30" N

Longitude: 70°52'49" W

NOAA Chart # 13282

Geographic Response Strategy				Upper Merrimack River NS01C
Tactic #	Purpose	Response Equipment	Deployment Resources	Deployment Notes
DV-01 	Redirect spilled oil from one location or direction of travel to a specific site for recovery.	300 ft protected water boom 2 marine anchor system 1 shoreline anchor system	2 shore responders 1 response boats 3 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. Alternate deployment with tide - reset during slack.
		Testing Date	N Tested	
EX-02a 	Prohibit oil slicks from entering a sensitive area	200 ft protected water boom 1 marine anchor system 2 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.
		Testing Date	N Tested	
EX-02b 	Prohibit oil slicks from entering a sensitive area	100 ft protected water boom 1 marine anchor system 2 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.
		Testing Date	N Tested	
EX-02c 	Prohibit oil slicks from entering a sensitive area	100 ft protected water boom 1 marine anchor system 2 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.
		Testing Date	N Tested	
DF-03a 	Direct spilled oil away from a location to be protected or to change the course of the slick.	300 ft protected water boom 2 marine anchor system 1 shoreline anchor system	2 shore responders 2 response boats 6 boat responders	Tend through tidal changes. Deploy boom as depicted to deflect incoming oil away from sensitive areas. Anchor every 200-300'. Deploy shoreside anchor first. Alternate deployment with tide - reset during slack.
		Testing Date	N Tested	
DF-03b 	Direct spilled oil away from a location to be protected or to change the course of the slick.	300 ft protected water boom 2 marine anchor system 1 shoreline anchor system	2 shore responders 2 response boats 6 boat responders	Tend through tidal changes. Deploy boom as depicted to deflect incoming oil away from sensitive areas. Anchor every 200-300'. Deploy shoreside anchor first.
		Testing Date	N Tested	
PR-04 	Remove spilled oil by collecting it in a sorbent material	150 ft sorbent boom 150 ft sorbent pom-poms 4 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	Tested	
PR-04 	Remove spilled oil by collecting it in a sorbent material	300 ft sorbent boom 300 ft sorbent pom-poms 9 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	Tested	
PR-04 	Remove spilled oil by collecting it in a sorbent material	400 ft sorbent boom 400 ft sorbent pom-poms 11 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	Tested	
PR-04 	Remove spilled oil by collecting it in a sorbent material	300 ft sorbent boom 300 ft sorbent pom-poms 9 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	Tested	
PR-04 	Remove spilled oil by collecting it in a sorbent material	250 ft sorbent boom 250 ft sorbent pom-poms 7 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	Tested	
PR-04 	Remove spilled oil by collecting it in a sorbent material	100 ft sorbent boom 100 ft sorbent pom-poms 3 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	Tested	
SR-05 	Remove spilled oil that has been diverted to a designated recovery site accessible from shore	1 skimming system 1 storage tank or bladder 1 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	Tested	

Geographic Response Strategy

Upper Merrimack River NS01C

Local contacts

Newburyport Fire Department	978-465-4427
Newburyport Harbormaster	978-462-3746
Salisbury Fire Department	978-465-3631
Salisbury Harbormaster	978-499-0740
Mass Bays Estuary Assn	978-374-0519
USCG Station Merrimack	978-462-3428
Mass Division of Marine Fisheries	617-626-1520
Environmental Police	800-632-8075



Carr Island Channel looking north at high tide on 20 May 2009. Site of DF-03b

Resources Protected

Marine Mammals	None identified
Fish	Anadromous, finfish
Invertebrates	None identified
Birds	Bald Eagle, Seabirds
Threat/End. Species	None identified
Cultural	None identified
Subsistence	None identified
Human Use	Boat Ramps, Marinas
Commercial Fishing	None identified
Land Management	None identified
Coastal Habitat	Fresh Water River, Muddy Banks, Marsh/Swamp, Riprap



Collection site west of Newburyport Boat Basin at high tide on 20 May 2009. Site of DV-01e

Special Considerations & Navigational Hazards

Tidal range of 6-8 ft. Tidal current max speed 4-5 kts in constricted areas 1.5 - 2 kts elsewhere. Vessel operators should have local knowledge and experience in operating in strong currents.