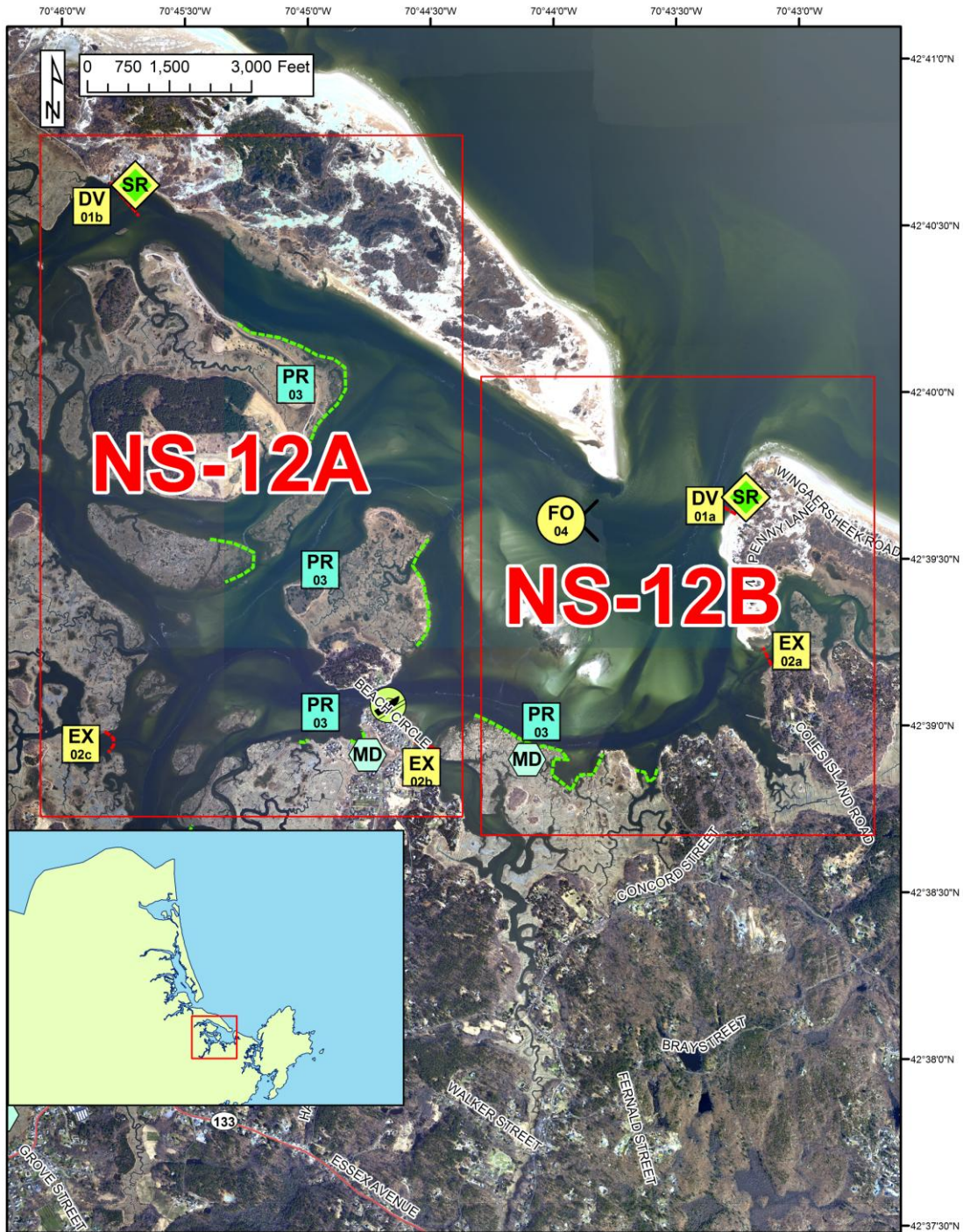




North Shore Geographic Response Plan

Essex Bay NS-12



Map Legend			
BB Beach Berm	DF Deflection Booming	MD Mosquito Ditch	U.S. Coast Guard Station
CB Culvert Block	EX Exclusion Booming	Boat Ramp	Protected-water Boom (Flood Tide)
DV Diversion Booming	SR Shoreside Recovery	Protected-water Boom (Ebb Tide)	Beach Berm Material
PR Passive Recovery	FO Free-oil Recovery	Snare or Sorbent Boom	

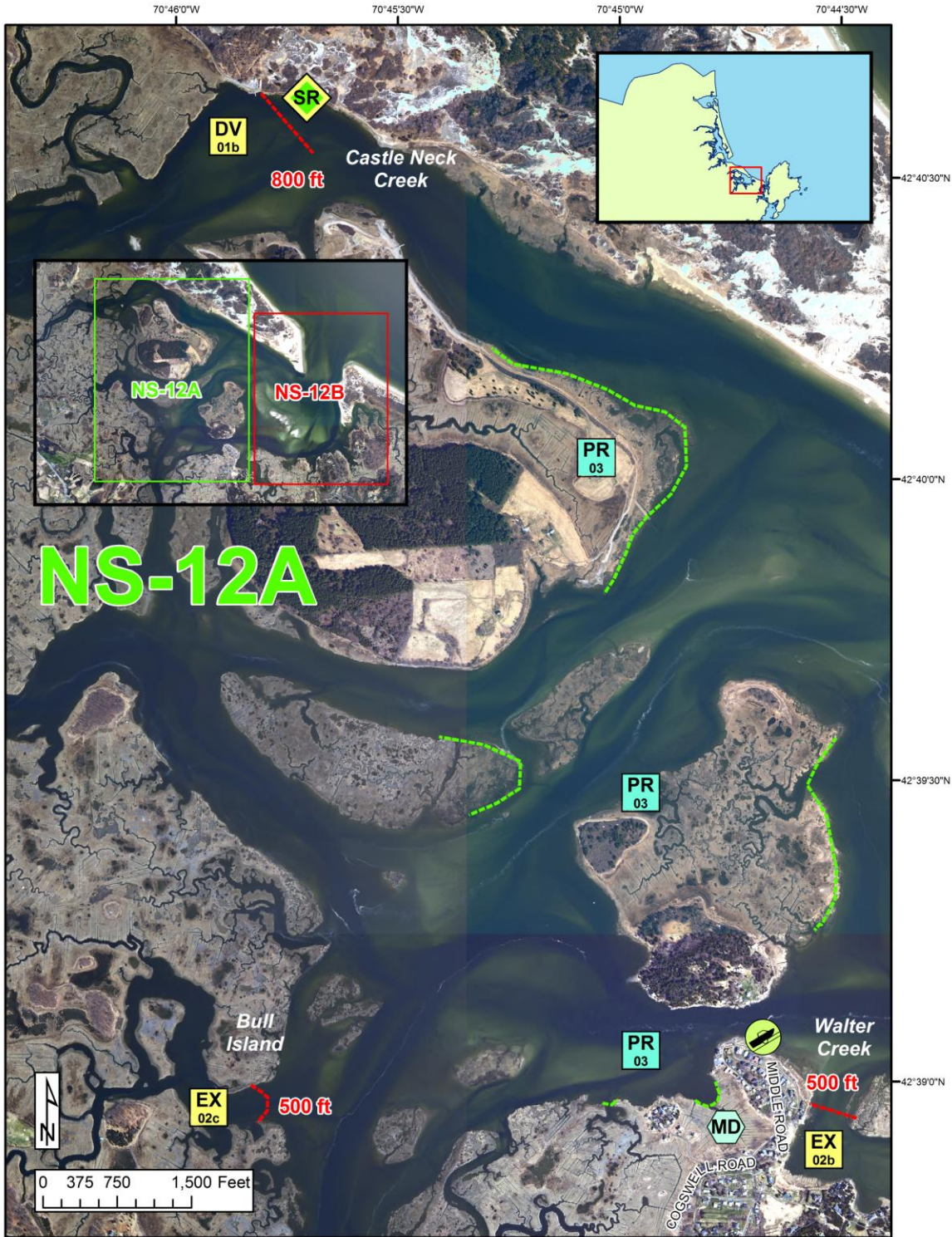
A total of 3 State Response Trailers are required to implement all of the tactics in this GRP. Responders should always consider on-scene conditions before deploying GRP tactics. Tactics may not be safe or effective under certain conditions. Responder safety should always be the first priority.





North Shore Geographic Response Plan

Essex Bay NS-12



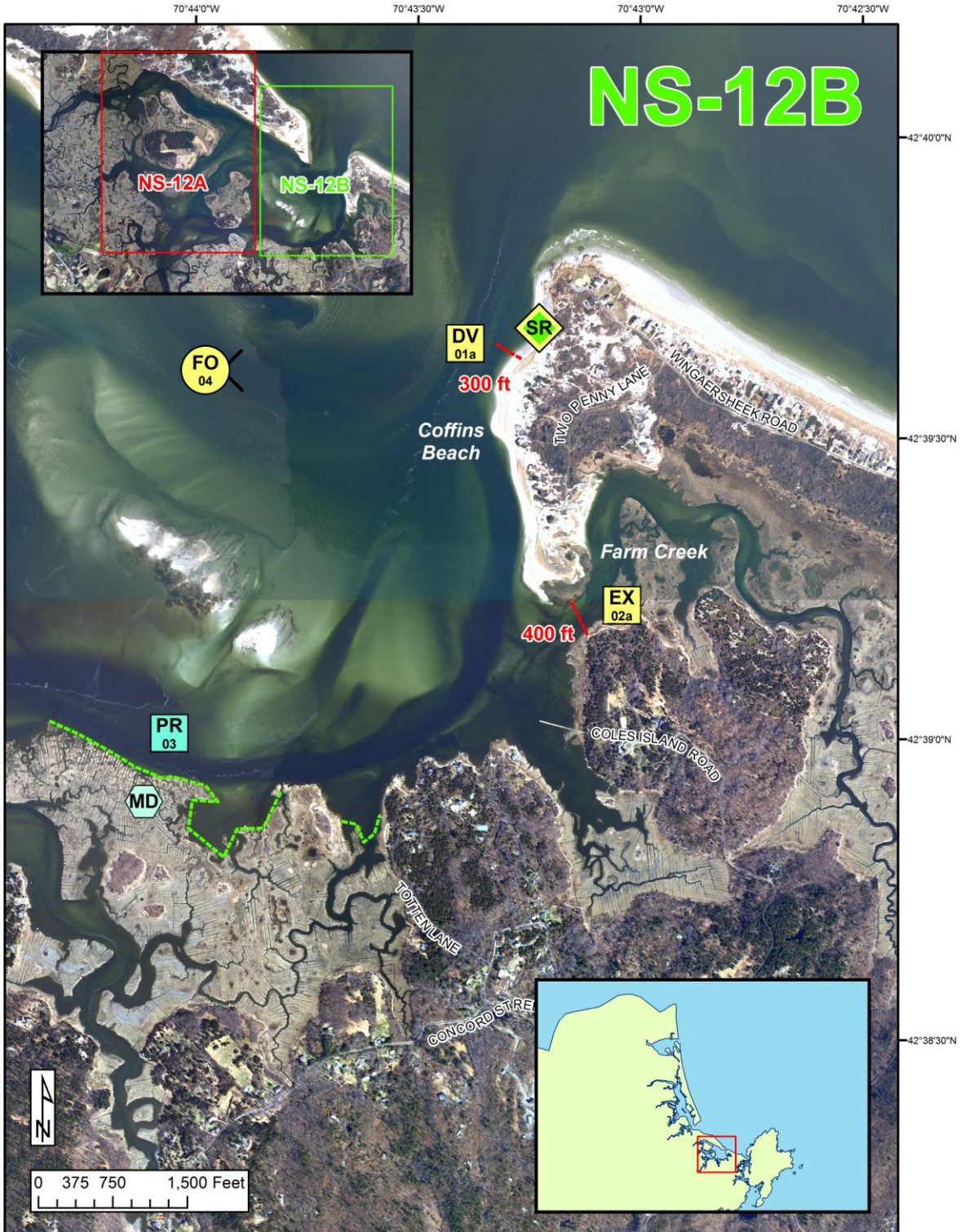
Map Legend			
BB Beach Berm	DF Deflection Booming	MD Mosquito Ditch	Protected-water Boom (Flood Tide)
CB Culvert Block	EX Exclusion Booming	U.S. Coast Guard Station	Protected-water Boom (Ebb Tide)
DV Diversion Booming	Shoreside Recovery	Boat Ramp	Beach Berm Material
PR Passive Recovery	Free-oil Recovery	Snare or Sorbent Boom	





North Shore Geographic Response Plan

Essex Bay NS-12







Map Legend			
BB Beach Berm	DF Deflection Booming	MD Mosquito Ditch	Protected-water Boom (Flood Tide)
CB Culvert Block	EX Exclusion Booming	U.S. Coast Guard Station	Protected-water Boom (Ebb Tide)
DV Diversion Booming	SR Shoreside Recovery	Boat Ramp	Snare or Sorbent Boom
PR Passive Recovery	FO Free-oil Recovery	Beach Berm Material	





North Shore Geographic Response Plan

Essex Bay NS-12





ID	Location and Description	Response Strategy	Implementation
NS-12-01 	Essex Bay (a) Coffins Beach Lat. 42°39'44"N Lon. 70°43'2"W (b) Castle Neck River Lat. 42°40'38"N Lon. 70°45'49"W	Divert and Collect – Shoreside Divert incoming oil to collection sites to allow for shoreside collection.	Deploy anchors and boom with skiffs. For (a) place a 300 ft section of 18” boom at the proper angle to divert incoming oil to the collection site. Set anchor sets at 100 ft intervals. For (b) place an 800 ft section of 18” boom at the proper angle to divert incoming oil to the collection site. Set anchor sets at 200 ft intervals. Set up shoreside recovery and tend throughout the tide.
NS-12-02 	Essex Bay (a) Farm Creek Lat. 42°39'13"N Lon. 70°43'11"W (b) Walter Creek Lat. 42°38'58"N Lon. 70°44'35"W (c) Bull Island Lat. 42°38'56"N Lon. 70°45'50"W	Exclusion Booming Exclude oil from entering the identified creeks and intertidal areas to minimize lateral flow of oil into the smaller creeks and passages.	All exclusion strategies are a combination of hard and soft boom. Place soft boom on both sides of hard boom and at attachments points. If hard boom is not available, use only soft boom. Deploy anchors and boom with skiffs at high tide. For each (a) & (b) place 18” boom directly across the creeks. For (c) place 18” boom in a slight chevron. Secure with anchor stakes on shore and anchors in midstream. Tend throughout the tide. Boom Lengths: (a) 400 ft, (b) 500 ft, (c) 500 ft.
NS-12-03 	Various Locations	Passive Recovery Assemble passive recovery tactics along river to prevent lateral movement of oil into smaller creeks.	Place and anchor snare or sorbent boom along the riverfront to prevent lateral movement of oil into smaller creeks. See diagram for suggested locations. Replace as necessary to maximize the recovery. If oil threatens to enter mosquito ditches, use available materials to close off the ditch channel to prevent oil from migrating further into the area. Line with sorbent or snare boom to absorb any oil that migrates into the mosquito ditch. Replace as necessary to maximize the recovery.
NS-12-04 	Essex Bay	Free-Oil Recovery Maximize free-oil recovery in the offshore & nearshore environment in Essex Bay, depending on spill location and trajectory.	Deploy free-oil recovery strike teams upwind and up current of Essex Bay and Essex River. Use aerial surveillance to locate incoming slicks. Ensure that responders have experience with on-water free-oil recovery. Stay in main channels during low tide.





North Shore Geographic Response Plan

Essex Bay NS-12

ID	Response Resources	Staging Area Site Access	Resources Protected	Special Considerations
NS-12-01 	Deployment <i>Equipment (All sites)</i> 1100 ft 18" boom 7 anchor systems 2 anchor stakes 2 shoreside recovery systems Vessels 2 skiffs Personnel/Shift 8 total (1 vessel operator + 1 responder per vessel, 4 shoreside responders) Tending Vessels 1 skiff Personnel/Shift 4 total (1 vessel operator + 1 responder per vessel, 2 shoreside responders)	Staging Area: Essex Fire Department, 24 Martin St; Rt 128 to Southern Ave to Eastern Ave to Martin St. Site Access: (a) From Eastern Ave to Rt 128 to Concord St to Atlantic St/Ave to Wingersheek Rd. (b) From Main St to North Gate Rd to Argilla Rd to private drive. Chart 13279-1	Birds - Roseate Tern Invertebrates -Shellfish Habitat - Marsh/Swamp, Tidal Flats, Beach, Rocky Shore Human use - Boat Ramps, Beach, Mooring Fields	Tide range of 7 - 9 ft Tidal Current max speed of 2-3 kts in main channel. Less than 1 kt in side creeks. Extensive tidal flats exposed during low tides. Vessel master should have local knowledge and experience operating in strong currents. Entire site surveyed: 05/21/09. Tested: not yet.
NS-12-02 	Deployment <i>Equipment (All sites)</i> 1400 ft 18" boom 5 anchor systems 6 anchor stakes Vessels 2 skiffs Personnel/Shift 8 total (1 vessel operator + 1 responder per vessel, 4 shoreside responders) Tending Same as NS-12-01.	Site Access: Via marine waters. Boat Ramps at Essex Marina and Conomo Point.	Same as NS-12-01.	Same as NS-12-01.
NS-12-03 	Deployment Equipment 1200 ft of snare or sorbent boom 12 anchor stakes Vessels 1 skiff Personnel/Shift 4 shoreside responders	Site Access: Same as NS-12-02.	Same as NS-12-01.	Use snare boom for persistent oils and sorbent boom for non-persistent oils.
NS-12-04 	Deploy multiple free-oil recovery strike teams as required to maximize interception of oil before it impacts sensitive areas.	Site Access: Vessel Platform Via marine waters. Chart 13279-1	Same as NS-12-01.	Vessel master should have local knowledge. Free-oil recovery should only be attempted if conditions permit and by experienced responders.





Site Photographs and Contact Information



Conomo Point boat ramp on 21 May 2009. View looks south.



Castle Neck River. MassDEP, 08 April 2008.



Entrance to Farm Creek at mid tide on 21 May 2009. View looks South.



Entrance to Farm Creek. MassDEP, 09 April 2009.



Coffins Beach at mid-tide on 21 May 2009. View looks south.

Contact Information:
Essex Fire Department: 978-768-6511
Essex Harbormaster: 978-768-6363
Essex Shellfish Constable: 978-361-5044
Mass Bays Estuary Assn: 978-374-0519
U.S.C.G. Station Merrimack: 978-462-3428
Mass Division of Marine Fisheries: 617-626-1520
Environmental Police: 800-632-8075

