






Tactics Legend

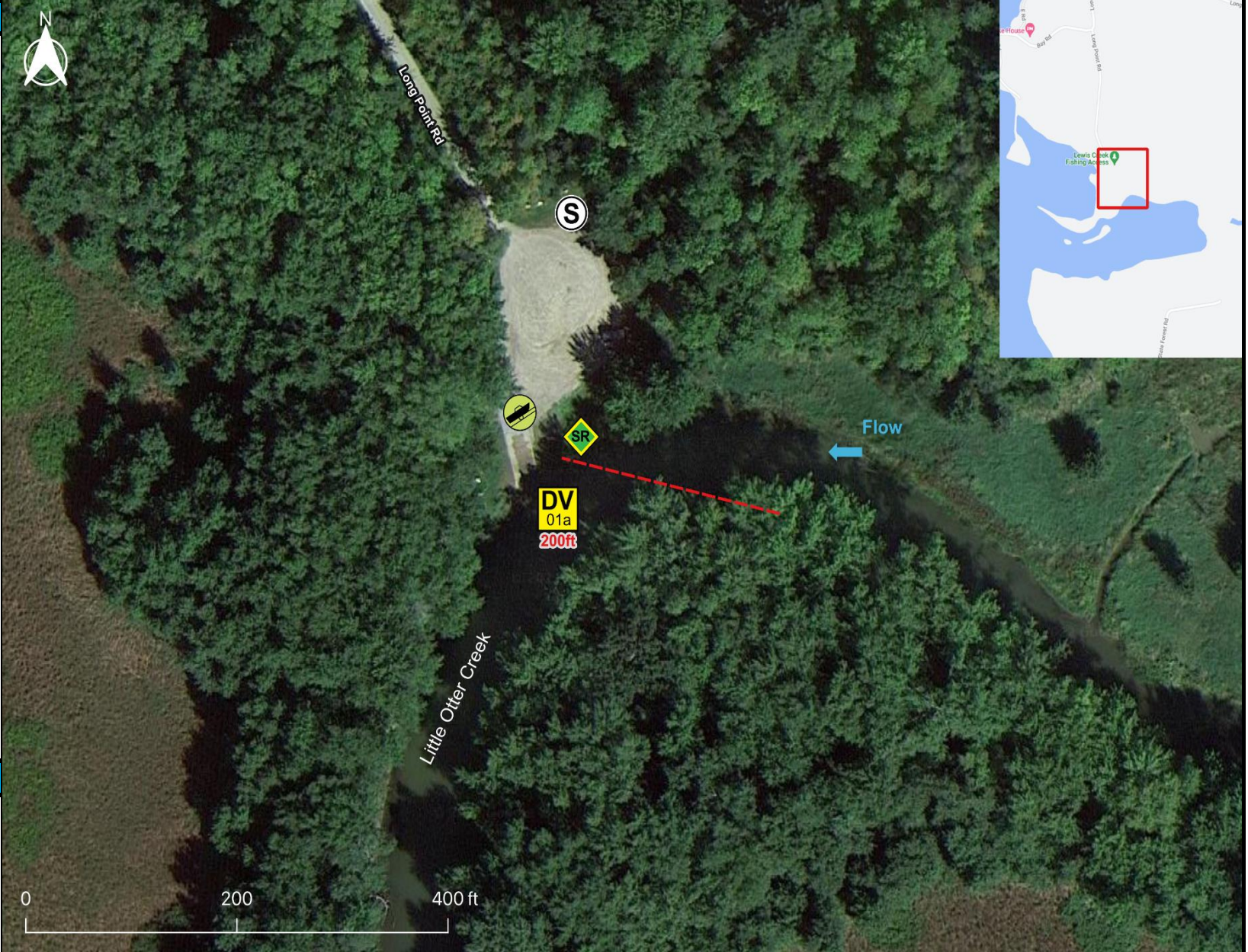
- DF** Deflection Booming
- DV** Diversion Booming
- EX** Exclusion Booming
- FO** Free Oil Recovery
- PR** Passive Recovery
- SR** Shoreside Recovery
- S** Staging Area
-  Boat Ramp
-  Kayak Ramp
-  Railroad
-  Protected-Water Boom
-  Protected-Water Boom (Ebb Tide)
-  Snare/ Sorbent Boom

Equipment - All Tactics

Boom(ft)	200
Marine anchors	0
Shore anchors	2
Sorbent Boom(ft)	0
FO Recovery Sys	0
Shore Responders	2
Boat Responders	2
Boats	2

Version



9/20/2022



Tactics Deployment, Responder Safety, and GRS Data Information		Location	
Always consider on-scene conditions before deploying GRS tactics. Responder safety should always be the first priority.		Latitude:	44° 14' 55"
		Longitude:	73° 16' 25"
		State	Vermont

**EPA Lake Champlain River Geographic Response Strategy**

**Lewis-Little Otter Creek LC-VT-12A**

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.	200 ft protected water boom marine anchor system 2 shoreline anchor system	2 shore responders 1 response boats 1 boat operators	Deploy boom as depicted to divert incoming oil to the collection site. Anchor every 200-300'. Adjust configuration as necessary to reduce entrainment. Set up shoreside recovery. Deploy shoreside anchor first.
		Testing Date	N Tested	
SR-01a 	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.
		N/A	Testing Date	Tested



**EPA Lake Champlain River Geographic Response Strategy**

**Lewis-Little Otter Creek LC-VT-12A**

**Local contacts**

All VT Fire Departments	Call 911
EPA Region 1 Tribal Program	617-918-1123
Missisquoi National Wildlife Refuge	802-868-4781
National Response Center	800-424-8802
VT Comm. on Native American Affairs	802-779-7015
VT DEC (24-Hour)	800-641-5005
VT Drinking Water & Groundwater	802-741-5311
VT Emergency Mgmt & Homeland Security	800-347-0488
VT Fish & Wildlife Dept (Essex)	802-878-1564
VT Hazmat Response Team	800-641-5005
VT Div of Historical Preservation	802-272-2509
Champlain Water District (24/7)	802-864-7454



*Aerial view of Hawkins Bay, Lewis and Little Otter Creeks and surrounding area. Rail line on right.*



*Mouth of Lewis Creek at Hawkins Bay. Site of DV-01a at upper right.*

**Resources Protected**

<b>Fish</b>	No available data
<b>Birds</b>	No available data
<b>Threat/End. Species</b>	Rare Species (Includes Vermont's Rare and Uncommon Animals), Rare, Threatened, and Endangered Species Habitat, Species of Special Concern
<b>Cultural/Historical Resources</b>	Historical/Archaeological Sites, Native American Tribal Lands
<b>Human Use</b>	Boat Ramp
<b>Land Management</b>	Conservation Area, State Park
<b>Riverine</b>	No available data

**Navigational Hazards**

Lake and river conditions such as flow rate and flood stage vary depending on the time of year and heavy rain or snowfall.

If ice is present GRS tactics and strategies must be reevaluated.

Vessel operators should have local knowledge and experience operating in riverine environments.

**Special Considerations**

Survey site prior to deployment and modify deployment tactics and techniques as appropriate based on observed river/lake conditions.



Tactics Legend

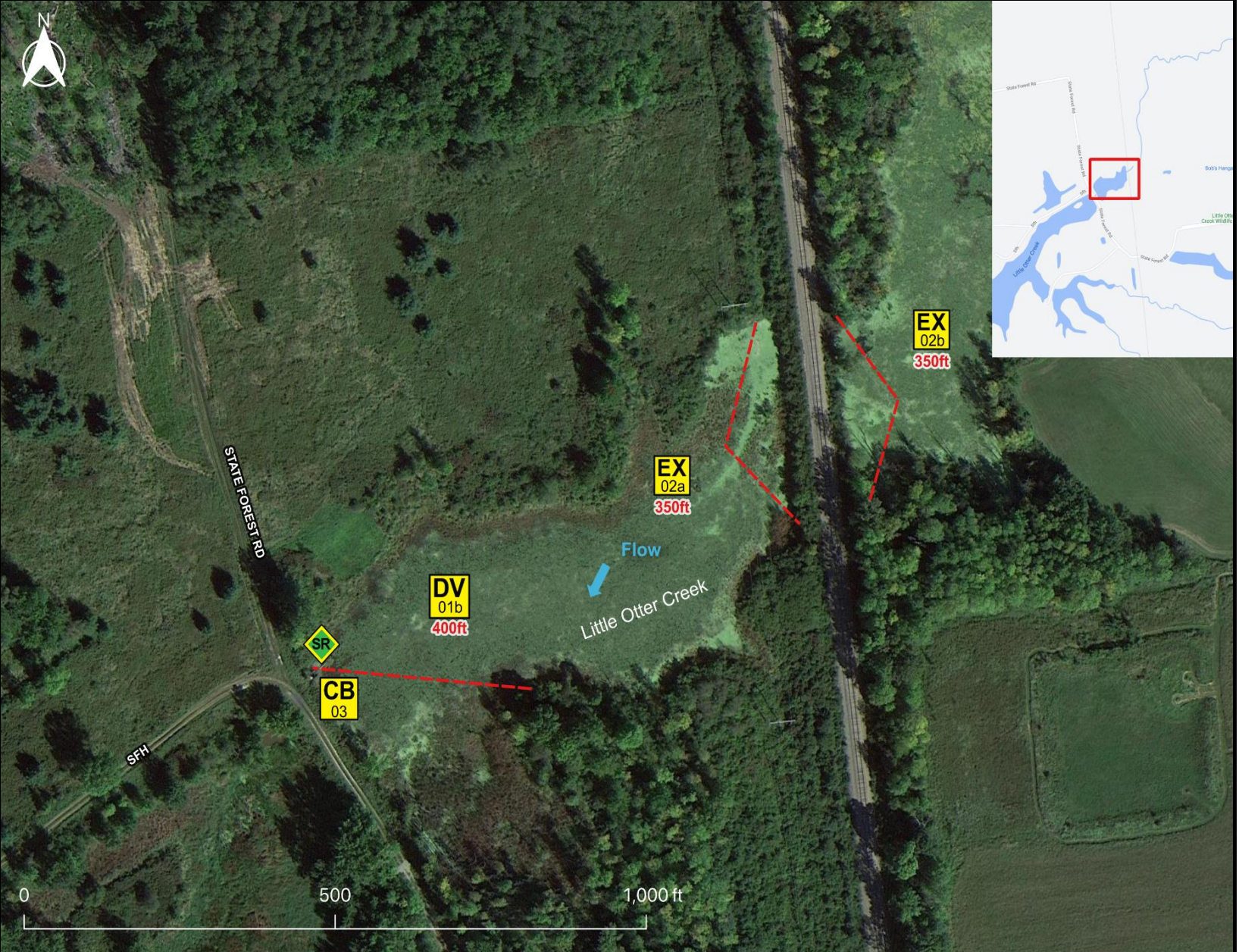
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- FO** Free Oil Recovery
- PR** Passive Recovery
- SR** Shoreside Recovery
- S** Staging Area
-  Boat Ramp
-  Kayak Ramp
-  Railroad
-  Protected-Water Boom
-  Protected-Water Boom (Ebb Tide)
-  Snare/ Sorbent Boom

Equipment - All Tactics

Boom(ft)	1100
Marine anchors	4
Shore anchors	6
Sorbent Boom(ft)	0
FO Recovery Sys	0
Shore Responders	2
Boat Responders	2
Boats	2

Version

9/20/2022



Tactics Deployment, Responder Safety, and GRS Data Information






Always consider on-scene conditions before deploying GRS tactics. Responder safety should always be the first priority.

Location

Latitude: 44° 13' 52"  
 Longitude: 73° 15' 13"  
 State: Vermont

EPA Lake Champlain River Geographic Response Strategy

Lewis-Little Otter Creek LC-VT-12B

Tactic #	Purpose	Response Equipment	Deployment Resources	Deployment Notes
<b>DV-01b</b> 	Redirect spilled oil from one location or direction of travel to a specific site for recovery.	400 ft protected water boom 2 marine anchor system 2 shoreline anchor system	2 shore responders 1 response boats 1 boat operators	Deploy boom as depicted to divert incoming oil to the collection site. Anchor every 200-300'. Adjust configuration as necessary to reduce entrainment. Set up shoreside recovery. Deploy shoreside anchor first.
		N/A	Testing Date	
<b>SR-01b</b> 	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.
		N/A	Testing Date	
<b>EX-02a</b> 	Prohibit oil slicks from entering a sensitive area.	350 ft protected water boom 1 marine anchor system 2 shoreline anchor system	2 shore responders 1 response boats 1 boat operators	Deploy boom as depicted to exclude oil from sensitive areas. Anchor every 200-300'. Adjust configuration as necessary to reduce entrainment. Deploy shoreside anchor first. Readjust boom angle as needed to reduce entrainment
		N/A	Testing Date	
<b>EX-02b</b> 	Prohibit oil slicks from entering a sensitive area.	350 ft protected water boom 1 marine anchor system 2 shoreline anchor system	2 shore responders 1 response boats 1 boat operators	Deploy boom as depicted to exclude oil from sensitive areas. Anchor every 200-300'. Adjust configuration as necessary to reduce entrainment. 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	If accessible 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	



**EPA Lake Champlain River Geographic Response Strategy**

**Lewis-Little Otter Creek LC-VT-12B**

**Local contacts**

All VT Fire Departments	Call 911
EPA Region 1 Tribal Program	617-918-1123
Missisquoi National Wildlife Refuge	802-868-4781
National Response Center	800-424-8802
VT Comm. on Native American Affairs	802-779-7015
VT DEC (24-Hour)	800-641-5005
VT Drinking Water & Groundwater	802-741-5311
VT Emergency Mgmt & Homeland Security	800-347-0488
VT Fish & Wildlife Dept (Essex)	802-878-1564
VT Hazmat Response Team	800-641-5005
VT Div of Historical Preservation	802-272-2509
Champlain Water District (24/7)	802-864-7454



*Aerial view of Hawkins Bay, Lewis and Little Otter Creeks and surrounding area. Rail line on right.*



*Little Otter Creek at site of DV-01b, EX-02, CB-03.  
Note rail line at right.*

**Resources Protected**

<b>Fish</b>	No available data
<b>Birds</b>	No available data
<b>Threat/End. Species</b>	Rare Species (Includes Vermont's Rare and Uncommon Animals), Rare, Threatened, and Endangered Species Habitat, Species of Special Concern
<b>Cultural/Historical Resources</b>	Historical/Archaeological Sites, Native American Tribal Lands
<b>Human Use</b>	Boat Ramp
<b>Land Management</b>	Conservation Area, State Park
<b>Riverine</b>	No available data

**Navigational Hazards**

Lake and river conditions such as flow rate and flood stage vary depending on the time of year and heavy rain or snowfall.  
 If ice is present GRS tactics and strategies must be reevaluated.  
 Vessel operators should have local knowledge and experience operating in riverine environments.

**Special Considerations**

Survey site prior to deployment and modify deployment tactics and techniques as appropriate based on observed river/lake conditions.



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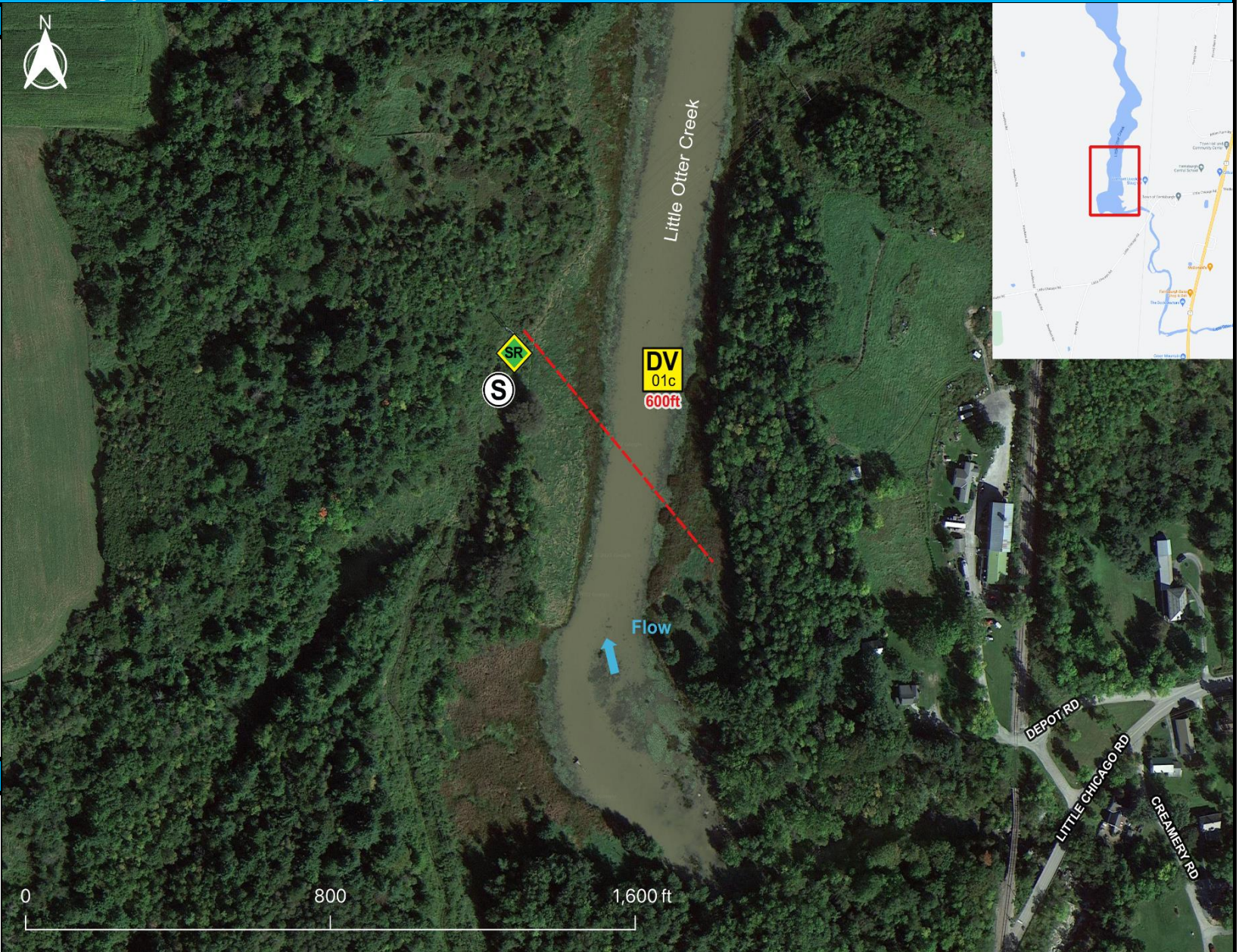
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- S** Staging Area
-  Boat Ramp
-  Kayak Ramp
-  Railroad
-  Protected-Water Boom
-  Protected-Water Boom (Ebb Tide)
-  Snare/ Sorbent Boom

Equipment - All Tactics

Boom(ft)	600
Marine anchors	3
Shore anchors	2
Sorbent Boom(ft)	0
FO Recovery Sys	0
Shore Responders	2
Boat Responders	2
Boats	2

Version

9/20/2022



Tactics Deployment, Responder Safety, and GRS Data Information



Always consider on-scene conditions before deploying GRS tactics. Responder safety should always be the first priority.

Location

Latitude: 44° 12' 20"  
 Longitude: 73° 15' 18"  
 State: Vermont

**EPA Lake Champlain River Geographic Response Strategy**

**Lewis-Little Otter Creek LC-VT-12C**

Tactic #	Purpose	Response Equipment	Deployment Resources	Deployment Notes
<b>DV-01c</b> 	Redirect spilled oil from one location or direction of travel to a specific site for recovery.	600 ft protected water boom 3 marine anchor system 2 shoreline anchor system	2 shore responders 1 response boats 1 boat operators	Deploy boom as depicted to divert incoming oil to the collection site. Anchor every 200-300'. Adjust configuration as necessary to reduce entrainment. Set up shoreside recovery. Deploy shoreside anchor first.
		Testing Date	N Tested	
<b>SR-01c</b> 	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.
		N/A	Testing Date	Tested



**EPA Lake Champlain River Geographic Response Strategy**

**Lewis-Little Otter Creek LC-VT-12C**

**Local contacts**

All VT Fire Departments	Call 911
EPA Region 1 Tribal Program	617-918-1123
Missisquoi National Wildlife Refuge	802-868-4781
National Response Center	800-424-8802
VT Comm. on Native American Affairs	802-779-7015
VT DEC (24-Hour)	800-641-5005
VT Drinking Water & Groundwater	802-741-5311
VT Emergency Mgmt & Homeland Security	800-347-0488
VT Fish & Wildlife Dept (Essex)	802-878-1564
VT Hazmat Response Team	800-641-5005
VT Div of Historical Preservation	802-272-2509
Champlain Water District (24/7)	802-864-7454



*Aerial view of Hawkins Bay, Lewis and Little Otter Creeks and surrounding area. Rail line on right.*



*Little Otter Creek at site of DV-01c. Note rail line at right.*

**Resources Protected**

<b>Fish</b>	No available data
<b>Birds</b>	No available data
<b>Threat/End. Species</b>	Rare Species (Includes Vermont's Rare and Uncommon Animals), Rare, Threatened, and Endangered Species Habitat, Species of Special Concern
<b>Cultural/Historical Resources</b>	Historical/Archaeological Sites, Native American Tribal Lands
<b>Human Use</b>	Boat Ramp
<b>Land Management</b>	Conservation Area, State Park
<b>Riverine</b>	No available data

**Navigational Hazards**

Lake and river conditions such as flow rate and flood stage vary depending on the time of year and heavy rain or snowfall.

If ice is present GRS tactics and strategies must be reevaluated.

Vessel operators should have local knowledge and experience operating in riverine environments.

**Special Considerations**

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