
INTEROFFICE MEMORANDUM

TO: MERLE JEFFERSON SR., EXECUTIVE DIRECTOR
JEREMY FREIMUND, WATER RESOURCES MANAGER

FROM: MONIKA LANGE, NATURAL RESOURCE ANALYST

SUBJECT: OCTOBER 23, 2012 LUMMI BAY TIDE GATES OIL SPILL RESPONSE DRILL (NPS-8)

DATE: 10/30/12

CC: SGT ED CONWAY

The purpose of this memorandum is to summarize the spill drill that took place on October 23, 2012.

Participants:

The following LNR and LNP staff participated in the drill:

1. Jeremy Freimund, LNR Water Resources Manager
2. Frank Lawrence III, LNR Natural Resources Specialist
3. Jamie Mattson, LNR Water Resources Specialist II
4. Victor Johnson, LNR Natural Resources Specialist
5. Hilary Cosentino, LNR Water Resources Technician III
6. Monika Lange, LNR Natural Resources Analyst
7. Sergeant Ed Conway, LNP
8. Officer David Savage, LNP
9. Officer Jay Martin, LNP
10. Don Kruse, LNR Project Biologist
11. Frank Bob, LNR Restoration Assistant
12. Gregg Dunphy, LNR Forest Fish Manager
13. Chris Phair, LNR Restoration Technician II

Peter Marcus from the Marine Spill Response Corporation (MSRC) participated throughout the drill and provided suggestions and hands-on support during the deployment.

Drill Strategy:

The exercise was a half-day oil spill response drill with boom deployment. The goal of the drill was to deploy boom strategy NPS-8 of the Geographic Response Plan (GRP) for the North Puget Sound (NPS) region (see attached diagram). NPS-8 calls for deflection boom to be placed in a chevron configuration in front of the tide gates located in the seawall adjacent to Sandy Point Heights along Lummi Bay. The boom is supposed to prevent oil from entering northern distributary channel of the Lummi River.

Drill Goals:

1. Test NPS-8.
2. Test accessibility of the site by boat.
3. Practice the use of fence posts as shore anchors.
4. Practice team work.

There are pilings extending into the water way in front of the tide gates closing off the site from boat access at low tides. One of the goals for the drill was to ascertain if the Harbercraft boat operated by the Lummi Water Resources Division can access the site for boom deployment. The sediment in front of the tide gates appears to be too soft to deploy a boom on foot at low tide. The site is accessible by road for the boom trailer and the boom was to be deployed from the shore directly at the site.

Briefing and Scenario:

During the pre-meeting held in the Sam Cagey room at the LNR office, Jeremy outlined the scenario for the day and addressed each of the agenda items. In the scenario, oil from an oil barge accident north of Lummi Island (NPS-C) was predicted to enter Lummi Bay and the Unified Command for the incident directed the Lummi Spill Response Team to deploy NPS-8.

Briefing Agenda:

1. Check in/Introductions
2. Briefing/Scenario
3. ICS Review
4. Safety (Rocks, Water [PFDs], Bees, Hypothermia)
5. Deployment (Boom)
6. Debriefing/Lunch
7. Check out

Tide Predictions (Cherry Point Station) for October 23, 2012:

Low Tide: 6:13 am, 0.9 ft

High Tide: 13:50 pm, 9.1 ft

Low Tide: 8:25 pm, 4.1 ft

Timeline of the October 23, 2012 Oil Spill Response Drill

<i>Time</i>	<i>Event</i>
10:05 am	Pre-meeting with explanations of scenario and goals, ICS refresher, safety briefing, and job assignments.
10:26 am	Mobilization
10:50 am	The LNR Harbercraft leaves the Central Campus.
10:56 am	The boom trailer leaves Central Campus.
11:00 am	The Harbercraft arrives at the launch site.
11:04 am	Launch of Harbercraft.
11:06 am	The boom trailer arrives at the site of NPS-8.
11:21 am	Start of boom unloading.
11:25 am	The Harbercraft arrives at the site.
11:40 am	The boom deployment is complete.
11:45 am	Recovery of the boom starts.
12:07 pm	The recovery is complete.
12:20 pm	The boom trailer arrives back at the Central Campus.
12:30 pm	The Harbercraft arrives at the Central Campus.
12:35 pm	Lunch, de-briefing, and check out.
1:10 pm	End of debriefing. Cleaning of the Harbercraft and re-storing of supplies.
2:00 pm	End of drill.

Results:

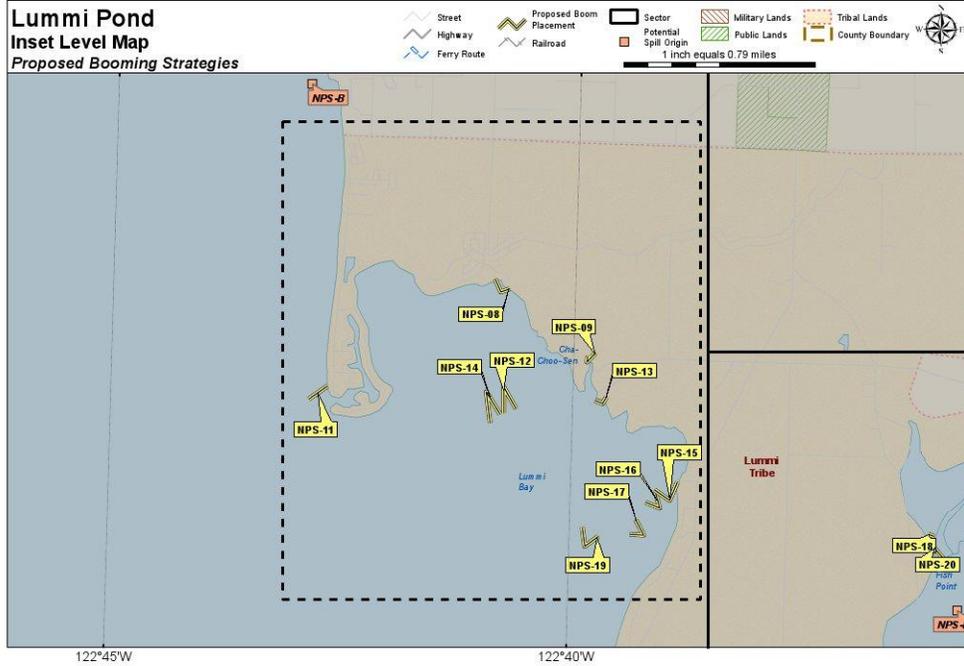
The following are “lessons learned” and recommendations resulting from the drill:

- The GRP recommends 400 ft of boom for NPS-8. The drill demonstrated that 300 ft was a better fit for the site.
- The site was accessible by the shallow-draft boat at the tide conditions of October 23, 2012. The Harbercraft was launched at the mouth of the Lummi River channel (adjacent to NPS-9)

east of the NPS-8 site and maneuvered around the pilings in front of the tide gates. The boat crew reported that access would also have been possible at slightly lower tide levels.

- In the debriefing it was noted that a smaller boat would have been adequate to deploy the boom which would allow access at lower tides. A smaller boat can even be hand-carried down to the deployment site and launched without need to circumnavigate the pilings.
- Peter Marcus (MSRC) showed Lummi team members how to set up metal fence posts as shore anchors in a triangle configuration to distribute the load. He recommended purchasing stronger posts and eye protection. The eye protection is needed when hammering the posts into the ground.
- Peter also recommended the use of wader leashes. Wader leashes are attached to belt of a responder wearing chest or hip waders and held by a team member on the shore. In case of a fall where the waders can become swamped with water, the shore team member can rope the responder back to safety.
- During the drill, the post fence driver could not be located. Additional supplies recommended in the debriefing were a machete to access overgrown shore anchor points and possibly a chainsaw.
- One of the two VHF radios used by the Water Resources Division did not function properly and will be repaired or replaced.
- Site NPS-8 is one of the few deployment sites that is located directly adjacent to residential properties. As a matter of courtesy, residents should be notified in the future before the drill to avoid alarm.
- Peter Marcus suggested for the Lummi Spill Response Team to contact MSRC for a tour of the MSRC equipment in Bellingham with an emphasis on anchoring options.

See below: NPS-8 Averages, Drill Images, Sign-up Sheet



North Puget Sound (NPS) GRP, Version 1.00

- General
- Overview Map
- Priorities
- Sector Map
- Matrices
- Access
- Strategy
- Staging

Sandy Point Tide Gates		NPS-08-Average	4-88																
Site Lat/Long:	N 48° 48.113' / W 122° 40.832', Sector Map NPS-4																		
Strategy Objective:	Exclusion - Keep oil out of slough																		
Implementation:	There are two options: block-off tide gates, if that is not possible deploy boom in a chevron in front of the tide gates. To deploy the chevron will require a skiff and 3 people. Piling in the area could be used to help hold the boom in place.																		
Site Safety Note:	Slips, trips, falls. Piling.																		
Field Notes:	Paved road access.																		
Resources Targeted:	tribal lands/resources, sensitive habitat																		
Fixed Anchors:	193: N 48° 48.191' / W 122° 40.783', Water Depth 0ft, shore near tide gates, adjust as needed																		
Watercourse Description:	Slough																		
	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2">Suggested Equipment</th> </tr> <tr> <th>Quantity</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>400 ft</td> <td>B2 - Contractor Boom</td> </tr> <tr> <td>1 each</td> <td>Danforth(s) or other appropriate anchor</td> </tr> <tr> <td>4 each</td> <td>Stake(s)</td> </tr> <tr> <th colspan="2">Suggested Personnel</th> </tr> <tr> <td>1</td> <td>Boat Operator (s)</td> </tr> <tr> <td>2</td> <td>Laborer (s)</td> </tr> </tbody> </table> <p>Status: Visited and Not Tested 07/30/2008</p>			Suggested Equipment		Quantity	Description	400 ft	B2 - Contractor Boom	1 each	Danforth(s) or other appropriate anchor	4 each	Stake(s)	Suggested Personnel		1	Boat Operator (s)	2	Laborer (s)
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Boom unloading



Readying boom on shore, pilings in background



Towing boom off shore



Setting up shore anchor above tide line



Knot for fence post anchor



Shore anchor on east side of tide gates



Deployed boom with central anchor



Retrieving central anchor



Reloading the boom



Debriefing after lunch

Oil Spill Drill October 23, 2012
Check-in/out and Cell Phone Numbers

#	Name	Department/Division	Cell Phone Number	Check-in Time	Check-out Time
1.	Jeremy Freimund	LNR/Water	410-1775	1002	11:10 pm
2.	Jamie Mattson	LNR/Water	815-7863	10:00am	
3.	Frank Lawrence III	LNR/Water	410-1990	10 AM	
4.	Victor Johnson	LNR/Water	393-2269	10 am	
5.	Hilary Cosentino	LNR/Water			
6.	Monika Lange	LNR/Water	296 5226	10 AM	
7.	Frank Bob FB	LNR/Restoration	410-1783	10 AM	
8.	Sgt. Ed Conway	LNPD E Conway	410-6813	10 AM	
9.	Officer Jay Martin	LNPD	410-8201	10	
10.	Officer David Savage	LNPD D Savage	553-880-2208	10 AM	
11.	Gregg Dunphy	TWF G Dunphy	410-1743	10 AM	
12.	Chad Huntley - PETER MARCUS	MSRC	206-459-4323		
13.	Ben Starkhouse	LNR/Harvest Management			
14.	Nick Kunkel	LNR/Harvest Management	(360) 389-7603	10:00 AM	
15.	Don Kruse	LNR Biologist Stock Ass.	360-961-0675	10:00 AM	
16.	Dave S				
17.	Jay Martin				
18.	Hilary Cosentino	LNR-water Resources	541-490-4563	10:00 am	
19.	Chris Phair	LNR Restoration		10:30 am	
20.					
21.					