

Canadian Wildlife Service (Shorebirds)

Spill Contingency Plan

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Introduction

We are concerned about the populations of shorebirds that breed in the Arctic. Recently, studies that count these birds on their migration routes have found that numbers of most species are declining. No one is sure why this is happening, though some possible causes are: loss of habitat in countries where the birds spend the winter, human developments at their migration stopping points, climate change, and toxic substances on their wintering grounds.

Our knowledge of the size of shorebird populations is not very good, and some of the species that breed in the Arctic are difficult to monitor on their migration routes. We want to monitor the birds on their breeding grounds because we will get better estimates of their true population sizes. Canadian and American biologists have developed a method to monitor the population size of shorebird species that breed in the Arctic. We want to use this method to keep track of shorebird populations over the years, so we will know if they are increasing or decreasing. We can use this information to detect problems with the shorebird populations and then try to figure out what is causing the problem.

To do this, we set up tent camps for 2-6 weeks starting in early-mid June to base our bird survey work from. All camps are temporary tent camps and everything is removed when we leave. While camping, we require use of water for drinking and cooking, and often have temporary drummed Jet B fuel caches adjacent to the camp.

General Spill Contingency Plan

The general response to be followed in the event of the spill is:

1. Protect the safety and lives of anyone in the spill area.
2. Isolate or remove any potential sources of ignition (if safe and possible).
3. Locate the product and source of the spill – check container design, warning labels, markings etc., consult MSDS sheet.
4. Stop the flow at the source – reduce or terminate the flow of product without endangering anyone.
5. Assess the seriousness of the spill – evaluate potential dangers of the spill to humans, wildlife, aquatic environment, ground water, vegetation and other land resources.
6. Report the spill – provide information such as location of spill, name of polluter, type and amount of material spilled, date and time of spill and any perceived threat to human health or environment. (Complete a NT-NU Spill Report form)
7. Control access to the area until assistance arrives.
8. Attempt to contain spread of spill, using available equipment and materials.

Emergency Numbers

In the event of a spill, call the 24-hour spill report line first and then other below organizations as required:

24-Hour Spill Report Line: 867-920-8130

- Environment Canada Duty Officer: 866-845-6037
- INAC Manager of Field Operations: 867-975-4295
- Government of Nunavut, Dept. of the Environment (GN-DOE): 867-975-7729
- Regional Inuit Associations (based on camp location)
- Kitikmeot IA: 867-983-2458
- Qikiqtani IA: 867-975-8400
- Kivalliq IA: 867-645-5725
- Department of Fisheries and Oceans (DFO): 867-979-8024

Detailed Response Plan

On-site person in charge, management or control of contaminants

Jennie Rausch – Prince of Wales Island (867-669-4709/camp phone number to be provided at future date)

Lisa Pirie – Prince of Wales Island (867-975-4638/camp phone number to be provided at future date)

Name and address of employer of personnel described in part (1)

Canadian Wildlife Service
Environment Canada
P.O. Box 2310, 5019-52nd St.
Yellowknife, NT X1A 2C6
Phone: (867) 669-4760 (Vanessa Charlwood)
Fax: (867) 873-6776

Description of the facility

Facility – one temporary, 4-6persons shorebird research camp (tents)

Locations – Approximate camp location will be:

Prince of Wales Island – abandoned airstrip approximately 9.5 km NE of Forsyth Lake (99°9'00" N, 73°5'00" W)

Fuel will be stored at the Prince of Wales Island camp on a naturally vegetation free site located a safe distance from the tents and well away (>100m) from water bodies. Spill kits are stored in the helicopter which is normally parked near the fuel drums. Site maps are not available, but a diagram of a typical camp set up is attached (Appendix A).

Size – fuel stored above ground in sealed 205 litre (45 gal.) steel drums. Drums will be placed in Insta-berms (<http://www.sei-ind.com/sites/default/files/pdf/Insta-Berm.pdf>) for secondary containment.

Storage Capacity – The total amount of fuel stored at the camp will be 18 drums (6,560 litres) of Jet-A, Diesel, plus 6, 20lb-propane cylinders.

Description of the type and amount of potential contaminants normally stored on-site.

JET A fuel for the helicopter – up to 3,690 litres (18 drums)
Propane for cooking, etc. – 6, 20 lb. tanks.

Steps to be taken in the event of a spill.

Preventative Measures/Early Detection

Fuel drums will be monitored for any signs of leakage:

1. Immediately after they arrive on-site,
2. Once they have been transported to the designated storage area, and
3. Regularly after that time (during each helicopter fuelling).

Drums will be stored on their sides, with bungs at 3 and 9 o'clock positions on flat stable terrain to reduce chances of a leak. An Insta-Berm will be under the cache to further mitigate chance of a leak. The contents of any drum that leaks, or shows the potential to leak, will be transferred by wobble pump or similar device to a different drum. With the exception of the container in use, all fuel container outlets will be kept sealed to prevent leakage. The helicopter will be refuelled at some distance from the main storage facilities to reduce potential danger should a fire occur.

Reporting

1. Identify the product – check container design, warning labels, markings etc.
2. Protect people – prevent personnel from approaching the site and keep them at a distance sufficiently removed that they will not be injured by, or cause, a fire or explosion
3. Stop the flow at the source – reduce or terminate the flow of product without endangering anyone

4. Assess the seriousness of the spill – evaluate potential dangers of the spill to human health and safety, the aquatic environment, wildlife, ground water, vegetation and other land resources
5. Report the spill to the 24- Hour Spill Report Line (867) 920-8130 - provide basic information such as location of spill, direction of motion if any, name of contact on-site, type and amount of material spilled, cause of spill, date and time of the spill and any perceived threat to human health or the environment (complete Spill Report form – attached Appendix B)
6. Report the spill – to Environment Canada’s Duty Officer
Depending on the severity of the spill – report to the other appropriate authorities (i.e. Nunavut Water Board, Department of Fisheries and Oceans; Regional Inuit Association)

Containment

Fuel drums are stored in Insta-Berm secondary containment berms (see Appendix C). The capacity of our Insta-Berms is 5,309L and they are made with the Arctic-shield fabric (rates to -45°C) and have hydrocarbon-filtering rain drains. Fuel drums are only caches on land (not on ice or snow). Other spill containment techniques in event of a secondary containment failure are:

1. Earth dams - simple and effective control means for surface and small streams
2. Absorbent materials – include fine sand, soil or snow, sorbent blankets

Clean Up

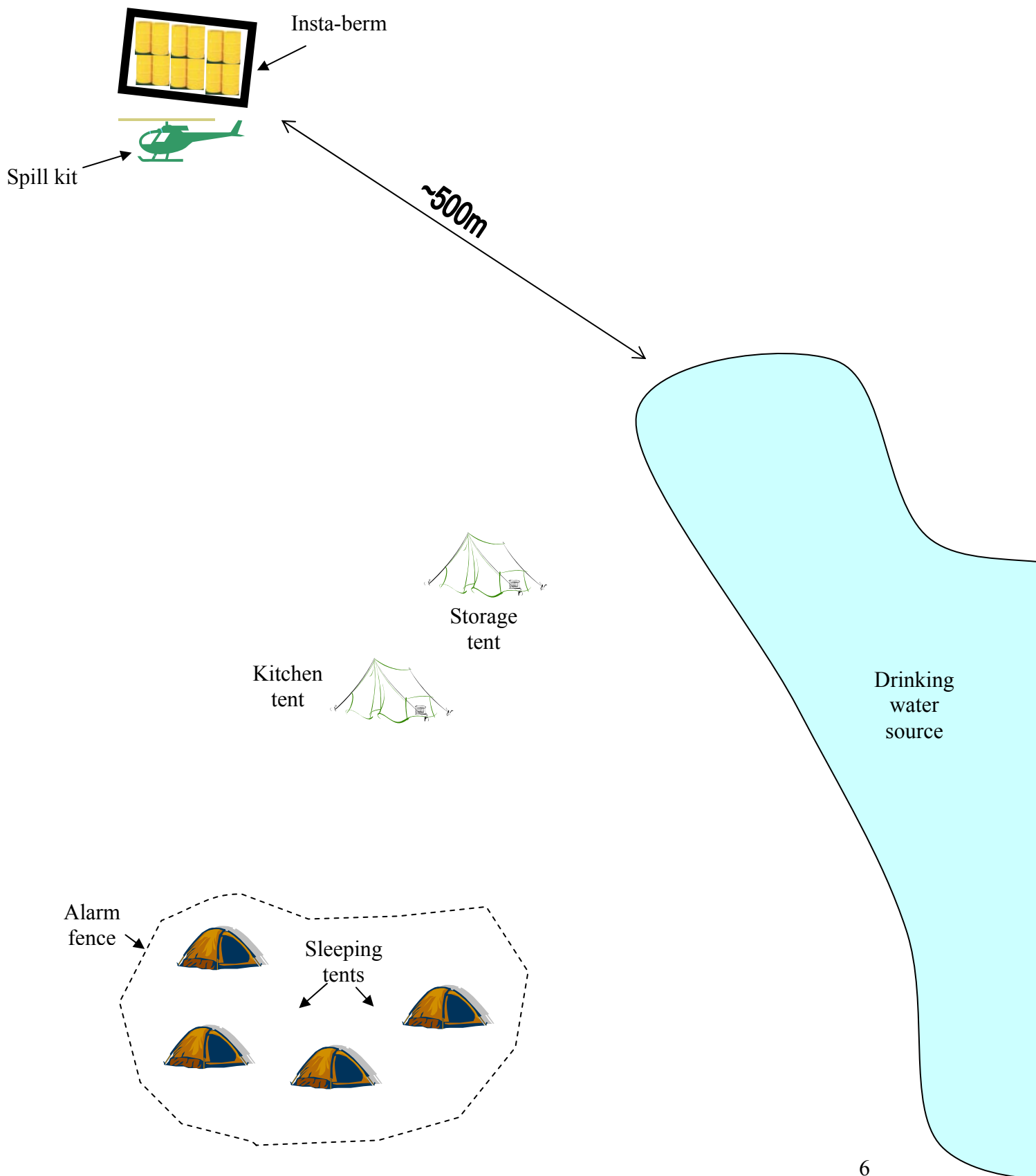
The most likely spill scenario is the partial loss of jet fuel from one of the 205L (45 gal.) drums. Drums will be checked on arrival camp, after transfer to the designated storage facility and periodically thereafter. Contents of any leaking drum will be immediately transferred by pump to an empty, leak free drum. It is unlikely that more than one drum will leak at any time. Any spills will be contained, and pumped into empty barrels.

One spill kit will be on each helicopter (including fuel transfer pump, absorbent materials, bung wrench, shovels). Contaminated material will be transported to an approved disposal or recovery site. Shovels will be available to recover and isolate any contaminated material.

Disposal

Organic soils, sands and gravels contaminated by a significant spill of petroleum products will be excavated by hand.

Appendix A – Diagram of typical CWS shorebird temporary tent camp



Appendix B – NT-NU Spill Report Form



Canada

NT-NU SPILL REPORT

OIL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS

NT-NU 24-HOUR SPILL REPORT LINE

TEL: (867) 920-8130

FAX: (867) 873-6924

EMAIL: spills@gov.nt.ca

REPORT LINE USE ONLY

A	REPORT DATE: MONTH – DAY – YEAR		REPORT TIME		<input type="checkbox"/> ORIGINAL SPILL REPORT, OR <input type="checkbox"/> UPDATE #	REPORT NUMBER -	
	OCCURRENCE DATE: MONTH – DAY – YEAR		OCCURRENCE TIME				
C	LAND USE PERMIT NUMBER (IF APPLICABLE)			WATER LICENCE NUMBER (IF APPLICABLE)			
D	GEOGRAPHIC PLACE NAME OR DISTANCE AND DIRECTION FROM THE NAMED LOCATION				REGION <input type="checkbox"/> NWT <input type="checkbox"/> NUNAVUT <input type="checkbox"/> ADJACENT		
E	LATITUDE DEGREES MINUTES SECONDS		LONGITUDE DEGREES MINUTES SECONDS				
F	RESPONSIBLE PARTY OR VESSEL NAME		RESPONSIBLE PARTY ADDRESS OR OFFICE LOCATION				
G	ANY CONTRACTOR INVOLVED		CONTRACTOR ADDRESS OR OFFICE LOCATION				
H	PRODUCT SPILLED		QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES		U.N. NUMBER		
	SECOND PRODUCT SPILLED (IF APPLICABLE)		QUANTITY IN LITRES, KILOGRAMS OR CUBIC METRES		U.N. NUMBER		
I	SPILL SOURCE		SPILL CAUSE		AREA OF CONTAMINATION IN SQUARE METRES		
J	FACTORS AFFECTING SPILL OR RECOVERY		DESCRIBE ANY ASSISTANCE REQUIRED		HAZARDS TO PERSONS, PROPERTY OR ENVIRONMENT		
K	ADDITIONAL INFORMATION, COMMENTS, ACTIONS PROPOSED OR TAKEN TO CONTAIN, RECOVER OR DISPOSE OF SPILLED PRODUCT AND CONTAMINATED MATERIALS						
L	REPORTED TO SPILL LINE BY	POSITION	EMPLOYER	LOCATION CALLING FROM	TELEPHONE		
M	ANY ALTERNATE CONTACT	POSITION	EMPLOYER	ALTERNATE CONTACT LOCATION	ALTERNATE TELEPHONE		
REPORT LINE USE ONLY							
N	RECEIVED AT SPILL LINE BY	POSITION Station operator	EMPLOYER	LOCATION CALLED Yellowknife, NT	REPORT LINE NUMBER (867) 920-8130		
LEAD AGENCY <input type="checkbox"/> EC <input type="checkbox"/> CCG <input type="checkbox"/> GNWT <input type="checkbox"/> GN <input type="checkbox"/> ILA <input type="checkbox"/> INAC <input type="checkbox"/> NEB <input type="checkbox"/> TC			SIGNIFICANCE <input type="checkbox"/> UNKNOWN <input type="checkbox"/> MINOR <input type="checkbox"/> MAJOR <input type="checkbox"/>		FILE STATUS <input type="checkbox"/> OPEN <input type="checkbox"/> CLOSED		
AGENCY		CONTACT NAME	CONTACT TIME	REMARKS			
LEAD AGENCY							
FIRST SUPPORT AGENCY							
SECOND SUPPORT AGENCY							
THIRD SUPPORT AGENCY							

Appendix C – Insta-Berm (secondary containment) description sheet

INSTA-BERM™

SECONDARY CONTAINMENT BERM FEATURING L-ROD DESIGN

Guard against toxic spillage with the Insta-Berm: a fully collapsible, rapidly deployable fabric berm made from custom chemical-resistant materials. Use the Insta-Berm virtually anywhere for secondary containment that's durable and reliable. Comply with today's strict environmental rules – let an Insta-Berm be the impenetrable barrier between dangerous liquids and the environment.

Complies with EPA CFR 40 part 112



L-ROD DESIGN FEATURES

- L-shaped rods hold up the walls, yet fold down easily for vehicle entry and exit
- Fully collapsible for compact storage and easy transport
- Instant deployment without any tools
- Wide range of standard sizes and custom sizes available
- Easily cleaned and maintained
- Includes eyelet patches for staking down the berm
- Appropriate for secondary containment of waste water, petroleum products and various chemicals

BERM OPTIONS

- **Drain fitting** – this fitting can be opened to let out accumulated rainwater, or connected to a hose to pump out spilled product
- **Over-fill protection** – allows precipitation to be drained from the Insta-Berm while containing spilled chemicals
- **RainDrain** – removed hydrocarbons and additives from capture water through gravity drainage
- **High Wind Stakes** – anchors the berm to the ground

FABRIC OPTIONS

- **CHEM-SHIELD** – Chemical-resistant fabric
- **ARCTIC-SHIELD** – Chemical resistant fabric for temperatures to -50 degrees Fahrenheit / -45.6 degrees Celsius. (Arctic-Shield fabric is not suitable for acids)



Drain fitting



RainDrain



Eyelet patches for staking down berm



L-Rod Setup Stage 1



L-Rod Setup Stage 2



L-Rod Setup Stage 3



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