MVLWB / GNWT

Operation and Maintenance Plan Templates for Municipal Water Licences: Spill Contingency Plan

Plan prepared:

Template updated: March 2018

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If you have any questions about this document, please contact your regional Manager of Community Infrastructure Planning.

1. Site & Systems Description

Date this plan was prepared: _____

Community: _____

Which facilities do these plans cover? Include only facilities where the community would be responsible for responding to a spill. (Check all that apply.)

☐ Water Treatment Plan (WTP)

☐ Solid Waste Disposal Facility (SWDF)

☐ Sewage Disposal Facility (SDF), specify type:

○ Mechanical Plant ○ Natural Lake Lagoon ○ Engineered Lagoon ○ Exfiltration System

☐ Bulk Fuel Storage Facility

☐ Community Garage

☐ Swimming Pool

☐ Landfarm at separate location from SWDF

☐ Other (specify): _____

Attach a map showing the **location of each facility** (multiple facilities can be shown on one map, or you can use separate maps). Include any additional community fuel storage locations, such as an airport fuel facility. Show the **municipal boundaries** on each map. Show the **location of fuel and other hazardous materials** stored at each site. If applicable, show the location of the **fuel and pump for a seasonal reservoir fill**.

☐ Map(s) attached

2. Spill Contingency Plan (SCP)

2.1 SCP – Introduction

What is the Effective Date of the Spill Contingency Plan? _____ (yyyy/mm/dd)

This Spill Contingency Plan is effective from the date shown above until such time that an updated contingency plan is in place. Updated plans should include a list of all revision dates and a brief summary of the changes made to the plan. In the event of a spill during a period of review this plan shall take precedence. This plan applies to all operations and activities conducted within the municipal boundaries of . This Spill Contingency Plan was developed to comply with the Environmental Protection Act. R.R.N.W.T. 1990,c.

2.2 SCP – Revisions

The Spill Contingency Plan should be updated annually, at a minimum, to reflect changes such as fuel storage locations, new hazardous materials on site, new construction and new personnel and contact information. **Use the following table to record a summary of revisions each year.** Add new pages as needed.

Date of Revision (yyyy/mm/dd)	Title, Section Number, or Page Number of Revised Sections	Summary of Changes

2.3 SCP – Purpose

The purpose of this plan is to outline response actions for potential spills of any size, including a worst case scenario, for the . The plan identifies key response personnel and their roles and responsibilities in the event of a spill, as well as the equipment and other resources available to respond to a spill. It details spill response procedures that will minimize potential health and safety hazards, environmental damage, and clean-up efforts. The plan has been prepared to ensure quick access to all the information required in responding to a spill.

It is the policy of the :

- To comply with existing regulations
- To provide such protection of the environment as it is technically feasible and economically practical
- To cooperate with other groups on the protection of the environment
- To keep employees, government officials, and the general public informed

2.4 SCP – Contact Information & Responsibilities

An **immediately reportable spill** is defined as a release of a substance that is likely to be an imminent environmental or human health hazard or meets or exceeds the volumes shown in the attached table. These spills **must be reported** to the NWT 24-hour Spill Report Line at (867) 920-8130.

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

Provide contact information for spill response personnel. Where possible, provide additional phone numbers to ensure contacts can be reached 24 hours a day in the event of a spill.

Band Manager:

Name:	
Phone:	
Second phone:	

Senior Administrative Officer (SAO):

Name:	
Phone:	
Second phone:	

Maintenance Foreman:

Name:

Phone:

Second phone:

Works Foreman:

Name:

Phone:

Second phone:

Additional copies of the Spill Contingency Plan may be obtained by contacting:

Name:

Position: (normally SAO or Band Manager)

Phone:

Email:

Fax:

Media inquiries should be directed to:

Name:

Position:

Phone:

Email:

Fax:

Who is responsible for activating the Spill Contingency Plan at each facility in the event of a spill?

	Name	Job Title	24-hour telephone number(s)
WTP			
SDF			
SWDF			
Bulk Fuel Storage Facility			
Community Garage			
Other			
Other			

2.5 SCP – Off-Site Resources

Off-site resources for assistance in the event of a spill are listed below. Assistance from outside the community may not be able to reach the site until at least the next business day.

- NWT/NU Spill Report Line ..... (867) 920-8130
- GNWT Environmental Protection Division ..... (867) 873-7654
- ENR Inspector ..... CHOOSE REGION (867) xxx-xxxx
- AANDC Northwest Territories Region ..... (867) 669-2440
- ECCC Environmental Enforcement ..... (867) 669-4730
  (enforcement and reporting requirements for CEPA and Fisheries Act)
- GNWT Environmental Health Officer ..... During business hours (867) 767-9066 ext. 49262
  After hours and weekends (867) 920-8646
- RCMP (Yellowknife) ..... (867) 669-1111
- Stanton Territorial Health Authority ..... (867) 669-4111
- Medivac (Yellowknife) ..... (867) 669-4115
- Great Slave Helicopters (Yellowknife) ..... (867) 873-2081
- Matrix Helicopters (Yellowknife)..... (867) 766-3134
- Trinity Helicopters (Yellowknife)..... (867) 669-7031
- Remote Helicopters (Hay River) ..... (867) 874-6999
- Thebacha Helicopters (Fort Smith) ..... (867) 872-4354
- Air Tindi (Yellowknife) ..... (867) 669-8218
  or 669-8200
- Arctic Sunwest Charters (Yellowknife) ..... (867) 873-4464

2.6 SCP – Emergency Phone & Radio Locations

Where are Emergency telephones and/or radios located?

☐ Water Treatment Plant

☐ Sewage Disposal Facility

☐ Solid Waste Disposal Facility

☐ Bulk Fuel Storage Facility

☐ Community Garage

☐ Community's main office

☐ Other (specify):

2.7 SCP – Distribution & Storage of Spill Contingency Plan

A copy of this Spill Contingency Plan should be kept on site at each facility at all times and at the Community's main office. Indicate which locations have a copy of the Spill Contingency Plan (check all that apply):

☐ Water Treatment Plant

☐ Sewage Disposal Facility

☐ Solid Waste Disposal Facility

☐ Bulk Fuel Storage Facility

☐ Community's main office

☐ Other (specify):

Which offices have received a copy of the Spill Contingency Plan as part of the formal distribution of the plan? Choose the applicable office from each menu. The address and contact information will automatically be filled in below.

Choose **Regional Land and Water Board**:	Choose Regional Land and Water Board
Choose **Municipal and Community Affairs** (MACA) regional office:	Choose MACA Regional Office
Choose **Public Works and Services** (PWS) office:	Choose PWS Regional Office
Choose **Health & Social Services Authority**:	Choose Health & Social Services Authority

Formal distribution of the Spill Contingency Plan has been made to the following offices:

No Water Board Selected

No MACA Office Selected

No PWS Office Selected

No HSSA Office Selected

2.8 SCP – Community Environmental Policy

The is committed to operating in an environmentally sensitive manner, and complying with requirements of the No Water Board Selected .

2.9 SCP – Potential Spill Materials Inventory

In this section, you will create a **Potential Spill Materials Inventory** by listing the hazardous materials stored at each site that could lead to a spill.

The following tables list hazardous materials on-site for each facility that may pose a spill risk, the type of storage container, the average and maximum quantities stored and their storage location. Tables are provided for the most common facilities. Use the two "Other Location" tables at the end of the section to add additional facilities such as a community pool, landfarm (other than one that is part of the Solid Waste Disposal Facility), or other facilities with chemical storage. Do not include sewage or fuel tanks installed at individual buildings or households.

Materials commonly found at each type of facility have been listed as a starting point. Skip any materials that are not present at your facility. Add any additional materials at the end of the list for each facility.

Water Treatment Plant (Do not list small quantities of reagents or calibration standards used for in-plant water testing.)

Material	**Type of Storage Container**	**Quantity Normally Onsite (L/drums/gallons)**	**Maximum Quantity Onsite (L/drums/gallons)**	**Storage Location and Uses**
Sodium Hypochlorite (liquid) and/or household bleach				
Sodium Hypochlorite (powder)				
Sodium Hydroxide (Caustic Soda)				
Vita-D-Chlor (Ascorbic Acid)				
Diesel or heating fuel				
Aluminum sulfate or alum				
Coagulant-aid polymer				

Sewage Disposal Facility (SDF)

Material	Type of Storage Container or Containment	Quantity Normally Onsite (L/drums/gallons)	Maximum Quantity Onsite (L/drums/gallons)	Storage Location and Uses
Sewage or wastewater				
Diesel or heating fuel				

Solid Waste Disposal Facility (SWDF) (For additional information on the hazardous waste materials listed in this section, please refer to the "Hazardous waste information" pages appended to this document.)

Material	Type of Storage Container	Quantity Normally Onsite (L/drums/gallons)	Maximum Quantity Onsite (L/drums/gallons)	Storage Location and Uses
Diesel or heating fuel				
Household Hazardous Waste				
Asbestos				

(SWDF continued) **Material**	**Type of Storage Container**	**Quantity Normally Onsite (L/drums/gallons)**	**Maximum Quantity Onsite (L/drums/gallons)**	**Storage Location and Uses**
Lead-acid Batteries				
Antifreeze or glycol				
Hydrocarbon-contaminated soil, snow, or water				
Mercury				
Oily Debris				
Halocarbons or Refrigerants				
Paint				
Propane Tanks				
Residue Fuel Tanks, Heating Oil Tanks, Drums				
Used oil				
Waste fuel				
Vehicles				

(SWDF continued)

Material	Type of Storage Container	Quantity Normally Onsite (L/drums/gallons)	Maximum Quantity Onsite (L/drums/gallons)	Storage Location and Uses

Bulk Fuel Storage Facility (If the community has additional fuel storage at the airport or elsewhere, add additional lines for the second location. For example, if you have diesel stored at two separate facilities, you will have two lines in the table for diesel.)

Material	Type of Storage Container	Quantity Normally Onsite (L/drums/gallons)	Maximum Quantity Onsite (L/drums/gallons)	Storage Location and Uses
Gasoline				
Diesel or LSDL fuel				
Jet-A				
Propane				

Community Garage

Material	Type of Storage Container	Quantity Normally Onsite (L/drums/gallons)	Maximum Quantity Onsite (L/drums/gallons)	Storage Location and Uses
Diesel or heating fuel				
Glycol or antifreeze				
Engine oil				
Transmission fluid				
Brake fluid				

Other Location 1 (specify):

Material	Type of Storage Container	Quantity Normally Onsite (L/drums/gallons)	Maximum Quantity Onsite (L/drums/gallons)	Storage Location and Uses

Other Location 2 (specify):

Material	Type of Storage Container	Quantity Normally Onsite (L/drums/gallons)	Maximum Quantity Onsite (L/drums/gallons)	Storage Location and Uses

2.10 SCP – Response Flowchart

The flowchart on the following page identifies the response organization and the chain of command for responding to a spill or release. This chart should be posted in a highly visible location in each community facility in order to provide quick access to the spill response process.

Choose site supervisor for flowchart

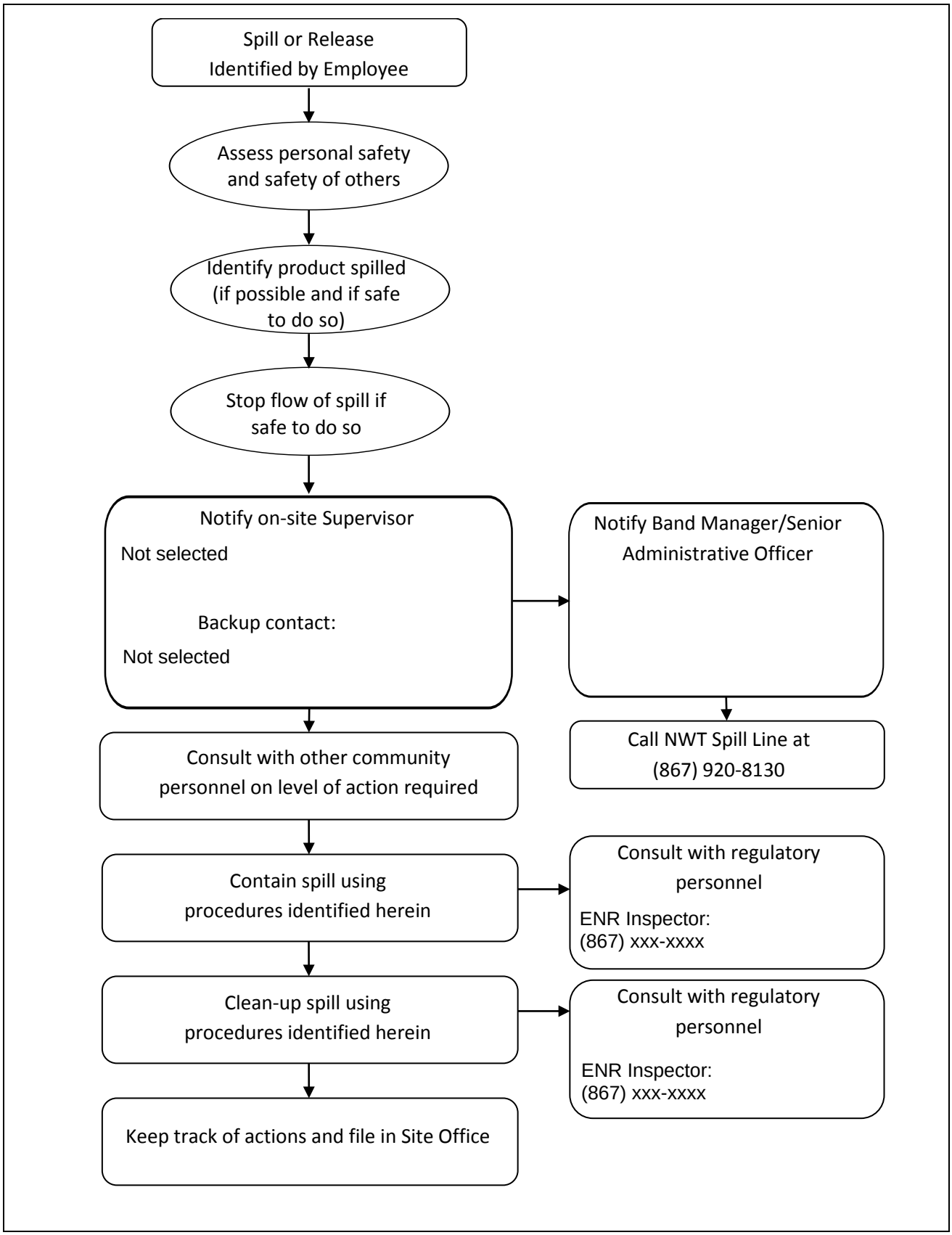
If Other, name:

If Other, phone:

Choose backup contact for flowchart

If Other, name:

If Other, phone:


Spill or Release Identified by Employee
Assess personal safety and safety of others
Identify product spilled (if possible and if safe to do so)
Stop flow of spill if safe to do so
Notify on-site Supervisor
Not selected
Backup contact:
Not selected
Notify Band Manager/Senior Administrative Officer
Call NWT Spill Line at (867) 920-8130
Consult with other community personnel on level of action required
Contain spill using procedures identified herein
Consult with regulatory personnel
ENR Inspector: (867) xxx-xxxx
Clean-up spill using procedures identified herein
Consult with regulatory personnel
ENR Inspector: (867) xxx-xxxx
Keep track of actions and file in Site Office

2.11 SCP – Action Plan

Reservoir Fill Operation and Flammable Liquids

Is there a seasonally-filled water reservoir in the community?

○ Yes ○ No

If yes, which fuels, oils and chemicals are used in the filling operation? Indicate the maximum quantity stored on or adjacent to the ice, in Litres. (If no, skip this section.)

☐ Diesel fuel	Max quantity **on ice**:		Litres
☐ Engine oil	Max quantity:		Litres
☐ Gasoline	Max quantity:		Litres
☐ Antifreeze	Max quantity:		Litres
☐ Automatic Transmission Fluid	Max quantity:		Litres
☐ Other (specify):	Max quantity:		Litres

Where is the reservoir refill pump located?

Distance from reservoir: ____ m

Direction from reservoir: Choose dire of reservoir

currently conducts seasonal reservoir fills. The location of the reservoir refill pump is approximately m of the reservoir. The quantity of fuel on the ice at any one time shall be limited to 205 litres in the pumps fuel tank and fuel that is in a mobile tidy tank that will only be on the ice during refueling. Fuel will be transferred from a tidy tank that is situated in the back of a truck into the tank required to operate the pump as required.

During seasonal pumping operations, the fluids listed above will be stored in close proximity to the Mackenzie River. No storage or staging of fluids other than those listed above is a part of the operation; the amount of fuel on the ice at any given time will be minimized. This will significantly reduce the size of a potential spill. All other flammable liquid spills within municipal boundaries and of municipal responsibility will be dealt with in the same manner.

Defensive Position - Reservoir Fill Operation Only

- Retain Sufficient Spill Recovery supplies onsite during pumping operations.
- Train on site personnel in spill containment and clean up.
- Provide communications during operations.
- Storage of fluids not exceeding the amounts listed above.

- Ensure that the ice is able to support the types of vehicles and equipment used in the filling operation. The GNWT Department of Infrastructure has published "A Field Guide To Ice Construction Safety", which is a good reference for working on ice and provides guidance on determining a safe thickness of ice for a given load. The following paragraph is from the Field Guide, Section 3.4.

  "The ability of ice to support a load is dependent on a number of factors, including ice thickness, the pressure of the water below the ice as deflection develops, the way the ice formed initially, snow cover, vehicle speed and the kinds of load placed on the ice cover. The strength is different for sea and freshwater ice and is affected by the presence of cracks and sudden or extreme temperature changes. It should also be remembered that ice thickness can vary considerably from place to place and until a margin of safety is achieved, extreme caution must be exercised."

  The Field Guide is available on INF's website and should be used as guidance to determine if the ice thickness is sufficient for reservoir filling activities. People in the community who are familiar with the source waterbody should also provide information on site-specific dangers such as known areas of thin ice, which can't be predicted in a general guideline. Additional caution is needed when working with vibrating loads such as pumps, which can cause damage to the ice. If possible, these loads should be kept on shore. If this is not possible, the ice may need to be thicker, and should be monitored for damage such as cracks that may weaken it. The Field Guide provides information on cracked ice.

Response Strategy

In the event of a spill:

- Be alert and consider safety first. If possible, identify the product spilled and the source of the spill.
- Assess the fire and safety hazard to human life; warn people in and around the spill area to vacate the area if necessary
- Shut off the source of the spill, if safe to do so.
- Shut off all machinery or equipment, for example: lights, motors, furnaces, truck engines that may cause sparks, etc. to start a fire, no smoking.
- Tend to the injured, if any.
- Secure the area by not letting any vehicles or persons enter the area.
- Use good judgment to safely stop the spill product from spreading, if possible, by creating a barrier to keep the area of spill from getting larger
- Notify the SAO / Acting SAO that a spill has occurred. The SAO will follow these steps:
  Step 1: Activate the Spill Recovery Plan.
  Step 2: Consult with on-site staff and determine appropriate level of response.
  Step 3: Notify all relevant government departments using the 24-hour Spill Line.
  Step 4: Deploy appropriate staff resources, including Rubber Tire Loader, Municipal Works staff, Spill Containment Kit located as listed in section 2.13.
  Step 5: Commence spill containment and collection activities.
  Step 6: See that the contaminated materials are disposed within the solid waste disposal area.
  Step 7: Complete spill report.

Sewage Spills

The main source for a sewage spill in would be the sewage truck and/or sewage holding tanks in a home or community building. The maximum size of a sewage spill is most likely limited to the capacity of the sewage truck.

Response Strategy

In the event of a spill:

- Be alert and consider safety first. If possible, identify the product spilled and the source of the spill.
- Shut off the source of the spill, if safe to do so.
- Tend to the injured, if any.
- Secure the area by not letting any vehicles or persons enter the area.
- Use good judgment to safely stop the spill product from spreading, if possible, by creating a barrier to keep the area of spill from getting larger
- Notify the SAO / Acting SAO that a spill has occurred. The SAO will follow these steps:
  Step 1: Activate the Spill Recovery Plan.
  Step 2: Consult with on-site staff and determine appropriate level of response.
  Step 3: Notify all relevant government departments using the 24-hour Spill Line.
  Step 4: Deploy appropriate staff resources, including Rubber Tire Loader, Municipal Works staff, Spill Containment Kit located as listed in section 2.13.
  Step 5: Commence spill containment and collection activities preferably using the backup sewage truck. Use of the municipal loader is preferred for the creation of a containment berm and the collection of contaminated soil. The spill contact area is to be treated with lime and covered with soil.
  Step 6: See that the contaminated materials are disposed of within the solid waste disposal area.
  Step 7: Complete Spill Report.

General Community Operations

On a daily basis the community conducts operations that have the potential to be a small spill situation. Reporting for these spills will be in accordance with the Environmental Protection Act and the volumes outlined in the list of Immediately Reportable Spill Quantities appended to this document.

Defensive Spill Position

General community operations include:

- Retain sufficient supplies (sorbent) in community-owned vehicles and potential spill locations to contain potential spill volumes. Such as motor oil generated from servicing vehicles, gasoline and diesel from the fuelling of equipment.
- Using Storage tanks that meet the fire code and Fire Marshal's recommendations (Dyked tanks or double-walled).
- Training personnel in safe, sensible operational procedures.
- Retain minimum economic volumes of chlorine and other chemicals in the community's

possession to reduce the size of a potential spill.

- Retain Safety Data Sheets (SDS) for all chemicals in use.

Response Strategy

The response strategy would be the same as the Reservoir Fill Operation and Flammable Liquids section above, incorporating the information from the appropriate SDS.

Note: Specific chemicals have specific spill containment requirements; the SDS for these chemicals identify the procedure for its collection.

Attach SDS (or MSDS) for all chemicals, fuels, and oils used in community operations.

☐ SDS attached.

Indicate which of the following materials are generated or stored in your community (check all that apply):

☐ Gasoline

☐ Diesel

☐ Waste Oil and Miscellaneous Oils and Grease

☐ Sewage

Identify specifically which approved waste disposal facilities are used to dispose of waste materials for each type of spill. Skip any that don't apply.

Gasoline	
Diesel	
Oil/Grease	
Sewage	
Other	

Potential Environmental Impacts of Spill

Generally, for the hazardous materials discussed below, environmental impacts are lower during the winter, as snow is a natural sorbent and ice forms a barrier lining for eliminating soil or water contamination. Spills can be more readily recovered when identified and reported.

Gasoline:

Environmental Impacts:

- Harmful to wildlife and aquatic life
- Not readily biodegradable
- Has potential to bioaccumulate in environment
- Volatilizes easily
- Runoff into water bodies must be avoided

Worst Case Scenario: Fuel truck spill and contents pour onto ground and surrounding environment.

Diesel:

Environmental Impacts:

- Harmful to wildlife and aquatic life
- Not readily biodegradable
- Has potential to bioaccumulate in environment
- Burns slowly, more readily contained than volatile fuels
- Runoff into water bodies must be avoided

Worst Case Scenario: Fuel truck spill and contents pour onto ground and surrounding environment.

Waste Oil and Miscellaneous Oils and Grease:

Environmental Impacts:

- Harmful to wildlife and aquatic life
- Not readily biodegradable
- Has potential to bioaccumulate in environment
- Runoff into water bodies must be avoided

Worst Case Scenario: All oil and waste oil containers simultaneously spill and contents pour onto ground and surrounding environment.

Sewage:

Environmental Impacts:

- Human health hazard and unsightly appearance
- High nutrient concentrations could negatively impact water bodies and runoff into water bodies must be avoided

Worst Case Scenario: Full sewage truck releases all of its contents onto ground and surrounding environment.

Procedures for Initial Actions

The following list of actions should be followed by the first person on the scene:

- Ensure safety of all personnel
- Identify the product spilled
- Assess the hazards and risks to persons in the vicinity of the spill
- Remove all sources of ignition
- If possible, without further assistance, control the danger to human life
- If it is safe to do so, and if possible, stop the spill (i.e. shut off pump, replace cap, tip drum upward, etc.)
- Gather information on the status of the situation, including:
  - Estimated size of spill
  - Estimated migration route
- Contact on site Supervisor.

Spill Reporting Procedures

Spills should be reported immediately to the onsite Supervisor, who will notify the SAO and Band Manager. Together they will determine if the spill is to be reported to the NWT 24-Hour Spill Line at 867-920-8130, based on the volumes in the Immediately Reportable Spill Quantities table at the end of this document.

Copies of the Spill Report form are available in each spill kit and at the end of this document. The form will be filled out by the onsite Foreman (or designate), and faxed or emailed to the NWT Spill Line. Contact information is as follows:

NWT 24-Hour Spill Line
Phone: (867) 920-8130
Fax: (867) 873-6924
Email: spills@gov.nt.ca

Procedures for the Protection of Human Health and Safety

Following a spill, the health and safety of workers as well as the general public is a priority. Actions taken will depend on the type of spill.

- In the event of a chemical spill: Restrict public access to the spill area. Workers involved in the clean-up of the spill should wear personal protective equipment (PPE).
- In the event of a flammable or combustible material spill: Disconnect electrical equipment, evacuate adjacent buildings and restrict public access to the spill area. Only spark-arresting equipment should be used during clean-up of the spill. PPE should also be worn by workers involved in the clean-up.
- In the event of a sewage spill: Restrict public access (including pets and animals) to the spill area.

Procedures for Containing and Controlling Spills

General procedures noted below will be used to contain and control all spills. Specific procedures for spills on land, water, snow and ice follow.

- First anticipate what will be affected by the spill.
- Assess direction and speed of spill, and any factors that could affect these (water, wind and slope).
- Determine best location for containing spill, avoiding any water bodies.

Containment of Spills on Land:
Dykes and trenches can be constructed to contain spills on land. Soil surrounding the spill area can be dug out, and piled up, to create a barrier for the spill. A plastic tarp can be placed at the base of the dyke, so that the pooled material can be removed with sorbent materials. Conversely, trenches can be excavated to permafrost, which will provide a natural containment of the spill. Once the material is contained, it can be pumped out, or removed by using sorbent materials. If the spill is moving very slowly, such structures

may not be necessary and the material can be removed before migrating away from the spill location.

Containment of Spills on Water:
Spills on water are considered the most serious types of spills, as there is often no containment of the spilled material and water quality and aquatic life are negatively impacted. Booms, weirs, sediment curtains and fencing can be installed to contain the spill. Booms are designed to float, and are made of absorbent material to soak up the spilled fuel. They are deployed from the shore or a boat, to create a circle around the spill or to contain a spill from migrating further into the receiving water bodies. Weirs are installed across creeks/drainages, to prevent further migration. Plywood or other materials found onsite can be used. Barriers made of fence or netting can be used as well, with sorbent material placed at the base of the barrier. Once contained, the fuel can be removed by absorbent materials, pumped out or allowed to volatilize.

Containment of Spills on Snow:
Snow acts as a natural sorbent for spilled fuel. Impacted snow is easily visible, and can be shoveled into empty drums or barrels for proper disposal. If the spill is migrating down a hill, a snow dyke can be constructed to contain the spill. A plastic tarp can be placed at the base of the dyke, where spilled fuel is expected to pool. The collected fuel and impacted snow can be removed with absorbent materials, pumped out, or shoveled into barrels for disposal.

Containment of Spills on Ice:
Ice is considered impermeable to fuel, so these spills are generally easy to clean up. Small spills can be cleaned up by placing absorbent materials on top of the ice. Impacted snow and slush can then be removed by shovels, and placed in barrels for disposal. For larger spills, dykes of snow and trenches can be constructed to contain the spill. Pooled fuel can then be removed by absorbent materials or pumped out. Impacted snow and slush can be shoveled into barrels for disposal.

Worst Case Scenarios:
Worst case scenarios include a dyke or trench overflowing and a large spill on water that cannot be contained with materials available in the community. In the first case, a trench or collection pit could be constructed downstream to collect the fuel. In the second case, an emergency response team would need to be called, with appropriate equipment to deal with the spill.

Procedures for Transferring, Storing and Managing Spill Related Wastes

Spills are generally cleaned up starting at the outer limit of the spill, and working towards the point of the spill. Sorbent materials and hand tools such as cans and shovels are used for smaller spills. Larger spills can be contained with the use of a pump and/or heavy equipment.

Spill wastes include used absorbent materials and containers of impacted water and snow. Sorbent materials should be placed in plastic bags for proper disposal. The containers of impacted water and snow should be sealed and stored until disposal at an approved facility can be arranged. For most of the containment procedures, spilled petroleum products and materials used for containment will be placed into empty waste oil containers and sealed for proper disposal at an approved disposal facility.

Following a spill, all used materials need to be properly washed and/or replaced.

Procedures for Restoring Affected Areas

Once a spill has been contained, community personnel will consult with the Inspector assigned to the file to determine the level of clean-up required. The Inspector may request that a site specific study be conducted, to ensure appropriate clean-up levels are met.

After clean-up has been completed, the community should follow up with the NWT 24-hour Spill Line to ensure that the spill report file has been closed. Closure of the spill file provides evidence that the spill was cleaned up to the regulator's satisfaction. This will help prevent the spill from being considered an environmental liability for the community in the event of a change of ownership, refinancing, or closure of the site. A copy of the spill report marked "Closed" can be provided on request for the community's files. The Spill Line also keeps copies of these reports on file.

2.12 SCP – Resource Inventory

In this section, you will create a **Resource Inventory** by identifying the supplies and equipment available for spill response at each facility.

What earth-moving and other equipment is available in the community for spill cleanup (for any or all facilities)? (Check all that apply, list any additional equipment.)

☐ Loader ☐ Excavator ☐ Backhoe ☐ Bobcat

☐ Bulldozer ☐ Dump truck ☐ Fuel truck

☐ Shovels or other hand tools

☐ Other (specify): _____

Which facilities have spill kits? (Check all that apply.) Indicate where the spill kit is stored at each facility. Give enough detail for a person to find the spill kit if they don't know where it is. How many litres of spilled oil/fuel are the spill kits designed to contain and collect?

☐ Water Treatment Plant	Location:		Volume:	L
☐ Sewage Disposal Facility	Location:		Volume:	L
☐ Solid Waste Disposal Facility	Location:		Volume:	L
☐ Bulk Fuel Storage Facility	Location:		Volume:	L

☐ Community Garage Location: _____ Volume: _____ L

☐ Other (specify): _____

Additional volumes will be accommodated with the use of absorbent products that will be maintained in inventory in sufficient quantities.

What is included in the spill kit for each facility? Check all materials that apply for each facility. (The typical quantity is shown for information only and all kits should have sufficient material for expected spill volumes at each site.)

Item	Typical Quantity	Qty at WTP	Qty at SDF	Qty at SWDF	Qty at Bulk Fuel Storage Facility	Qty at Community Garage	Other (specify): _____	Other (specify): _____
Tyvek splash suits	4	☐	☐	☐	☐	☐	☐	☐
Chemical master gloves	4	☐	☐	☐	☐	☐	☐	☐
Large bags with ties for temporary use	10	☐	☐	☐	☐	☐	☐	☐
Oil-only booms (5 in by 10 ft)	2	☐	☐	☐	☐	☐	☐	☐
Oil-only mats (6 in x 20 in)	50	☐	☐	☐	☐	☐	☐	☐
Sorbent socks	5	☐	☐	☐	☐	☐	☐	☐
Sorbent pads	10	☐	☐	☐	☐	☐	☐	☐
Large tarps	2	☐	☐	☐	☐	☐	☐	☐
Duct tape (roll)	1	☐	☐	☐	☐	☐	☐	☐
Utility knife	1	☐	☐	☐	☐	☐	☐	☐

Item	Typical Quantity	Qty at WTP	Qty at SDF	Qty at SWDF	Qty at Bulk Fuel Storage Facility	Qty at Community Garage	Other (specify):	Other (specify):
Field notebook and pencil	1	☐	☐	☐	☐	☐	☐	☐
Rake	1	☐	☐	☐	☐	☐	☐	☐
Pick axe	1	☐	☐	☐	☐	☐	☐	☐
Aluminum scoop shovels	3	☐	☐	☐	☐	☐	☐	☐
Instruction binder	1	☐	☐	☐	☐	☐	☐	☐
Copies of the NWT Spill Report form to be completed in the event of a spill	1 or more	☐	☐	☐	☐	☐	☐	☐

2.13 SCP – Training

The Department of Environment and Natural Resources schedules a few training sessions each year for spill contingency. Selected members from the community works department can attend these training sessions. Once key personnel have the fundamental information, training sessions will be conducted as a part of the normal operation of the community.

Training will be conducted on an as-needed basis.

Where are training records kept? ☐

For each facility, indicate the training items that are done. (Check all that apply.)

Training	**WTP**	**SDF**	**SWDF**	**Bulk Fuel Storage Facility**
All individuals working at the facility are required to participate in an orientation session.	☐	☐	☐	☐
During the orientation, all locations of the Spill Contingency Plan and spill kits are indicated.	☐	☐	☐	☐
During the orientation, an overview of the Spill Contingency Plan is provided.	☐	☐	☐	☐
Specific training sessions, including mock spill exercises, are scheduled for individuals directly involved with handling hazardous materials.	☐	☐	☐	☐
All facility operators are required to have their basic first aid training, as well as WHMIS training, before working on the site.	☐	☐	☐	☐
A spreadsheet is kept by the Band Manager or Senior Administrative Officer at the Community head office indicating the training undertaken by the facility operator, and expiry dates for specific training.	☐	☐	☐	☐

3. Additional Comments or Notes

If there is any additional information that was not covered or didn't fit in the sections above, please include it here.

Operation & Maintenance Plan Templates for Municipal Water Licences: Spill Contingency Plan

Appendices

Hazardous waste information

Asbestos: Exposed asbestos fibres from construction and demolition debris present a risk to human health. The risks to human health are lowered to safe levels when asbestos is properly packaged according to the conditions set by the Worker Safety and Compensation Commission. Once this has taken place, a hole must be dug in advance of acceptance and the asbestos needs to be buried immediately. The location needs to be documented to prevent future disturbance. Further details can be found in ENR's document *Guideline for the Management of Waste Asbestos* (attached).

Lead-acid batteries are commonly found in vehicles. Both the lead and the acid are contaminants. Batteries in good condition can be stacked on pallets and banded or shrink-wrapped for transportation when enough have been collected to make shipping worthwhile. Store broken batteries in a pail or other container to prevent spills and avoid contact with battery acid. Further details can be found in ENR's document *Guideline for the Management of Waste Batteries* (attached).

Glycols: Waste antifreeze (Ethylene Glycol) is generated from vehicle maintenance. Propylene glycol is more common to the industrial/commercial sector where it is used for heating larger buildings. Glycols can be stored in pails or drums until the quantity warrants shipping. Further details can be found in ENR's document *Guideline for the Management of Waste Antifreeze* (attached).

Hydrocarbon-contaminated soil, snow, and water that result from spills or contaminated sites are managed as a hazardous waste in the NWT. Hydrocarbons include diesel, heating oil, gasoline, and other petroleum products. Communities wanting to store or treat contaminated soil, snow, or water may need to amend their water licence. Contact ENR for guidance on developing appropriate facilities.

Mercury is a severely toxic contaminant. Disposal needs to be reduced to levels as low as reasonably achievable. Thermostats, thermometers, mercury switches and fluorescent lamps all contain mercury. They can be safely stored in clearly marked pails. Drum-top crushing equipment can be used to remove the mercury from fluorescent bulbs. Other types of mercury-containing lights (i.e. street lamps or high intensity discharge lamps from the industrial/commercial sector) require specialized disposal methods and usually need to be transported to southern receiving facilities. For further information, see ENR's document *Guide to Recycling Mercury-Containing Lamps* (attached).

Oily debris can consist of rags, sorbent material, or containers used to store or clean up oil. These materials are contaminants that cannot be added to a typical soil treatment facility, but need to be kept segregated from other waste.

Ozone depleting substances (ODS), also referred to as halocarbons, are chemicals mainly used in air conditioning and refrigeration equipment. The release of these substances depletes the ozone layer and is prohibited. Refrigerants need to be recovered by a trained technician prior to disposal of items containing refrigerants, including refrigerators, freezers and vehicles. Specific training is required for anyone servicing equipment containing ODSs and halocarbon alternatives. For more information, see ENR's document *Environmental Guideline for Ozone Depleting Substances (ODS's) and Halocarbon Alternatives* (attached).

Paint: Paint can contain a number of hazardous chemicals, including lead. Whenever possible, paint should be used rather than disposed of. If it can't be used, the disposal method depends on the type of paint (check the label). Oil-based paint should be stored in approved 205 litre drums, ready for shipping. Latex paints can be landfilled after they are completely dried out (they can be spread out on a board or sheet to dry). Industrial/commercial paints usually need specialized treatment methods and should not be collected at the community SWDF. Check ENR's document *Guideline for the Management of Waste Lead and Lead Paint* (attached) for more information.

Propane tanks and aerosol cans are regulated as a dangerous good and are a potential explosion hazard at all times. Propane tanks can be returned to the retailer or supplier for safe storage and transport. Trained staff can safely evacuate the propane gas, making the tanks safe for scrap metal. Large propane tanks and other compressed gas canisters from the industrial/commercial sector should not be collected at the community SWDF.

Residue Fuel Tanks / Heating Oil Tanks / Residue Drums: Fuel storage tanks and drums often contain residue (e.g. sludge at the bottom), or may still contain flammable vapours. Tanks must be properly emptied prior to disposal as scrap metal. Empty drums need to be stored on their sides to prevent water from accumulating.

Used oil can be used as feedstock for a used oil furnace if the testing and other conditions in the *Used Oil and Waste Fuel Management Regulations Plain Language Guide* (attached) are met. Used oil can be stored in clearly labelled good quality tanks or drums. Do not let drums or pails be contaminated with glycol or solvents. Do not accept excessive volumes from the industrial/commercial sector.

Waste Fuel: Residents generate waste fuel from the use of gas-powered equipment and need a local disposal option. Waste fuel from residents can be bulked into UN-approved steel drums at Household Hazardous Waste collection events, or on a daily basis. The decision to accept waste fuel from residents on a daily basis requires appropriate screening methods to screen out incompatible materials from residents and excessive volumes of fuel or solvents from the industrial/commercial/institutional sector.

Vehicles: End-of-life vehicles contain antifreeze, batteries, fuel, mercury switches and other lubricating fluids that are considered hazardous waste and need to be removed. Once the hazardous materials are removed, the rest of the vehicle can be treated as scrap metal. Refrigerants from air conditioning systems will need to be removed by a trained technician.

Immediately Reportable Spill Quantities

TDG Class	Substance for NWT 24 Hour Spill Line	Immediately Reportable Quantities
1	Explosives	Any amount
2.3	Compressed gas (toxic)	
2.4	Compressed gas (corrosive)	
6.2	Infectious substances	
7	Radioactive	
None	Unknown substance	
2.1	Compressed gas (flammable)	Any amount of gas from containers with a capacity greater than 100 L
2.2	Compressed gas (non-corrosive, non-flammable)	
3.1	Flammable liquids	> 100 L
3.2		
3.3		
4.1	Flammable solids	> 25 kg
4.2	Spontaneously combustible solids	
4.3	Water reactant	
5.1	Oxidizing substance	> 50 L or 50 kg
9.1	Miscellaneous products or substances excluding PCB mixtures	
5.2	Organic peroxides	> 1 L or 1 kg
9.2	Environmentally hazardous	
6.1	Poisonous substances	> 5 L or 5 kg
8	Corrosive substances	
9.3	Dangerous wastes	
9.1	PCB mixtures of 5 or more ppm	> 0.5 L or 0.5 kg
None	Other contaminants (e.g., crude oil, drilling fluid, produced water, waste or spent chemicals, used or waste oil, vehicle fluids, waste water, etc.)	> 100 L or 100 kg
None	Sour natural gas (i.e., contains H2S), sweet natural gas	Uncontrolled release or sustained flow of 10 min or more

Note: In addition, all releases of harmful substances, regardless of quantity, are to be reported to the NWT spill line if the release is near or into a water body, is near or into a designated sensitive environment or sensitive wildlife habitat, poses imminent threat to human health or safety, poses imminent threat to a listed species at risk or its critical habitat, or is uncontrollable.

Source: AANDC, *Guidelines for Spill Contingency Planning*. April 2007

NT-NU SPILL REPORT

OIL, GASOLINE, CHEMICALS AND OTHER HAZARDOUS MATERIALS

NT-NU 24-HOUR SPILL REPORT LINE
Tel: (867) 920-8130 ð Fax: (867) 873-6924 ð Email: spills@gov.nt.ca

REPORT LINE USE ONLY

A	Report Date: MM DD YY	Report Time:	☐ Original Spill Report **OR** ☐ Update # _____ to the Original Spill Report	**Report Number:**
B	Occurrence Date: MM DD YY	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: ☐ NT ☐ Nunavut ☐ Adjacent Jurisdiction or Ocean	
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: ☐ Potential Spill	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:	Employer:	Location Called:	Report Line Number:

Lead Agency: ☐ EC ☐ CCG/TCMSS ☐ GNWT ☐ GN ☐ ILA ☐ AANDC ☐ NEB ☐ Other: _____

Significance: ☐ Minor ☐ Major ☐ Unknown

File Status: ☐ Open ☐ Closed

Agency:	**Contact Name:**	**Contact Name:**	**Remarks:**
Lead Agency:			
First Support Agency:			
Second Support Agency:			
Third Support Agency:			

The Mackenzie Valley Land and Water Board

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