



**Environmental Emergency
Contingency Plan
Hamlet of Arviat**

Prepared by

Nuna Burnside Engineering and Environmental Ltd.
Building 764, Fred Coman Street, Iqaluit NU X0A 0H0 Canada
15 Townline Orangeville ON L9W 3R4 Canada

May 2009
Revised May 2010

File No: N-O 15746

The material in this report reflects best judgement in light of the information available at the time of preparation. Any use which a third party makes of this report, or any reliance on or decisions made based on it, are the responsibilities of such third parties. Nuna Burnside Engineering and Environmental Ltd. accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report.

Executive Summary

The Hamlet of Arviat operates its Water Supply Facility, Sewage Treatment Facility, and Solid Waste Management Facility. The operation of these facilities has the potential to result in an environmental emergency requiring contingency planning.

The facilities are licensed under Nunavut Water Board (NWB) License Number NWB3ARV 0308, which expired December 31, 2008. A new license application is in progress.

An Environmental Emergency Contingency Plan specifically for the operation of the NWB licensed facilities dated May 2009, was prepared by Nuna Burnside Engineering and Environmental Ltd (Nuna Burnside), as required by the original license and in support of the application for a new license.

As noted in the May 2009 Environmental Emergency Contingency Plan, as per the NWB License, the Plan is to be reviewed and updated annually.

This May 2010 update of the Plan also addresses comments provided by review agencies during the license renewal application process.

Table of Contents

Executive Summary.....	i
Preamble.....	1
1.0 Introduction.....	2
1.1 Purpose of Plan	2
1.2 Objectives.....	2
1.3 Health and Safety	3
1.4 Hamlet of Arviat Environmental Policy.....	3
2.0 Site Description.....	4
2.1 General Site Description.....	4
2.2 Water, Sewage and Waste Disposal Activities.....	4
3.0 Spill Response Organization	6
3.1 Spill Response Team	6
3.2 Contact Information.....	7
4.0 Spill Reporting Procedure.....	8
4.1 NWT/Nunavut Spill Report Line	8
5.0 Action Plans	10
5.1 Initial Action	10
5.2 Environmental and Human Health Protection and Mitigation Measures – General Procedures	10
5.3 Mitigative Measures: Hydrocarbon Spills.....	11
5.4 Mitigative Measures: Sewage	12
5.5 Mitigative Measures: Solid Waste	13
5.6 Mitigative Measures: Hazardous Materials	14
5.7 Spill Recovery Assessment	14
6.0 Spill Response Resource Inventory.....	16
6.1 Additional Personnel Available	16
6.2 Spill Response Equipment Inventory.....	16
7.0 Training	17
8.0 Annual Review of this Environmental Emergency Contingency Plan	18
9.0 References	19

Figures

- 1 Site Location
- 2 Community Plan

Appendices

- A Contact Information
- B NWT Spill Report

May 2009
Revised May 2010

Preamble

This Environmental Emergency Contingency Plan relates to the collection, transportation, storage, and treatment operations associated with water supply, sewage and solid waste for the Hamlet of Arviat, Nunavut. This plan applies to facility operations and spill events relating to sewage, solid waste and water supply for NWB licensed facilities.

The following formal distribution will be made after this document receives approval:

- Hamlet of Arviat:
 - Mayor and Council
 - Senior Administrative Officer (SAO)
 - Hamlet Operations Staff
 - Fire Department
 - Community Health Centre
 - RCMP Detachment
- Nunavut Water Board.

The plan requires annual review and updating (if required).

Additional copies and updates of this plan may be obtained from:

Hamlet of Arviat
Senior Administrative Officer
Arviat, Nunavut, X0C 0E0

1.0 Introduction

1.1 Purpose of Plan

The impacts of spills can be catastrophic and may threaten or damage the environment, especially water supplies. As such, the Government of Nunavut (GN) requires contingency plans be written and fully implemented. The purpose of this Environmental Emergency Contingency Plan is to provide a plan of action for spills (sewage, solid waste, and petroleum products) that may occur as a result of water supply and treatment, sewage collection and treatment, and solid waste collection and disposal operations undertaken within the Hamlet of Arviat, Nunavut.

The Plan also focuses on the health and safety of both workers and the general public.

This Environmental Emergency Contingency Plan will assist in implementing corrective options quickly to minimize environmental damage. Furthermore, it defines the responsibilities of key personnel and outlines procedures to effectively and efficiently contain and recover spills of sewage, solid waste, and hydrocarbon products arising from water, sewage, and solid waste; collection, transportation, storage, and treatment operations. It will assist the Hamlet in meeting the regulatory requirements related to reporting events to the appropriate authorities within the prescribed time period.

The Plan should be incorporated into the Hamlet's Environmental Management System (EMS), should one be established by the Hamlet as suggested by the Nunavut Water Board (NWB).

1.2 Objectives

The objectives of this Emergency Contingency Plan are to:

- Ensure the health and safety of workers and the general public (first priority at all times)
- Provide a plan with procedures so that the Hamlet and their Spill Response Team can rapidly respond to a spill situation and minimize injury to individuals and environmental damage
- Comply with all existing regulations
- Cooperate with other groups and agencies
- Be prepared and able to provide an integrated team approach with various Hamlet departments and Federal and Territorial agencies

- Keep staff, government officials, and Hamlet residents informed.

1.3 Health and Safety

Health and safety of workers and the public takes priority at all times. All activities must follow the requirements of the Nunavut Safety Act.

1.4 Hamlet of Arviat Environmental Policy

It is the policy of the Hamlet of Arviat to fully comply with all applicable legislation to ensure the protection of the environment in the territory of Nunavut. The legislation includes, but is not limited to:

- Nunavut Safety Act
- Environmental Protection Act, Section 34 – Spill Contingency Planning and Reporting Regulations
- Nunavut Waters and Nunavut Surface Rights Tribunal Act.

The Hamlet will cooperate with other groups committed to protecting the environment and shall ensure that Hamlet employees, regulatory authorities, and the public are informed on the policies and procedures developed to help protect the environment and the residents of the Hamlet of Arviat.

2.0 Site Description

2.1 General Site Description

This Environmental Emergency Contingency Plan is to be implemented within the Municipal boundaries of the Hamlet of Arviat, Nunavut.

The Community of Arviat is located within the Kivalliq Region, Nunavut, at general latitude 61°6'N and general longitude 94°3'W (Figure 1). The Community is located approximately 225 km south of Rankin Inlet and 265 km north of Churchill, Manitoba. The community has a population of approximately 2060 (Census 2006). Community infrastructure includes:

- A Water Supply Facility consisting of a water intake pumphouse on Wolf Creek, two water reservoirs, treatment system and truckfill water station
- A Sewage Treatment Facility consisting of a sewage lagoon which receives trucked sewage collected from holding tanks in each building and sewage treatment via an exfiltration lagoon to a wetland discharging to the ocean
- A Solid Waste Management Facility, which includes a Bulky Metals Disposal area
- Diesel powered generators.

The community and surrounding area is shown in Figure 2.

2.2 Water, Sewage and Waste Disposal Activities

This Environmental Emergency Contingency Plan has been written for infrastructure services provided by the Hamlet of Arviat. All water supply, sewage collection and disposal and waste disposal activities are included in the Nunavut Water Board licence NWB3ARV0308, which expired December 31, 2008. Currently an application has been submitted for a new license.

2.2.1 Water Supply and Treatment

The Hamlet provides trucked water service for the community. Water is drawn from Wolf River in the summer and stored in lined water reservoirs. Water is supplied to residents by water trucks which are filled by means of an overhead truck fill arm. Water is chlorinated by a hypochlorite feed pump controlled by the flow rate of water supplied to the water trucks. Treated water is distributed by tanker truck to storage tanks in each building. Potential environmental emergencies include:

- Chlorine spill
- Fuel spill (from a truck or the tank for the backup generator).

2.2.2 Sewage Collection

Sewage collection is provided by the Hamlet. Each building has a sewage holding tank that is pumped out by the Hamlet's sewage pumpout truck daily. Sewage is treated at the

Sewage Treatment Facility lagoons located approximately 2.8 km southeast from the Hamlet (Figure 2).

Sewage is discharged into the lagoons, which provides primary treatment before exfiltrating to a down gradient Wetland Treatment Area. Potential environmental emergencies include:

- House tank spill
- Tank truck spill
- Uncontrolled spill/discharge from the lagoon, of untreated or partially treated sewage.

2.2.3 Solid Waste Collection and Disposal

The Hamlet of Arviat provides regular solid waste pickup for the Community's residents, businesses, and institutions. Solid waste is trucked to the Hamlet's Solid Waste Management Facility which is located 2.8 km southeast of the community (Figure 2). The Solid Waste Management Facility includes a landfill site for municipal solid waste and a long-term storage area for bulky metals. A new Solid Waste Management Site is going to be constructed in 2009. The Site is to have a Hazardous Waste Storage Area in the future. Currently waste oil, glycol, and other hazardous wastes are stored in a designated area next to the Public Works garage. Potential environmental emergencies include:

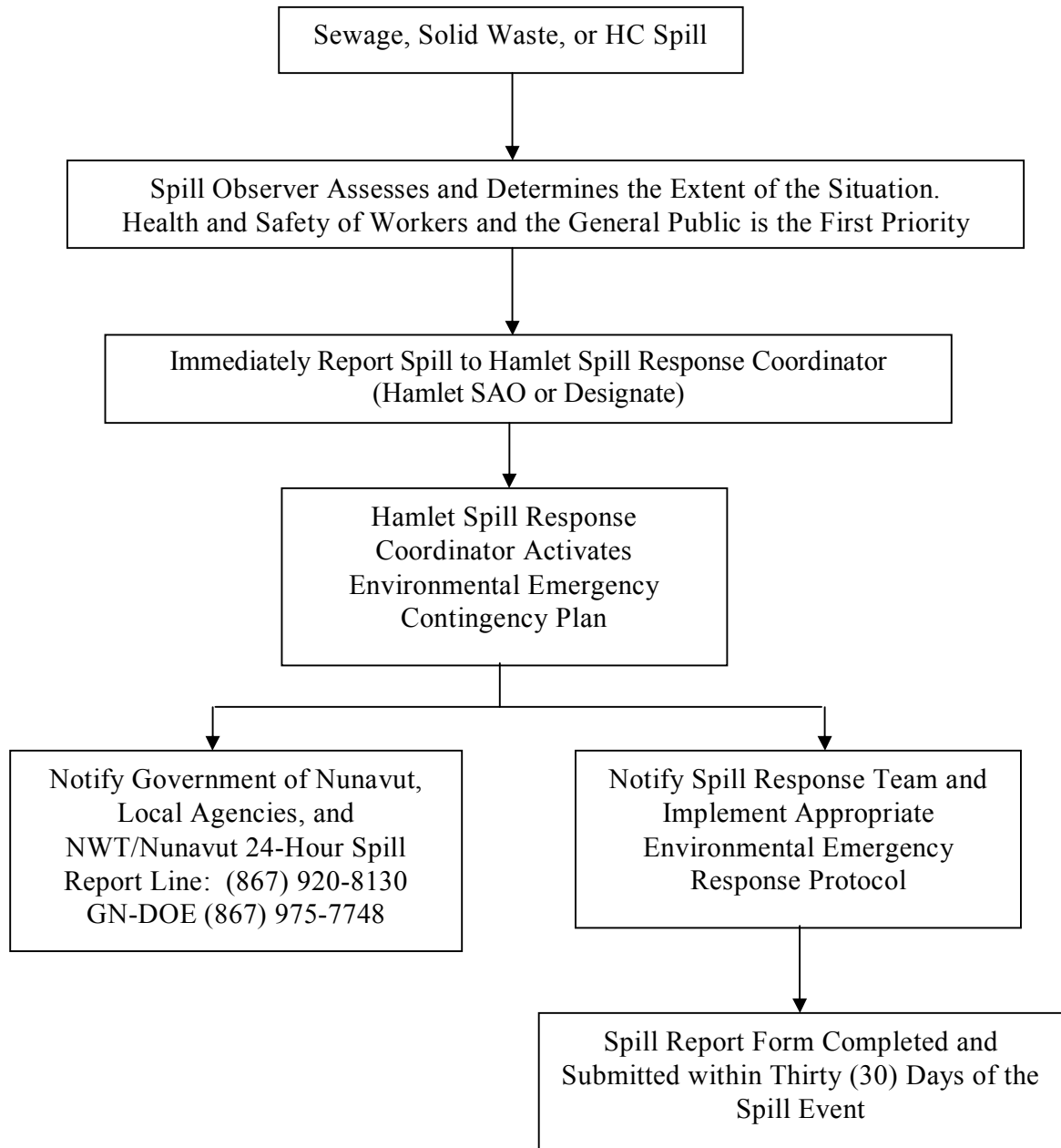
- Fuel spill (from a truck)
- Uncontrolled discharge of landfill impacted surface water (leachate)
- Fire in the waste
- Hazardous waste spill.

2.2.4 Other Activities

This Environmental Emergency Contingency Plan is specially prepared to address those issues that arise from the operation of the facilities licensed by the NWB. It is not designed to address other activities of the Hamlet, contractors, or private citizens.

3.0 Spill Response Organization

The following is a flow chart to illustrate the sequence of events that must be followed in the event of a sewage, solid waste, or HC (hydrocarbon) spill occurring during supply, distribution, collection, transportation, storage, and treatment operations:



Emergency Response Flow Chart

3.1 Spill Response Team

The Hamlet Senior Administrative Officer (SAO) or his/her designate will serve as the Spill Response Coordinator for the Hamlet in the event of a sewage or HC spill during collection, transportation, storage, or treatment operations. The SAO of the Hamlet of Arviat will appoint and train appropriate personnel to make up the Spill Response Team, which normally consist of the following personnel:

- Spill Response Coordinator (Hamlet SAO or designate)
- Hamlet Public Works Personnel.

The responsibilities of the Spill Response Coordinator are as follows:

1. Assume complete authority over the spill scene and coordinate all personnel involved
2. Control access, and ensure the health and safety of workers and the general public
3. Evaluate the spill situation and develop an overall plan of action
4. Activate the Environmental Emergency Contingency Plan for the Hamlet of Arviat
5. Immediately report the spill to the NWT/Nunavut 24-Hour Spill Report Line at (867) 920-8130, and other applicable regulatory or assistance agencies
6. Provide regulatory agencies with information regarding the status of the clean-up activities
7. Act as a spokesperson on behalf of the Hamlet of Arviat with regulatory agencies, the public, and the media
8. Prepare and submit a report on the spill incident to regulatory agencies within 30 days of the event
9. Obtain the assistance of regulatory agencies, consultants, and/or contractors with the skills and equipment to deal with emergency situations deemed to be beyond the capabilities of Hamlet staff.

3.2 Contact Information

A complete listing of contact information, including telephone numbers of standard regulatory agencies, Hamlet personnel, and assistance agencies who may be contacted to supply resources, expertise, and advice needed to deal with a spill emergency is included in Appendix A.

4.0 Spill Reporting Procedure

The Spill Response Coordinator must be notified immediately by any individual who is aware of any spill either by phone, radio, or in person.

The following are the incident reporting procedures once the Spill Response Coordinator activates this Environmental Emergency Contingency Plan:

1. Report spill immediately to the 24-Hour NWT/Nunavut Spill Report Line Phone (867) 920-8130 (Section 4.1)
2. Report immediately to the INAC Manager, Water Resources in Iqaluit at (867) 975-4550 and GN-DOE (867) 975-7748
3. Notify Hamlet of Arviat Fire Department
4. Fill out the NWT/Nunavut Spill Report Form (Appendix B) within thirty (30) days of the spill event occurring.

4.1 NWT/Nunavut Spill Report Line

All spills, as defined in this document, must be reported immediately to the 24-hour NWT/Nunavut Spill Report Line. The following information should be gathered prior to making the call:

- Date and time of spill (if known)
- Location and map coordinates (if known) and direction of flow of spill materials if moving
- Party responsible for spill
- Product/material spilled and quantity estimate
- Cause of spill
- Note whether spill has been contained or if it is still releasing into the environment
- Extent of contaminated area
- Factors affecting spill or recovery, such as weather conditions or terrain
- Note whether spill containment is available
- Action taken or proposed
- If assistance is required
- Possible hazards to individuals, property or environment (e.g. fire, drinking water, fish, wildlife, etc.)
- Health and safety issues.

The information collected should be brief, and rough estimates made to enable the Spill Report Line and the Spill Response Coordinator to assess the situation. The information is the same as to that required on the Nunavut Spill Report form that must be completely

Environmental Emergency Contingency Plan
Hamlet of Arviat

May 2009
Revised May 2010

filled out and submitted within thirty days of the incident. This form is included as Appendix B.

5.0 Action Plans

5.1 Initial Action

The instructions to be followed by the first person on the spill scene are as follows:

1. Always be alert, and consider your safety and the safety of others first
2. If possible, estimate the volume of material that has been spilled
3. Assess the hazard of people in the vicinity of the spill
4. If possible, and safety permits, attempt to stop the release of product to minimize potential for environmental impacts
5. Immediately report the spill to the Spill Response Coordinator
6. Resume any effective action to contain, mitigate, or terminate the flow of the spilled material.

5.2 Environmental and Human Health Protection and Mitigation Measures – General Procedures

The environmental protection and mitigation measures outlined in the following sections are to be taken by all personnel responding to a spill event. This will reduce the chance of environmental impairment and health hazards due to a spill, release, or other incident.

The following general clean-up procedures shall apply for all spill areas within the Hamlet:

- Control access to the area, and ensure the health and safety of workers and the general public
- Always wear personal protective equipment (PPE)
- Smoking is prohibited during all spill response activities
- Eliminate all ignition sources
- Contain spills on soil or rock by construction of earthen dykes using available material. If soil is not available, place sorbent materials or a boom in the path of the spill. As the sorbent barrier becomes saturated, continually replace it. Fuel or other liquids lying in pools, or trenches are to be removed with pumps, buckets, or skimmers
- If the ground is snow covered, create snow dykes, and line them with a chemically-compatible liner for containment and recovery of liquid
- For fuel spills on water, deploy containment booms, and recovery as much fuel as possible with a work boat and skimmer if less than 1/10th of the area is covered in ice. If the area is frozen, burn fuel spills using igniters

- Apply sorbent materials, if necessary
- Assess potential for disturbance of wildlife, fish, and archaeological sites from spill or clean-up operations
- Notify environmental authorities to discuss available and feasible disposal and clean-up options
- Conduct required clean-up operations
- Assess and appropriately treat any areas disturbed by clean-up activities with laboratory testing
- Ensure that the site has been completely restored. Resume operations, only once all work is finalized and laboratory testing confirmed.

Procedures for containing spills of specific contaminants are provided in the following sections.

5.3 Mitigative Measures: Hydrocarbon Spills

Hydrocarbon spills include gasoline, diesel fuel, hydraulic fluid, lubricating oil and aviation fuel. If possible, and safety permits, stop the flow of product, which is occurring, and eliminate all ignition sources. Smoking is prohibited during all spill response activities.

5.3.1 Hydrocarbon Spill on Soil, Gravel, Rock, or Vegetation

- Build a containment berm using soil material or snow and place a plastic tarp at the foot of the berm easily capture the spill after all vapours have dissipated
- Remove the spill by using absorbent pads or excavating the soil, gravel or snow
- Remove spill splashed on vegetation using particulate absorbent material.

5.3.2 Hydrocarbon Spill On Water

- Use containment boom to capture spill for recovery after vapours have dissipated
- Use absorbent pads to capture small spills
- Use a petroleum skimmer for larger spills
- GN-DOE requires that Environment Canada be consulted regarding clean-up methods.

5.3.3 Hydrocarbon Spill on Ice and Snow

- Build a containment berm around spill using snow
- Remove spill using absorbent pads or particulate sorbent material
- The contaminated ice and snow must be scraped and shovelled into plastic buckets with lids, 205 litre drums, and/or polypropylene bags
- GN-DOE requires that Environment Canada be consulted regarding clean-up methods.

5.3.4 Hydrocarbon Contaminated Material Storage and Transfer

Soil and gravel contaminated by hydrocarbons should be treated in a Landfarm in accordance with normal operating procedures. If necessary, contaminated soil and gravel may be stored temporarily until a Landfarm is constructed, provided that appropriate measures are taken to prevent the leaching of contaminants into the underlying soil. Larger quantities of soil could be placed on a tarp, and covered if necessary. Small quantities could be stored in labeled drums in the Hazardous Waste Storage Area.

As space permits, small quantities of water, ice, snow, vegetation and cleanup supplies contaminated by HC may be stored in labeled drums in the hazardous waste storage facility in accordance with normal operating procedures. If the quantity of contaminated material makes storage in drums unfeasible, the Hamlet shall contact the appropriate regulatory agencies before removing any materials.

5.4 Mitigative Measures: Sewage

If possible, and safety permits, stop the flow of sewage escaping to the environment.

A small spill (truck leak or household tank leak) is not a significant environmental issue, site control contaminant and clean up can be accomplished without significant concerns. Dilution with water is an effective remedy for any residual.

In the event of a catastrophic failure of the sewage lagoon, which allowed a large volume of partially treated sewage to escape, efforts should focus on re-establishing containment. The following mitigative measures would follow:

- Control flow and attempt to pump sewage back into containment
- Cordon off the area and warn the public
- Maximize the length of the flow path of the sewage in the wetland through ditching and diversion berms
- Dilute with water pumped from local streams
- Sample along the flow path and direct efforts to areas of most concern
- Recover solids as best as possible while limiting the environmental impacts.

5.4.1 Sewage Spill on Soil, Gravel, Rock, or Vegetation

- Build a containment berm using soil material or snow and place a plastic tarp at the foot of the berm to easily capture the spill, and to prevent sewage from entering any water body
- Remove the spill by using vacuum trucks or excavating the soil, gravel, or snow.

5.4.2 Sewage Spill into Water

- Use containment boom to capture spill, and pump contaminated water into vacuum trucks
- Deposit contaminated water in the Hamlet sewage lagoon

- As a minimum, monitor the affected water body by sampling for Biological Oxygen Demand (BOD), Total Suspended Solids (TSS), ammonia (NH₃), and faecal coliforms (FC)
- Environment Canada should be contacted regarding clean-up methods.

5.4.3 Sewage Spill on Ice and Snow

- Build a containment berm around spill using snow
- Remove spilled sewage and contaminated snow and ice to the Hamlet sewage lagoon
- Environment Canada should be contacted regarding clean-up methods.

5.4.4 Sewage Storage and Transfer

All contaminated water, ice, snow, soil, and clean-up supplies will be deposited to the Hamlet sewage lagoon (liquid or frozen liquid) or landfill facility (solid), as appropriate.

Environment Canada should be contacted regarding clean-up methods.

5.5 Mitigative Measures: Solid Waste

5.5.1 Solid Waste Spill on Soil, Gravel, Rock, or Vegetation

- Physically remove the spilled solid waste from the area, and deposit in the Hamlet Solid Waste Management Facility.

5.5.2 Solid Waste Spill into Water

- Use containment boom to capture soil waste for recovery
- Physically remove the spilled solid waste from the water, and deposit in the Hamlet Solid Waste Management Facility
- Capture any sheen from the water using absorbent pads or skimmer, and deposit any used absorbent pads to the Hamlet Solid Waste Disposal facility
- Environment Canada should be contacted regarding clean-up methods.

5.5.3 Solid Waste Spill on Ice and Snow

- Build a containment berm around spill using snow
- Physically remove the spilled solid waste and deposit in the Hamlet Solid Waste Management Facility
- Environment Canada should be contacted regarding clean-up methods.

5.5.4 Disposal

Any solid waste shall be transferred to the Hamlet Solid Waste Management Facility.

5.6 Mitigative Measures: Hazardous Materials

5.6.1 Hazardous Solid Waste Spill on Soil, Gravel, Rock, or Vegetation

- Physically remove the spilled hazardous solid waste from the area, and store in the Hazardous Waste Storage Area at the Hamlet Solid Waste Management Facility.

5.6.2 Hazardous Solid Waste Spill into Water

- Use containment boom to capture solid hazardous waste for recovery
- Physically remove the spilled solid waste from the water, and store in the Hazardous Waste Storage Area at the Hamlet Solid Waste Management Facility
- Capture any sheen from the water using absorbent pads or skimmer, and store any used absorbent pads as hazardous waste.

5.6.3 Solid Waste Spill on Ice and Snow

- Build a containment berm around spill using snow
- Physically remove the spilled hazardous solid waste and store in the Hazardous Waste Storage Area at the Hamlet Solid Waste Management Facility.

5.6.4 Disposal

Any solid hazardous waste shall be transferred to the Hazardous Waste Storage Area at Hamlet Solid Waste Management Facility until it can be properly characterized and shipped out of the community.

The GN-DOE monitors the movement of hazardous wastes from generators, carriers to receive of the wastes, through the use of a tracking document known as a Waste Manifest. A Waste Manifest must accompany all movements, and all parties must register with DOE by contacting:

Robert Eno (867) 975-7729

reno@gov.nu.ca

Ian Rumbolt (867) 975-7748

irumbolt@gov.nu.ca

5.7 Spill Recovery Assessment

In order to determine whether a spill has been successfully remediated, samples of the soil and/or water within the spill containment area and surrounding the area, are to be collected and sent to an accredited Canadian Association of Environmental Analytic Laboratories (CAEAL) laboratory to be analyzed for the chemical parameters contained expected in the spill material. If concentrations of the spill chemicals are not detected, or are at concentrations below the applicable Territorial, Federal, or CCME regulations/criteria, the spill clean-up will be determined a success. Clean-up operations may then cease.

Environmental Emergency Contingency Plan
Hamlet of Arviat

May 2009
Revised May 2010

Refer to the Environmental Monitoring Program and Quality Assurance/Quality Control Plan for the Hamlet of Arviat for a description of sampling protocols and parameters.

Sampling and monitoring results (air, sediments, water, and soil) will be compared to the applicable landuse classification of the site (residential, commercial, industrial, etc.), as contained within the Canadian Environmental Quality Guidelines (CCME, 2007). Should NWB Water License or Nunavut guideline criteria exist that are applicable to the situation, then the most stringent criteria should be followed.

Depending on the nature of the spill or emergency, the material requiring clean-up and handling must be handled and disposed of in accordance to Nunavut Guidelines for Industrial Waste Discharges or General Management of Hazardous Waste.

Refer to the Monitoring Program and Quality Assurance/Quality Control Plan, Hamlet of Arviat, for directions on obtaining sample bottles, conducting sampling, and laboratory analysis of samples. Refer to the following documents for the handling and disposal of liquid and solid waste within the Hamlet of Arviat:

- Solid Waste Management Facility Operation and Maintenance (O&M) Plan
- Sewage Treatment Facility Operation and Maintenance (O&M) Plan.

6.0 Spill Response Resource Inventory

6.1 Additional Personnel Available

In addition to Hamlet Public Works staff, the Arviat Fire Department is available to assist in spill response and clean-up activities. Personnel from the local RCMP Detachment will be available for securing the site from unauthorized individuals, closing roads, etc. The Community Health Centre has personnel to assist in the treatment of anyone injured during the emergency.

Environmental consulting companies such as Nuna Burnside Environmental and Engineering Ltd. can provide technical guidance and spill response impact evaluation, remediation, and post remedial confirmatory sampling.

6.2 Spill Response Equipment Inventory

Within the community, there is some equipment available to assist in responding to a spill including heavy equipment (i.e. vacuum trucks, dozer, front end loader, and grader), as well as, various hand held tools including shovels. In addition, the Hamlet spill kit should be available during spill incident response operations. Each spill kit should contain the following supplies.

Composition of Spill Kit

	Quantity
• 360 litre polyethylene over pack drum	1
• oil sorbent booms (5" X 10')	6
• oil sorbent sheets (16.5" X 20" X 3/8")	100
• drain cover (36" X 36" X 1/16")	1
• Caution tape (3" X 500')	1
• 1 lb plugging compound	1
• Nitrile gloves (pair)	4
• Safety goggles (pair)	4
• Tyvek coveralls (pair)	4
• instruction booklet	1
• printed disposable bags (24" X 48")	10

Sorbent capacity of each spill kit is 240 litres.

The spill response kits should be stored in the on-site locker at the Hazardous Waste Storage Area provided for this purpose. Some equipment may be stored in other areas throughout the community.

7.0 Training

All members of the Spill Response Team should be trained in the safe operation of all machinery and tools to help prevent sewage solid waste and hazardous material spills. All Public Works staff should also be trained for initial spill response. Annual refresher exercises should be conducted to review the procedures of this Environmental Emergency Contingency Plan with all members the Spill Response Team, including members of the local volunteer fire department, RCMP Detachment, and Community Health Centre.

Spill Response Team training should include the following aspects:

- Spill awareness and prevention
- Methods of detection
- Types of spills and seasonal considerations
- Reporting procedures and initial responses
- Spill response kit familiarization
- Clean-up and site remediation methods
- Occupational health and safety including proper selection and use of protective equipment.

8.0 Annual Review of this Environmental Emergency Contingency Plan

As part of the preparation of the Annual Report to the Nunavut Water Board as required by the Water License, the Hamlet should review and update the information contained within this plan. The purpose of the update is to ensure all changes to regulations are incorporated into this plan, along with the use of any new technology or method advances, to prevent or stop a spill and to mitigate and/or remediate a spill. This ensures that the plan adapts as the Hamlet grows, to ensure the community is properly prepared in the event of an incident.

Staff training must accompany the use of this document.

Annual refresher training of personnel should be completed after any revisions to this document have been approved. This will familiarize personnel with the updated plan, and to provide a rapid and coordinated response.

Environmental Emergency Contingency Plan
Hamlet of Arviat

May 2009
Revised May 2010

9.0 References

Canadian Council of Ministers of the Environment (CCME), 2007. *Canadian Water Quality Guidelines for the Protection of Aquatic Life: Summary table*. Updated September, 2007. In: Canadian environmental quality guidelines, 1999, Canadian Council of the Environment, Winnipeg.

Government of Nunavut, (2002), *Environmental Guideline for Industrial Waste Discharges*.

Government of Nunavut, (2002), *Environmental Guideline of General Management of Hazardous Waste*.

Northwest Territories, (1998). *Spill Contingency Planning and Reporting Regulations*.

Nuna Burnside Engineering and Environmental Ltd. (2009, revised May 2010). *Solid Waste Management Facility Operation and Maintenance (O&M) Plan, Hamlet of Arviat*.

Nuna Burnside Engineering and Environmental Ltd. (2009, revised May 2010). *Sewage Treatment Facility Operation and Maintenance (O&M) Plan, Hamlet of Arviat*.

Nuna Burnside Engineering and Environmental Ltd. (2009, revised May 2010). *Environmental Monitoring and Quality Assurance/Quality Control Plan, Hamlet of Arviat*.

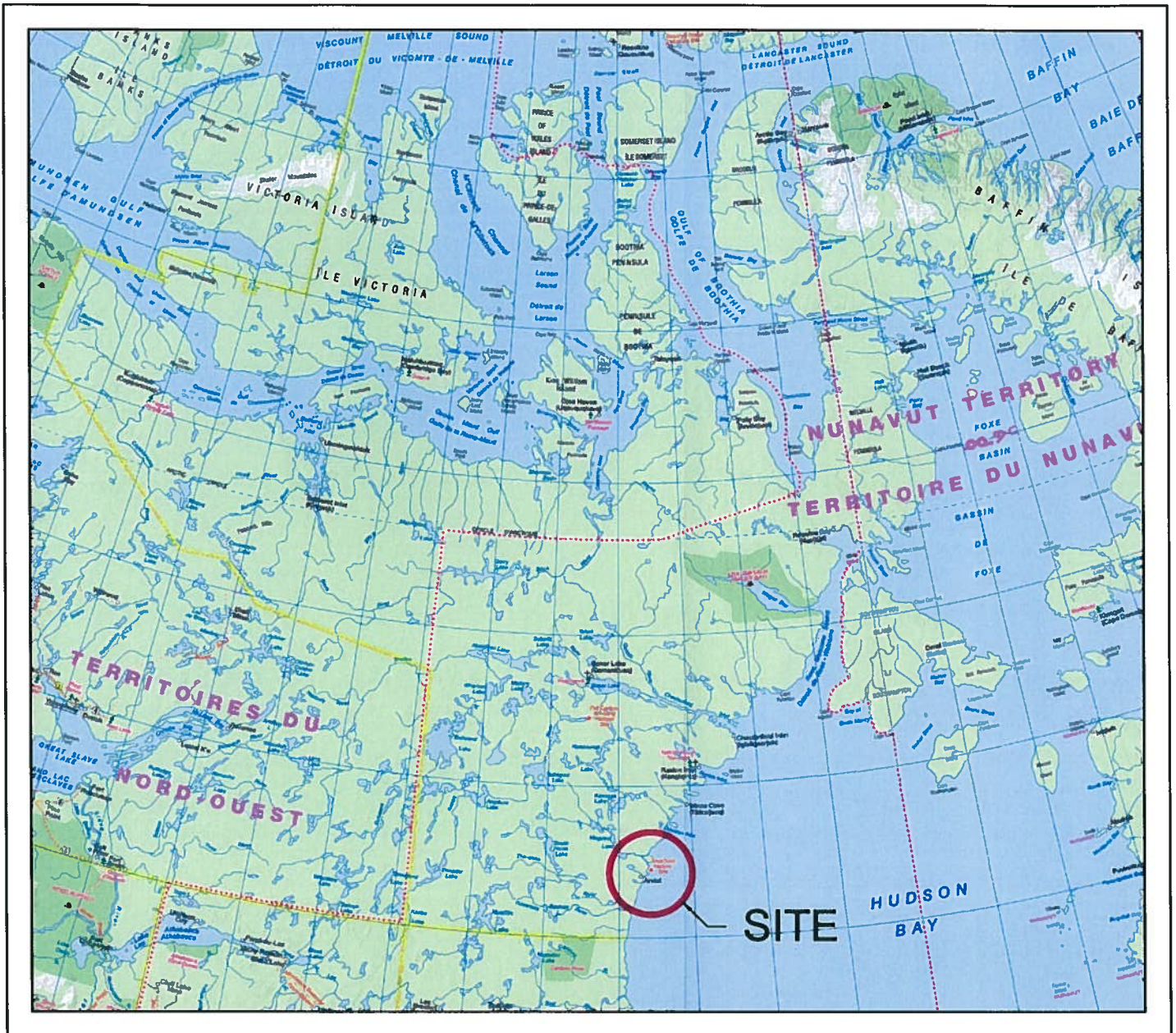
Nuna Burnside Engineering and Environmental Ltd. (2009, revised May 2010). *Water Supply Facility Operation and Maintenance (O&M), Hamlet of Arviat*.

Nunavut Water Board, November 2004. *Guidelines for Spill Contingency Planning*. Goja Haven, Nunavut.

Nunavut Water Board, January 2004. *Hamlet of Arviat Water License NWB3ARV0308*. Gjoa Haven, Nunavut.

Nunavut Safety Act.

Figures



Map Reference:
Map Art Publishing



FIGURE 1 - SITE LOCATION MAP

HAMLET OF ARVIAT
HAMLET OF ARVIAT, NUNAVUT

ENVIRONMENTAL EMERGENCY CONTINGENCY PLAN

January 2009

Project Number: N-O15746

Prepared by: C. Sheppard

Verified by: J. Walls

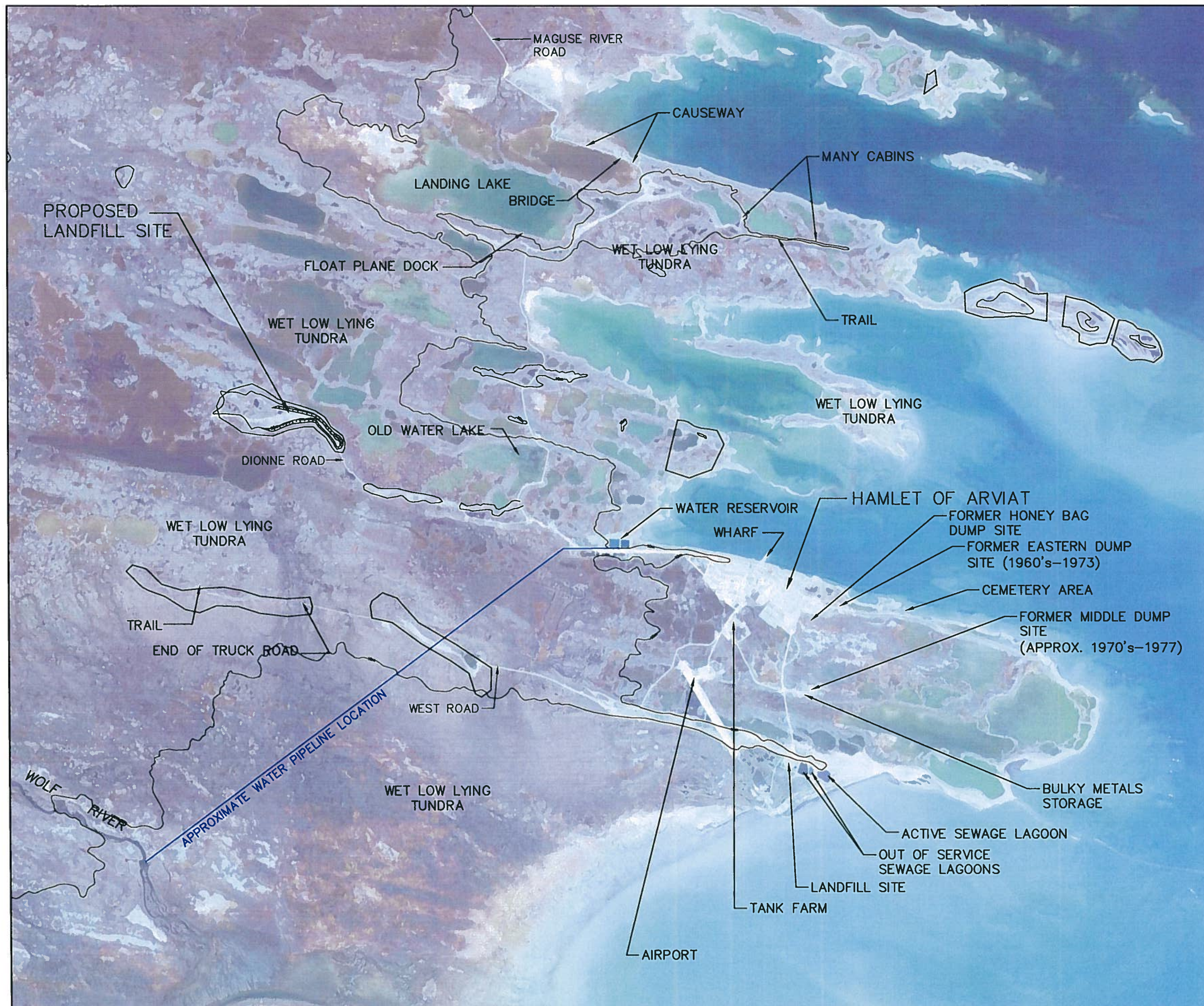
Burnside

N-O15746 EMERGENCY CONTINGENCY PLAN SL.dwg

FIGURE 2

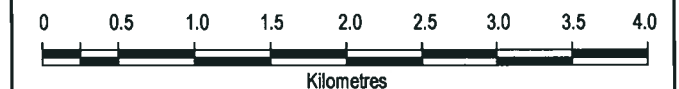
HAMLET OF ARVIAT
HAMLET OF ARVIAT, NUNAVUT
ENVIRONMENTAL EMERGENCY CONTINGENCY PLAN

COMMUNITY PLAN



Satellite Image Source:
Background colour satellite image obtained from Google Earth Pro.

Map Source:
Background physical features obtained from the National Topographic Database Website.



1:50,000
December 2008
Project Number: N-015746

Projection: UTM Zone 15
Datum: NAD83

Prepared by: C. Sheppard

Verified by: J. Walls

ᐅᐅᐅᐅ BURNSIDE



Appendix A
Contact Information

Contact Information – Hamlet of Arviat

Contact	Location	Telephone Number	Fax Number
Hamlet of Arviat SAO	Arviat	(867) 857-2841	(867) 857-2519
24-Hour NWT/Nunavut Spill Report Line	Yellowknife	(867) 920-8130	(867) 873-6924
INAC–Water/Wastewater Resources Manager	Iqaluit	(867) 975-4550	(867) 979-6445
Government of Nunavut Regional Projects Manager <i>Wayne Thistle</i>	Rankin Inlet	(867) 645-8156	(867) 645-8196
Environment Canada - Inspector	Iqaluit	(867) 975-4644	(867) 979-4594
Fire Department	Arviat	(867) 857-2525	-
RCMP Detachment	Arviat	(867) 857-1111	-
Community Health Centre	Arviat	(867) 857-3100	-
GN-DOE Manager of Pollution Control <i>Ian Rumbolt</i>	Iqaluit	(867) 975-7748	(867) 975-6445



Appendix B
NWT Spill Report



NUNAVUT SPILL REPORT (Oil, Gas, Hazardous Chemicals or other Materials)

ᓄᓇᓂᓪᓴ ᓄᓕᓴᓄᓪᓴ ᓄᓂᓂᓪᓴ (ᓄᓂᓴᓴᓄᓪᓴ, ᓴᓴᓪᓴ, ᓴᓴᓴᓄᓪᓴ, ᓴᓴᓴᓄᓪᓴ ᓄᓂᓴᓄᓪᓴ)

24-Hour Report Line 24-ᓄᓪᓴ ᓄᓂᓴᓄᓪᓴ ᓄᓂᓴᓄᓪᓴ ᓄᓂᓴᓄᓪᓴ

Phone/ᓄᓂᓴᓄᓪᓴ (867) 920-8130

Fax/ᓴᓴᓄᓪᓴ (867) 873-6924

A Report Date and Time ᓄᓂᓴᓄᓪᓴ ᓄᓂᓴᓄᓪᓴ ᓄᓂᓴᓄᓪᓴ		B Date and Time of Spill(if known) ᓄᓂᓴᓄᓪᓴ ᓄᓂᓴᓄᓪᓴ ᓄᓂᓴᓄᓪᓴ (ᓄᓂᓴᓄᓪᓴ)		C <input type="checkbox"/> Original Report ᓄᓂᓴᓄᓪᓴ ᓄᓂᓴᓄᓪᓴ <input type="checkbox"/> Update No. _____ ᓄᓂᓴᓄᓪᓴ ᓄᓂᓴᓄᓪᓴ		Spill Number ᓄᓂᓴᓄᓪᓴ	
D Location and Map Coordinates (if known) and Direction (if moving) ᓄᓂᓴᓄᓪᓴ ᓄᓂᓴᓄᓪᓴ ᓄᓂᓴᓄᓪᓴ (ᓄᓂᓴᓄᓪᓴ) ᓄᓂᓴᓄᓪᓴ ᓄᓂᓴᓄᓪᓴ ᓄᓂᓴᓄᓪᓴ (ᓄᓂᓴᓄᓪᓴ)							
E Party Responsible for Spill (Full Name and Address) ᓄᓂᓴᓄᓪᓴ ᓄᓂᓴᓄᓪᓴ (ᓄᓂᓴᓄᓪᓴ ᓄᓂᓴᓄᓪᓴ)							
F Product(s) Spilled and Estimated Quantities(provide metric volumes/weights if possible) ᓄᓂᓴᓄᓪᓴ ᓄᓂᓴᓄᓪᓴ ᓄᓂᓴᓄᓪᓴ (ᓄᓂᓴᓄᓪᓴ ᓄᓂᓴᓄᓪᓴ ᓄᓂᓴᓄᓪᓴ)							
G Cause of Spill ᓄᓂᓴᓄᓪᓴ							
H Is Spill Terminated? ᓄᓂᓴᓄᓪᓴ ᓄᓂᓴᓄᓪᓴ? <input type="checkbox"/> Yes/ᓴ <input type="checkbox"/> No/ᓄᓂᓴ		I If Spill is Continuing, Give Estimated Rate ᓄᓂᓴᓄᓪᓴ ᓄᓂᓴᓄᓪᓴ ᓄᓂᓴᓄᓪᓴ		J Is Further Spillage Possible? ᓄᓂᓴᓄᓪᓴ ᓄᓂᓴᓄᓪᓴ? <input type="checkbox"/> Yes/ᓴ <input type="checkbox"/> No/ᓄᓂᓴ		K Extent of Contaminated Area (in square metres if possible) ᓄᓂᓴᓄᓪᓴ ᓄᓂᓴᓄᓪᓴ ᓄᓂᓴᓄᓪᓴ (ᓄᓂᓴᓄᓪᓴ ᓄᓂᓴᓄᓪᓴ)	
L Factors Affecting Spill or Recovery(weather conditions, terrain, snow cover, etc.) ᓄᓂᓴᓄᓪᓴ ᓄᓂᓴᓄᓪᓴ ᓄᓂᓴᓄᓪᓴ ᓄᓂᓴᓄᓪᓴ ᓄᓂᓴᓄᓪᓴ ᓄᓂᓴᓄᓪᓴ ᓄᓂᓴᓄᓪᓴ ᓄᓂᓴᓄᓪᓴ				M Containment (natural depression, dykes, etc.) ᓄᓂᓴᓄᓪᓴ ᓄᓂᓴᓄᓪᓴ ᓄᓂᓴᓄᓪᓴ ᓄᓂᓴᓄᓪᓴ ᓄᓂᓴᓄᓪᓴ ᓄᓂᓴᓄᓪᓴ			
N Action, if any, taken or Proposed to Contain, Recover, Clean Up or Dispose of Product(s) and Contaminated Materials ᓄᓂᓴᓄᓪᓴ, ᓄᓂᓴᓄᓪᓴ ᓄᓂᓴᓄᓪᓴ ᓄᓂᓴᓄᓪᓴ ᓄᓂᓴᓄᓪᓴ ᓄᓂᓴᓄᓪᓴ ᓄᓂᓴᓄᓪᓴ ᓄᓂᓴᓄᓪᓴ ᓄᓂᓴᓄᓪᓴ ᓄᓂᓴᓄᓪᓴ							
O Do You Require Assistance? <input type="checkbox"/> No ᓄᓂᓴ <input type="checkbox"/> Yes, describe: ᓄᓂᓴᓄᓪᓴ ᓄᓂᓴᓄᓪᓴ ᓄᓂᓴᓄᓪᓴ				P Possible Hazards to Persons, Property or Environment e.g. fire, drinking water, fish or wildlife ᓄᓂᓴᓄᓪᓴ ᓄᓂᓴᓄᓪᓴ ᓄᓂᓴᓄᓪᓴ ᓄᓂᓴᓄᓪᓴ ᓄᓂᓴᓄᓪᓴ ᓄᓂᓴᓄᓪᓴ ᓄᓂᓴᓄᓪᓴ ᓄᓂᓴᓄᓪᓴ			
Q Comments and/or Recommendations ᓄᓂᓴᓄᓪᓴ ᓄᓂᓴᓄᓪᓴ ᓄᓂᓴᓄᓪᓴ						FOR SPILL LINE USE ONLY ᓄᓂᓴᓄᓪᓴ ᓄᓂᓴᓄᓪᓴ ᓄᓂᓴᓄᓪᓴ Lead Agency ᓄᓂᓴᓄᓪᓴ ᓄᓂᓴᓄᓪᓴ ᓄᓂᓴᓄᓪᓴ Spill Significance ᓄᓂᓴᓄᓪᓴ Lead Agency Contact and Time ᓄᓂᓴᓄᓪᓴ ᓄᓂᓴᓄᓪᓴ ᓄᓂᓴᓄᓪᓴ ᓄᓂᓴᓄᓪᓴ ᓄᓂᓴᓄᓪᓴ ᓄᓂᓴᓄᓪᓴ Is this file now closed? ᓄᓂᓴᓄᓪᓴ ᓄᓂᓴᓄᓪᓴ	
Reported By ᓄᓂᓴᓄᓪᓴ		Position, Employer, Location ᓄᓂᓴᓄᓪᓴ ᓄᓂᓴᓄᓪᓴ, ᓄᓂᓴᓄᓪᓴ ᓄᓂᓴᓄᓪᓴ				Telephone ᓄᓂᓴᓄᓪᓴ	
Reported To ᓄᓂᓴᓄᓪᓴ		Position, Employer, Location ᓄᓂᓴᓄᓪᓴ ᓄᓂᓴᓄᓪᓴ, ᓄᓂᓴᓄᓪᓴ ᓄᓂᓴᓄᓪᓴ				Telephone ᓄᓂᓴᓄᓪᓴ	