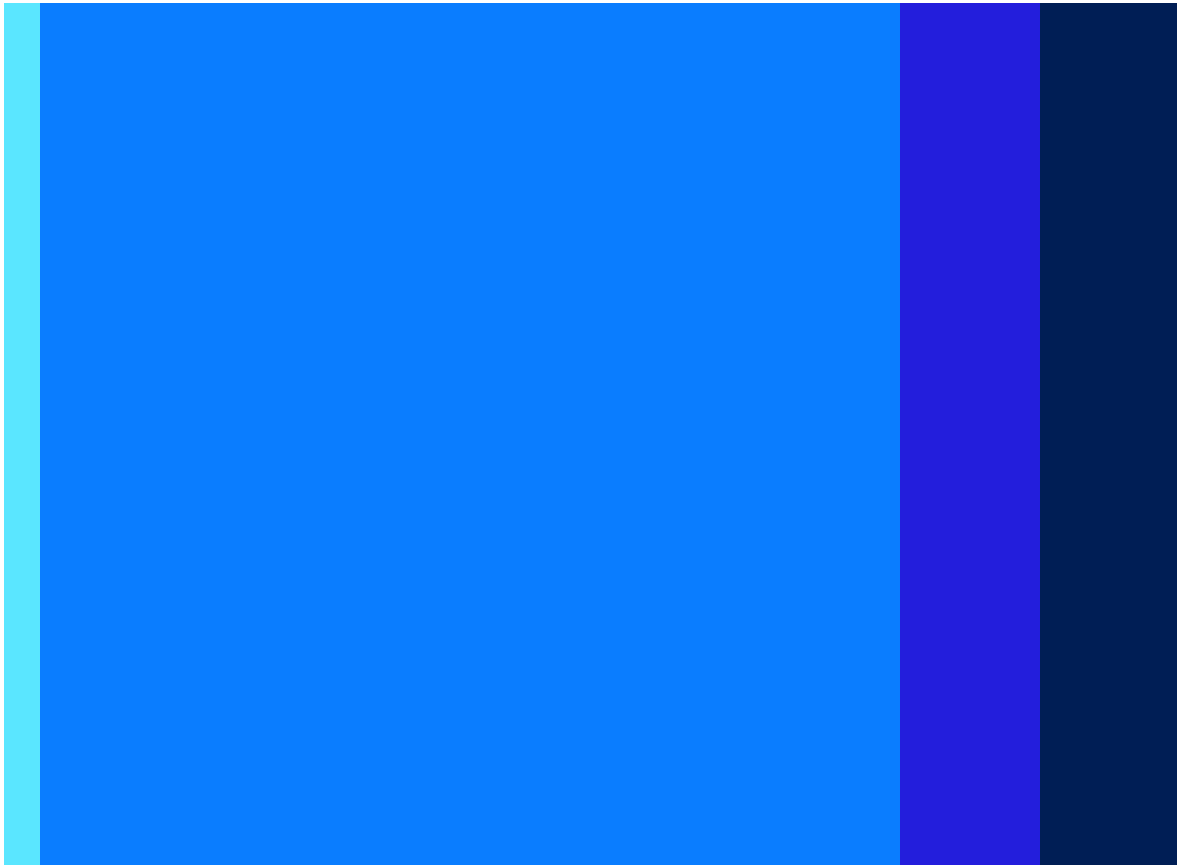


## Waste Management Plan

Version: 001

Government of the Northwest Territories, Department of  
Infrastructure

Jean Marie River Bridge Project



## Document Control and Revision Maintenance

Although Government of the Northwest Territories, Department of Infrastructure (GNWT; INF) may delegate oversight and implementation of this plan, GNWT is ultimately responsible for the maintenance, revision, distribution, and implementation of this plan. The Project Manager or designate is responsible for the maintenance, revision, and distribution of this Waste Management Plan (WMP). It will be continually updated throughout the Jean Marie River Bridge Project (Project) duration whenever new or updated information is available, taking into consideration, award of a contract to the constructor of the bridge, environmental factors, local regulations and laws, and Project-specific changes.

Minor revisions, such as Project personnel contact details, will be required on a regular basis and will be considered minor version edits. Major revision edits caused by Project scope changes will require a version update and resubmission to the Mackenzie Valley Land and Water Board (MVLWB). The Project Manager or designate will be responsible for WMP revision updates and changes.

Revision #	Section(s) Revised	Description of Revision	Prepared by	Issue Date
0	N/A	Draft Version	Jacobs/GNWT	February, 2024
1	Document	Issued	Jacobs/GNWT	March, 2004

Additional copies or updated versions of the WMP can be obtained from the Project Manager or designate. It is the responsibility of the Project Manager or designate to ensure previous versions of the WMP are promptly replaced with required personnel and at specified locations mentioned in this WMP.

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## Acronyms and Abbreviations

BC	British Columbia
ETC	Enhanced Thermal Conduction
GNWT	Government of the Northwest Territories
INF	Department of Infrastructure
MVLWB	Mackenzie Valley Land and Water Board
NWT	Northwest Territories
Project	Jean Marie River Bridge Project
SDS	Safety Data Sheet
TDG	Transportation of Dangerous Goods
VOC	volatile organic compound
WIS	Waste Information Sheets
WMP	Waste Management Plan

## Units

°C	degree(s) Celsius
km	kilometre(s)
m <sup>3</sup>	cubic metre(s)

## 1. Introduction and Project Details

The Government of the Northwest Territories (GNWT) Department of Infrastructure (INF) is currently applying to the Mackenzie Valley Land and Water Board (MVLWB) for a Type B (to cross a watercourse) Water License (WL) in support of the Project activities within the Northwest Territories (NWT). The Project involves the replacement of the existing Jean Marie River Bridge with a new single clear span bridge. Project activities involved in the replacing of the existing bridge include:

- Construction of a temporary detour bridge
- Demolition, disposal, and reclamation of the existing bridge
- Construction of the new single span bridge.

The current scopes of work for the Project have been identified in Table 1-1.

**Table 1-1. Project Scope of Work**

<b>Construction of the Detour Bridge</b>	<ul style="list-style-type: none"> <li>▪ Use of machinery for site clearing and preparation, grubbing, grading, earthworks</li> <li>▪ Construct approaches for the detour bridge</li> <li>▪ Preparing foundations out of stream</li> <li>▪ Installing prefabricated bridge</li> <li>▪ Dismantlement and disposal of detour bridge after installation of the permanent bridge.</li> <li>▪ Construction of the detour bridge may start in 2024 and it could be exposed to spring freshet condition. Contract specifications will require the contractor to protect the bridge and approaches.</li> </ul>
<b>Demolition of Existing Bridge</b>	<ul style="list-style-type: none"> <li>▪ Installation of catchment system (to prevent debris falling into the river)</li> <li>▪ Use of machinery to dismantle the existing bridge.                             <ul style="list-style-type: none"> <li>- Removal of bridge deck</li> <li>- Removal of trusses and remaining bridge superstructure</li> <li>- Removal of bridge abutment or foundation</li> <li>- Cutting the existing piles to one meter below the grade</li> <li>- Cutting of bridge structure into smaller pieces for disposal</li> </ul> </li> <li>▪ Disposal of existing bridge and support structures</li> <li>▪ Contract specifications will require the contractor to put erosion control measures and check turbidity of water.</li> </ul>
<b>Construction of New Single Span Bridge</b>	<ul style="list-style-type: none"> <li>▪ Use of machinery for site clearing and preparation- grading, earth movement, and removal of the existing slope protection riprap</li> <li>▪ Driving piles for the foundations</li> </ul>

	<ul style="list-style-type: none"> <li>Construction of abutments above the high-water mark using precast components and grouting the connections on site on either side of the Jean Marie River</li> <li>Bearing installation</li> <li>Transportation and installation of steel girders</li> <li>Transportation and installation of precast deck panels and grouting for connections.</li> <li>Installation of bridge rail and guard rail</li> <li>Abutment backfills and compaction.</li> <li>Bringing fill and grading of approach roads and access to the river and adjacent properties</li> <li>Installing riprap for slope protection and scour and erosion control at the abutments. Riprap will extend below the highwater mark.</li> <li>Road surfacing</li> <li>Clean up and reclamation.</li> <li>Installation and maintenance of erosion control measures during/after construction.</li> </ul>
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**Note:**

Specific scope details and activities are subject to change based on the application conditions and construction planning process. Any updates to the Project scope of work will be captured in subsequent versions of this WMP.

The main Project details are shown in Table 1-2 and Appendix A (Project Map Package).

This Waste Management Plan (WMP) to provide guidance for the management of wastes produced during typical watercourse crossing construction activities within the NWT and to accompany the application mentioned above. The MVLWB Guidelines for Developing a WMP (MVLWB 2011) were used as a reference for developing this document. Project activities are planned to occur during the one year construction period, beginning fall 2024 to be completed by fall 2025, and no further wastes will be generated by the Project upon completion.

**Table 1-2. Project and Waste Management Plan Information**

<b>Company Name</b>	Government of the Northwest Territories, Department of Infrastructure
<b>Mailing Address</b>	2nd floor, Tatsaotjine Building 5015 49th street, PO Box 1320 Yellowknife, NT. X1A 2L9
<b>Project Name</b>	Jean Marie River Bridge Project
<b>Site Names/ Locations</b>	The permitted areas for this Project are as follows: <ul style="list-style-type: none"> <li>Jean Marie River Bridge</li> <li>Detour Bridge</li> <li>Project Laydown Area</li> <li>Access – existing GNWT roads</li> <li>Borrow Pit 1</li> </ul>

	<ul style="list-style-type: none"> <li>• Borrow Pit 2</li> <li>• Borrow Pit 3</li> <li>• Borrow Pit 4</li> <li>• Camp Site/Accommodation</li> </ul> <p>Refer to Appendix A – Project Map Package for the locations of Project activities, access, and temporary workspace.</p>
<b>Effective Date</b>	2024
<b>Last Revision</b>	2024
<b>Plan Version</b>	001
<b>Distribution List Internal</b>	<p>Dane Cruickshank / Alina Goldenberg / GNWT Senior Project Officers</p> <p>(TDB) Contractor Construction Manager</p> <p>(TDB) Environmental Inspector</p> <p>Azita Azarnejad/ Jacobs Design Team Project Manager</p>
<b>Distribution List External</b>	<p>Mackenzie Valley Land and Water Board (MVLWB)</p> <p>Contractor (TBD)</p>

## 1.1 Purpose and Scope

The purpose of the WMP is to provide a guide to all site personnel on the waste management goals, objectives and procedures to be followed during the permitted operations and Project activities. The WMP will ensure components of the environment, including air, water, land, vegetation, wildlife and fish, are not negatively affected. It will ensure aesthetic and water use values remain intact and comply with all applicable acts and regulations as well as conditions outlined in the INF's WL. The WMP has been developed in accordance with the Guidelines for Developing a Waste Management Plan, prepared by the MVLWB (MVLWB 2011). This WMP will also assist Project personnel and contractors in minimizing, handling, treating, transporting, and diverting or disposing of generated wastes. It is intended as a tool to assist with the identification of appropriate waste management practices for each waste type generated by the Project in the NWT. All employees and contractors working on the Project in the NWT will receive training on this WMP, and a copy will be available to personnel conducting the Project activities.

A detailed background on the environmental aspects and considerations of the Project are within the MVLWB Water License Application.

This WMP will, at a minimum, meet the regulations, guidelines, and applicable sections of the following:

- Canadian Environmental Protection Act
- Canadian Transportation of Dangerous Goods Act
- Canadian Hazardous Products Act
- Canadian Waters Act
- GNWT Environmental Protection Act
- GNWT Lands Act
- GNWT Public Health Act
- GNWT Forest Protection Act
- GNWT Guideline for Hazardous Waste Management
- GNWT Guideline for the Management of Waste Solvents
- GNWT Environmental Guideline for Contaminated Site Remediation



## 1.2 Project Description and Location

The Project involves the replacement of the existing Jean Marie River Bridge with a new single span bridge.

Activities involved in replacing the existing bridge include:

- Construction of a temporary detour bridge
- Demolition, disposal and reclamation of the existing bridge
- Construction of the new single span bridge.

Construction of a detour bridge entails:

- Use of machinery for site clearing and preparation- grading, earth movement
- Construct approaches for the detour bridge
- Preparing foundations out of stream
- Installing prefabricated bridge
- Dismantlement and disposal of detour bridge after installation of the permanent bridge.
- Construction of the detour bridge may start in 2024 and it could be exposed to spring freshet condition. Contract specifications will require the contractor to protect the bridge and approaches.

Demolition of existing bridge entails:

- Installation of catchment system (to prevent debris falling into the river)
- Use of machinery to dismantle the existing bridge.
- Removal of bridge deck
- Removal of trusses and remaining bridge superstructure
- Removal of bridge abutment or foundation
- Cutting the existing piles to one meter below the grade
- Cutting of bridge structure into smaller pieces for disposal
- Disposal of existing bridge and support structures
- Contract specifications will require the contractor to put erosion control measures and check turbidity of water.

Construction of new single span bridge:

- Use of machinery for site clearing and preparation- grading, earth movement, and removal of the existing slope protection riprap
- Driving piles for the foundations
- Construction of abutments above the high-water mark using precast components and grouting the connections on site on either side of the Jean Marie River
- Bearing installation
- Transportation and installation of steel girders
- Transportation and installation of precast deck panels and grouting for connections.
- Installation of bridge rail and guard rail

- Abutment backfills and compaction.
  - Bringing fill and grading of approach roads and access to the river and adjacent properties
  - Installing riprap for slope protection and scour and erosion control at the abutments. Riprap will extend below the highwater mark.
  - Road surfacing
  - Clean up and reclamation.
- 
- Maintenance and operations will be undertaken following the Standards for Highway Maintenance as outlined in the Highway Maintenance Management System Manual, normal construction practices and in accordance with the various regulatory agencies, as applicable.

Refer to Appendix A (Project Map Package) for the locations of construction activities, access, and temporary workspace. Many of the Project facilities will be mobile, such as accommodations, office, laydown, and staging areas. Any changes to footprints will be adjusted within subsequent WMP revisions.

### 1.3 Site Description

Originally constructed in 1969, the existing JMRB is a single span half through (pony) truss bridge over the Jean Marie River located at km 411.2 on Mackenzie Highway (No.1) located immediately south of the junction to Hwy 7. Refer to Appendix A (Project Map Package) for the location, site characteristics and environmental features, as well as borrow pits.

Table 1-3 presents the scope of work for each worksite for the Project.

Refer to the map package in Appendix A for features, such as the bridge construction location.

**Table 1-3. Project Scope of Work**

Worksite	Scope of Work
Jean Marie River Bridge	<ul style="list-style-type: none"><li>▪ Main Project location for bridge decommissioning and new bridge installation/construction.</li></ul>
Detour Bridge	<ul style="list-style-type: none"><li>▪ Temporary detour bridge construction area to maintain transportation flow throughout decommissioning and new span bridge construction.</li></ul>
Project Laydown Areas	<ul style="list-style-type: none"><li>▪ Laydown area to support the Project construction and decommissioning activities.</li><li>▪ Fuel storage</li><li>• Waste storage</li></ul>
Access – existing GNWT roads	<ul style="list-style-type: none"><li>▪ Brush vegetation, if needed.</li><li>• Plow and pack snow to create a driving surface for vehicles and equipment.</li></ul>
Borrow Pit 1	<ul style="list-style-type: none"><li>▪ Option for a water source and water withdrawal, borrow pit use will be refined closer to construction start date.</li></ul>
Borrow Pit 2	<ul style="list-style-type: none"><li>▪ Option for a water source and water withdrawal, borrow pit use will be refined closer to construction start date.</li></ul>

## Waste Management Plan for the Jean Marie River Bridge Project

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Worksite	Scope of Work
Borrow Pit 3	<ul style="list-style-type: none"><li>▪ Option for a water source and water withdrawal, borrow pit use will be refined closer to construction start date.</li></ul>
Borrow Pit 4	<ul style="list-style-type: none"><li>▪ Option for a water source and water withdrawal, borrow pit use will be refined closer to construction start date.</li></ul>
Camp Site/Accommodation	<ul style="list-style-type: none"><li>▪ Contractor constructed camp site, or;</li><li>▪ Checkpoint Bed &amp; Breakfast to be used for accommodation and laydown, pending availability (private property).</li><li>▪ Fuel storage</li><li>▪ Waste storage</li></ul>

## **1.4 Legislation and Guidelines**

This plan been developed in consideration of the applicable territorial legislation including the following reference documents:

- Northern Land Use Guidelines: Camp and Support Facilities (Lands 2014a)
- Northern Land Use Guidelines: Roads and Trails (Lands 2014b)
- Guideline for the General Management of Hazardous Waste in the NWT (ENR 2017)
- Guidelines for Developing a Waste Management Plan (MVLWB 2011)

## 2. Project and GNWT Definitions

Under the authority of the Environmental Protection Act (EPA), INF has produced a series of environmental guidelines for the management of specific hazardous wastes commonly produced on similar projects. The Environmental Guideline for Hazardous Waste (Appendix E) (GNWT 2017) provides definitions of the terms used in the EPA and describes the acceptable waste management practices. The following definitions are particularly important to this document and are found within the document mentioned above (GNWT 2017).

### 2.1 Hazardous Waste

A contaminant is a dangerous good that is no longer used for its original purpose and is intended for recycling, treatment, disposal, or storage and is:

- a dangerous good according to the TDGR
- leachable waste
- hazardous to the aquatic environment
- waste containing dioxins and furans
- contaminated soil/snow/water from a contaminated site
- drilling waste
- listed waste
- any other waste deemed hazardous

A 'hazardous waste' does not include a contaminant that is:

- Household in origin;
- Included in class 1 (explosives) or class 7 (radioactive materials) of the Transportation of Dangerous Goods Regulations (TDGR)
- Exempted as a small quantity
- An empty container
- Intended for disposal in a sewage system or by land filling that meets the applicable standards set out in Schedules 1, III or IV of the Guideline for Industrial Waste Discharges in the NWT.

### 2.2 Contaminant

Any noise, heat, vibration or substance and includes such other substances as the Minister may prescribe that, where discharged into the environment,

- endangers the health, safety or welfare of persons,
- interferes or is likely to interfere with normal enjoyment of life or property,
- endangers the health of animal life, or
- causes or is likely to cause damage to plant life or to property

### 2.3 Dangerous Goods

Any product, substance or organism referred to in the prescribed classes of dangerous goods or included by its nature in any of the prescribed classes of dangerous goods in the schedule provided by the applicable transport authority.

## **2.4 Empty Container**

A container that has been emptied, to the greatest extent possible, using regular handling procedures, but its contents shall not exceed 1% of the container's original capacity or 2 litres (L), whichever is less. This does not include containers which previously contained mercury, or Class 2.3, 5.1 or 6.1 materials of TDGR.

## **2.5 Small Quantity**

Hazardous wastes are considered to be small quantities if it is generated in an amount that is less than 5 kilograms (kg) per month if a solid or 5 L per month if a liquid; and where the total quantity accumulated at any one time does not exceed 5 kg or 5 L. This does not apply to wastes that are mercury or in Class 2.3, 5.1 or 6.1 of the TDGR. These wastes must be generated in an amount less than 1 kg per month if a solid or 1 L per month if a liquid; and where the total quantity accumulated at any one time does not exceed 1 kg or 1L.

## **2.6 Hazardous to the Aquatic Environment**

Any product or substance classified as hazardous to the aquatic environment according to the classification system outlined in Chapter 4.1 Hazardous to the Aquatic Environment of Part 4 Environmental Hazards (GNWT 2017) provided in the Globally Harmonized System of Classification and Labelling of Chemicals (GHS).

### 3. Project Waste Types

Over the course of operations and maintenance, several types of waste will likely be generated by equipment and crews working within the Jean Marie River Bridge Work Area, and Camp/Laydown areas. The primary type of waste will include non-mineral wastes; however, some hazardous wastes may be generated. The properties for determination of hazardous waste, are shown in Table 3-1. The types of waste anticipated to be generated are outlined in Table 3-2.

#### 3.1 General Identification Procedures

Classifications (nonhazardous or hazardous) of waste must be determined through specific characteristics of the waste. Appendix B contains information for Decision Flow Chart for Determining if a Waste is a Hazardous Waste, from the GNWT Guidelines for Hazardous Waste Management, 2017.

Table 3-1. Hazardous Waste Determination

Characterization Property	General Properties
Flammability	Waste has a flashpoint <61 degrees Celsius (°C). Waste ignites and propagates combustion in a test sample.
Waste Ignites and Propagates Combustion in a Test Sample	Waste generates heat at a rate greater than it loses heat and reaches the auto-ignition temperature.
Water Reactive	Waste generates flammable or explosive gases in contact with water.
Oxidizing Potential	Waste contributes oxygen for combustion.
Toxicity	Waste is either toxic via oral, dermal, or inhalation routes.
Corrosivity	Waste has a pH value less than 2.0 or greater than 12.5.
PCB Content	Waste contains polychlorinated biphenyls at a concentration equal to or greater than 50 milligrams per kilogram.
Leachate Toxicity	The leachate of the waste sample is toxic based on a regulated list of criteria.

The MVLWB waste management hierarchy will be continuously applied throughout the Project where applicable. Various types of waste have been identified that may be generated by equipment, crews, and construction activities. Information regarding waste type generation, handling, and potential impacts are included in Table 4-1. Waste management will be implemented to minimize waste production by reducing the use of materials, reusing materials when practical, recycling, and recovering used materials. Updates to the handling, disposal, and management of additional waste types will be developed as the Project planning progresses.

## 3.2 Segregated Waste Streams

Waste Stream	Estimated Amount of Waste <sup>a</sup>	Description	Handling Method	Disposal Method
<b>Domestic wastes (organic and non-organic)</b>	<ul style="list-style-type: none"> <li>60 kg per day for 300 days</li> </ul>	<ul style="list-style-type: none"> <li>Organic and non-organic waste including garbage, rubbish or food scraps</li> </ul>	<ul style="list-style-type: none"> <li>Place in odour proof secure waste containers, minimizing wildlife attractants.</li> </ul>	<ul style="list-style-type: none"> <li>Waste will be progressively removed from the Project work sites and disposed of at an approved solid waste facility – Anticipated to be the Village of Fort Simpson Landfill Facility</li> </ul>
<b>Scrap Metal</b>	<ul style="list-style-type: none"> <li>3500- 4500 kg</li> </ul>	<ul style="list-style-type: none"> <li>Any scrap metal, removed metal infrastructure, bridge/culvert materials.</li> </ul>	<ul style="list-style-type: none"> <li>Dump truck.</li> </ul>	<ul style="list-style-type: none"> <li>Waste will be progressively removed from the Project work sites and disposed of at an approved solid waste facility. Anticipated to be the Village of Fort Simpson Landfill Facility</li> </ul>
<b>Concrete</b>	<ul style="list-style-type: none"> <li>160 m3 (Approximately 385,000 kg)</li> </ul>	<ul style="list-style-type: none"> <li>Any demolished concrete, removed concrete infrastructure, bridge/culvert materials.</li> </ul>	<ul style="list-style-type: none"> <li>Dump truck.</li> </ul>	<ul style="list-style-type: none"> <li>Waste will be progressively removed from the Project work sites and disposed of at an approved solid waste facility. Anticipated to be removed from NWT to the Fort Nelson Landfill BC Facility</li> </ul>
<b>Treated Wood</b>	<ul style="list-style-type: none"> <li>5,500 - 6,500 kg (Treated timber piles)</li> </ul>	<ul style="list-style-type: none"> <li>Any wood product, infrastructure, or bridge materials used during construction.</li> </ul>	<ul style="list-style-type: none"> <li>Dump Truck.</li> </ul>	<ul style="list-style-type: none"> <li>Waste will be progressively removed from the Project work sites and disposed of at an approved solid waste facility. Anticipated to be removed from NWT</li> </ul>



## Waste Management Plan for the Jean Marie River Bridge Project

Waste Stream	Estimated Amount of Waste <sup>a</sup>	Description	Handling Method	Disposal Method
				to the Fort Nelson Landfill BC Facility
<b>Steel Bridge Structure Waste</b>	<ul style="list-style-type: none"> <li>70,000 - 80,000 kg (steel with lead-based paint)</li> </ul>	<ul style="list-style-type: none"> <li>Any removed steel infrastructure, bridge materials.</li> </ul>	<ul style="list-style-type: none"> <li>If steel with lead paint, place in secure odour proof hazardous waste container for transport and disposal</li> </ul>	<ul style="list-style-type: none"> <li>Waste will be progressively removed from the Project work sites and disposed of at an approved solid solid/hazardous waste facility. Anticipated to the Fort Nelson BC Landfill Facility</li> </ul>
<b>Lead paint</b>	<ul style="list-style-type: none"> <li>0.25 m<sup>3</sup></li> </ul>	<ul style="list-style-type: none"> <li>Paint is expected to remain adhered to the bridge superstructure and will not be removed on site.</li> <li>Any paint removed from decommissioned will be collected/</li> </ul>	<ul style="list-style-type: none"> <li>Place in secure odour proof hazardous waste container for transport and disposal</li> </ul>	<ul style="list-style-type: none"> <li>Waste will be progressively removed from the Project work sites and disposed of at an approved solid/hazardous anticipated to be the Fort Nelson Landfill Facility</li> </ul>
<b>Cleared vegetation</b>	<ul style="list-style-type: none"> <li>20 m<sup>3</sup></li> </ul>	<ul style="list-style-type: none"> <li>Minimal vegetation clearing is expected as all maintenance and operations will occur within the already established highway alignment.</li> </ul>	<ul style="list-style-type: none"> <li>Slashed trees and shrubs with possible grubbing, brush will be mulched along the footprint. If required, trees will be hand fallen.</li> </ul>	<ul style="list-style-type: none"> <li>If cut, brush will be windrowed along the alignment. If cut, trees will be used as firewood for a community.</li> </ul>
<b>Sanitary Wastewater*</b>	<ul style="list-style-type: none"> <li>4.6 m<sup>3</sup> /Day</li> </ul>	<ul style="list-style-type: none"> <li>Grey/black-water</li> </ul>	<ul style="list-style-type: none"> <li>Stored in a portable washroom facility during the Project.</li> </ul>	<ul style="list-style-type: none"> <li>Will be removed from the Project work sites and disposed at an approved sewage disposal facility Anticipated to be the Village of Fort Simpson Landfill Facility</li> </ul>
<b>Drill Cuttings from geotechnical works</b>	<ul style="list-style-type: none"> <li>0 tonnes</li> </ul>	<ul style="list-style-type: none"> <li>Solid materials, such as rock fragments, that are brought to the surface during</li> </ul>	<ul style="list-style-type: none"> <li>To be placed back into the original borehole from which it was generated, or disposed of in sumps if</li> </ul>	<ul style="list-style-type: none"> <li>Placed back into the original borehole from which they were generated in order to minimize</li> </ul>

Waste Stream	Estimated Amount of Waste <sup>a</sup>	Description	Handling Method	Disposal Method
		auger or core drilling.	thermistors are to be installed.	cross contamination of borehole sites.

Note:

\* Accommodations are anticipated to be provided to contractor construction crews at the directly adjacent private accommodation provided by Check Point Bed and Breakfast. Therefore, no sanitary wastewater sewage is anticipated for the Jean Marie Bridge construction. However, if the Check Point Bed and Breakfast cannot be booked by the contractor, then a camp will be required. If a camp is used, the sanitary wastewater will be brought to an approved sewage disposal facility which is anticipated to be the Village of Fort Simpson Landfill.

<sup>a</sup> Estimates can be adjusted in subsequent versions of this document if more accurate information becomes available.

No waste from other territories or provinces will be disposed of within the NWT.

### 3.3 Other Potential Waste Streams

Potentially hazardous wastes generated on-site include, fuel, lubricants, oil filters, solvents, etc., from use and maintenance of heavy equipment. Other potential wastes may include contaminated soil, snow or water should a spill occur during Project activities. Although not anticipated, the Project may also generate other non-project specific wastes. These wastes are outlined in Table 4-2 below.

Waste Stream	Estimated Amount of Waste <sup>a</sup>	Description	Handling Method	Disposal Method
<b>Wastes generated during spills (including hydrocarbon containers, absorbents, contaminated snow/water)</b>	<ul style="list-style-type: none"> <li>5 m<sup>3</sup></li> </ul>	<ul style="list-style-type: none"> <li>Contaminated soils, materials, and/or sorbents. Can include: gasoline, diesel, hydraulic fluid, engine oil, or antifreeze.</li> </ul>	<ul style="list-style-type: none"> <li>Place contaminated materials in appropriate storage containers.</li> </ul>	<ul style="list-style-type: none"> <li>Soils or liquid residue will be removed by registered hazardous waste carrier to an approved disposal facility anticipated to be the Fort Nelson BC Landfill Facility</li> </ul>
<b>Animal carcasses associated with collisions during the Project</b>	<ul style="list-style-type: none"> <li>n/a</li> </ul>	<ul style="list-style-type: none"> <li>Dead or decomposing animal parts</li> </ul>	<ul style="list-style-type: none"> <li>No storage of animal carcasses will be allowed at the Project work sites.</li> </ul>	<ul style="list-style-type: none"> <li>Animal carcasses will be removed and disposed as directed by the GNWT Department of Environment and Climate Change</li> </ul>
<b>Batteries (lead acid and alkaline)</b>	<ul style="list-style-type: none"> <li>20 Lbs</li> </ul>	<ul style="list-style-type: none"> <li>From personnel and equipment</li> </ul>	<ul style="list-style-type: none"> <li>Place in appropriate containers at lined facility/storage area.</li> </ul>	<ul style="list-style-type: none"> <li>Removed and disposed of at an approved disposal facility.</li> </ul>

Note:

<sup>a</sup> Estimates can be adjusted in subsequent versions of this document if more accurate information becomes available.

No waste from other territories or provinces will be disposed of within the NWT.

### **3.4 Non-Hazardous Wastes**

The non-hazardous waste generated will primarily include domestic waste generated during the construction activities. The potential environmental effects arising from unmanaged non-hazardous waste include increased wildlife attractants, a change in the aesthetics to the area, degradation of water quality, and degradation of wildlife habitat.

### **3.5 Sewage**

Accommodations are anticipated to be provided to contractor construction crews at the directly adjacent private accommodation provided by Check Point Bed and Breakfast. Therefore, no sanitary wastewater sewage is anticipated for the Jean Marie Bridge construction. However, if the Check Point Bed and Breakfast cannot be booked by the contractor, then a camp will be required. If a camp is used, wastewater will be brought to an approved sewage disposal facility which is anticipated to be the Village of Fort Simpson Landfill. Any portable washroom facilities will be utilized by Project will require a sanitary holding tank, and will be transferred to an approved facility for disposal, subject to community approval and capacity at local facilities. Disposal approvals are detailed within Appendix C.

The potential environmental effects arising from unmanaged sewage wastes include degradation of soil quality, degradation of water quality, degradation of wildlife habitat, and harm to on-site personnel.

### **3.6 Hazardous Waste**

While it is expected that vehicle maintenance will occur in existing facilities within communities, there may be occasions where equipment requires servicing in the field. Waste associated with these maintenance activities may include used oil filters, used oil, etc. Other potentially hazardous wastes may include contaminated soil, snow or water, and sewage if a spill occurs during the Project.

The potential environmental effects arising from unmanaged hazardous wastes include degradation of soil quality, degradation of water quality, degradation of wildlife habitat, and harm to on-site personnel.

## **4. Waste Management Facilities**

Various types of wastes could be generated under this WL. It is essential that these wastes are handled, stored and managed in a safe and environmentally responsible manner.

Contractor will select the types of fuels and fuel storage tanks to meet the needs of the Project as well as any storage tank volumes and locations. INF expects that diesel and gasoline will be the two primary fuels used, each sourced from existing fuel tanks. Diesel will be used for mobile equipment and vehicles. Gasoline will be required, depending on the type of vehicles and some small equipment that are used.

INF expects that the external fuel tanks will include: fuel tanks mounted in the back of pickup trucks for refuelling mobile equipment and vehicles at the Project sites. No fuel storage tanks will be stored on sites. All fuel tanks used will meet regulatory requirements.

All waste management facilities are subject to community approval and capacity to access and handle different types of waste. INF will confirm with individual communities and seek the appropriate approvals for waste disposal depending on the nature of the operations and maintenance projects conducted under this WL.

At this time, it is anticipated that the Village of Fort Simpson Landfill will be able to accept all the nonhazardous waste generated by the project, as shown in the 'Sample – Waste Receiving Approval' provided by The Village of Fort Simpson and shown in Appendix C.

## **5. Waste Management Procedures**

The following sections describe the Project specific waste management procedures that will be followed by all office and field-based Project personnel. Should any of these procedures change as part of Project and construction planning, edits will be made within subsequent versions of this WMP.

### **5.1 Waste Management Responsibilities**

All Project personnel and contractors are responsible for the proper handling of any wastes generated and must comply with this WMP.

### **5.2 Storage and Treatment**

Storage options for waste materials will vary depending on the type of waste generated. All wastes will be tracked and recorded by the contractor. An example of a tracking form is provided in Appendix B.

In some cases, waste may be treated, rather than disposed. In the case of sewage and wastewater from temporary campsites, a water treatment unit may be used.

When designating and storing waste, the following items require attention and consideration:

- Consult applicable waste storage guidelines and regulations if storage or treatment has not been identified.
- Whenever practical, transport wastes to a secure waste facility in a timely manner.
- Provide secondary containment under all containers and tanks holding liquid wastes to prevent the migration of contaminants.
- If practical, secure waste storage containers against wildlife and weather.
- Maintain a clean worksite at all times.
- Food wastes must be secured in animal proof containers and removed from worksites at the end of each day.
- Store nonhazardous waste in an area of low traffic.
- Waste storage must be at least 100 metres from any waterbody, wetlands, ditches, and drainage channels, where feasible. Otherwise, ensure adequate secondary containment measures are in-place.

### **5.3 Handling and Labelling**

Handling information regarding specific wastes is included in Appendix C. When handling material contaminated with hazardous materials, consult the Safety Data Sheet (SDS) for the product that was spilled. SDS's for typical types of hazardous materials or contaminants are included in the Project-specific Spill Contingency Plan (Jacobs 2024).

Each WIS is divided into the following five sections:

- General information
- Potential hazards
- Management methods
- Transportation of Dangerous Goods (TDG) Information
- Documentation

## **5.4 Transport and Disposal**

Transportation and disposal of a waste will depend on the nature and identification of the waste. Refer to the SDS and confirmed disposal procedures before arranging the transportation and disposal of all waste. Disposal approval form and inventory documentation will be provided once a waste disposal facility has been selected.

### **5.4.1 Transportation Documents**

Every waste shipment must be accompanied by the appropriate tracking documents. Waste transportation documentation such as the Hazardous Waste Generator Registration Form and Hazardous Waste Carrier Registration Form (Appendix D) will be utilized and copies retained in the Project records, if applicable.

### **5.4.2 Company Records**

It is imperative to maintain accurate records of all wastes generated. Waste records will be retained as part of the Project records and all documentation will be sent to the INF Project Manager.

### **5.4.3 Transportation of Dangerous Goods Information**

Federal TDG Regulations specify that consignors (shippers) of dangerous goods are responsible for assigning appropriate classifications. A typical TDG classification is provided in Appendix B as a guide in classifying the wastes for transportation. If field personnel feel that the subject waste characteristics or components may be different from the general information on the WIS, then the TDG classification may not be correct. Consult with the Project Manager or the applicable legislation for the NWT governing the shipment of waste.

Project personnel will follow and consult all federal and territory regulations for TDG where applicable.

### **5.4.4 Safety Marks**

The TDG Regulations specify that all means of containment or means of transport that contain dangerous goods must have proper dangerous goods safety marks. In accordance with the federal TDG Regulations, safety marks must be as follows:

- Displayed in the means of containment.
- Visible, legible, and displayed against a contrasting colour.
- Made durable and weather resistant.
- Follow the specific dangerous good class and label size and orientation requirements as described in TDG Regulations.

## **5.5 Hazardous Materials Waste Management and Disposal**

INF is responsible for the proper management and disposal of hazardous waste generated on the Project site either directly by INF or by its contractors. As a result, any and all hazardous waste that is managed by the Contractor will be submitted under INF's registered generator of hazardous waste number 'NTG001'. The Contractor will be responsible for completing and managing the hazardous waste movement documents (Appendix D) according to the Guideline for the General Management of Hazardous Waste in the NWT (ENR 2017), while maintaining contact with INF to ensure proper management of the waste.

If hazardous materials and wastes (fuels, oils and lubricants) are transported onto the alignment, they will be stored within secondary containment at least 100 m away from the high-water mark of any watercourses, as per the Spill Contingency Plan (SCP) for the Project (Jacobs 2024). Any hazardous wastes will be stored in clearly marked containers with lids (i.e., drums) and in clearly marked areas (e.g. signs and flagging). Containers will be kept clear of debris and snow to facilitate route inspections for leaks. Hazardous wastes will be removed from the designated storage area as often as possible, but at the end of the Project at a minimum. Wastes will be transported to an approved facility for treatment/disposal. If other contaminated materials require disposal (i.e. spill pads), these will be disposed of through a licensed facility. On behalf of the INF (the waste generator), the Contractor will complete the appropriate waste manifest to fulfill TDGR requirements and the requirements of the Guideline for the General Management of Hazardous Waste in the NWT. Any contaminated snow, soil, and/or water will also be transported to an approved facility for treatment/disposal.

The process for waste transportation related to its destination is shown in Table 5-1.

**Table 5-1. Waste Transportation and Disposal Procedures**

Destination	Nonhazardous	Hazardous	Hazardous Recycled
Intra-territorial: Anywhere within the NWT	Truck Ticket or Waybill	Waste Manifest	Waste Manifest
Interprovincial: Outside the NWT	Truck Ticket or Waybill	Waste Manifest <sup>a</sup>	Waste Manifest <sup>a</sup>
International: Outside Canada	Truck Ticket or Waybill	Movement Document with copy of Import/Export Permit	Movement Document with copy of Import/Export Permit

<sup>a</sup> Alternate routings of Movement Document/Manifest copies may apply. Consult with the territorial environment agency.

### 5.5.1 Sanitary Wastewater Greywater and Sewage

Greywater and sewage that cannot be treated at the camp or facility and will be disposed of at a local municipal wastewater treatment plant, pending written approval from the water treatment facility authority. Village of Fort Simpson Landfill has confirmed that weekly sanitary wastewater can be received, if appropriate arrangements are made by the contractor (Appendix C).

### 5.5.2 Waste Oils

Waste oil will be stored in containers suitable for that purpose. Other waste types, such as antifreeze or solvents will not be stored in the same container as waste oils.

### 5.5.3 Used Filters

Used filters will be temporarily stored in filter containers and will then be disposed of at an approved registered facility.

#### **5.5.4 Used Hydrocarbon Containers and Absorbents**

Used hydrocarbon containers, absorbents or rags produced onsite, along with any used spill response materials, such as fibre pads or granular absorbents ('floor dry') will be placed in appropriate containers and disposed at an approved disposal facility in accordance with regulatory requirements.

#### **5.5.5 Contaminated Soils and Snow**

Contaminated soils and/or snow as a result of hydrocarbon spills or other spill material is anticipated to be minimal as all site personnel will be familiar with the Project's SCP and will follow proper safe operating procedures.

In the event that a spill should occur, it is expected that contaminated soils/snow will be picked up and placed in suitable storage containers (i.e. drum). The wastes will be removed from the Project worksites by a registered hazardous waste carrier and disposed of at an approved facility. Should a larger spill occur, a secondary containment structure or lined facility may be required.

#### **5.5.6 Lead Paint**

All lead paint and materials coated with lead paint will be placed into appropriate hazardous waste containers and disposed of at an approved registered facility. If sand blasting and lead paint removal occurs, appropriate mitigation measures will be followed per the Project specific spill contingency plan and erosion and sediment control plan. Appropriate Personal protective equipment and handling procedures will be followed for anyone handling materials with lead paint.

#### **5.5.7 Animal Carcass Discovery**

Animal carcasses will be reported to the NWT Wildlife and Forestry department of the Dehcho Regional office at:

**Dehcho Regional Office Wildlife and Forestry – 1-867-695-7450**

Animal carcasses will not be stored at Project locations but will be removed and disposed of based on consultation with the NWT Wildlife and Forestry department of the Dehcho Regional office.

#### **5.5.8 Batteries**

Lead acid batteries and alkaline batteries will be placed into appropriate containers and disposed of at an approved registered facility.

### **5.6 Nonhazardous Waste Management and Disposal**

Nonhazardous materials must be disposed of at a licenced nonhazardous waste (Class 2)-receiving facility. Proper shipping documents must accompany all nonhazardous waste (Appendices C and E).

#### **5.6.1 Domestic Waste**

Domestic waste and refuse from camp activities, such as food waste, will be disposed of at a local licenced municipality landfill pending written approval from the landfill operator. Any waste that is not accepted at



a local licenced municipality landfill will be stored in appropriate containers at the camp location and transported to an approved facility for disposal.

At this time, it is anticipated that the Village of Fort Simpson Landfill will be able to accept all the nonhazardous waste generated by the project, as shown in the 'Sample – Waste Receiving Approval' provided by The Village of Fort Simpson and shown in Appendix C. The contractor will have to make arrangements for disposal at the rates and quantities as shown in Appendix C.

Waste management practices will be implemented that minimize attractants to wildlife, including:

- Minimizing and properly disposing of garbage, food wastes and other edible and aromatic substances into odour-proof secure containers (wildlife-proof).
- Separating recyclables such as beverage containers, plastics, alkaline batteries and possible electronics for proper disposal offsite.
- Organizing wastes into containers with secure lids to store onsite. This material will then be progressively removed from site throughout construction operations.
- Ensuring work crews inspect work areas and collect and properly dispose of any waste that may have been discarded.

### **5.6.1.1 Scrap Metal**

Any scrap metal waste produced by the Project that cannot be reused or recycled and is not accepted by a local licensed municipality landfill, will be stored in appropriate containers, and transported to an approved facility for disposal.

### **5.6.1.2 Concrete**

Any concrete waste produced by the Project that is not accepted by a local licensed municipality landfill, will be stored in appropriate containers, and transported to an approved facility for disposal.

### **5.6.1.3 Wood**

Any wood products or material produced by the Project that cannot be reused or recycled and is not accepted by a local licensed municipality landfill, will be stored in appropriate containers, and transported to an approved facility for disposal.

## **5.6.2 Steel Waste**

As the scope of the Project involves bridge decommissioning, large amounts of steel will be decommissioned from the existing Jean Marie River Bridge. Steel that cannot be reused, recycled, reclaimed, or accepted by a local licensed municipality landfill, will be stored in approved locations or appropriate containers and then transported to an approved facility for disposal.

## **5.6.3 Drill Cuttings**

Drill cuttings that are not backfilled into boreholes will be disposed of in sumps located either off to the side of the road. The sump(s) will be located in an area that is a natural depression and a minimum of 100 m from any water body. No sumps shall be located within 100 m of the Ordinary High Water Mark of any Watercourse, unless otherwise authorized in writing by an Inspector.

## 5.6.4 Recycling

To follow best practices in waste reduction and the MVLWB management hierarchy, materials will be recycled wherever practical. Recyclable materials may be disposed of at a local licenced municipal facility pending written approval from the facility operator. Any recycling that is not accepted at a local licenced municipality facility will be stored in bins at the site and/or camp locations and hauled to the nearest approved facility.

## 5.6.5 Vegetation

Vegetation will be mulched or windrowed within the Project footprint as needed. Any vegetation that cannot be mulched and used within the Project footprint will be stored in appropriate containers and transported to an approved facility for disposal.

## 5.7 Waste Management Facilities

INF has identified potential facilities and landfills that can manage Project wastes. All waste being transported to licenced landfills or facilities will require written approval from the landfill operator (Table 5-2). Approvals will be obtained and confirmed as the Project moves through its planning and preparation stages. At this time, it is anticipated that the Village of Fort Simpson Landfill will be able to accept all the nonhazardous waste generated by the project, as shown in the email and 'Sample – Waste Receiving Approval' provided by The Village of Fort Simpson and shown in Appendix C.

Table 5-2. Potential Landfill and Facility Locations

Waste Type	Facility <sup>a</sup>
Scrap/Bulk Metal	<ul style="list-style-type: none"> <li>Village of Fort Simpson Landfill</li> </ul>
Domestic Garbage	<ul style="list-style-type: none"> <li>Village of Fort Simpson Landfill</li> </ul>
Bridge Steel	<ul style="list-style-type: none"> <li>Outside of the NT at a certified disposal site</li> </ul>
Treated wood and Timbers	<ul style="list-style-type: none"> <li>Outside of the NT at a certified disposal site</li> </ul>
Concrete with rebar	<ul style="list-style-type: none"> <li>Outside of the NT at a certified disposal site</li> </ul>
Hazardous/Contaminated Soil	<ul style="list-style-type: none"> <li>Contaminated soil will be stored in appropriate containers and hauled to an approved facility. Outside of the NT at a certified disposal site</li> </ul>
Contaminated Sorbent Material	
Sewage and Greywater	<ul style="list-style-type: none"> <li>Village of Fort Simpson Landfill</li> </ul>

Notes:

<sup>a</sup> Disposal facilities are subject to change throughout the Project duration based on approvals and waste quantities.

## **6. Training Program**

All Project personnel are given a Project-specific orientation prior to conducting any work.

### **6.1 Training Records**

Completion of training records will be sent to the INF Project Manager and retained within the Project files. Confirmation of training records and onboarding of this WMP will be required before personnel are approved for mobilization to the Project.

### **6.2 Contractor Training**

The Contractor will be responsible for providing a qualified supervisor and training site workers in this WMP. All individuals hired to work on the Project should be familiar with waste management practices and WHMIS (Workplace Hazardous Materials and Information System) training before working on site.

## 7. References

Environment and Natural Resources (ENR). 2003. Used Oil and Waste Fuel Management Regulations – Plain Language Guide. GNWT. Yellowknife, NT. Retrieved January 2016 from:

[http://www.enr.gov.nt.ca/sites/default/files/guidelines/used\\_oil\\_guide.pdf](http://www.enr.gov.nt.ca/sites/default/files/guidelines/used_oil_guide.pdf).

Department of Lands (Lands). 2014a. Northern Land Use Guidelines: Camp and Support Facilities. GNWT. Yellowknife, NT. Retrieved January 2020 from:

[https://www.lands.gov.nt.ca/sites/lands/files/resources/nlug\\_camps\\_2015\\_english\\_16\\_sept\\_2015.pdf](https://www.lands.gov.nt.ca/sites/lands/files/resources/nlug_camps_2015_english_16_sept_2015.pdf)

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GNWT. 2017. Guideline for the Hazardous Waste Management. Web access:

[https://www.enr.gov.nt.ca/sites/enr/files/resources/128-hazardous\\_waste-interactive\\_web\\_0.pdf](https://www.enr.gov.nt.ca/sites/enr/files/resources/128-hazardous_waste-interactive_web_0.pdf)

Jacobs Consultancy Canada Inc. (Jacobs). 2024. Spill Contingency Plan. Project. Prepared for the GNWT INF.

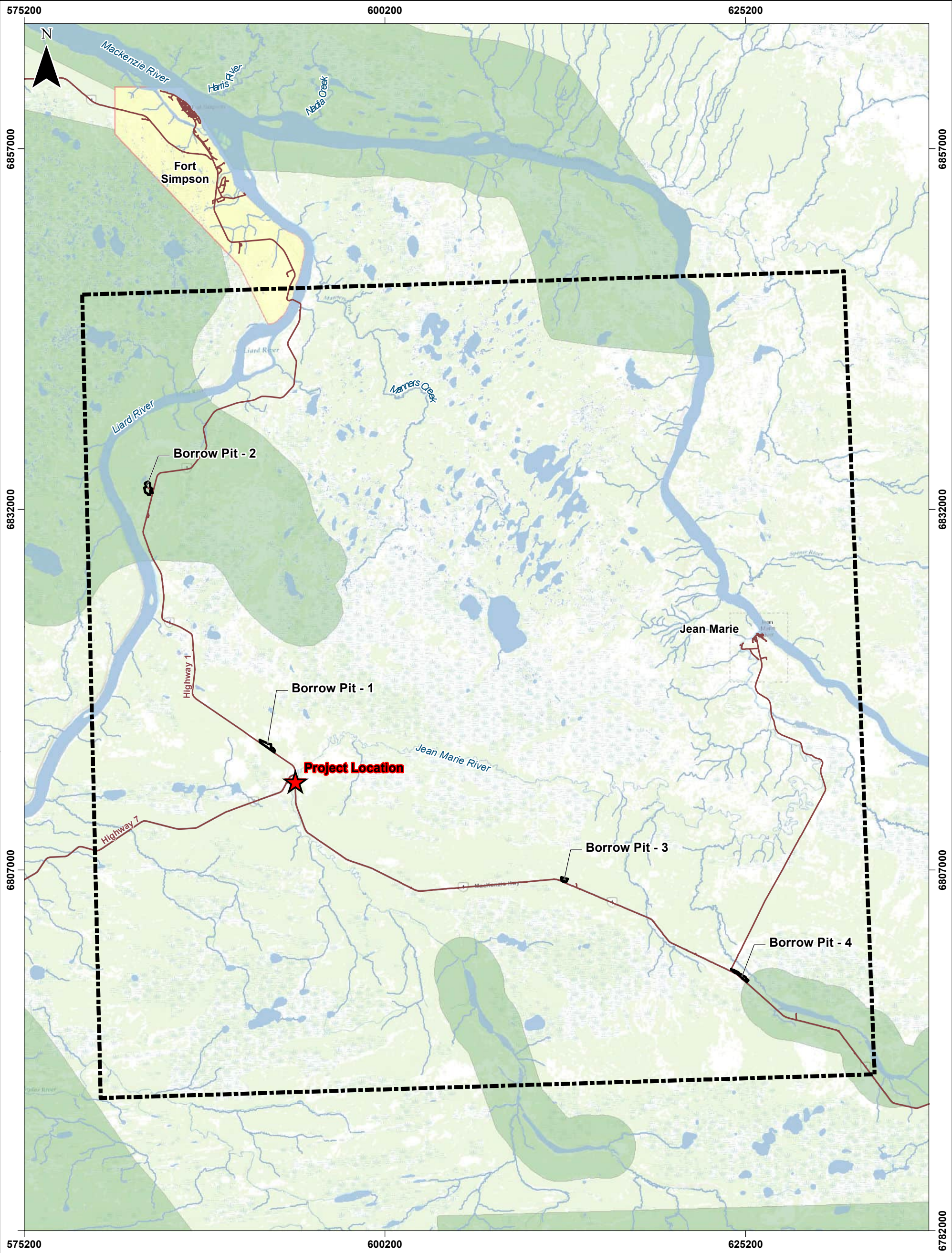
Mackenzie Valley Land and Water Board (MVLWB). 2011. Guidelines for Developing a Waste Management Plan. MVLWB, Yellowknife, NT. Retrieved August 2014 from: <http://mvlwb.com/resources/policy-and-guidelines>.

# **Appendix A**

## **Project Map Package**



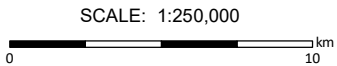




- Project Location
- Borrow Pit
- Highway/Road
- Waterbody
- Watercourse
- Municipal Boundary
- Proposed Protected/Conservation Area
- Regional Study Area

1:250 000 NTS map sheet number 95H

FIGURE 1-1  
PROJECT LOCATION  
JEAN MARIE RIVER BRIDGE REPLACEMENT  
GOVERNMENT OF NORTHWEST TERRITORIES  
INFRASTRUCTURE



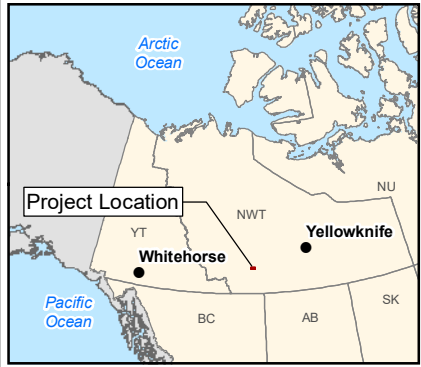
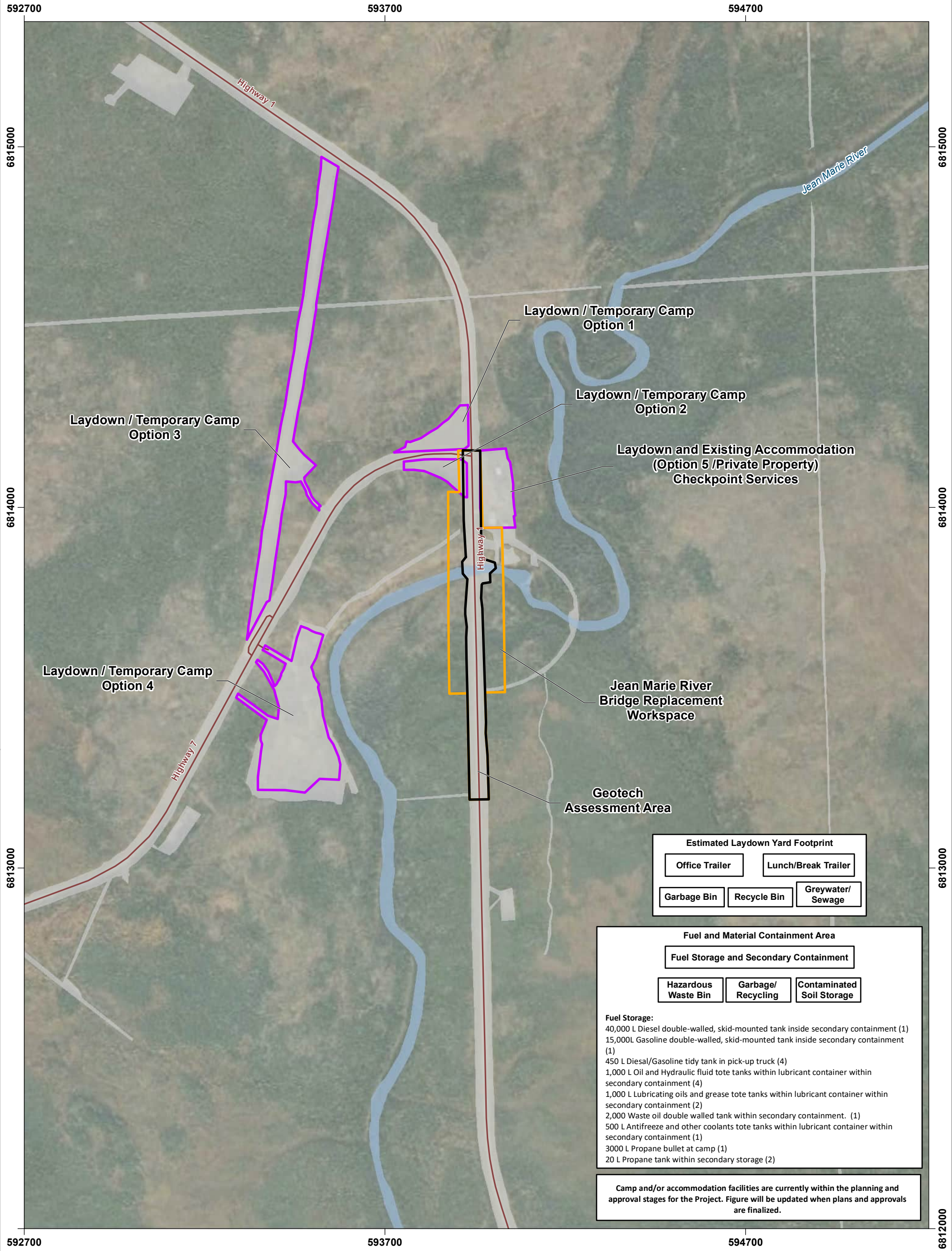
January 2024

Jacobs

NAD 1983 UTM Zone 10N  
Highway/Road: Source: NRCan 2014; Waterbody/Watercourse: NRCan 2007-2011; Municipal Boundary, Proposed Protected/Conservation Area: Government NWT; Imagery: ESRI Basemaps

*This map has been compiled from the best existing sources available at the time of preparation. However, the Government of Northwest Territories (GNWT), Department of Infrastructure (INF) and/or its affiliates and/or subsidiaries do not guarantee the accuracy of the map or assume responsibility of liability for any reliance thereon.*





**Jean Marie Bridge Replacement Footprint**

- Geotech Assessment Area
- Workspace
- Laydown / Temporary Camp

- Highway/Road
- Waterbody
- Disturbed Area

NAD 1983 UTM Zone 10N

Highway/Road: Source: NRCan 2014; Waterbody/Watercourse: NRCan 2007-2011; Municipal Boundary, Proposed Protected/Conservation Area: Government NWT; Imagery: ESRI Basemaps

*This map has been compiled from the best existing sources available at the time of preparation. However, the Government of Northwest Territories (GNWT), Department of Infrastructure (INF) and/or its affiliates and/or subsidiaries do not guarantee the accuracy of the map or assume responsibility of liability for any reliance thereon.*

**FIGURE 1-2**

**JEAN MARIE BRIDGE REPLACEMENT - CROSSING DETAIL**

**JEAN MARIE RIVER BRIDGE REPLACEMENT**

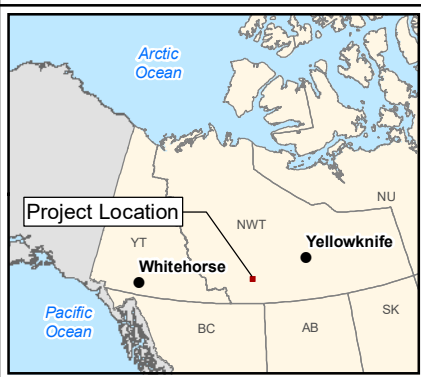
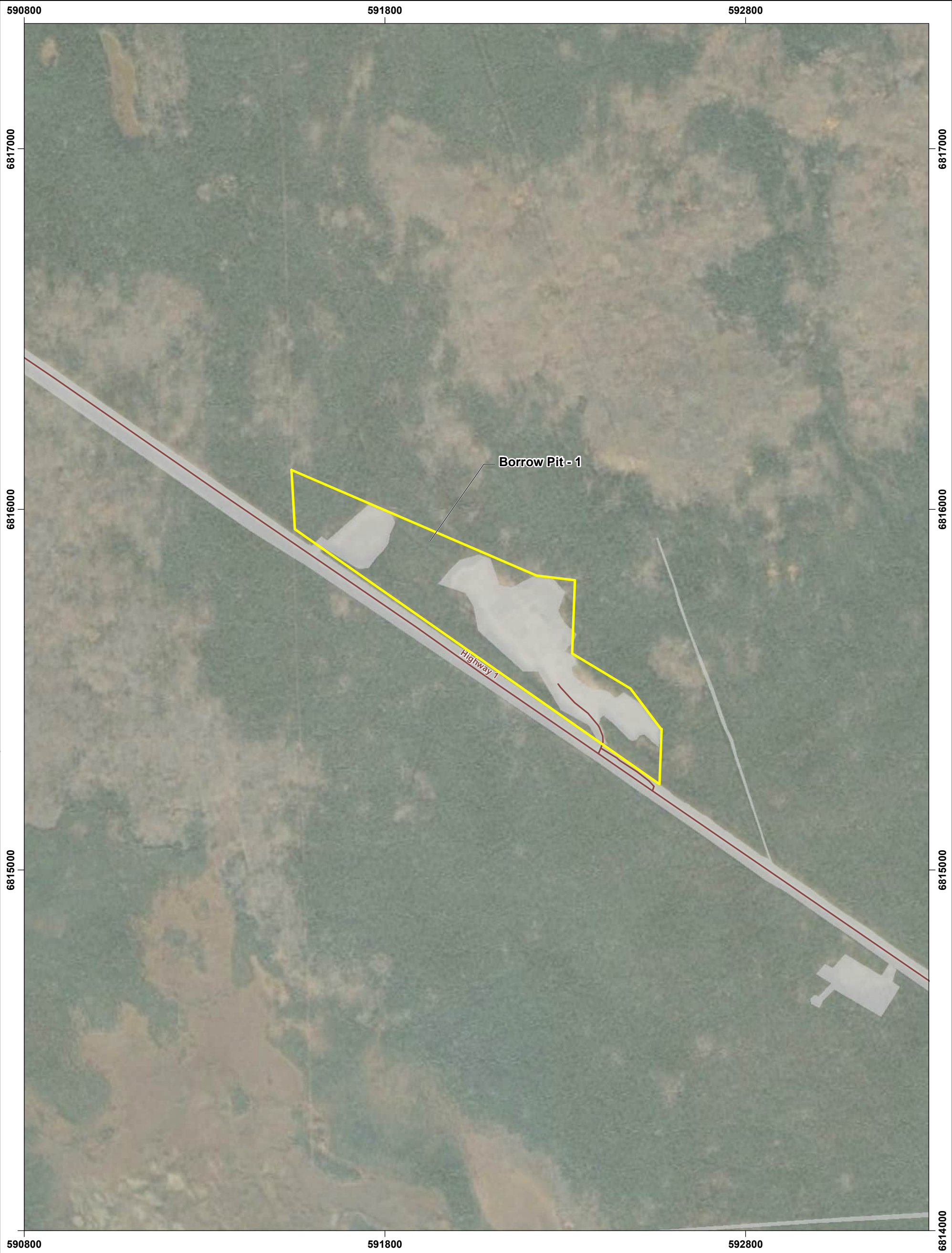
**GOVERNMENT OF NORTHWEST TERRITORIES**

SCALE: 1:10,000

January 2024

**Jacobs**





**Jean Marie Bridge Replacement Footprint**

- Borrow Pit
- Highway/Road
- Disturbed Area

**FIGURE 1-3**

**JEAN MARIE BRIDGE REPLACEMENT - BORROW PIT 1 DETAIL**

**JEAN MARIE RIVER BRIDGE REPLACEMENT**

**GOVERNMENT OF NORTHWEST TERRITORIES**

SCALE: 1:10,000

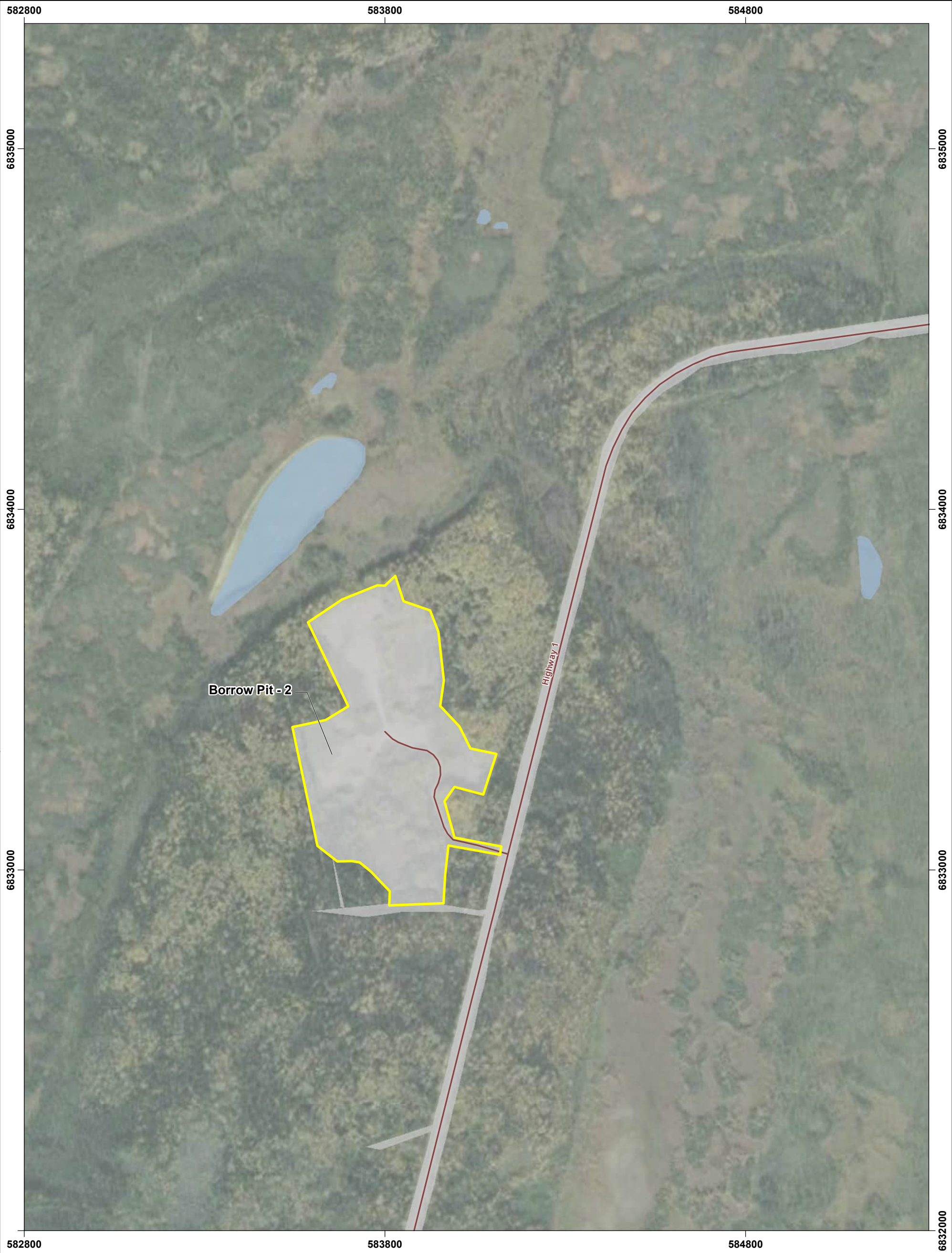


NAD 1983 UTM Zone 10N  
Highway/Road: Source: NRCan 2014; Waterbody/Watercourse: NRCan 2007-2011; Municipal Boundary, Proposed Protected/Conservation Area: Government NWT; Imagery: ESRI Basemaps

*This map has been compiled from the best existing sources available at the time of preparation. However, the Government of Northwest Territories (GNWT), Department of Infrastructure (INF) and/or its affiliates and/or subsidiaries do not guarantee the accuracy of the map or assume responsibility of liability for any reliance thereon.*

January 2024





**Jean Marie Bridge Replacement Footprint**

- Borrow Pit
- Highway/Road
- Waterbody
- Disturbed Area

NAD 1983 UTM Zone 10N  
Highway/Road: Source: NRCan 2014; Waterbody/Watercourse: NRCan 2007-2011; Municipal Boundary, Proposed Protected/Conservation Area: Government NWT; Imagery: ESRI Basemaps

*This map has been compiled from the best existing sources available at the time of preparation. However, the Government of Northwest Territories (GNWT), Department of Infrastructure (INF) and/or its affiliates and/or subsidiaries do not guarantee the accuracy of the map or assume responsibility of liability for any reliance thereon.*

**FIGURE 1-4**

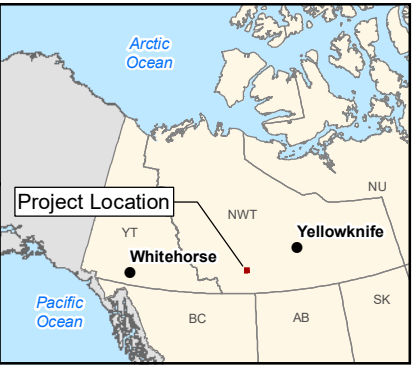
**JEAN MARIE BRIDGE REPLACEMENT - BORROW PIT 2 DETAIL**

**JEAN MARIE RIVER BRIDGE REPLACEMENT**

**GOVERNMENT OF NORTHWEST TERRITORIES**

SCALE: 1:10,000





- Jean Marie Bridge Replacement Footprint

Highway/Road

Disturbed Area
- Borrow Pit

FIGURE 1-5

JEAN MARIE BRIDGE REPLACEMENT - BORROW PIT 3 DETAIL

JEAN MARIE RIVER BRIDGE REPLACEMENT  
GOVERNMENT OF NORTHWEST TERRITORIES

SCALE: 1:10,000

0

0.5

km



NAD 1983 UTM Zone 10N  
Highway/Road: Source: NRCan 2014; Waterbody/Watercourse: NRCan 2007-2011; Municipal Boundary, Proposed Protected/Conservation Area: Government NWT; Imagery: ESRI Basemaps

*This map has been compiled from the best existing sources available at the time of preparation. However, the Government of Northwest Territories (GNWT), Department of Infrastructure (INF) and/or its affiliates and/or subsidiaries do not guarantee the accuracy of the map or assume responsibility of liability for any reliance thereon.*

January 2024

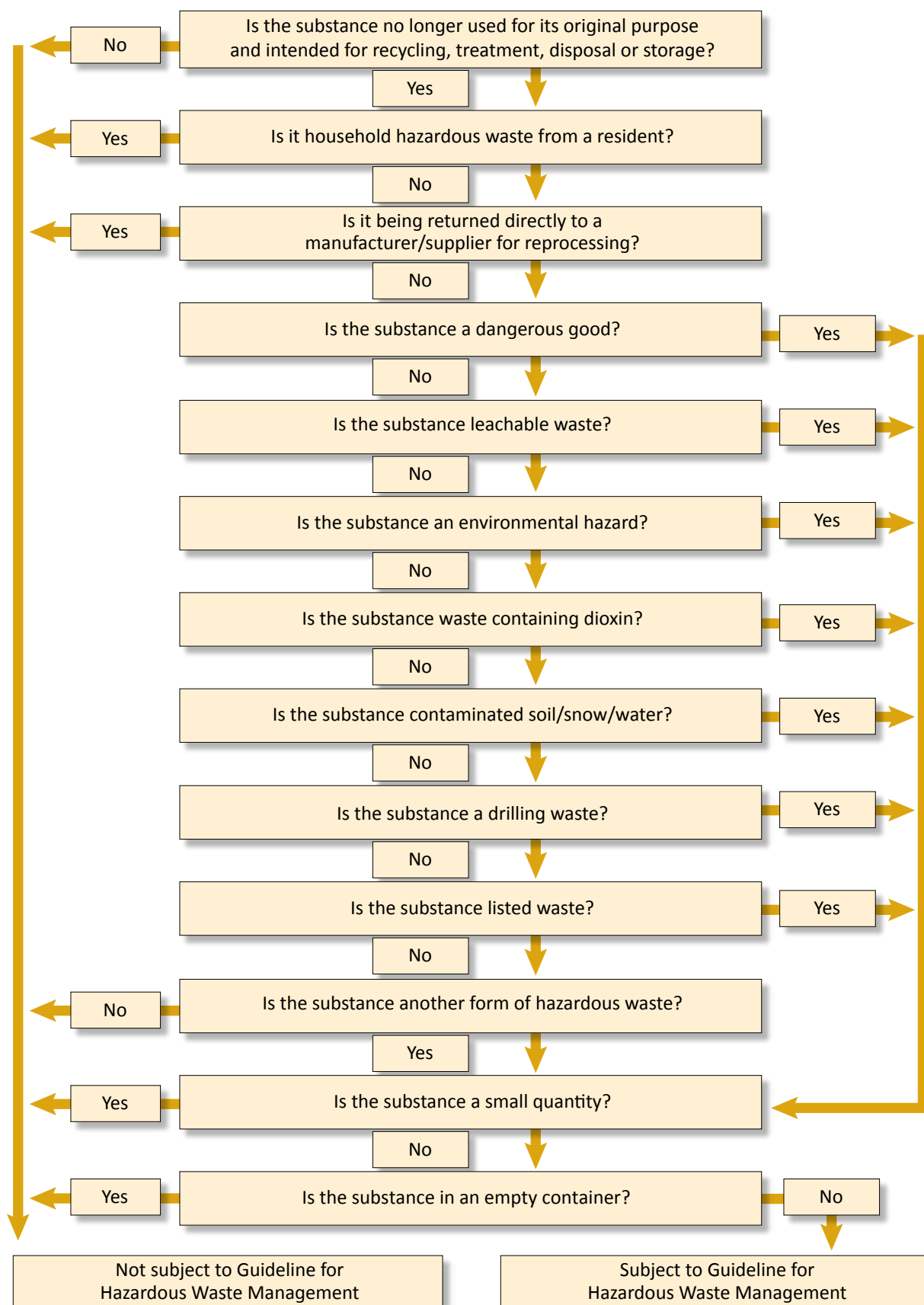
Jacobs

## **Appendix B**

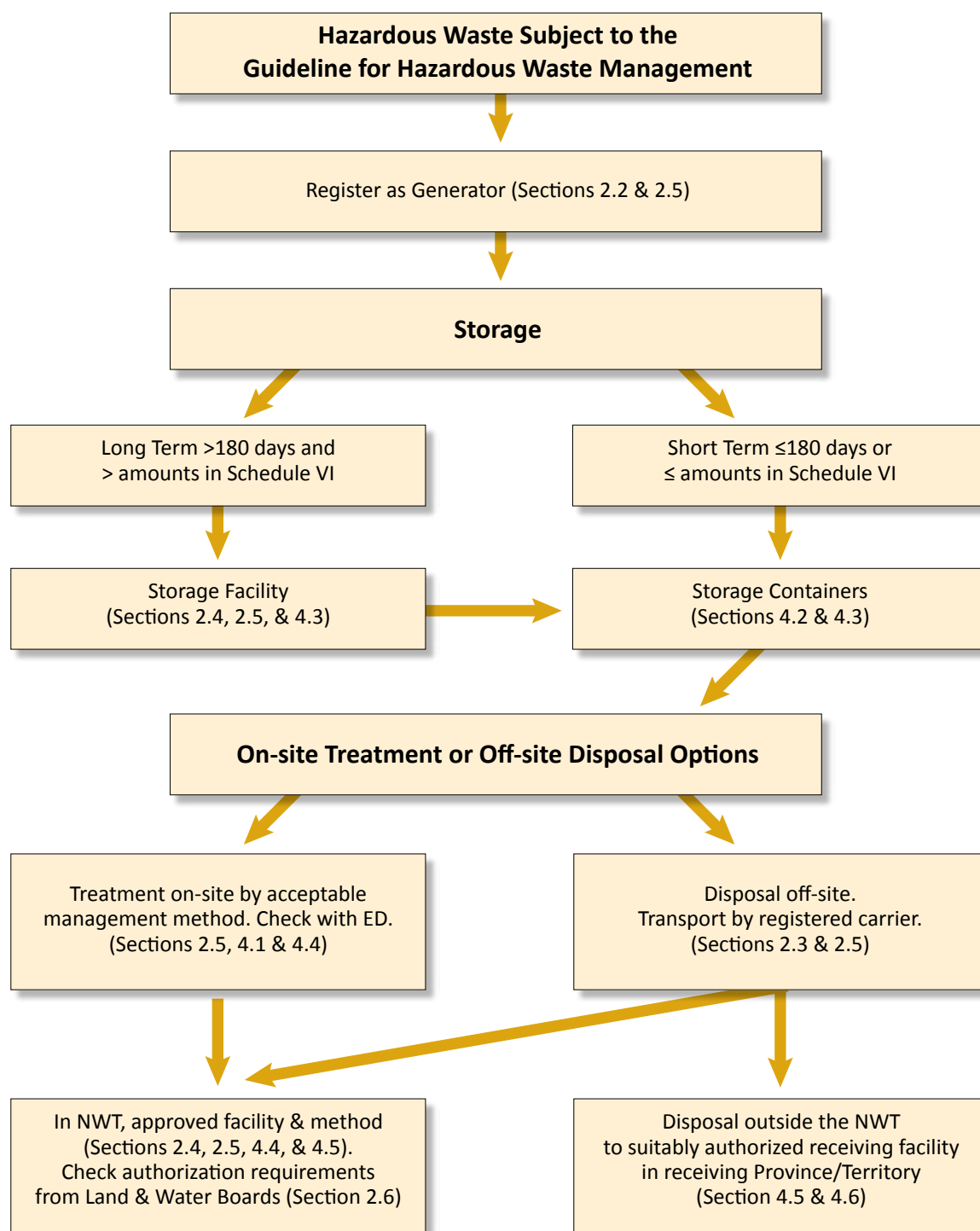
### **Haz Waste ID Flowchart**



**Figure 3: Decision Flow Chart for Determining if a Waste is a Hazardous Waste**



**Figure 4: Hazardous Waste Management Process for Generators**



## **Appendix C**

# **Waste Management Agreements**





# Village of Fort Simpson



**DATE:** April 08, 2024

**TO:** Dane Cruickshank, P.Eng., Senior Project Officer, Structures Section – Bridges, Transportation Division, Infrastructure, GNWT  
Office: 1-(767) 767-9086 Ext. 31108, Fax: (867) 873-0288

**FROM:** Mitchell Gast, Operations Manager, Village of Fort Simpson, [mgast@fortsimpson.com](mailto:mgast@fortsimpson.com),  
Office: 1-(867) 695-2253, Mobile: 1-(867) 695-6501

**RE:** 2024 GNWT-INF Waste Receiving-Jean Marie Bridge Project

All formal communications regarding this approval/agreement to provide waste acceptance services for the, **2024 GNWT-INF Waste Receiving-Jean Marie River Bridge Project** are to be directed to:

The Corporation of the Village of Fort Simpson  
P.O. Box 438  
Fort Simpson, NT X0E 0N0  
Ph: 1-(867) 695-2253  
Cell: 1-(867) 695-6501  
Fax: 1-(867) 695-2005  
Att: Mitch Gast [mgast@fortsimpson.com](mailto:mgast@fortsimpson.com)  
CC: Darrell White [dwhite@fortsimpson.com](mailto:dwhite@fortsimpson.com)

Based on the current Village of Fort Simpson bylaws, contracts and industry standards, the following is the approval, instruction/direction issued to access Village services in reference to the **2024 GNWT-INF Waste Receiving-Redknife Bridge Project**:

Period: May 01, 2024 to April 30, 2025

Domestic Solid Waste: 60kg per day (max) / 300 day period(max)

Sanitary Wastewater: 230 litres/day for 300 day period(max), 14,000 litres per day (max) per delivery

Metals: 3,500 – 4,500kg

Steel Bridge Structure(lead based paint): **Acceptance Refused**

Wood – 5,500 – 6,500kg(Treated timber piles): **Acceptance Refused**

Concrete with reinforcing steel – 160 m3/Approx. 385,00 kg: **Acceptance Refused**

## **BULK POTABLE WATER**

Potable water for use outside the municipal boundaries may be accessed in one of two ways, at your discretion:

- 1) Purchase directly from P.R Contracting (no direct Village involvement)
- or
- 2) Purchase directly from the Village of Fort Simpson at the bulk potable water filling station, located outside the water treatment plant and haul with your own tankers. To access this second option, the following will apply:
  - a) You will need to open a bulk water account with the Village of Fort Simpson.
  - b) You will be issued a key for your own totalizer at the “bulk potable water filling station” located in front of the water treatment plant.
  - c) You will be able to load water at your discretion as far as quantity is involved, unless directed otherwise by the Village of Fort Simpson.
  - d) You will be able to load water at your discretion between the hours of 07:00 and 22:00, unless directed otherwise by the Village of Fort Simpson. Although the “bulk potable water filling station” is active 24/7, use between the hours of 22:00 and 07:00 are reserved for emergency use only, so as to minimize vehicular traffic and noise in town during the night.
  - e) All bulk potable water received by the customer at the bulk potable water filling station will be billed to the customer monthly, as per bylaw # 2017-007 or its revisions/amendments.The current rate at the date of this correspondence is \$11.33 per m3.

**NOTE:** Due to previous contractual commitments, potable water loaded at this filling station must only be used outside of the Village’s municipal boundaries.

Failure to observe the above condition(s) will constitute a breach of contract, resulting in termination of access to bulk potable water from the Village of Fort Simpson.

## **SANITARY WASTEWATER DISPOSAL**

The Village of Fort Simpson will accept only “sanitary wastewater” produced by the “approved Project” and under the conditions of the approval (quantity, quality, schedule, etc.).

Sanitary wastewater is to be deposited at the “trailer dumping station” located next to the wastewater treatment plant on Mackenzie Dr.



You will be able to dump sanitary wastewater at your discretion between the hours of 07:00 and 18:00, Monday through Thursday and 07:00 to 17:00 Friday, unless directed otherwise by the Village of Fort Simpson. Although the “trailer dumping station” is active 24/7, use between the hours of 18:00 to 07:00 Monday to Thursday and 17:00 Friday to 07:00 Monday are reserved for emergency use only, so as to minimize vehicular traffic and noise in town during the night. No dumping allowed Saturday, Sunday and Statutory/Municipal holidays.

In the case of emergencies, prior approval “may” be granted by contacting The Village of Fort Simpson at (867) 695-2253 or (867) 695-6501.

All volumes of sanitary wastewater deposited to the “trailer dumping station” are to be recorded and forwarded on a weekly basis to the Village of Fort Simpson as previously directed above.

Failure to observe the above condition will constitute a breach of contract, resulting in termination of acceptance of sanitary wastewater from the Village of Fort Simpson.

**The Village reserves the right to, at any time, terminate conditions and/or acceptance of wastewater at their facilities, if in their opinion, the acceptance would adversely affect treatment efficiency or otherwise negatively impact the Village of Fort Simpson.**

#### **SOLID WASTE DISPOSAL**

The Village of Fort Simpson will accept only “non-hazardous solid waste” produced by the “approved Project” and under the conditions of the approval (quantity, quality, schedule, etc.)

These wastes are as follows:

- **Domestic Household Waste**
  - Camp kitchen/living quarters waste that mimics residential domestic household waste.
- **Construction Waste**
  - Wood, insulation, non-metallic packaging, etc.,
  - Hose or any other like material must be cut in a maximum of 3’ lengths,
  - Concrete less than 1 m3 in size (to be placed in a specific location defined by the Village of Fort Simpson at the Landfill Facility),
  - Tested non-hazardous drilling returns (to be placed in a specific location defined by the Village of Fort Simpson at the Landfill Facility),
  - Metals, including wire, cable, piping, etc. (to be placed in a specific location defined by the Village of Fort Simpson at the Landfill Facility),

#### **Tipping Fees:**

Sanitary Wastewater = \$500.00/per load (max. of 15 m3 per load)

Domestic Household Waste = \$100.00/m3

Construction Waste - General = \$100.00/m<sup>3</sup>

Construction Waste - Concrete = \$500.00/m<sup>3</sup>

Construction Waste - Drilling Returns = \$500.00/m<sup>3</sup>

Construction Waste - Metals = \$100/m<sup>3</sup>

The Village of Fort Simpson will not accept any other waste, other than that stated above, at their facilities without prior written approval from the Senior Administrative Officer of the Village of Fort Simpson.

It is the responsibility of the waste producer to fully brief their haulage contractor in the conditions set forth in this document. Failure of a haulage contractor to follow the conditions outlined herein, will be treated as a failure of the waste producer not following the conditions outlined herein.

Failure to observe the above condition(s) may constitute a breach of contract, resulting in modification of conditions and/or termination of acceptance of waste at the Village of Fort Simpson's facilities.

**The Village reserves the right to, at any time, modify conditions and/or terminate acceptance of waste at their facilities, if in their opinion, the acceptance would adversely affect operations efficiency or otherwise negatively impact the Village of Fort Simpson.**

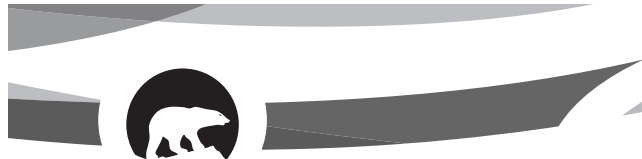
**END**

# **Appendix D**

## **Waste Storage and Transportation**

### **Forms**





## FORM 1: HAZARDOUS WASTE GENERATOR REGISTRATION FORM

### Instructions

1. The following information must be provided in order to register and obtain a generator number in the NWT. Incomplete applications will be returned to the applicant.
2. Completed registration forms are to be forwarded to [environmental\\_protection@gov.nt.ca](mailto:environmental_protection@gov.nt.ca), or mailed to:  
Environment Division  
Department of Environment and Natural Resources  
Government of the Northwest Territories  
P.O. Box 1320, Yellowknife NT X1A 2L9
3. Use additional pages to provide information as required.

## FORMULAIRE 1 : INSCRIPTION À TITRE DE PRODUCTEUR DE DÉCHETS DANGEREUX

### Instructions

1. Veuillez fournir les renseignements suivants pour vous inscrire et pour obtenir un numéro de producteur aux TNO. Les formulaires incomplets seront retournés aux demandeurs.
2. Veuillez expédier les formulaires remplis par courriel ([environmental\\_protection@gov.nt.ca](mailto:environmental_protection@gov.nt.ca)), ou par la poste :  
Division de l'environnement  
Ministère de l'Environnement et des Ressources naturelles  
Gouvernement des Territoires du Nord-Ouest  
C. P. 1320, Yellowknife NT X1A 2L9
3. Au besoin, utilisez des feuilles supplémentaires pour fournir l'information nécessaire.

### Section 1: Contact Information / Coordonnées

Generator Company (Legal) Name: Nom de l'entreprise productrice (nom légal) :	
Mailing Address: Adresse postale :	
Contact Person: Personne-ressource :	Title: Titre de poste :
Phone: N° de téléphone :	Email: Courriel :
Alternate Contact Person: Personne-ressource supplémentaire :	
Phone: N° de téléphone :	Email: Courriel :

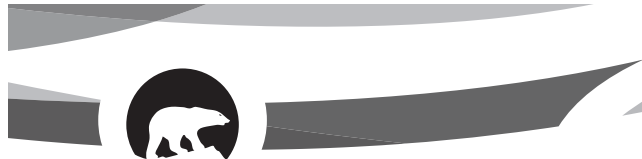
### Section 2: Description of Waste Types Generated / Description des déchets produits

(Provide a separate table or reference waste management plan. / Utilisez un tableau séparé ou faites référence à votre plan de gestion des déchets.)

Location where waste is generated (coordinates or physical address): Lieu où les déchets sont produits (coordonnées ou adresse physique) :				
Describe types of hazardous waste (if not Dangerous Goods, indicate in description) Décrivez le type de déchets dangereux (s'il ne s'agit pas de déchets dangereux, veuillez décrire le produit)				
Shipping Name (description) Désignation officielle (description)	UN No. N° ONU	TDGR Class Catégorie du RTMD	Quantity generated (kg or L) Quantité transportée (en kg ou en L)	Monthly/Annually Mensuellement ou annuellement

**Section 3: I certify that the information provided on this form is correct and accurate.**  
**Je certifie que les renseignements fournis dans le présent formulaire sont exacts, fiables, et complets.**

<div></div>		<div></div>
Signature of Contact Person / Signature de la personne-ressource		Date (MM-DD-YYYY) / Date (MM-JJ-AAAA)
Name of Contact Person (Print): Nom de la personne-ressource (caractères d'imprimerie) :		
Title: Titre de poste :		
Phone: N° de téléphone :	Email: Courriel :	



## FORM 2: HAZARDOUS WASTE CARRIER REGISTRATION FORM

### Instructions

1. The following information must be provided in order to register and obtain a carrier number in the NWT. Incomplete applications will be returned to the applicant.
2. Completed registration forms are to be forwarded to [environmental\\_protection@gov.nt.ca](mailto:environmental_protection@gov.nt.ca), or mailed to:  
Environment Division  
Department of Environment and Natural Resources  
Government of the Northwest Territories  
P.O. Box 1320, Yellowknife NT X1A 2L9
3. Use additional pages to provide information as required.

## FORMULAIRE 2 : INSCRIPTION DES TRANSPORTEURS DE DÉCHETS DANGEREUX

### Instructions

1. Veuillez fournir les renseignements suivants pour vous inscrire et pour obtenir un numéro de transporteur aux TNO. Les formulaires incomplets seront retournés aux demandeurs
2. Veuillez expédier les formulaires remplis par courriel ([environmental\\_protection@gov.nt.ca](mailto:environmental_protection@gov.nt.ca)), ou par la poste :  
Division de l'environnement  
Ministère de l'Environnement et des Ressources naturelles  
Gouvernement des Territoires du Nord-Ouest  
C. P. 1320, Yellowknife NT X1A 2L9
3. Au besoin, utilisez des feuilles supplémentaires pour fournir l'information nécessaire.

### Section 1: Contact Information / Coordonnées

Carrier Company (Legal) Name:

Nom de l'entreprise productrice (nom légal) :

Mailing Address:

Adresse postale :

Contact Person:

Personne-ressource :

Title:

Titre de poste :

Phone:

N° de téléphone :

Email:

Courriel :

Contact Person:

Personne-ressource :

Title:

Titre de poste :

Phone:

N° de téléphone :

Email:

Courriel :

### Section 2: Description of Carrier's Activities / Description des activités du transporteur

(Provide a separate table or reference waste management plan. / Veuillez fournir un tableau distinct ou faire référence au plan de gestion des déchets.)

Mode of Transport (check all that apply):

Mode de transport (cochez tous ceux qui s'appliquent)

☐ Road

Routier

☐ Rail

Ferroviaire

☐ Ship

Maritime

☐ Air

Aérien

Proof of transport liability insurance is attached (certificate of insurance):

Vous avez joint une preuve d'assurance responsabilité civile de transport (certificat d'assurance):

☐ Yes

Oui

☐ No

Non

Proof of training from the applicable Transport Authority is attached:

Vous avez joint une preuve de formation de l'agence de transport concernée :

☐ Yes

Oui

☐ No

Non

A spill contingency plan is attached:

Vous avez joint un plan d'urgence en cas de déversement :

☐ Yes

Oui

☐ No

Non

Describe types of hazardous waste (if not Dangerous Goods, indicate in description) Décrivez le type de déchets dangereux (s'il ne s'agit pas de déchets dangereux, veuillez décrire le produit)				
Shipping Name (description) Désignation officielle (description)	UN No. N° ONU	TDGR Class Catégorie du RTMD	Quantity generated (kg or L) Quantité transportée (en kg ou en L)	Monthly/Annually Mensuellement ou annuellement

**Section 3: I certify that the information provided on this form is correct, accurate and complete.  
Je certifie que les renseignements fournis sont exacts, fiables, et complets.**

<div></div>		<div></div>	
Signature of Contact Person / Signature de la personne-ressource		Date (MM-DD-YYYY) / Date (MM-JJ-AAAA)	
Name of Contact Person (Print): Nom de la personne-ressource (caractères d'imprimerie) :			
Title: Titre de poste :			
Phone: N° de téléphone :		Email: Courriel :	

# **Appendix E**

## **Government of Northwest Territories**

### **Hazardous Waste Guidelines**







# Guideline for Hazardous Waste Management

Revised October 2017

## Lignes directrices sur la gestion des déchets dangereux

Révisé en octobre 2017

Le présent document contient la traduction française du résumé.



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# 1 Introduction

Industrial, commercial, and institutional (ICI) sectors often produce residual materials during their operations that are considered waste. Some wastes are more hazardous than others, due to their chemical, physical or biological properties. Hazardous waste is the term used to describe waste materials that require special handling and disposal/treatment to prevent adverse impacts on human health and the environment.

This guideline has been developed by the Environment Division of the Department of Environment and Natural Resources for the ICI sector. The purpose of this document is to:

- provide guidance to industrial, commercial, and institutional operators in the Northwest Territories (NWT) on the proper management of hazardous waste;
- increase awareness of the different types of hazardous waste; and
- support the tracking of hazardous waste from generation to final treatment/disposal.

Section 2.2 of the *Environmental Protection Act* (EPA) gives the Minister of Environment and Natural Resources of the Government of the Northwest Territories (GNWT) the authority to develop, coordinate and administer guidelines (See Appendix 1). This guideline does not alleviate the need to comply with any other Act or regulation applicable to the management of hazardous waste. Section 2.6 of this Guideline provides additional information on the roles and responsibilities of other regulatory agencies that may be involved with the management of hazardous waste due to their legislative responsibilities.

This guideline is for the general management of hazardous waste and should be read in conjunction with hazardous waste guidelines for specific substances that are available on ENR's website.

For more information regarding hazardous waste please visit our website (<http://www.enr.gov.nt.ca/en/services/hazardous-waste>) or contact:

Environment Division  
Department of Environment and Natural Resources  
Government of the Northwest Territories  
7th floor, Scotia Centre  
5102 50 Avenue

Mailing Address:  
PO Box 1320  
Yellowknife NT X1A 2L9

Tel: (867) 767-9236 ext. 53176  
Fax: (867) 873-0221

# 1 Introduction

Au cours de leurs activités, les secteurs industriel, commercial et institutionnel (ICI) produisent souvent des matières résiduelles qui sont considérées comme des déchets. Certains déchets sont plus dangereux que d'autres en raison de leurs propriétés chimiques, physiques ou biologiques. On parle de déchets dangereux pour décrire les déchets qui exigent une élimination ou un traitement spécial pour prévenir toute répercussion négative sur la santé ou l'environnement.

Ces lignes directrices ont été élaborées par la division de l'environnement du MERN du GTNO pour les secteurs ICI. Les lignes directrices sur la gestion des déchets dangereux visent à :

- orienter les exploitants des secteurs ICI des TNO sur la gestion appropriée des déchets dangereux;
- sensibiliser aux différents types de déchets dangereux;
- encourager le suivi des déchets dangereux, de leur production à leur élimination ou traitement final.

La section 2.2 de la LPE confère au ministre de l'Environnement et des Ressources naturelles l'autorité de mettre au point, de coordonner et d'administrer des lignes directrices (voir l'annexe 1). Ces lignes directrices ne suppléent à aucune autre loi ou réglementation applicable à la gestion des déchets dangereux. La section 2.6 de ces lignes directrices contient des renseignements complémentaires sur les rôles et responsabilités d'autres organismes de réglementation qui pourraient participer à la gestion des déchets dangereux dans le cadre de leurs responsabilités législatives.

Ces lignes directrices concernent la gestion globale des déchets dangereux et doivent être consultées parallèlement aux lignes directrices sur les déchets dangereux relatives aux substances spécifiques.

On peut consulter ces lignes directrices ainsi que celles sur les autres déchets dangereux sur le site Web du MERN ou en communiquant avec le MERN (<http://www.enr.gov.nt.ca/en/services/hazardous-waste>) aux coordonnées suivantes :

Division de l'environnement  
Ministère de l'Environnement et des Ressources naturelles  
Gouvernement des Territoires du Nord-Ouest  
5102, 50<sup>e</sup> Avenue  
Centre Scotia, 7<sup>e</sup> étage

Adresse postale :  
C. P. 1320  
Yellowknife NT X1A 2L9

Tél. : 867-767-9236, poste 53176  
Télec. : 867-873-0221



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## 1.1 Definitions

<i>Carrier</i>	Any person engaged in the transport of hazardous waste.
<i>Cement returns</i>	Excess cement circulated to the surface after downhole cementing.
<i>Consignor</i>	A person who offers a consignment of hazardous waste for transport.
<i>Contaminant</i>	Any noise, heat, vibration or substance and includes such other substances as the Minister may prescribe that, where discharged into the environment, (a) endangers the health, safety or welfare of persons, (b) interferes or is likely to interfere with normal enjoyment of life or property, (c) endangers the health of animal life, or (d) causes or is likely to cause damage to plant life or to property.
<i>Contaminated water</i>	Waste water or snow that contains any of the contaminants listed in Schedule I in a concentration greater than the corresponding amount.
<i>Contaminated site</i>	Areas of land, water, groundwater, or sediments that have levels of contaminants exceeding the remediation criteria described in the GNWT's <i>Guideline for Contaminated Site Remediation</i> .
<i>Dangerous goods</i>	Any product, substance or organism referred to in the prescribed classes of dangerous goods or included by its nature in any of the prescribed classes of dangerous goods in the schedule provided by the applicable transport authority.
<i>Dioxin TEQ</i>	The dioxin toxicity equivalent (TEQ) value which is determined by adding the products of the measured concentrations of each dioxin and furan constituent listed in Column I of Schedule II multiplied by the toxicity equivalency factor (TEF) listed opposite in Column II.
<i>Discharge</i>	Includes, but not so as to limit the meaning, any pumping, pouring, throwing, dumping, emitting, burning, spraying, spreading, leaking, spilling or escaping.
<i>Drilling cuttings</i>	The solid materials, fragments of rock and other materials brought to the surface during the drilling process.
<i>Drilling mud</i>	A suspension, usually in water but sometimes in oil (diesel), used in rotary drilling, consisting of various substances in a finely divided state (commonly bentonitic clays and chemical additives), introduced continuously down the drill pipe under pressure and through openings in the drill bit and transported back up in the annular space between the pipe and the walls of the hole to a surface pit or tank where it is conditioned and reintroduced into the wellbore. It is used to lubricate and cool the bit, carry the cuttings up from the bottom, and to prevent blowouts and cave-ins.
<i>Drilling fluids</i>	Any liquid mixture of clay, water, sediment, drilling muds, chemical additives, or other wastes that are pumped downhole while drilling and are specifically related to drilling activity.

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<i>Drilling waste</i>	Waste substances associated with drilling a well or directional drilling including: <ul style="list-style-type: none"> <li>a) Drilling cuttings;</li> <li>b) Drilling fluids;</li> <li>c) Drilling mud;</li> <li>d) Flowback fluid;</li> <li>e) Fracturing fluid; or</li> <li>f) Cement returns.</li> </ul>
<i>Effluent</i>	Liquid material, treated or untreated, discharged into the environment.
<i>Empty container</i>	A container from which all: <ul style="list-style-type: none"> <li>a) Hazardous waste has been emptied, to the greatest extent possible, using regular handling procedures. Its contents shall not exceed 0.1% of the container's original capacity or 0.2 litres, whichever is less. This does not include toxic gas in Class 2.3 of the TDGR or containers which previously came in direct contact with: <ul style="list-style-type: none"> <li>i. Substances in Class 6.1 Packing Group I materials of the TDGR; or</li> <li>ii. Severely Toxic Contaminants.</li> </ul> </li> <li>b) Flammable vapours have been reduced to less than twenty percent (20%) of the lower explosive limit for the material by purging, venting, or by the introduction of an inert material.</li> </ul>
<i>Environment</i>	Means the components of the Earth and includes <ul style="list-style-type: none"> <li>a) air, land and water,</li> <li>b) all layers of the atmosphere,</li> <li>c) all organic and inorganic matter and living organisms, and</li> <li>d) the interacting natural systems that include components referred to in paragraphs (a) to (c).</li> </ul>
<i>Flowback fluid</i>	The flow of fracturing fluid back to the wellbore after treatment is completed.
<i>Fracturing fluid</i>	The fluid used to perform a particular hydraulic fracturing treatment and includes the applicable base fluid and all additives.
<i>Generator</i>	The owner or person in charge, management or control of a hazardous waste or a facility or property that generates or contains hazardous waste.
<i>Hazardous to the aquatic environment</i>	Any product or substance classified as hazardous to the <i>aquatic</i> environment according to the classification system outlined in Chapter 4.1 Hazardous to the Aquatic Environment of Part 4 ENVIRONMENTAL HAZARDS provided in the Globally Harmonized System of Classification and Labelling of Chemicals (GHS).



<i>Hazardous waste</i>	<p>A contaminant which is no longer used for its original purpose and is intended for recycling, treatment, disposal or storage and is:</p> <ul style="list-style-type: none"> <li>a) A dangerous good according to the TDGR;</li> <li>b) Leachable waste;</li> <li>c) Hazardous to the aquatic environment;</li> <li>d) Waste containing dioxins and furans;</li> <li>e) Contaminated soil/snow/water from a contaminated site;</li> <li>f) Drilling waste;</li> <li>g) Listed waste; or</li> <li>h) Any other waste deemed hazardous.</li> </ul> <p>Hazardous waste does not include a material that is:</p> <ul style="list-style-type: none"> <li>a) Authorized for on-site disposal by the applicable regulator for the specific activity in which the hazardous waste was generated;</li> <li>b) Household hazardous waste being transported to a municipal collection depot;</li> <li>c) Included in Class 1, Explosives or Class 7, Radioactive materials of TDGR;</li> <li>d) Exempted as a small quantity;</li> <li>e) An empty container; or</li> <li>f) Goods that are defective, surplus, or otherwise not usable for their intended purpose and that are in the process of being returned directly to a manufacturer or supplier.</li> </ul>
<i>Hazardous waste management facility</i>	A facility which is used for the collection, storage, treatment, recycling or disposal of hazardous waste.
<i>Incompatible waste</i>	Hazardous wastes which, when in contact with one another or other substances under normal conditions of storage or transportation, could react to produce heat, gas, fire, explosion, corrosive substances or toxic substances.
<i>Landfill</i>	A designated area of land where residual waste is placed, compacted, and covered.
<i>Leachable waste</i>	A substance that may contain any of the contaminants listed in Schedule I in a concentration greater than the corresponding amount when subjected to the leachate extraction procedure.
<i>Leachate extraction procedure</i>	A test method designed to determine both the organic and inorganic parameters present in solid and multi-phased waste. It is designed to simulate the characteristics a material may exhibit if placed in a landfill. Test determined by Method 1311 Toxicity Characteristic Leaching Procedure (TCLP) Test, US EPA or Leachate Extraction Procedure 164-GP-1-MP Canadian General Standards Board.
<i>Listed waste</i>	Wastes listed in Schedule III.
<i>Long term storage</i>	The storage of hazardous waste for a period of 180 days or more but does not include materials in transit.
<i>Manage</i>	To handle, transport, store, recycle, treat, destroy or dispose of hazardous waste.

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<i>Movement document</i>	Means the form set out in Schedule VII.
<i>Process residuals</i>	Solid, semi-solid or sludge waste resulting from industrial operations.
<i>Receiver</i>	A person or company registered with the Environment Division, or by the applicable province or territory, authorized to receive and manage specified types of hazardous waste.
<i>Record of disposal</i>	A physical copy of the information outlined in Schedule VIII.
<i>Severely toxic contaminants</i>	Contaminants listed in Schedule IV.
<i>Small quantity</i>	Hazardous waste that is generated in any month is not greater than the amount in column II of Schedule V corresponding to the type of hazardous waste, or the aggregate quantity accumulated at any one time is not greater than the amount in column II of Schedule V corresponding to the type of hazardous waste.
<i>Transport authority</i>	<p>The regulations controlling the management of dangerous goods under that mode of transport. These include:</p> <ul style="list-style-type: none"> <li>• Road and rail – <i>Transportation of Dangerous Goods Act (TDGA) and Regulations (TDGR)</i>;</li> <li>• Air – <i>International Civil Aviation Organization Technical Instructions (ICAO)</i>; and</li> <li>• Marine – <i>International Maritime Dangerous Goods Code (IMDG)</i>.</li> </ul>
<i>Treatment or Treat</i>	<p>The handling or processing of a hazardous waste in such a manner as to change the physical, chemical or biological character or composition of the hazardous waste to eliminate or reduce:</p> <p>(a) one or more hazards of the waste; and/or</p> <p>(b) the volume.</p>
<i>Used oil</i>	Means any oil, including lubrication oil, hydraulic fluid, metal working fluid and insulating fluid, that is unsuitable for its intended purpose due to the presence of impurities or the loss of original properties, but does not include waste oil derived from animal or vegetable fat, a petroleum product spilled on land or water or waste from a petroleum refining operation.
<i>Waste containing dioxins and furans</i>	A waste containing Dioxin TEQ in a concentration greater than 0.001 mg/kg.

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## List of Acronyms used in this Document

AER	Alberta Energy Regulator
CALA	Canadian Association for Laboratory Accreditation Inc.
CAPP	Canadian Association of Petroleum Producers
CCME	Canadian Council of Ministers of the Environment
ED	Environment Division
ENR	Environment and Natural Resources
EPA	<i>Environmental Protection Act</i>
GHS	Globally Harmonized System of Classification and Labelling of Chemicals
GNWT	Government of the Northwest Territories
IATA	International Air Transport Association
ICAO	International Civil Aviation Organization
ICI <sup>1</sup>	Industrial, Commercial, Institutional
IMDG	International Maritime Dangerous Goods Code
OROGO	NWT Office of the Regulator of Oil and Gas Operations
SCC	Standards Council of Canada (Environmental Laboratories)
TCLP	Toxicity Characteristic Leaching Procedure
TEQ	Toxicity equivalent value
TDGA/TDGR	The <i>Transportation of Dangerous Goods Act</i> and Regulations (Canada)
WHMIS	Work Site Hazardous Material Information System

<sup>1</sup> Industrial      Resource development activities, construction, fabrication, light and heavy manufacturing.  
Commercial      Retail stores, mechanical shops, property managers, service and repair businesses, etc.  
Institutional      Federal, Territorial, Municipal government departments and agencies, non-profit agencies.

# 2 Roles and Responsibilities

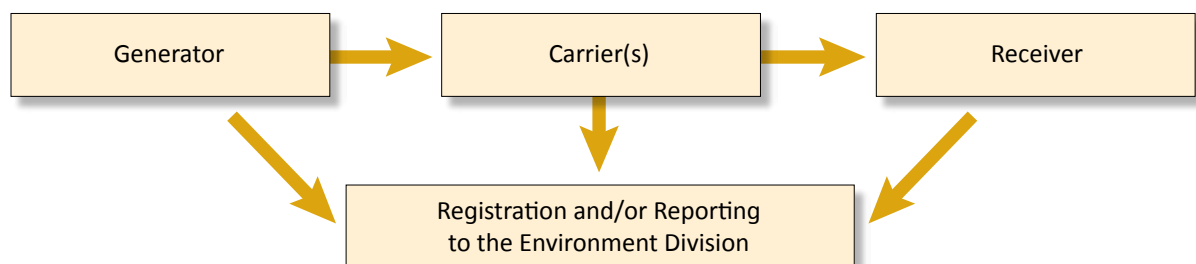
## 2.1 Environment and Natural Resources

The Department of Environment and Natural Resources (ENR) is the GNWT agency responsible for initiatives which control and prevent the discharge of contaminants, including hazardous wastes, and their impact on the natural environment. ENR is responsible for ensuring that environmentally acceptable management procedures, emission levels and disposal methods are maintained. Legislative authority is provided by the *Environmental Protection Act* (EPA) (See Appendix 1) and the *Pesticide Act*.

The Environment Division (ED) of ENR monitors the movement of hazardous waste from the generator to final disposal at the receiving facility through the use of a specified 6 part form called a hazardous waste movement document. A movement document form, or an equivalent record of disposal, must accompany all hazardous waste in transit regardless of the means of transport. Hazardous waste movement documents are provided by the Environment Division.

If hazardous waste is to be transported off the originating site, the generator must be registered with ED. Once registered, an identification number will be assigned which is required to complete the movement document. A carrier or receiver may either be registered in the NWT or in the province or territory in which the company is based. The basic framework for the off-site movement of hazardous waste and reporting is outlined in Figure 1.

**Figure 1: Movement of Hazardous Waste and Record Keeping**



The definitions of hazardous waste vary across Canada, although most provinces and territories register generators, carriers, receivers and utilize the hazardous waste movement document. The definition of hazardous waste in the NWT is unique because it includes waste types such as, contaminated soil and drilling waste which are frequently managed under different regulatory frameworks in other jurisdictions. It is important to confirm their ultimate disposal on a hazardous waste movement document or an equivalent record of disposal.

The environmental risks associated with these waste types may be mitigated through various forms of on-site management and their disposal may be specifically authorized by the applicable regulator. It is important to review all the sections of this Guideline as it pertains to the proposed activities.

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## 2.2 Generators of Hazardous Waste

**The responsibility for proper waste management rests with the generator and should be considered part of the cost of doing business.**

The generator is ultimately responsible for ensuring hazardous waste will be properly managed from the time it is generated to final disposal. Hazardous waste must be properly packaged, stored, transported, treated and disposed of. Contractors frequently manage waste on behalf of the generator; however, the generator is responsible for ensuring, in advance, that the waste management method is acceptable.

In general, the generator is responsible for the following:

- Packaging, classifying, quantifying, labelling, and storing hazardous waste properly (See Sections 4.2 and 4.3).
- Registering their hazardous waste management facility if applicable (see Section 2.5).
- Ensuring analysis (if required) is performed by a laboratory accredited by CALA or SCC (See Associations in Appendix 4).
- Ensuring the proper disposal of hazardous waste by an acceptable method. Appendix 2 of this Guideline describes how to determine if a receiver is authorized to receive the type of hazardous waste.
- Ensuring workers are trained in the management of hazardous waste including emergency/spill response in the event of a discharge.
- Complying with all other regulatory requirements for hazardous waste management including transportation, occupational health, and public health and safety.

When hazardous waste is to be transported off-site, the generator is required to:

- register as a generator of hazardous waste;
- ensure the waste is transported by a registered hazardous waste carrier to a receiver authorized to receive the type of hazardous waste; and
- ensure a movement document, or an equivalent record of disposal, is properly completed and accompanies the shipment (see Sections 4.5 and 4.6).

Hazardous waste management flowcharts for generators are shown in Figures 3 and 4 of Section 4.

## 2.3 Carriers of Hazardous Waste

Carriers must be registered with ED prior to transporting hazardous waste. Hazardous waste must be transported in accordance with the appropriate transport authority as defined below.

Air	International Civil Aviation Organization (ICAO)
Marine	International Maritime Dangerous Goods Code (IMDG)
Road, Rail	Transportation of Dangerous Goods Regulations (TDGR)

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In general the carrier is responsible for the following:

- Completing Part B of the hazardous waste movement document (or alternate record of disposal) and retaining it during transit to authorized receiving facilities.
- Maintaining the appropriate placards on the transport vehicle.
- Ensuring staff are trained in the applicable mode of transport, and qualified to safely transport hazardous waste.
- Reporting spills that occur during transit to the NWT/Nunavut Spill Report Line at (867) 920-8130.

## 2.4 Receivers of Hazardous Waste

Hazardous waste management facilities that manage hazardous waste from other generators are registered as receivers. The operator of a hazardous waste management facility in the NWT is required to register the facility with ED to manage specified hazardous waste types. See Section 2.5 for information about registering a hazardous waste receiving facility. In the NWT, some current examples of receiving facilities may include municipal disposal sites for asbestos, authorized used oil burners for used oil and waste fuel, or hazardous waste transfer facilities.

Receiving facilities outside the NWT need to be authorized by the province or territory of destination to receive the specific type of hazardous waste. There is a wide range of facilities to manage various types of hazardous waste. A comprehensive listing is beyond the scope of this Guideline. See Section 4.6 for more information.

## 2.5 How to Register as a Hazardous Waste Generator, Carrier, Storage Facility, or Receiver

First, determine what type of hazardous waste you have. Figure 3 on page 26 may be referenced for assistance. Then, determine your hazardous waste management options or what type of registration you may need by referencing Figure 4 on page 27. Registration forms are provided on pages 28 and 30 for generators and carriers respectively. Section 4 outlines basic hazardous waste management practices.

ED requires the following information when applying for a hazardous waste generator or carrier registration number:

### Registering as a Generator

- Company name, address, phone number and contact person, including position;
- Location and description of the activity taking place that results in the generation of the hazardous waste; and
- Expected type, quantity and method of storage of hazardous waste.

### Registering as a Carrier

- Company name, address, phone number and contact person, including position;
- Proof of transport liability insurance; and
- Confirmation that the company meets the training requirements of the transport authority (certificate of training).

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## Registering a Storage Facility

A generator may also be required to register their storage facility. If the hazardous waste is not stored on the generator's property, the property owner will need to register their facility as a receiver. A storage facility can be a building, locker, compound or area used to store hazardous waste.

A storage facility must be registered with ED if:

- The facility is used or is intended for the storage of hazardous waste for a period of 180 days or more; and
- Quantities to be stored exceed the quantities set out in Schedule VI for individual waste classes or if the aggregate quantity for all classes of waste stored exceed 5,000 kg or L (except for contaminated soil and drilling waste where quantities exceed 50,000 kg or L).

Under the EPA, the [Spill Contingency Planning and Reporting Regulations](#) set the standards for reporting spills of contaminants and preparing spill contingency plans.

ED requires the following information when registering a hazardous waste storage facility:

- Company name, address, phone number and contact person, including position;
- Location and description of the facility;
- Expected types, quantities and method of storage of the hazardous waste;
- Approvals required to operate and occupy the land for that purpose; and
- Confirmation that the proponent has provided building plans to the Office of the Fire Marshal to ensure compliance with adopted codes and standards.

## Registering as a Receiver

Facilities which store, treat, reprocess, consolidate, destroy or recycle hazardous waste(s) are classified as hazardous waste management facilities, and must register with ED prior to beginning operation. In addition to the information required for a storage facility ED requires a description of the waste management activities to be conducted.

**Note:** Facilities that burn used oil must be registered as receivers in accordance with Section 15 of the [Used Oil and Waste Fuel Management Regulations](#). Separate application forms are available at ENR's website (<http://www.enr.gov.nt.ca/en/services/hazardous-waste/used-oil-and-waste-fuel-burners>) or by contacting ED.

A complete list of requirements for all potential hazardous waste management facilities is beyond the scope of this guideline. ED may request further information on a proposal, following an initial review of information provided.

A hazardous waste management facility may also require permits and licences from the applicable Land and/or Water Board or the Department of Lands depending on the activity, or for the deposit of any waste (see Section 2.6). Under these circumstances the review of proposed hazardous waste management activities that overlap with other agencies, occur in parallel without a duplicate review process.



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## 2.6 Other Regulatory Agencies

Other agencies may be involved with the management of hazardous waste. Some of the other agencies that may be involved are identified below.

### 2.6.1 Department of Infrastructure, GNWT

The Road Licensing and Safety Division is responsible for administering the *Transportation of Dangerous Goods Act* and *Regulations* (NWT). The Department is also responsible for driver, vehicle and road safety under additional transport legislation.

The transportation of dangerous goods by rail (TDGR), marine (IMDG) or by air (ICAO) is regulated by Transport Canada.

### 2.6.2 Department of Lands, GNWT

The Department of Lands issues and manages various authorizations for use of public land. Where public land is leased to operators by the GNWT, the lease terms and conditions require proper management of hazardous waste, which is verified by regular inspections by the Department of Lands.

### 2.6.3 Workers' Safety and Compensation Commission (WSCC)

The WSCC is responsible for administering the NWT *Safety Act* and the *Occupational Health and Safety (OHS) Regulations*, which address the safety of workers and the work place. The Act states that the employer shall maintain their establishment and take all reasonable precautions to ensure the safety and health of every person in the establishment. The regulations also prescribe standards for protective clothing and equipment to be used by workers. The *Work Site Hazardous Materials Information System Regulations* were adopted to ensure employee training and safe storage and handling of controlled products at the employer's work site.

### 2.6.4 Office of the Fire Marshal, GNWT

The Office of the Fire Marshal has authority over the storage of flammable, combustible and hazardous materials under the *National Fire Code*. The National Fire Code is adopted by the GNWT through the *Fire Prevention Regulations*. Consult with the GNWT Department of Municipal and Community Affairs' regional Assistant Fire Marshal or your community Fire Chief if your activities may require the Office of the Fire Marshal's review.

### 2.6.5 Chief Public Health Officer, GNWT

The Chief Public Health Officer, GNWT should be consulted regarding requirements under the *Public Health Act* when waste management activities may affect public health.

### 2.6.6 Office of the Regulator of Oil and Gas Operations (OROGO)

OROGO regulates oil and gas activities on-shore in the NWT for the primary purposes of ensuring safety, environmental protection and conservation of oil and gas resources. OROGO does not regulate oil and gas activities in federal areas, the off-shore, the on-shore in the Inuvialuit Settlement Region, the Norman Wells proven area, or the inter-provincial/territorial transmission of oil and gas (pipelines).

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### 2.6.7 Environment and Climate Change Canada (ECCC)

ECCC is responsible for regulating the management of hazardous waste from federal facilities and lands under the *Canadian Environmental Protection Act* (CEPA). CEPA regulates polychlorinated biphenyls (PCBs) under the **PCB Regulations**. International and Interprovincial shipments of hazardous waste are controlled under the **Export and Import of Hazardous Waste and Hazardous Recyclable Material Regulations** and the **Interprovincial Movement of Hazardous Waste Regulations**.

### 2.6.8 National Energy Board (NEB)

NEB regulates oil and gas activities in federal areas, the off-shore, the on-shore in the Inuvialuit Settlement Region, the Norman Wells proven area, and the inter-provincial/territorial transmission of oil and gas (pipelines).

### 2.6.9 Natural Resources Canada (NRCAN)

The Explosives Safety and Security Branch of NRCAN is responsible for administering the **Explosives Act** and regulations and pursuing the advancement of explosives safety and security of the public and all the workers involved in the explosives industry in Canada.

### 2.6.10 Canadian Nuclear Safety Commission (CNSC)

The CNSC regulates and licenses radioactive waste management facilities. The responsibility for ensuring safe transport of radioactive waste is jointly shared between the CNSC and Transport Canada. The TDGR deals with the transport of all classes of dangerous goods, while the CNSC's **Packaging and Transport of Nuclear Substances Regulations** are primarily concerned with health, safety and security of the public, and protection of the environment related to the special characteristics of radioactive material.

### 2.6.11 Indigenous and Northern Affairs Canada (INAC)

INAC is the federal agency that has the mandate to manage land and water on designated federal lands, as well as off-shore oil and gas. They also make appointments and provide policy direction to the land and water boards.

### 2.6.12 Land and/or Water Boards

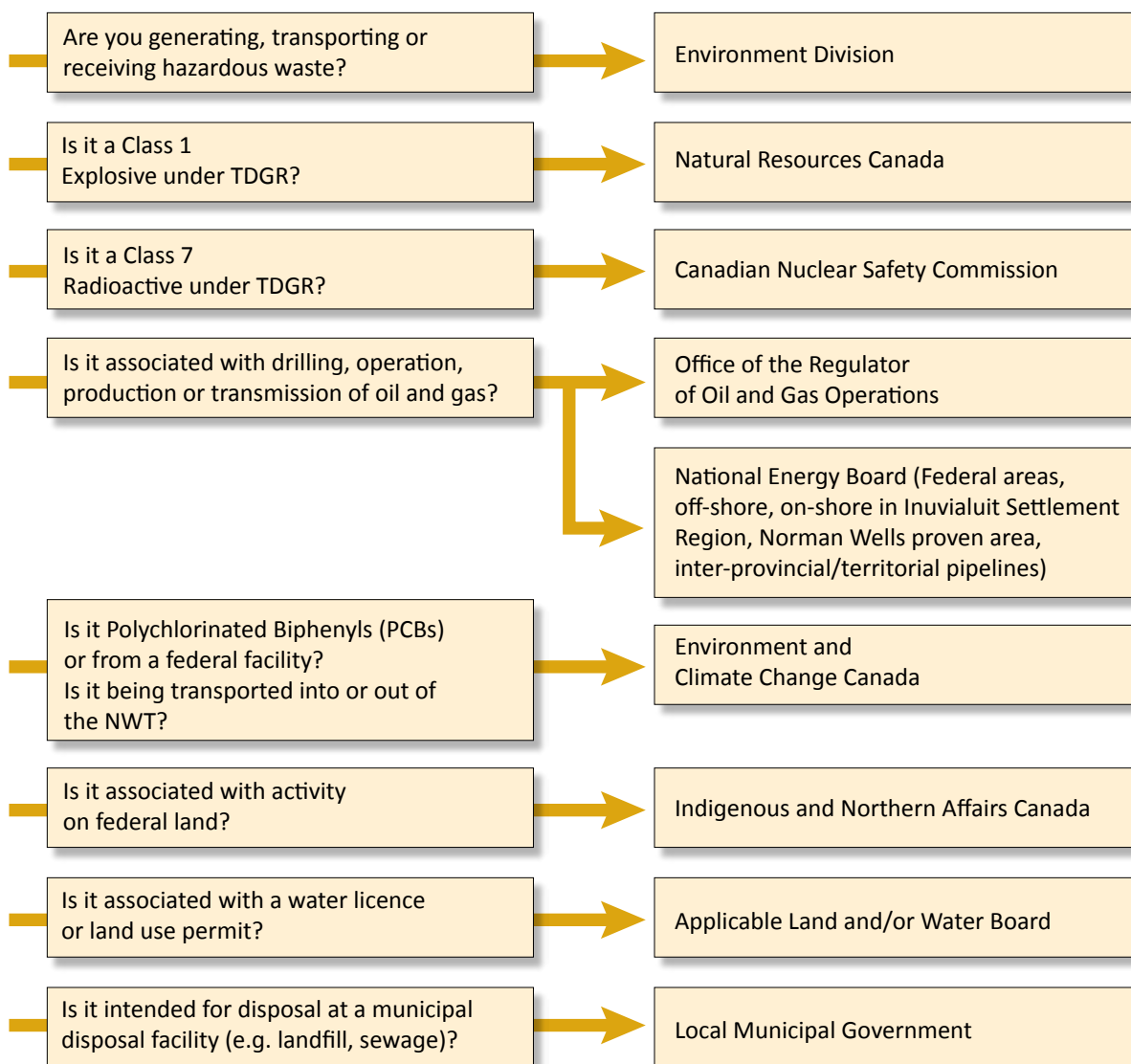
The Land and Water Boards of the NWT were established under the **Mackenzie Valley Resource Management Act** and the **Waters Act**. They have broad authority to regulate the use of land, water, and the deposit of waste. The Land and Water Boards set terms and conditions in permits and licences that pertain to waste disposal. Information about the boards of the Mackenzie Valley can be found at the following website, <https://mvlwb.com>. Information about the Inuvialuit Water Board can be found at the following link, <https://www.inuvwb.ca>. Further information about the Land and Water Boards of the NWT can be found at <http://www.nwtboardforum.com>.

### 2.6.13 Local Governments

Local municipal governments are incorporated in a number of ways, under a variety of legislation and they assume full authority for decisions about community public infrastructure including disposal facilities such as landfills and sewage lagoons. A complete list of municipal governments can be found at the following website (<http://www.maca.gov.nt.ca/en/communitylist>).

The contact information for all of the above agencies can be found in Appendix 4.

**Figure 2: Regulatory Contacts for Hazardous Waste Management**



# 3 Hazardous Waste Properties and Lists

## 3.1 General

Hazardous wastes are generated in a wide variety of workplace settings in the NWT and may be gases, liquids, solids or semi-solids. The definition of hazardous waste incorporates several terms that describe the different types of hazardous waste generated. Waste types a) through e) are classified based on their physical properties of being corrosive, flammable, reactive, persistent, bioaccumulative or toxic. Waste types f) and g) are named as hazardous wastes because of the known environmental liability associated with these waste types.

- a) A dangerous good according to the TDGR;
- b) Leachable waste;
- c) Hazardous to the aquatic environment;
- d) Waste containing dioxins and furans;
- e) Contaminated soil/snow/water from a contaminated site;
- f) Drilling waste;
- g) Listed waste; or
- h) Any other waste deemed hazardous.

In addition hazardous waste does not include a material that is:

- a) Authorized for on-site disposal by the applicable regulator for the specific activity in which the hazardous waste was generated;
- b) Household hazardous waste being transported to a municipal collection depot;
- c) Included in Class 1, Explosives or Class 7, Radioactive materials of TDGR;
- d) Exempted as a small quantity;
- e) An empty container; or
- f) Goods that are defective, surplus, or otherwise not usable for their intended purpose and that are in the process of being returned directly to a manufacturer or supplier.

It is important to check the definition of small quantity and empty container as they relate to the other definitions and schedules in this guideline.

**Hazardous waste must not be mixed or diluted with any substance or divided into smaller quantities to avoid meeting the definition of a hazardous waste.**

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## 3.2 Hazardous Waste Types

### a) Dangerous Goods

The definition of hazardous waste in this guideline incorporates the term “dangerous goods” as defined in the *Transportation of Dangerous Goods Act*. The Transportation of Dangerous Goods Regulations (TDGR) outlines a system for classifying dangerous goods. Therefore, the classification system used in the TDGR should be referred to for the most current criteria when it is applied to hazardous waste classification. There are nine classes of dangerous goods described in the TDGR, however the definition of hazardous waste only includes the criteria for Classes 2, 3, 4, 5, 6, 8, and 9. Class 1 explosives and Class 7 radioactive materials are exempt from the definition of hazardous waste. These materials are regulated by federal legislation. Appendix 3 outlines the properties of the seven dangerous goods chemical classes referenced in the definition of hazardous waste.

### b) Leachable Waste

The leachability of solid waste is determined by analysing a representative sample according to the Toxicity Characteristic Leaching Procedure (TCLP), Test Method 1311 (as amended) developed by the U.S. Environmental Protection Agency. The purpose of the TCLP is to determine the mobility of organic and inorganic analytes present in liquid, solid, and multi-phase wastes. The TCLP analysis simulates landfill conditions where, over time, water and other liquids percolate through landfills. The percolating liquid often reacts with solid waste in the landfill, and may pose public and environmental health risks because of the contaminants it absorbs. The test is intended to determine if a waste is suitable for disposal in a landfill or disposal facility. The generator must use process knowledge to select the applicable parameters in Schedule I and ensure the waste types meets the numerical criteria assigned to the parameter.

### c) Hazardous to the Aquatic Environment

This classification is intended for packaged products or bulk goods that are bought, sold, or used in a workplace setting. The classification may be found as a label on the product or on the safety data sheets of the product. This hazard classification system is not intended to be referenced as effluent criteria that require authorization from the applicable regulator.

**Part 4 Environmental Hazards of the United Nations GHS** outlines criteria for substances that are hazardous to the aquatic environment based on the following basic elements:

- (a) Acute aquatic toxicity;
- (b) Chronic aquatic toxicity;
- (c) Potential for or actual bioaccumulation; and
- (d) Degradation (biotic or abiotic) for organic chemicals.

### d) Waste Containing Dioxins and Furans

Dioxins and furans are polychlorinated dibenzo-p-dioxins and polychlorinated dibenzofurans. Due to their extraordinary environmental persistence and capacity to accumulate in biological tissues, the release of dioxins and furans from human activity are slated for virtual elimination under the Canadian Council of Ministers of the Environment (CCME) Policy for Management of Toxic Substances and the federal Toxic Substances Management Policy.

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In the NWT, dioxins and furans from human activities are most frequently formed as a result of incineration or open burning of garbage, and are also found as solid waste in the ash. They are also found in wood preservatives that used pentachlorophenol.

Waste containing dioxins and furans is classified as a hazardous waste if it contains Dioxin TEQ in a concentration greater than 0.001 mg/kg.

### **e) Contaminated Soil/Snow/Water**

Contaminated soil/snow/water that is being removed from a contaminated site is managed as a hazardous waste in the NWT to ensure the material removed is transported to a registered receiving facility authorized to receive that waste.

Contaminated soil is soil, sand, gravel, rock or similar naturally occurring material that contains levels of contaminants exceeding the remediation criteria found in the [Guideline for Contaminated Site Remediation](#). The hazardous waste management framework is not meant to be applied to activities that follow the tiered process or risk assessment or in-situ remediation according to the [Guideline for Contaminated Site Remediation](#).

Contaminated soil may be exempt from the definition of hazardous waste where circumstances allow for:

- on-site remediation;
- re-use of petroleum hydrocarbon contaminated soil in an asphalt paving plant;
- re-use of soil that meets industrial criteria for landfill cover; or
- re-use of soil as industrial fill once a prior informed consent form has been completed.

Under these circumstances ED needs to be contacted to confirm an alternative record of disposal is completed that provides an equivalent level of accountability to confirm the disposal does not contribute to the likely discharge of a contaminant.

Contaminated snow or water may contain mixtures or emulsions of waste fuel, used oil, solvents, antifreeze, or other types of hazardous waste. Contaminated snow or water is a hazardous waste if it contains any of the contaminants listed in Schedule I in a concentration greater than the corresponding amount.

If the contaminated water is suitable for disposal in a municipal sewage lagoon then it is not considered hazardous waste. It is important to check the municipal sewer by-law or with the municipality about their water licence prior to disposing of contaminated water in a municipal sewage lagoon.

### **f) Drilling Waste**

Drilling wastes are generated from sub-surface drilling activities and are usually made up of two components: drilling fluids and solids (i.e. cuttings). In the NWT, drilling wastes are typically generated from the following activities:

- oil and gas exploration/production;
- mineral exploration; or
- horizontal directional drilling for infrastructure installation.

The management of drilling waste requires careful consideration of the various authorizations that may be required from the applicable regulator. Drilling wastes vary in volume and chemical composition, therefore management methods vary depending on the specific type or method of drilling activity. For drilling that requires the use of fluids, these fluids can be water-based, oil-based and may include a wide variety of added substances.



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The following are potential components of drilling wastes:

- a) Drilling cuttings;
- b) Drilling mud;
- c) Drilling fluids;
- d) Fracturing fluid;
- e) Flowback fluid; and
- f) Cement returns.

### **Regulatory Oversight**

This guideline makes a distinction between the on-site, and the off-site, management and disposal of drilling waste. Individual projects may choose to manage their drilling waste on-site or off-site, or some combination of both.

### **On-Site Drilling Waste Management and Disposal**

The regional Land and/or Water Board authorize the disposal of drilling waste onto land or into water, through terms and conditions in either a Land Use Permit (LUP) or a Water Licence (WL) (See Section 2.6.12). The deposit of drill waste by injection into an underground formation or reservoir is authorized by the applicable energy regulator (see section 2.6.6 and 2.6.8). Prior to receiving authorization the operator is required to submit a project proposal which includes details pertaining to waste management and disposal. Approved drilling waste management plans in the NWT may reference suitable drilling waste management guidance developed in other jurisdictions, but may also require additional methods suitable for the NWT.

### **Off-Site Transportation and Disposal**

The off-site transportation and disposal of drilling waste in the NWT requires proper tracking and record keeping. The framework for managing hazardous waste, such as generator, carrier, receiver registration and the use of hazardous waste movement documents (or alternative record of disposal), are used to account for the ultimate disposal of all drilling wastes when they are transported to other receiving facilities. In addition, the generator must also determine if the properties of the drilling wastes require it to be classified as a dangerous good.

The off-site management and disposal of drilling waste in the NWT requires authorization from the applicable regulator. This may be done through the review of, but not limited to the:

- a) Receiving site design, operation and capacity;
- b) Receiving site approvals and any associated operational requirements;
- c) Analytical testing of the drilling wastes or the receiving environment;
- d) Information that indicates no hazardous drilling additives or chemicals were used; or
- e) Waste management plans that reference suitable drilling waste management practices prior to disposal (i.e. storage, transport, handling, disposal method, etc.).

### **g) Listed Waste**

ED has included a specific list of wastes in Schedule III that are known to have hazardous properties. The waste types listed are common to several types of industrial, commercial and institutional activities. Further testing or application of process knowledge, of these wastes is required to determine if they can be managed as non-hazardous waste. The generator must also use their knowledge of the specific characteristics of these waste types to help determine if they are also classified as dangerous goods.

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The small quantity thresholds for various listed wastes are specified in Schedule V.

1. Saturated absorbent materials contaminated with leachable amounts of hazardous waste:
  - Granular sorbent;
  - Sorbent pads/booms;
  - Shop towels (rags);
  - Used activated carbon; or
  - Any material used to contain leaks and spills of hazardous waste.
2. Household hazardous waste is generated from common activities such as home, yard, and vehicle maintenance. Household hazardous waste from a single residence is exempt from the requirements of this guideline, but a collection of consolidated household hazardous waste from numerous residences is managed as hazardous waste. Collections of household hazardous waste are those that are collected and segregated at collection events or have accumulated at municipal facilities over time.
3. Incinerator ash is a process residual generated in incinerators used in various industrial activities. Incinerator ash might contain high levels of metals, dioxins and/or furans. This waste stream must undergo analytical testing for leachable metals as well as dioxins and furans to confirm the absence of contaminants (Schedule I and II) prior to disposal in solid waste facilities in the NWT.
4. Used oil and used oil filters are regulated in accordance with the [Used Oil and Waste Fuel Management Regulations](#) that contain criteria for the use of used oil for the purpose of heat recovery, as well as how used oil filters are to be managed. Section 20 of these regulations state the following.  
*20. No person shall dispose of a filter used to filter oil unless, 24 hours before disposing of the filter,*
  - (a) the inner chamber of the filter is punctured and the contents are drained; or*
  - (b) the filter is mechanically crushed or shredded and the contents have been collected.*

The management of the following waste types are defined and discussed further in separate guidelines listed below:

5. Waste asbestos, defined in the [Guideline for the Management of Waste Asbestos](#);
6. Biomedical waste, defined in the [Guideline for the Management of Biomedical Waste](#);
7. Lead paint that produces a leachate greater than 5 mg/L, [Guideline for the Management of Waste Lead and Lead Paint](#);
8. Glycol (Antifreeze) solutions, defined in the [Guideline for the Management of Waste Antifreeze](#);
9. Halocarbons, defined in the [Guideline for the Management of Ozone Depleting Substances and Halocarbon Alternatives](#);
10. Waste paint, defined in the [Guideline for the Management of Waste Paint](#);
11. Mercury-containing lamps, defined in the [Guide to Recycling Mercury-Containing Lamps](#).

## **h) Any Other Waste Deemed Hazardous**

A waste might need to be managed as a hazardous waste under circumstances not defined in this guideline. ENR could receive new information that a waste type or chemical is hazardous, but not captured by any of the classifications in this guideline. Additionally, ENR may contact the responsible party directly in writing, or verbally, with specific waste management requirements.

# 4

## Storage and Management of Hazardous Waste

Waste management is intended to reduce or eliminate the effects of waste on the environment, to provide for public and worker safety and to maximize the efficient use of resources. Once hazardous waste has been created, the proper treatment and disposal can be expensive. While it is the responsibility of the waste generator to pay for all disposal costs, various waste management options are available to reduce the cost and volume of waste requiring treatment.

### 4.1 Pollution Prevention

A more effective and proactive management practice is to eliminate or reduce the generation of the waste. This is referred to as pollution prevention.

**Minimizing or avoiding the creation of pollutants and waste can be more effective in protecting the environment than treating them, or cleaning them up after they have been created.**

*– Canadian Council of Ministers of the Environment*

Pollution control options treat waste after it has been created, whereas pollution prevention measures avoid the creation of waste.

Waste generators in the NWT can reduce costs and prevent pollution by implementing reduction, reuse and recycling programs through changes in operational procedures, maintenance practices and raw material usage. An overall waste management plan should incorporate these ideas.

#### 1. Reduce

The aim of reduction is to eliminate the production of a hazardous waste by using raw materials more efficiently. Methods of reduction include substitution or reduction of a raw material, production redesign, process changes, and improved maintenance activities. Methods which are technically and economically practical in any given situation should be used to reduce or eliminate waste streams.

#### 2. Reuse and Recycle

Reusing or recycling hazardous waste in operating processes within the generating facility is another means of pollution prevention. Alternatively, other users may be found to reuse the material that would otherwise require treatment or disposal. ENR encourages the reuse and recycling of hazardous waste in the following ways:

- (a) Waste exchanges and associations offer some opportunity for the reuse or recycling of waste. Waste exchanges put potential users of waste materials in contact with waste generators. Appendix 4 lists a number of waste material exchanges and management associations; and
- (b) Recycling programs are in place for some hazardous wastes such as used oil, waste fuels, solvents and batteries. For information on recycling programs, contact the waste management associations listed in Appendix 4 or ED.

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## 4.2 General Requirements for Storage Containers

Hazardous waste should be stored in containers as follows:

- In the original containers, where possible, or in containers manufactured for the purpose of storing hazardous waste. The containers must be sound, sealable and not damaged or leaking. The Transport Authority regulates container specifications.
- Clearly labelled according to the Work Site Hazardous Materials Information System (WHMIS) and/or the relevant Transport Authority, if transportation is planned.
- Bulkled into specified means of containment that is outlined in the TDGR. If the hazardous waste is not a dangerous good, the means of containment must be suitable to ensure that the contents will remain secure during storage and transportation.
- The containers should be sealed or closed at all times, unless in use.

## 4.3 General Requirements for Storage Facilities

Hazardous waste must be stored in a safe and secure manner. In general, hazardous waste should be stored according to the following points:

- Drainage is controlled to prevent spills or leaks from leaving the site and to prevent run-off from entering the site.
- Wastes are segregated by chemical compatibility to ensure safety of the public, workers and facility. The National Fire Code as well as TDGR can be referenced for segregation criteria.
- Hazardous wastes are stored in a secure area with controlled access. Only persons authorized to enter and trained in waste handling procedures should have access to the storage site.
- Regular inspections of stored hazardous wastes are performed and recorded. Containers are placed so that each container can be inspected for signs of leaks or deterioration. Leaking or deteriorated containers must be immediately removed and their contents transferred to a sound container.
- A record of the type and amount of waste in storage should be maintained.
- Hazardous waste containers must not be allowed to fill up with water when stored outdoors. Drums frequently accumulate water from rainfall and snowmelt, if stored upright, outside, without proper sealing.
- Empty containers need to be stored on their side to prevent water from entering.
- Storage sites must have emergency response equipment and material appropriate for the hazardous waste stored on site.
- Where the hazardous waste storage site is to be used for long term storage and the amount of waste in storage exceeds the quantity requirements set out in Schedule VI, the site needs to be registered in accordance with Section 2.5 of this guideline.
- Hazardous waste storage sites must meet all local by-law and zoning requirements. It is recommended that the local Fire Chief be advised of the storage facility and its contents for emergency planning and response purposes.

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## 4.4 Hazardous Waste Treatment or Disposal

**It is not acceptable for hazardous waste to be abandoned, poured down sewers, dumped on land or discarded at a landfill.**

Treating hazardous waste to reduce or eliminate hazards is the final option after implementing appropriate pollution prevention options. It is the responsibility of the generator to treat or dispose of hazardous waste properly. Although a discussion of treatment and disposal methods is beyond the scope of this guideline, the following are general points for consideration:

- The generator is required to determine and follow the proper management method for the hazardous waste generated. Information on proper management methods for hazardous waste types can be found at the following sources:
  - the manufacturer's Safety Data Sheet (SDS) provided with the raw materials;
  - the manufacturer;
  - this guideline and other relevant legislation; and
  - waste management consultants and associations.
- Open burning of hazardous waste is prohibited.
- Mixing different types of hazardous waste in the same container may cause dangerous chemical reactions. It is also important to control the quality of any waste to ensure it can be recycled or disposed of properly. Contaminating wastes with other wastes may prevent reuse/recycling options and increase disposal costs.
- Hazardous waste containers should be emptied, to the greatest extent possible, using regular handling procedures, or by triple rinsing with an appropriate cleaning agent. Rinsings must be managed according to their waste characteristics. Containers must be rendered unusable by puncturing or crushing prior to disposal. This is especially of concern for containers which could otherwise be used for water or food storage.

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## 4.5 Record of Disposal Requirements

A completed six-part hazardous waste movement document (waste manifest) is a record of disposal that accompanies the transportation of hazardous waste from registered generators to carriers to receivers. The completed movement document form provides:

- Detailed information on the types and amounts of hazardous waste shipped;
- A record of who is in charge, management or control of the hazardous waste; and
- Information on the storage, treatment or disposal of the waste and confirmation that the hazardous waste arrived at an authorized receiver.

The generator (consignor), carrier and receiver (consignee) must each complete their portion of the movement document. The information provided on the movement document, as well as other TDGR requirements (i.e. labelling and placarding) are also intended to assist first responders (police, ambulance, fire fighters) with hazard information should a transportation accident occur. Movement documents are available from ED.

Copies of the completed movement document are required to be forwarded according to the instructions on the back of each copy, as follows:

- Copy 1 Sent to ED upon consignment to a carrier by the generator.
- Copy 2 Retained by the generator.
- Copy 3 Sent to ED upon receiving the consignment by the receiver.
- Copy 4 Returned to the carrier by the receiver.
- Copy 5 Retained by the receiver.
- Copy 6 Sent to the generator by the receiver.

A hazardous waste movement document must be used under the following circumstances:

- 1) The inter-provincial/territorial movement of hazardous waste according to the [Interprovincial Movement of Hazardous Waste Regulations](#).
- 2) The normal movement of all types of hazardous waste within the NWT (except used oil).
- 3) The requirement of the use of a movement document in a province or territory of destination.

An alternate record of disposal that contains all the information outlined in Schedule VIII may be utilized under the following circumstances:

- 1) Used oil transported to a registered used oil burner in the NWT in accordance with the [Used Oil and Waste Fuel Management Regulations](#).
- 2) The movement document is not required for the particular waste type in the province or territory of destination.



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## 4.6 Disposal of Hazardous Waste Outside of the NWT

Hazardous waste can be sent to a hazardous waste management facility outside of the NWT if the receiving facility is registered in the receiving province or territory and is authorized to manage that waste. Waste types such as contaminated soil or drilling waste may not be considered hazardous waste in other provinces or territories but must still be transported to authorized disposal facilities. Hazardous waste generated in the NWT is commonly transported to Alberta or British Columbia (BC) for treatment or disposal. A list of hazardous waste management facilities in these provinces is available by visiting Alberta Environment and Parks website <http://aep.alberta.ca/waste/waste-facilities/hazardous-facilities.aspx> or the BC Environmental Industries Associations website (<http://www.hazwastebc.com>). The list of organizations in Appendix 4 can help to determine the best hazardous waste management option.

It is important for generators to know the differences in hazardous waste regulations between provincial/territorial jurisdictions and ensure that the hazardous waste is disposed of in a manner that satisfies all jurisdictions where the hazardous waste will be generated, transported and disposed.

It is important for generators to use shipping names of hazardous waste that align with the province or territory of destination. If the waste receiving facility is not familiar with the movement document for a particular type of waste it is important to ensure a complete record of disposal is utilized and that the receiving site provides a signed copy that confirms the ultimate disposal. Under these circumstances the generator in the NWT is required to provide the signed copy to ED.

International and interprovincial/territorial shipments of hazardous waste are also controlled under the federal [Export and Import of Hazardous Waste and Hazardous Recyclable Material Regulations](#) and the [Interprovincial Movement of Hazardous Waste Regulations](#).

## 4.7 Alternative Management Methods

ED will give consideration to proposals for alternate management methods that provide an equivalent level of environmental protection to those identified in this guideline. Staff in the Environment Division are available to discuss and review proposed hazardous waste treatment and disposal options.

# 5 Conclusion

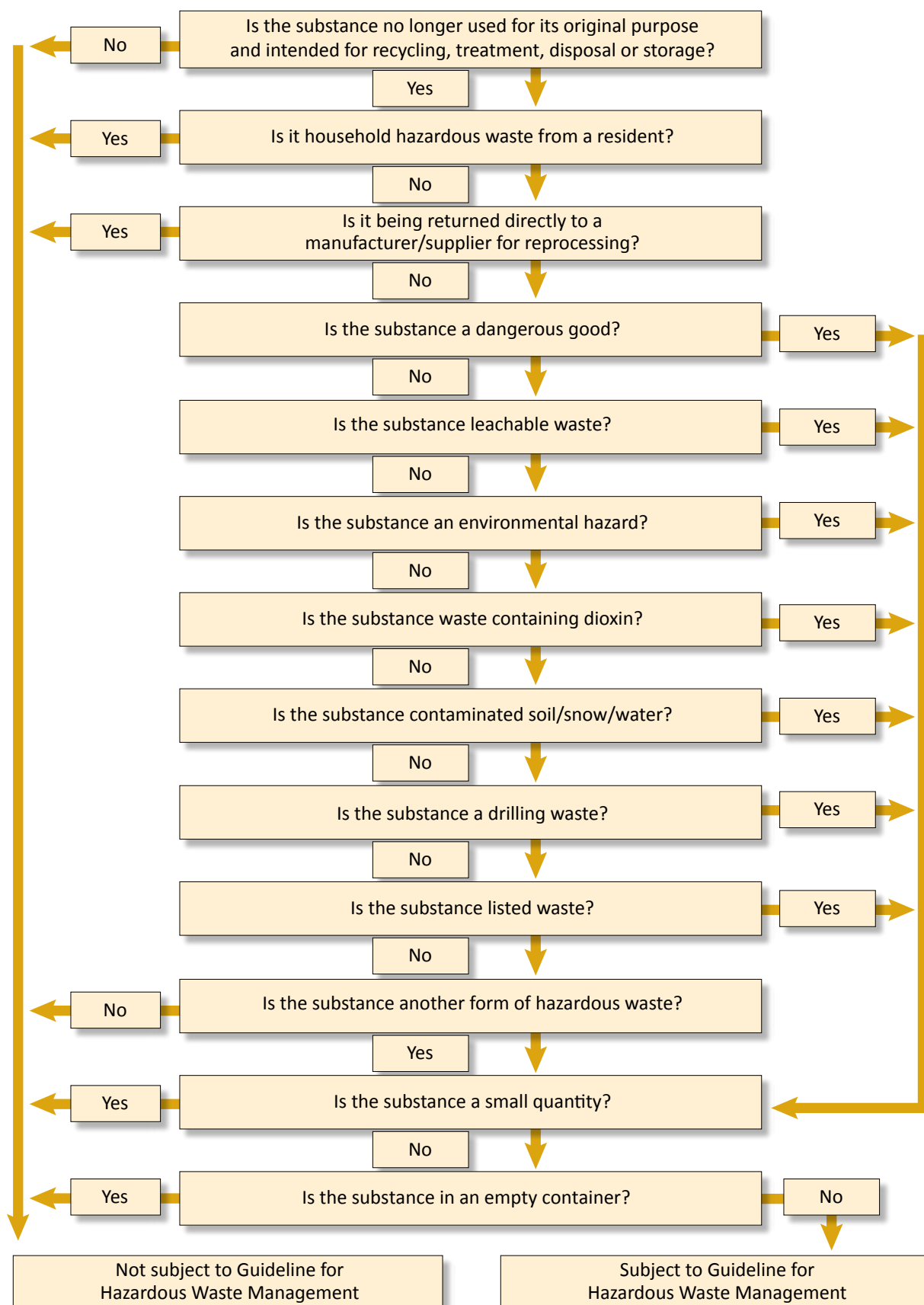
This guideline outlines the basics of hazardous waste management in the NWT. It is intended to provide direction when making hazardous waste management decisions to prevent the discharge of contaminants, or situations that contribute to the likely discharge of contaminants. It does not replace the existing legislation which is referenced in the guideline. Please contact the appropriate agency before proceeding. For more information regarding hazardous waste please visit our website (<http://www.enr.gov.nt.ca/en/services/hazardous-waste>) or contact:

Environment Division  
Department of Environment and Natural Resources  
Government of the Northwest Territories  
7th floor, Scotia Centre  
5102 50th Avenue

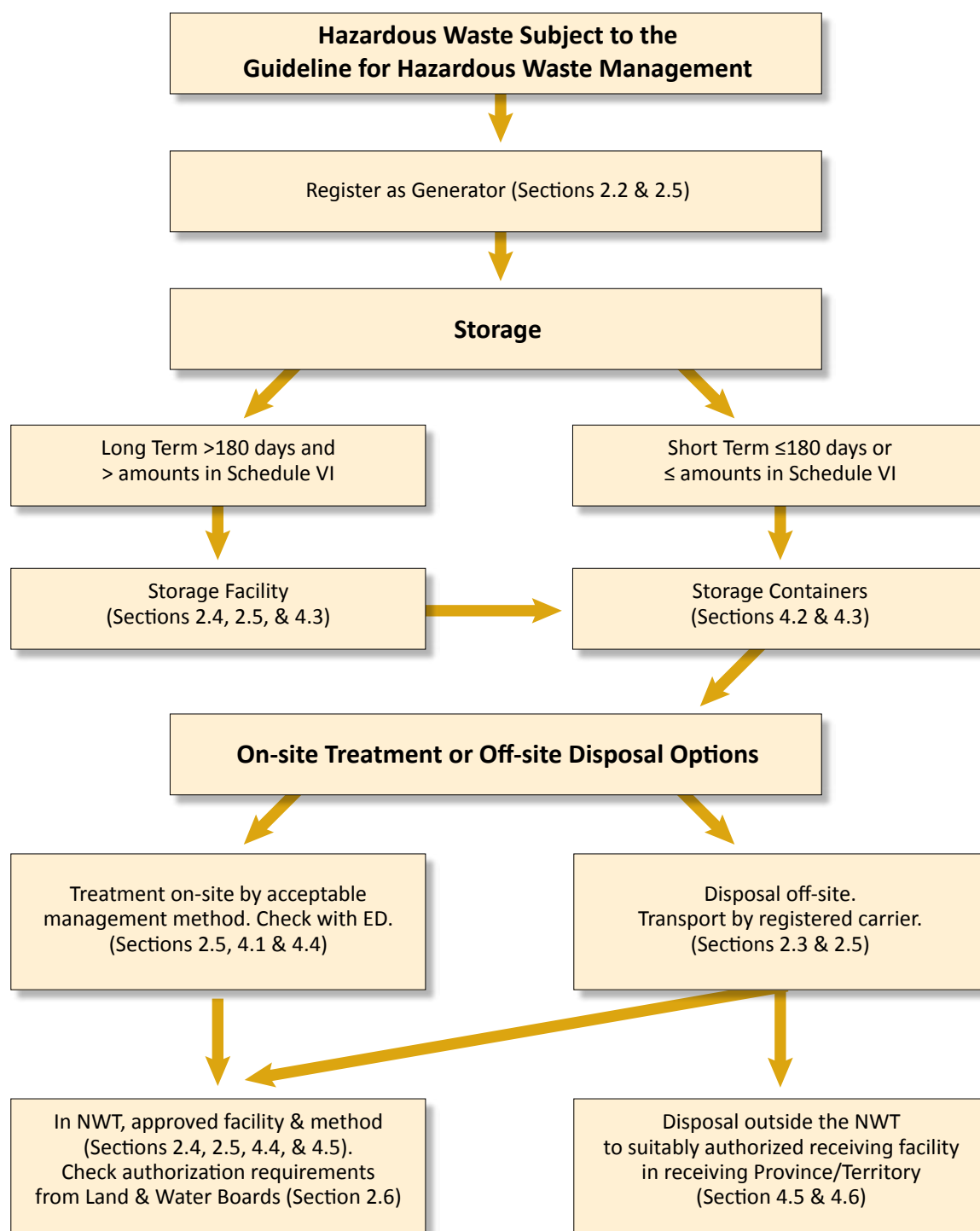
Mailing Address:  
PO Box 1320  
Yellowknife NT X1A 2L9

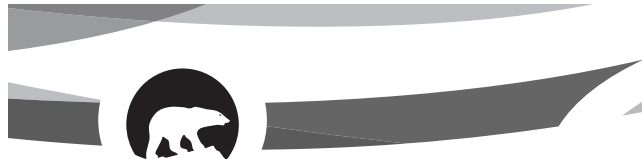
Tel: (867) 767-9236 ext. 53176  
Fax: (867) 873-0221

**Figure 3: Decision Flow Chart for Determining if a Waste is a Hazardous Waste**



**Figure 4: Hazardous Waste Management Process for Generators**





## FORM 1: HAZARDOUS WASTE GENERATOR REGISTRATION FORM

### Instructions

1. The following information must be provided in order to register and obtain a generator number in the NWT. Incomplete applications will be returned to the applicant.
2. Completed registration forms are to be forwarded to [EnvironmentalProtection@gov.nt.ca](mailto:EnvironmentalProtection@gov.nt.ca), or mailed to:  
Environment Division  
Department of Environment and Natural Resources  
Government of the Northwest Territories  
P.O. Box 1320, Yellowknife NT X1A 2L9
3. Use additional pages to provide information as required.

## FORMULAIRE 1 : INSCRIPTION À TITRE DE PRODUCTEUR DE DÉCHETS DANGEREUX

### Instructions

1. Veuillez fournir les renseignements suivants pour vous inscrire et pour obtenir un numéro de producteur aux TNO. Les formulaires incomplets seront retournés aux demandeurs.
2. Veuillez expédier les formulaires remplis par courriel ([EnvironmentalProtection@gov.nt.ca](mailto:EnvironmentalProtection@gov.nt.ca)), ou par la poste :  
Division de l'environnement  
Ministère de l'Environnement et des Ressources naturelles  
Gouvernement des Territoires du Nord-Ouest  
C. P. 1320, Yellowknife NT X1A 2L9
3. Au besoin, utilisez des feuilles supplémentaires pour fournir l'information nécessaire.

### Section 1: Contact Information / Coordonnées

Generator Company (Legal) Name: Nom de l'entreprise productrice (nom légal) :	
Mailing Address: Adresse postale :	
Contact Person: Personne-ressource :	Title: Titre de poste :
Phone: N° de téléphone :	Email: Courriel :
Alternate Contact Person: Personne-ressource supplémentaire :	
Phone: N° de téléphone :	Email: Courriel :

### Section 2: Description of Waste Types Generated / Description des déchets produits

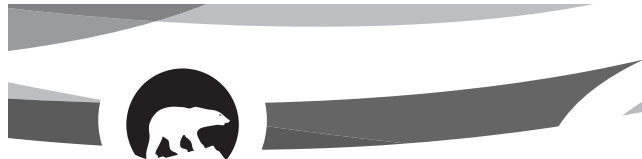
(Provide a separate table or reference waste management plan. / Utilisez un tableau séparé ou faites référence à votre plan de gestion des déchets.)

Location where waste is generated (coordinates or physical address): Lieu où les déchets sont produits (coordonnées ou adresse physique) :				
Describe types of hazardous waste (if not Dangerous Goods, indicate in description) Décrivez le type de déchets dangereux (s'il ne s'agit pas de déchets dangereux, veuillez décrire le produit)				
Shipping Name (description) Désignation officielle (description)	UN No. N° ONU	TDGR Class Catégorie du RTMD	Quantity generated (kg or L) Quantité transportée (en kg ou en L)	Monthly/Annually Mensuellement ou annuellement

**Section 3: I certify that the information provided on this form is correct and accurate.**  
**Je certifie que les renseignements fournis dans le présent formulaire sont exacts, fiables, et complets.**

<div></div>		<div></div>
Signature of Contact Person / Signature de la personne-ressource		Date (MM-DD-YYYY) / Date (MM-JJ-AAAA)
Name of Contact Person (Print): Nom de la personne-ressource (caractères d'imprimerie) :		
Title: Titre de poste :		
Phone: N° de téléphone :	Email: Courriel :	





## FORM 2: HAZARDOUS WASTE CARRIER REGISTRATION FORM

### Instructions

1. The following information must be provided in order to register and obtain a carrier number in the NWT. Incomplete applications will be returned to the applicant.
2. Completed registration forms are to be forwarded to [environmental\\_protection@gov.nt.ca](mailto:environmental_protection@gov.nt.ca), or mailed to:  
Environment Division  
Department of Environment and Natural Resources  
Government of the Northwest Territories  
P.O. Box 1320, Yellowknife NT X1A 2L9
3. Use additional pages to provide information as required.

## FORMULAIRE 2 : INSCRIPTION DES TRANSPORTEURS DE DÉCHETS DANGEREUX

### Instructions

1. Veuillez fournir les renseignements suivants pour vous inscrire et pour obtenir un numéro de transporteur aux TNO. Les formulaires incomplets seront retournés aux demandeurs
2. Veuillez expédier les formulaires remplis par courriel ([environmental\\_protection@gov.nt.ca](mailto:environmental_protection@gov.nt.ca)), ou par la poste :  
Division de l'environnement  
Ministère de l'Environnement et des Ressources naturelles  
Gouvernement des Territoires du Nord-Ouest  
C. P. 1320, Yellowknife NT X1A 2L9
3. Au besoin, utilisez des feuilles supplémentaires pour fournir l'information nécessaire.

### Section 1: Contact Information / Coordonnées

Carrier Company (Legal) Name:

Nom de l'entreprise productrice (nom légal) :

Mailing Address:

Adresse postale :

Contact Person:

Personne-ressource :

Title:

Titre de poste :

Phone:

N° de téléphone :

Email:

Courriel :

Contact Person:

Personne-ressource :

Title:

Titre de poste :

Phone:

N° de téléphone :

Email:

Courriel :

### Section 2: Description of Carrier's Activities / Description des activités du transporteur

(Provide a separate table or reference waste management plan. / Veuillez fournir un tableau distinct ou faire référence au plan de gestion des déchets.)

Mode of Transport (check all that apply):

Mode de transport (cochez tous ceux qui s'appliquent)

☐ Road

Routier

☐ Rail

Ferroviaire

☐ Ship

Maritime

☐ Air

Aérien

Proof of transport liability insurance is attached (certificate of insurance):

Vous avez joint une preuve d'assurance responsabilité civile de transport (certificat d'assurance)

☐ Yes

Oui

☐ No

Non

Proof of training from the applicable Transport Authority is attached:

Vous avez joint une preuve de formation de l'agence de transport concernée :

☐ Yes

Oui

☐ No

Non

A spill contingency plan is attached:

Vous avez joint un plan d'urgence en cas de déversement :

☐ Yes

Oui

☐ No

Non

Describe types of hazardous waste (if not Dangerous Goods, indicate in description) Décrivez le type de déchets dangereux (s'il ne s'agit pas de déchets dangereux, veuillez décrire le produit)				
Shipping Name (description) Désignation officielle (description)	UN No. N° ONU	TDGR Class Catégorie du RTMD	Quantity generated (kg or L) Quantité transportée (en kg ou en L)	Monthly/Annually Mensuellement ou annuellement

**Section 3: I certify that the information provided on this form is correct, accurate and complete.**  
**Je certifie que les renseignements fournis sont exacts, fiables, et complets.**

<div></div>		<div></div>	
<div>Signature of Contact Person / Signature de la personne-ressource</div>		<div>Date (MM-DD-YYYY) / Date (MM-JJ-AAAA)</div>	
<div>Name of Contact Person (Print):</div> <div>Nom de la personne-ressource (caractères d'imprimerie) :</div>			
<div>Title:</div> <div>Titre de poste :</div>			
<div>Phone:</div> <div>N° de téléphone :</div>		<div>Email:</div> <div>Courriel :</div>	

## Schedule I: Leachate Disposal Standards for Solid Waste / Process Residuals

Item	Parameter	Concentration (mg/L)	Item	Parameter	Concentration (mg/L)
1.	Antimony	0.6	25.	Ethyl benzene	0.24
2.	Arsenic	2.5	26.	Fluoride	150
3.	Barium	100	27.	Hexachlorobenzene	0.13
4.	Benzene	0.5	28.	Hexachlorobutadiene	0.5
5.	Beryllium	5.0	29.	Hexachloroethane	3.0
6.	Boron	500	30.	Lead	5.0
7.	Cadmium	0.5	31.	Mercury	0.1
8.	Carbon tetrachloride (Tetrachloromethane)	0.5	32.	Methyl ethyl ketone / Ethyl methyl ketone	200
9.	Chloramines	300	33.	Naphthalene	0.5
10.	Chlorobenzene (Monochlorobenzene)	8.0	34.	Nitrate + Nitrite	1000
11.	Chloroform	6.0	35.	Nitrilotriacetic acid (NTA)	40
12.	Chromium	5.0	36.	Nitrite	320
13.	Cobalt	100	37.	Nitrobenzene	2
14.	Copper	100	38.	Pentachlorophenol	6.0
15.	Cresol (Mixture – total of all isomers, when isomers cannot be differentiated)	200	39.	Pyridine	5.0
16.	Cyanide	20	40.	Selenium	1.0
17.	2,4-DCP / (2,4-Dichlorophenol)	90	41.	Silver	5.0
18.	1,2-Dichlorobenzene (o-Dichlorobenzene)	20	42.	Tetrachloroethylene	3.0
19.	1,4-Dichlorobenzene (p-Dichlorobenzene)	0.5	43.	2,3,4,6-Tetrachlorophenol / (2,3,4,6-TeCP)	10
20.	1,2-Dichloroethane (Ethylene dichloride)	0.5	44.	Toluene	2.4
21.	1,1-Dichloroethylene (Vinylidene chloride)	1.4	45.	Trichloroethylene	0.5
22.	Dichloromethane (also see – methylene chloride)	5.0	46.	Trihalomethanes – Total (also see – Chloroform)	10
23.	2,4-Dinitrotoluene	0.13	47.	Uranium	2.0
24.	Polychlorinated dibenzo dioxins and furans (TEQ)	0.0000015	48.	Xylene	0.5
			49.	Zinc	500

## Schedule II: Dioxin Toxicity Equivalency Factors

Column I – Congeners	Column II – TEF*
2,3,7,8-tetrachlorodibenzo-p-dioxin	1.0
1,2,3,7,8-pentachlorodibenzo-p-dioxin	0.5
1,2,3,4,7,8-hexachlorodibenzo-p-dioxin	0.1
1,2,3,6,7,8-hexachlorodibenzo-p-dioxin	0.1
1,2,3,7,8,9-hexachlorodibenzo-p-dioxin	0.1
1,2,3,4,6,7,8-heptachlorodibenzo-p-dioxin	0.01
octachlorodibenzo-p-dioxin	0.001
2,3,7,8-tetrachlorodibenzofuran	0.1
1,2,3,7,8-pentachlorodibenzofuran	0.05
2,3,4,7,8-pentachlorodibenzofuran	0.5
1,2,3,4,7,8-hexachlorodibenzofuran	0.1
1,2,3,6,7,8-hexachlorodibenzofuran	0.1
1,2,3,7,8,9-hexachlorodibenzofuran	0.1
2,3,4,6,7,8-hexachlorodibenzofuran	0.1
1,2,3,4,6,7,8-heptachlorodibenzofuran	0.01
1,2,3,4,7,8,9-heptachlorodibenzofuran	0.01
octachlorodibenzofuran	0.001

\* Toxicity Equivalency Factor

## Schedule III: Listed Waste

1. Absorbent material
2. Household hazardous waste consolidated at a municipal collection depot
3. Incinerator ash (bottom/fly ash)
4. Used oil and used oil filters*
5. Waste asbestos (defined in the Guideline for the Management of Waste Asbestos)
6. Biomedical waste (defined in Guideline for the Management of Biomedical Waste)
7. Lead paint that produces a leachate greater than 5 mg/L (defined in the Guideline for the Management of Waste Lead and Lead Paint)
8. Glycol (Antifreeze) solutions (defined in the Guideline for the Management of Waste Antifreeze)
9. Halocarbons (defined in the Guideline for the Management of Ozone Depleting Substances and Halocarbon Alternatives)
10. Waste paint (defined in the Guideline for the Management of Waste Paint)
11. Mercury-containing lamps (defined in the Guide to Recycling Mercury-Containing Lamps)

\* No person shall dispose of a filter used to filter oil unless, 24 hours before disposing of the filter,  
 (a) the inner chamber of the filter is punctured and the contents are drained; or  
 (b) the filter is mechanically crushed or shredded and the contents have been collected.

## Schedule IV: Severely Toxic Contaminants

Item	Substances
1.	(4-Chlorophenyl)cyclopropylmethanone, O-[(4-nitrophenyl)methyl]oxime
2.	Benzenamine, N-phenyl-, Reaction Products with Styrene and 2,4,4-Trimethylpentene (BNST)
3.	Chlorobiphenyls
4.	Chlorinated Alkanes
5.	Dibenzofuran
6.	Dibenzo-para-dioxin
7.	Dichloromethane
8.	Hexabromocyclododecane (HBCD)
9.	Hexachlorobutadiene, which has the molecular formula C <sub>4</sub> Cl <sub>6</sub>
10.	Hexavalent chromium compounds
11.	Long-Chain (C <sub>9</sub> -C <sub>20</sub> ) Perfluorocarboxylic Acids (PFCAs), their Salts and their Precursors
12.	Mercury
13.	Perfluorooctane Sulfonate (PFOS), Its Salts and Its Precursors
14.	Polychlorinated dibenzodioxins
15.	Polychlorinated Dibenzofurans
16.	Polychlorinated Naphthalenes (PCNs)
17.	Polychlorinated Terphenyls
18.	Tetrabutyltin
19.	Tetrachlorobenzenes (TeCBs)
20.	Tetrachloroethylene
21.	Tributyltins

## Schedule V: Small Quantity Threshold for Types of Hazardous Waste

	Column I: Hazardous Waste Type	Column II: Amount
1.	All hazardous waste unless otherwise specified	5 kg or L
2.	Dangerous Goods Class 6.1, Packing Group I	1 kg or L
3.	Waste batteries	50 kg
4.	Contaminated snow/water	20 kg or L
5.	Contaminated soil	500 kg
6.	Waste Glycol	20 L
7.	Incinerator ash	20 kg
8.	Waste paint	20 kg or L
9.	Used Oil	20 L
10.	Leachable waste containing Severely Toxic Contaminants	1 kg or L
11.	Severely Toxic Contaminants in pure form	n/a hazardous waste in any quantity

## Schedule VI: Registration Volumes

Minimum quantity of hazardous waste<sup>1</sup> necessary for registration as a Hazardous Waste Storage Facility.

Waste Classification TDG	Quantity <sup>2</sup> (Kg or L)
2.1 Compressed Gas (flammable)	500 <sup>3</sup>
2.2 Compressed Gas (non-corrosive, non-flammable, non-toxic)	5,000 <sup>3</sup>
2.3 Compressed Gas (toxic)	200 <sup>3</sup>
3 Flammable Liquids Packing Group I	1,000
3 Flammable Liquids Packing Group II	2,000
3 Flammable Liquids Packing Group III	5,000
4.1 Flammable Solids	5,000
4.2 Substances Liable to Spontaneous Combustion	1 00
4.3 Water-reactive Substances	50
5.1 Oxidizing Substances	1,000
5.2 Organic Peroxides	50
6.1 Toxic Substances Packing Group I	1,000
6.1 Toxic Substances Packing Group II	2,000
6.1 Toxic Substances Packing Group III	5,000
6.2 Infectious Substances	500 <sup>3</sup>
6.2 Infectious Substances Category A requiring an ERAP	any amount
8 Corrosive Substances Packing Group I	1,000
8 Corrosive Substances Packing Group II	2,000
8 Corrosive Substances Packing Group III	5,000
9 Miscellaneous	1,000 <sup>4</sup>
Other Hazardous Waste Types	
Polychlorinated Biphenyls	100
Leachable waste	5,000
Hazardous to the Aquatic Environment	5,000
Waste containing dioxins and furans	5,000
Contaminated soil	50,000
Drilling waste	50,000
Used Oil, Glycol, Contaminated Water	5,000
<b>Total Aggregate Quantity of Hazardous Waste<sup>5</sup></b>	<b>5,000</b>

<sup>1</sup> This applies to hazardous waste and not dangerous goods.

<sup>2</sup> Quantity refers to liquids when the amount is expressed in litres (L) and solids when expressed in kilograms (Kg).

<sup>3</sup> Total liquid volume capacity of the container.

<sup>4</sup> PCB storage is regulated by Environment and Climate Change Canada under the *Canadian Environmental Protection Act*. Storage of products containing PCBs in a concentration of 50 mg/kg or more and in an amount of 100 litres or more, 100 kilograms or more, or in a lesser amount if it contains 1 kilogram or more of PCBs.

<sup>5</sup> Except for Contaminated soil and Drilling waste where total aggregate quantity must exceed 50,000 kg.



[illegible]

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## Schedule VIII: Information Required in a Record of Disposal

- 1) Generator, carrier, and receiver (disposal, recycling facility) are registered and identified with the following:
  - a) Registration numbers (where applicable);
  - b) Name of generator, carrier and receiver, mailing address and contact information;
  - c) Shipping and receiving site address is identified;
  - d) Name of person(s) consigning the waste, transporting, and receiving;
  - e) Telephone number; and
  - f) Date of shipment and receiving.
- 2) Intended receiver is declared prior to transportation, and the receiver is authorized to receive that waste.
- 3) The hazardous waste is identified and the description identifies the:
  - a) Common name of the waste (i.e. used oil, contaminated soil);
  - b) Amount of waste being transported in metric units (kg or L);
  - c) Number and means of containment (e.g., drum, bulk, tank, etc.); and
  - d) Physical state, solid, liquid or gas (e.g. S, L, G).
- 4) Multiple copies are made and the generator, carrier, as well as the receiver all receive a copy of the record of disposal (like 6-part movement document) that confirms who is in control of the waste:
  - a) Upon shipment;
  - b) During transportation; and
  - c) At the receiving facility.
- 5) ENR receives a completed and signed copy of the record of disposal upon:
  - a) Shipment from the generator; and
  - b) Receipt at the receiver.

# Appendix 1:

## *Environmental Protection Act*

The following is a subset of the *Environmental Protection Act*, R.S.N.W.T. 1988, c. E-3.<sup>1</sup>

1. In this Act,

“contaminant” means any noise, heat, vibration or substance and includes such other substance as the Minister may prescribe that, where discharged into the environment,

- (a) endangers the health, safety or welfare of persons,
- (b) interferes or is likely to interfere with normal enjoyment of life or property,
- (c) endangers the health of animal life, or
- (d) causes or is likely to cause damage to plant life or to property;

“discharge” includes, but not so as to limit the meaning, any pumping, pouring, throwing, dumping, emitting, burning, spraying, spreading, leaking, spilling, or escaping;

“environment” means the components of the Earth and includes

- (a) air, land and water,
- (b) all layers of the atmosphere,
- (c) all organic and inorganic matter and living organisms, and
- (d) the interacting natural systems that include components referred to in paragraphs (a) to (c).

“inspector” means a person appointed under subsection 3(2) and includes the Chief Environmental Protection Officer.

2.2 The Minister may

- (a) establish, operate and maintain stations to monitor the quality of, and the discharge of contaminants into the environment in the Territories;
- (b) conduct research studies, conferences and training programs relating to contaminants and to the preservation, protection or enhancement of the environment;
- (c) develop, co-ordinate and administer policies, standards, guidelines and codes of practice relating to the preservation, protection or enhancement of the environment;

3. (2) The Chief Environmental Protection Officer may appoint inspectors and shall specify in the appointment that powers that may be exercised and the duties that may be performed by the inspector under this Act and regulations.

<sup>1</sup> The *Environmental Protection Act* (EPA) is updated from time to time. As this is a subset of the EPA, ENR recommends the reader review the official Act.

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4. (1) Where the Chief Environmental Protection Officer is of the opinion, based on reasonable grounds, that it is necessary or advisable for the protection of the environment to do so, the Chief Environmental Protection Officer may, by order directed to any person, require that person
- (a) to install safeguards to prevent the discharge of contaminants into the environment;
  - (b) to site, transport or store any contaminant in the manner set out in the order; or
  - (c) to have on hand at all times the equipment and material necessary to alleviate the effect of any discharge of contaminants that may be specified in the order.
- (2) Where an inspector believes on reasonable grounds that a discharge of a contaminant in contravention of this Act, the regulations or a provision of a permit or licence is likely to occur, the inspector may issue an order requiring any person whose actions may increase the likelihood of a discharge or the owner or person in charge, management or control of the contaminant to take the preventive measures that the inspector considers necessary. R.S.N.W.T. 1988,c.117(Supp.),s.7.
5. (1) Subject to subsection (3), no person shall discharge or permit the discharge of a contaminant into the environment.
- (2) REPEALED, R.S.N.W.T. 1988,c.117(Supp.),s.8.
- (3) Subsection (1) does not apply where the person who discharged the contaminant or permitted the discharge of the contaminant establishes that
- (a) the discharge is authorized by this Act or the regulations or by an order issued under this Act or the regulations;
    - (a.1) the discharge
      - (i) is authorized by an Act of the Parliament of Canada or the Northwest Territories or by regulations made under any of those Acts, and
      - (ii) is not addressed in this Act or the regulations or by an order issued under this Act or the regulations;
  - (b) the contaminant has been used solely for domestic purposes and was discharged from within a dwelling house;
  - (c) the contaminant was discharged from the exhaust system of a vehicle;
  - (d) the discharge of the contaminant resulted from the burning of leaves, foliage, wood, crops or stubble for domestic or agricultural purposes;
  - (e) the discharge of the contaminant resulted from burning for land clearing or land grading;
  - (f) the discharge of the contaminant resulted from a fire set by a public official for habitat management of silviculture purposes;
  - (g) the contaminant was discharged for the purposes of combatting a forest fire;
  - (h) the contaminant is a soil particle or grit discharged in the course of agriculture or horticulture;
  - or
  - (i) the contaminant is a pesticide classified and labelled as “domestic” under the Pest Control Products Regulations (Canada).
- (4) The exceptions set out in subsection (3) do not apply (a) where a person discharges a contaminant that the inspector has reasonable grounds to believe is not usually associated with a discharge from the excepted activity.

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- 5.1. Where a discharge of a contaminant into the environment in contravention of this Act or the regulations or the provisions of a permit or licence issued under this Act or the regulations occurs or a reasonable likelihood of such a discharge exists, every person causing or contributing to the discharge or increasing the likelihood of such a discharge, and the owner or the person in charge, management or control of the contaminant before its discharge or likely discharge, shall immediately:
- (a) subject to any regulations, report the discharge or likely discharge to the person or office designated by the regulations;
  - (b) take all reasonable measures consistent with public safety to stop the discharge, repair any damage caused by the discharge and prevent or eliminate any danger to life, health, property or the environment that results or may be reasonably expected to result from the discharge or likely discharge; and
  - (c) make a reasonable effort to notify every member of the public who may be adversely affected by the discharge or likely discharge.
6. (1) Where an inspector believes on reasonable grounds that a discharge of a contaminant in contravention of this Act or the regulations or a provision of a permit or licence issued under this Act or the regulations has occurred or is occurring, the inspector may issue an order requiring any person causing or contributing to the discharge or the owner or the person in charge, management or control of the contaminant to stop the discharge by the date named in the order.

# Appendix 2:

## Selecting a Hazardous Waste Receiver

The following information is provided as best practice and needs to be interpreted according to the type of hazardous waste being offered.

As a hazardous waste generator, it is important to carefully choose a hazardous waste receiver. Generators are responsible for their waste until it is legally and properly received at a suitably authorized facility.

### Selection Factors

Below is a list of considerations when selecting a hazardous waste receiver:

- Ensure waste has been properly classified, either through characterization by a qualified consultant or environmental testing laboratory, or by reviewing the process generating the waste along with the original raw materials used in the process.
- Ensure the hazardous wastes are managed by companies that are capable of appropriately managing the wastes. This is important for hazardous waste disposal outside or inside of the NWT.
- Find out if the hazardous waste receiver has carried out any facility audits. Many waste receivers are required to submit audit reports to the provincial or territorial authority. Request a copy of the receivers most recent audit report. Most competent waste receivers arrange third party audits at their facilities and are willing to share and discuss the results with their potential clients.
- Get references from business colleagues who have used a specific hazardous waste receiver.
- Find out if the hazardous waste receiver has the appropriate authorization to manage your hazardous waste(s). Authorized receivers are required to have a facility registration number issued by the provincial or territorial authority.
- Check the Waste Receiver Assessment Program (<http://www.wrapaudit.com/index.php>) to see if a Waste Facility Environmental Review has been completed on behalf of other waste generators for the receiving facility.
- Ensure that the treatment/disposal methods proposed by companies are the appropriate and approved technology for your wastes. The receiver should be willing to provide a letter confirming how and when the hazardous waste was managed at the location named in the letter and that the management complied with all relevant regulatory requirements.
- Check the receiver's insurance coverage and review their environmental impairment liability, general liability and vehicle insurance coverage (if applicable).
- Check the Health and Safety record of the receiver and request a clearance letter from the applicable worker (Occupational) health and safety agency.

**Note:** If the receiver selected does not comply with the requirements of the applicable legislation and are charged with a violation while managing your wastes, the generator may also be held liable.



# Appendix 3:

## Dangerous Goods Classifications

### Class 1: Explosives<sup>1</sup>

### Class 2: Compressed Gases

Division 2.1: Flammable Gases

Division 2.2: Non-Flammable Gases

Division 2.3: Toxic Gases

### Class 3: Flammable Liquids

Packing Group I: Boiling point  $\leq 35^{\circ}\text{C}$  and any Flash Point

Packing Group II: Boiling point:  $>35^{\circ}\text{C}$  and Flash Point  $< 23^{\circ}\text{C}$

Packing Group III: If criteria for Packing Group I or II are not met

### Class 4: Flammable Solids, Substances Liable To Spontaneous Combustion, Dangerous When Wet

Division 4.1: Flammable Solids

Division 4.2: Spontaneously Combustible

Division 4.3: Dangerous When Wet

### Class 5: Oxidizers, Organic Peroxides

Division 5.1: Oxidizers

Division 5.2: Organic Peroxides

### Class 6: Toxic Substances, Infectious Substances

Criteria for 6.1 Toxic Substances Packing Groups as per the TDGR					
Route of Exposure	Oral	Dermal	Inhalation mist	Inhalation vapor	
Unit of Measure	LD50 mg/kg	LD <sub>50</sub> mg/kg	LC50 mg/L	V	LC50 mL/m <sup>3</sup>
Packing Group I	$\leq 5$	$\leq 50$	$\leq 0.2$	$\geq 10 \times \text{LC50}$	$\leq 1000$
Packing Group II	$> 5$ but $\leq 50$	$> 50$ but $\leq 200$	$> 0.2$ but $\leq 2$	$\geq \text{LC50}$	$\leq 3000$
Packing Group III	$> 50$ but $\leq 300$	$> 200$ but $\leq 1000$	$> 2$ but $\leq 4$	$\geq 0.2 \times \text{LC50}$	$\leq 5000$

Division 6.2: Infectious Substances

### Class 7: Radioactive Materials<sup>1</sup>

### Class 8: Corrosives

### Class 9: Miscellaneous Dangerous Goods

<sup>1</sup> Class 1 and 7 are regulated under federal legislation and not subject to this guideline.

# Appendix 4:

## Regulatory Agencies, Land and Water Boards, Waste Exchanges, and Associations

### Regulatory Agencies

1. Environmental Health  
Department of Health and Social Services  
5015 49th St  
Box 1320  
Yellowknife, NT X1A 2L9  
Phone: (867) 767-9066 ext. 49262
2. Lands Administration  
Department of Lands  
PO Box 1320  
1st Floor Gallery Building (4923 - 52nd Street)  
Yellowknife, NT X1A 2L9  
Phone: (867) 765-6701 Fax: (867) 669-8908
3. Office of the Fire Marshal  
Department of Municipal and Community Affairs  
600, 5201-50th Avenue  
Yellowknife, NT X1A 2S9  
Phone: (867) 873-7469 Fax: (867) 873-0206
4. Office of the Regulator of Oil and Gas Operations  
4th floor, 5201-50th Avenue  
P.O. Box 1320  
Yellowknife, NT X1A 2L9  
Phone: (867) 767-9097 Fax: (867) 920-0798
5. Road Licensing and Safety Headquarters  
Department of Transportation  
5015 - 49th Street  
PO Box 1320  
Yellowknife, NT X1A 2L9  
Phone: (867) 767-9088 ext. 31169 Fax: (867) 873-0120

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6. Workers' Safety and Compensation Commission  
Centre Square Tower, 5th Floor  
5022 49 Street  
Box 8888  
Yellowknife, NT X1A 2R3  
General Inquiries phone: (867) 920-3888 Fax: (867) 873-4596  
Toll Free: 1-800-661-0792
  7. Indigenous and Northern Affairs Canada  
NWT Region  
4923-52nd Street  
P.O. Box 1500  
Yellowknife, NT X1A 3Z4  
Phone: (867) 669-2500 Fax: (867) 669-2715
  8. Canadian Nuclear Safety Commission  
Western Regional Office  
220 4th Avenue S.E., Suite 670  
Calgary, AB T2G 4X3  
Phone: (403) 292-5181 Fax: (403) 292-6985  
Nuclear Emergency (24 Hour) (613) 995-0479  
General Inquiries: [info@cnsccsn.gc.ca](mailto:info@cnsccsn.gc.ca)  
Phone: 613-995-5894 or 1-800-668-5284 (in Canada)
  9. Environmental Protection Branch  
Environment and Climate Change Canada  
5019 52nd St,  
P.O. Box 2310  
Yellowknife, NT X1A 2P7  
Phone: (867) 669-4730 Fax: (867) 873-8185
  10. Environment Branch  
National Energy Board  
444 Seventh Ave. S.W.  
Calgary, AB T2P 0X8  
Phone: (403) 299-3676 Fax: (403) 292-5503
  11. Explosives Regulatory Division, Western Region  
Natural Resources Canada  
Unit 214 755 Lake Bonavista Dr. S.E.  
Calgary, AB T2J 0N3  
Phone: (403) 292-4766 Fax: (403) 292-4689
  12. Transport Canada  
Prairie and Northern Region  
4915 - 48th Street  
3rd Floor, YK Centre East  
P.O. Box 1439  
Yellowknife, NT X1A 2P1  
Phone: (888)-463-0521

## Land and Water Boards

Gwich'in Land and Water Board	(867) 777-4954	<a href="http://glwb.com/">http://glwb.com/</a>
Mackenzie Valley Land and Water Board	(867) 669-0506	<a href="http://mvlwb.com/">http://mvlwb.com/</a>
Sahtu Land and Water Board	(867) 598-2413	<a href="http://slwb.com/">http://slwb.com/</a>
Wek'eezhii Land and Water Board	(867) 765-4592	<a href="http://wlwb.ca/">http://wlwb.ca/</a>
Inuvialuit Water Board	(867) 678-2942	<a href="http://www.inuvwb.ca">www.inuvwb.ca</a>
Environmental Impact Screening Committee	(867) 777-2828	<a href="http://www.screeningcommittee.ca/contact.html">http://www.screeningcommittee.ca/contact.html</a>

## Waste Exchanges

Canadianenvironmental.com		<a href="http://www.canadianenvironmental.com/">http://www.canadianenvironmental.com/</a>
Stobec	(800) 561-6511	<a href="http://stobec.com/index.html">http://stobec.com/index.html</a>
Waste Exchange Network		<a href="http://www.wastechange.com/canada.html">http://www.wastechange.com/canada.html</a>

## Associations

BC Environment Industry Association	(604) 683-2751	<a href="http://www.hazwastebc.com">http://www.hazwastebc.com</a>
Canadian Association for Laboratory Accreditation Inc. (CALA)	(613) 233-5300	<a href="http://www.cala.ca">http://www.cala.ca</a>
Eco Canada	(800) 890-1924	<a href="http://www.eco.ca">http://www.eco.ca</a>
Environmental Services Association of Alberta	(800) 661-9278	<a href="http://www.esaa.org">http://www.esaa.org</a>
Manitoba Environmental Industries Association	(204) 783-7090	<a href="http://www.meia.mb.ca">http://www.meia.mb.ca</a>
Northern Territories Water and Waste Association	(867) 873-4325	<a href="http://ntwwa.com/">http://ntwwa.com/</a>
Saskatchewan Environmental Industry and Managers Association	(306) 250-4991	<a href="http://www.seima.sk.ca/">http://www.seima.sk.ca/</a>
Standards Council of Canada (Environmental Laboratories)	(613) 569-7808	<a href="https://www.scc.ca/en/accreditation/laboratories">https://www.scc.ca/en/accreditation/laboratories</a>
Waste Receiver Assessment Program	(403) 269-4351	<a href="http://www.wrapaudit.com">http://www.wrapaudit.com</a>

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