

St. Vital Transmission Project (Y36V)

St. Vital to Laverendrye Transmission Line

Waste and Recycling Management Plan

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Prepared by:

**Transmission & Distribution Environment and Engagement
Department**

Project Management Division

PREFACE

This document presents the Waste and Recycling Management Plan (WRMP; the Plan) for the construction of the St. Vital Transmission Project (the Project). It is intended to provide information and instruction to Contractors and Manitoba Hydro employees as well as information to regulators and members of the public.

The Plan provides general considerations and guidance pertinent to waste and recycling management during the development of the Project. More importantly it presents a Project-specific implementation plan and actions required to proactively address the issue of waste management as a result of construction of the Project.

Manitoba Hydro employees and contractors are encouraged to contact the onsite Manitoba Hydro Environmental Inspector/Officer if they require information, clarification or support. Regulators and the Public are to direct any inquiries about this Plan to:

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Number	Nature of revision	Section(s)	Revised by	Date

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1.0 Introduction

Consistent with its corporate Environmental Management Policy, Manitoba Hydro has committed within the St. Vital Transmission Project (the Project) Environmental Assessment process to developing a Waste and Recycling Management Plan (WRMP) as part of a larger suite of mitigation measures to minimize potential negative environmental and socio-economic effects. This document outlines the procedures to be employed by Contractors to proactively address the issue of waste management.

This document is intended to provide measures to manage waste during the construction of the Project. Waste generated during the construction activities of a transmission project will be collected, sorted, isolated, stored and disposed of or recycled. This document identifies some of the common waste materials generated during different construction activities.

Note that the methods presented here are not exhaustive and alternative methods may be proposed by the Contractor but would require approval from a Manitoba Hydro Environmental Officer prior to implementation.

1.1 Commitment to environmental protection

Manitoba Hydro integrates environmentally responsible practices in all aspects of our business. Environmental protection can only be achieved with the involvement of Manitoba Hydro employees, consultants, contractors, Indigenous communities and organizations and the public at all stages of the Project from planning and design through construction and operational phases.

The use of a WRMP is a practical and direct implementation of Manitoba Hydro's environmental policy and its commitment to responsible environmental and social stewardship. It is a proactive approach to manage potential effects of access related to the construction of a new transmission line.

Manitoba Hydro is committed to implementing this WRP and requiring Contractors to follow the terms of this and other applicable plans within the Environmental Protection Program.

1.2 Purpose and objectives

This Plan is intended to be used as a reference document in the field, during construction activities to address waste management while ensuring compliance with Manitoba Hydro's Construction Environmental Protection Plan requirements, industry best practices, and Provincial/Federal regulations and legislation. In order to effectively manage waste during construction activities, a variety of methods are available for implementation. The appendix outlines waste management techniques along with a description of the situations where each technique may be employed and directions for correct implementation.

Should a contractor wish to deviate from the techniques or implementation described in this document they must first obtain approval from a Manitoba Hydro Environmental Officer.

The objectives of this Plan are as follows:

- To establish a process prior to the start of construction that can be used to identify potential waste streams and plan for proper handling and disposal. This process will meet regulatory requirements, industry standards and best practices with regards to waste management during construction activities.
- To provide guidance on the correct handling and management of waste.

1.3 Potential effects of waste

The Project has potential to generate significant amounts of waste of various types. To manage and reduce waste from the Project, Manitoba Hydro requires all Contractors to utilize the Waste and Recycling Management Plan (WRMP) in an effort to reduce the volume of materials going to landfill and facilitate reuse and recycling. Where applicable, this WRMP will also address wastes developed in the operation of construction camps.

1.4 Roles and responsibilities

This section outlines the major roles and responsibilities of those involved in the implementation of the Plan. The Plan forms a component of the Environmental Protection Program (EPP), which provides the framework for the delivery, management and monitoring of environmental and socio-economic protection measures for the Project. The EPP describes how Manitoba Hydro is organized and functions to deliver timely, effective, and comprehensive solutions and mitigation measures to address potential environmental

effects from Project activities. A visual reference for how the Plan fits into the overall EPP organization structure is provided in Figure 1.

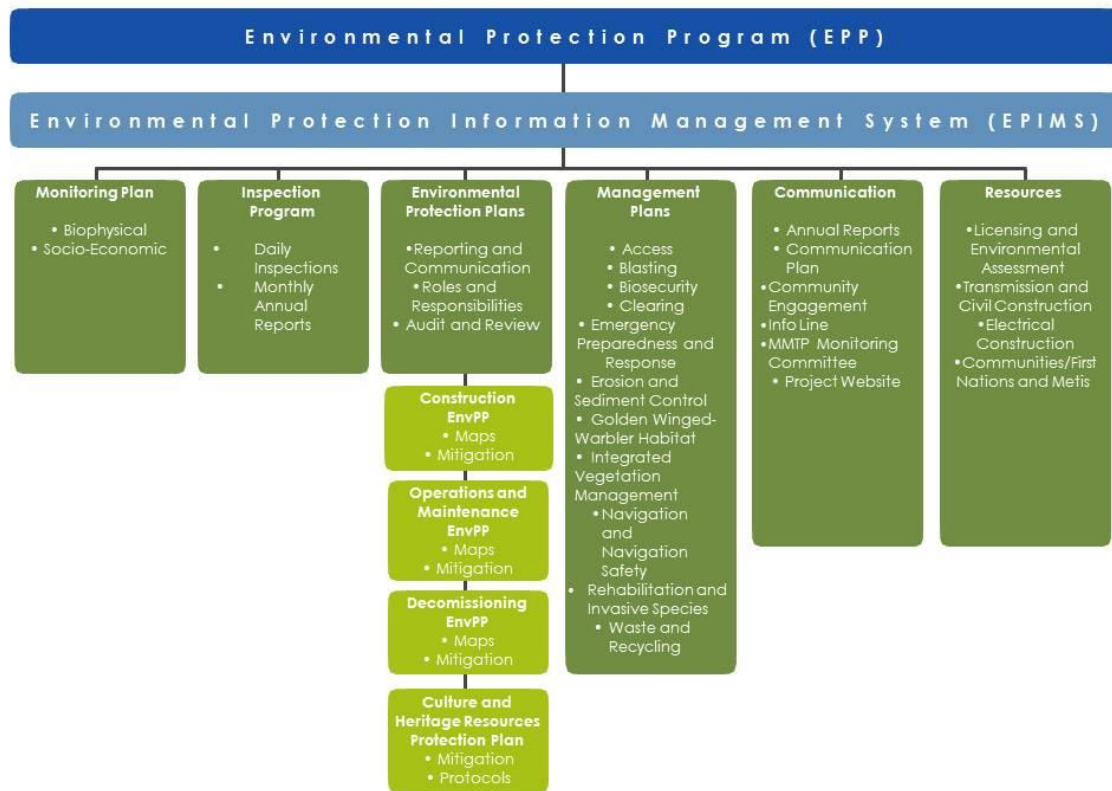


Figure 1: Transmission Environmental Protection Program

A summary of roles and key responsibilities is found in Table 1. Communication and reporting on environmental issues, monitoring and compliance will be as outlined in Figure 2.

Table 1: Roles and responsibilities

Role	Key Responsibilities
Manitoba Hydro	<ul style="list-style-type: none"> • Develops and amends the WRMP. • May delegate this responsibility to other construction professionals to implement, maintain and inspect /monitor for the duration of the undertaking.

	<ul style="list-style-type: none"> • Signs agreements, approvals, permits and Authorizations to which compliance is legally binding. • Ensures Contractors are aware of their responsibilities • Appoints an Environmental Inspector/Officer to confirm that regulatory criteria are being met. • The Manitoba Hydro Environmental Inspector/Officer will regularly inspect waste management measures to confirm effectiveness.
Construction Contractor(s)	<ul style="list-style-type: none"> • Ensure that all activities comply with the requirements of the WRMP. • Ensure that all activities comply with applicable regulatory requirements. • Responsible for acquiring any applicable regulatory permits related to waste management and submitting copies to MH. • Responsible for implementation, coordination and verification of pre-project employee environmental orientation. • Ensure all contractor project staff are adequately trained/informed of pertinent requirements and of the Project related to their position. • Ensure that only adequately trained personnel are permitted to handle hazardous materials. • Ensure that hazardous material storage areas are only accessible to adequately trained personnel. • Ensure all staff will be trained in Work Hazardous Materials Information Systems (WHMIS) and have access to MSDS sheets. • Report any discoveries of non-compliance, accidents or incidents to MH. • Respond and act promptly to resolve if any activities are identified as not in compliance with the WRMP or any regulatory requirements. • Ensure that adequate equipment and materials are on hand to safely store, segregate and manage waste products • Ensure that all documentation is maintained and copies submitted to MH in a timely manner. • Responsible for implementation of the emergency response and hazardous materials plans, and other related topics. • Ensure that food waste is carefully sorted and stored in wildlife proof containers. Seek clarification from Environmental Inspector/Officer and/or Hydro Field Safety Officers as necessary.

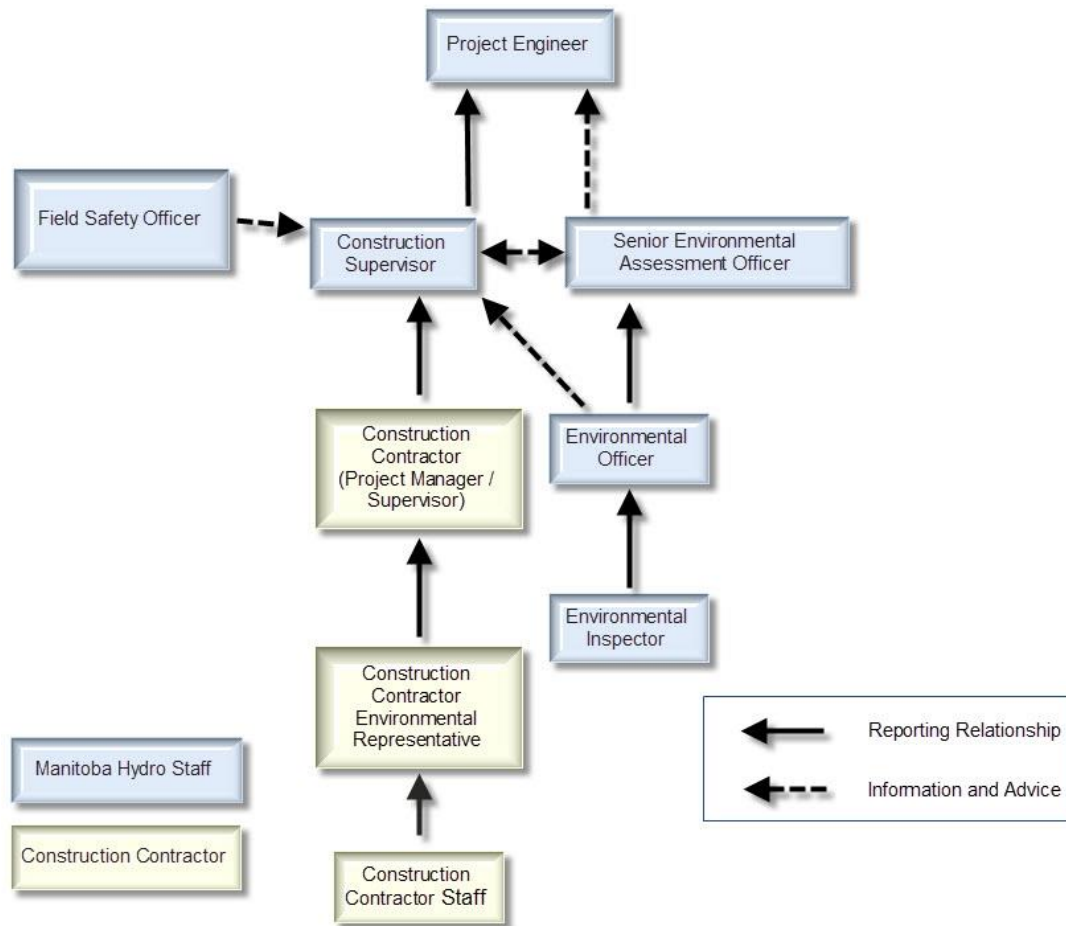


Figure 2: Environmental communication reporting structure

2.0 Regulatory context

Below is a list of the applicable legislation regarding waste and recycling practises:

Provincial

- The Workplace Health and Safety Act and Regulations
- The Waste Reduction and Prevention Act and Regulations
- The Ozone Depleting Substance Act
- The Dangerous Goods Handling and Transportation Act
 - Dangerous Goods Handling and Transportation Regulation
 - Hazardous Waste Regulation
- Environment Act (C.C.S.M. E125)
 - MR 37/2016 Waste Management Facilities Regulation
 - MR 83/2003 Onsite Wastewater Management Systems Regulation
 - MR 92/88R Litter Regulation

Federal

- Transportation of Dangerous Goods Act
- Fisheries and Oceans Regulations and Legislation

3.0 Implementation

3.1 Waste identification

Waste will be categorized and segregated by the contractor, examples of waste that are expected to be produced by the Project and be covered by this plan are found in Table 2 (Note: this is not an exhaustive list).

Table 2: Examples of commonly produced waste during construction

Category	Items
Hazardous waste	Motor oils, fuels, solvents, coolants, lead-acid batteries, hydraulic fluid, oil filters, pesticides, solids and liquids (water/snow, soils, clean-up materials) contaminated by petroleum products or other hazardous materials, other chemicals
Construction materials	Wood, aluminum, copper, steel, cardboard, plastic
Food services	Beverage containers (aluminum, plastic and glass), cardboard, boxboard, plastics, newsprint, office paper
Domestic solid waste	Organic material, non-recyclable waste
E-waste	Computers, circuitry, general purpose batteries (lithium, nickel-cadmium)
Construction equipment	Rubber tires, equipment parts etc.
Wastewater	Sewage, grey water

3.2 Waste management

This Waste and Recycling Management Plan takes a hierarchical approach to waste management. The purpose of the hierarchy is to assess each waste item for opportunities to avoid waste, then opportunities to reuse, followed by opportunities to recycle prior to disposal. This hierarchy will be as follows:

- Compliance with federal and provincial waste management legislation (i.e., Acts and Regulations)
- Waste avoidance
- Waste re-use

- Waste recycling
- Waste disposal (as a final option)

Prior to the start of construction, the Contractor must ensure that the local waste management facilities are willing, and have the capacity to accommodate the projected waste volume. Only waste management facilities that are approved by MH may be used by the Contractor.

3.3 Training

As part as their pre-job training and site orientation, work crews must participate in formal training. Prior to starting work on the project, staff and subcontractors must have training in:

- Workplace Hazardous Materials Information Systems (WHIMIS)
- When applicable, the Transportation of Dangerous Goods (TDG)
- Environmental Awareness (Environmental Orientation)
- Waste management procedures
- Spill response procedures

3.4 General mitigation measures

General mitigation measures that are particular to waste management and construction activities are found in the Construction Environmental Protection Plan, General mitigation tables:

- EI-13 Concrete wash water and waste
- EI-4 Hazardous materials
- EI-5 Petroleum products
- EI-10 Waste management
- EI-12 Wastewater

3.5 Documentation

The list below outlines the documentation requirements that the contractor is responsible for as part of the implementation of the Plan.

- Submit a copy of a valid hazardous waste generator licence to MH.

- Maintain an accurate and detailed inventory of various hazardous waste types being generated and submit a copy to MH on a bi-weekly basis.
- Submit all copies of manifests and waste receipts related to transport and/or disposal of hazardous waste materials to MH
- Complete required reporting to regulatory agencies and either copy MH on all correspondence or provide copies of all correspondence to MH in a timely manner
- Submit copies of all valid TDG certificates to MH for all Contractor staff that require.
- Submit to MH in writing the valid Sewage Haulers Provincial Registration Number for any individuals/companies completing this service for the Contractor.
- Submit in writing to MH the name/company of any subcontractors involved in transport of Project related recycling and/or waste transport to recycling and/or disposal sites and notify MH in writing if any changes are made.
- Receive approval from MH prior to hauling of Project related waste to a recycling and/or disposal site and submit a request to MH in writing if would like to propose any changes.

4.0 Communication

Any contractor-proposed additions, location modifications or Plan requirement revisions will be submitted in writing to Manitoba Hydro and include a map containing legal land description and GPS location. Any Manitoba Hydro-required revisions to the Plan will be communicated to the contractor's Project Manager for distribution to Project staff.

5.0 Monitoring and follow-up

Monitoring, Inspection and adaptive management are necessary to ensure the effectiveness of waste management and the Waste and Recycling Management Plan. It is the duty of the Contractor to ensure that the storage requirements and processes described in this plan are being followed. Regular monitoring of worksites and storage facilities will take place to track and document compliance. To accomplish this, the Contractor's Environmental Representative will conduct monitoring that includes the following:

- Ensure that proper general housekeeping practices are being followed and that any unnecessary waste/mess at work and/or storage sites is being cleaned up on a daily basis.
- Ensure waste is not exceeding the capacity of containers and coordinating transport/disposal as required.
- Ensure that general waste, recycling and hazardous waste are being appropriately segregated and labelled
- Ensure that general waste, recycling and hazardous waste containers are very clearly signed accordingly.
- Ensure that all hazardous waste storage has adequate secondary containment.
- Ensure that all hazardous waste storage is adequately covered and protected from precipitation.
- Ensure that all hazardous waste storage areas are appropriately ventilated.
- WHMIS procedures are being followed and MSDS sheets are accessible.
- Check the capacity of containers, determining and reporting on levels and determine if transport to a waste management facility is needed.
- Ensure tracking documentation is being completed by site personnel.

6.0 Environmental management practices

Below is a list of environmental management practices applicable to waste and recycling. An appendix is provided for each that provides material examples, methods, reduction techniques, applicable legislation for each.

- WR_01 Hazardous materials handling
- WR_02 Hazardous materials – storage and facility requirements
- WR_03 Construction waste
- WR_04 Wastewater
- WR_05 Concrete waste
- WR_06 Biosecurity waste

