Waste Management Plan

Woodfibre LNG Project

Prepared By:
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Prepared For:

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Woodfibre LNG

Preamble

The Woodfibre Liquified Natural Gas Project (the Project) is a liquefied natural gas export facility being constructed on the former Woodfibre Pulp and Paper Mill site (the Project) in Nexwnéwu7ts Átlḵ'a7tsem (Howe Sound), approximately seven kilometres south of Skwxwú7mesh (Squamish). The Project is on the historical location of a Skwxwú7mesh Úxwumixw (Squamish Nation) village known as Swiy̓át. Swiy̓át and Nexwnéwu7ts Átlḵ'a7tsem (Howe Sound) are tied to the cultural well-being of Skwxwú7mesh Úxwumixw (Squamish Nation) members, their ancestors, and their descendants, and to other Indigenous Groups as defined in the Project's Environmental Assessment Certificates. Woodfibre LNG Limited recognizes the importance of these areas to the Skwxwú7mesh stélmexw (Squamish People), and other Indigenous Groups. Woodfibre LNG Limited seeks to construct and operate the Project in a manner that is respectful of Indigenous values. This Construction Environmental Management Plan is primarily written in English with important place names, species, phrases, and passages provided in the Squamish language.

Temíxwiy̓iḵw chet wa naantem chet ti temíxw Swiy̓át

Chet wa sméṉ̓hemswit kwis ns7éyx̱nitas chet ti temíxw

We7ú chet kwis t'íchimwit iy íẇas chet eḵ' I tti.

Our ancient ancestors named this place Swiy̓át

We, as their descendants safeguard these lands

We will continue to swim and fish in these clear waters.

Squamish-English Translation

Squamish	English
General Terms	
Sḵwx̱wú7mesh Sníchim	Squamish language
Sḵwx̱wú7mesh Úxwumixw	Squamish Nation
Sḵwx̱wú7mesh stélmexw	Squamish people
Locations	
Swiy̓át	Historic Sḵwx̱wú7mesh Úxwumixw (Squamish Nation) village located at Woodfibre LNG site
Sḵwx̱wú7mesh	Squamish
Nexwnéwu7ts Átlḵ̓a7tsem	Howe Sound

Abbreviations

the application	Woodfibre LNG's application for an Environmental Assessment Certificate
BC	British Columbia
BMP	Best Management Practice
CEMP	Construction Environmental Management Plan
CSR	Contaminated Sites Regulation
EAC	Environmental Assessment Certificate
EPP	Environmental Protection Plan
EWP	Environmental Work Plan
LNG	Liquified Natural Gas
OHSR	Occupational Health and Safety Regulation
SNEAA	Squamish Nation Environmental Assessment Agreement
The Project	Woodfibre Liquified Natural Gas Project
TDG	Transportation of Dangerous Goods
WMP	Waste Management Plan
Woodfibre LNG	Woodfibre LNG General Partner Inc.

Document Revision History

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Table of Contents

LIST OF TABLES

LIST OF APPENDICES

1.0 INTRODUCTION

Woodfibre LNG General Partner Inc., as General Partner on behalf of the Woodfibre LNG Limited Partnership (Woodfibre LNG) will construct and operate the Woodfibre Liquefied Natural Gas Project (the Project), which is located on the former Woodfibre Pulp Mill site approximately seven kilometres (km) southwest of Skwxwú7mesh (Squamish), British Columbia (BC). The Project will have capacity to liquefy up to 2.1 million tonnes per year of natural gas and a storage capacity of 250,000 cubic metres (m^3) and will export the liquefied natural gas (LNG) via tankers.

This Waste Management Plan (WMP) describes the measures that will be implemented to minimize waste generation, and ensure waste is stored, contained, and disposed of appropriately. This WMP incorporates a general waste hierarchy of preferences for avoiding, reducing, reusing, recycling, and disposing of hazardous and non-hazardous wastes and the inspection and reporting framework that will be implemented to monitor the effectiveness of the mitigation measures and track waste disposal.

For the purpose of this WMP, hazardous waste is any waste that could harm human health or the environment if not properly handled and disposed of (e.g., poisons, corrosive agents, flammable substances, ammunition, explosives, radioactive substances, or any other material that can endanger human health or wellbeing or the environment). Non-hazardous waste includes all wastes that are not considered to be hazardous waste.

Where appropriate, applicable elements from the following guideline will be incorporated into this WMP.

- Technical Assessment Report for the Woodfibre LNG Export Facility, Construction Phase Waste Discharge Authorization

The measures described in this WMP will be incorporated into a site-specific Environmental Protection Plan (EPP) to be developed by the Contractor. This EPP will include how the project will support objectives outlined in the WMP, site-specific waste management measures related to waste bin types, segregation procedures, wildlife-proof waste storage and disposal, criteria for waste storage locations, waste inspection equipment and frequencies, record keeping requirements and reporting frequencies. The EPP will also include information regarding waste storage areas, and waste management controls (e.g., bunding and covering). Activity specific Environmental Work Plans (EWPs) will be developed by the Contractor that will include details on how waste will be handled to comply with site waste requirements.

This WMP is a component plan of the Construction Environmental Management Plan (CEMP) for the Woodfibre LNG Project (“Project”) and is intended for use during the Construction phase of the Project.

2.0 OBJECTIVES

The objectives of this Plan are to:

- Identify and address all applicable legislation, regulations, and guidelines for waste management.
- Define the roles and responsibilities in relation to waste management.
- Identify Project activities that may generate hazardous and non-hazardous waste.
- Identify waste streams including quantities of wastes.
- Describe strategies for waste reduction, re-use, recycling, and disposal.

- Identify the key risks and detail the management practices for the storage, handling, and transport of wastes.
- Identify an inspection and reporting framework to evaluate and improve waste management measures.

3.0 REGULATORY CONSIDERATIONS

The Project is to be designed, constructed, and operated in alignment with the requirements of the provincial, federal, and Sḵwx̱wú7mesh Úxwumixw (Squamish Nation) environmental assessment processes, including:

- EAC #E15-02 issued on October 26, 2015 and amendments issued in 2017, 2019 and 2023.
- Decision Statement issued under section 54 of the *Canadian Environmental Assessment Act, 2012* (CEAA, 2012) on March 18, 2016 and was most recently reissued in 2024.
- Squamish Nation Environmental Certificate No. 2015-001. Squamish Nation Environmental Assessment Agreement (SNEAA) certificate issued on October 14, 2015.
- Permits, licenses, and authorizations issued for the Project.
- Regulatory requirements of federal and provincial legislation and regulations.
- Squamish-Lillooet Regional District bylaws.
- District of Squamish bylaws.
- Best management practices for the management of waste.

Specific requirements applicable to this WMP is provided in the following sections.

3.1 PROJECT APPROVALS

The WMP has been prepared as a tool to ensure compliance and facilitate implementation of the conditions of approval during the construction phase of the Project in accordance with the conditions described in the:

- Federal Decision Statement for the Woodfibre LNG Project.
- Environmental Assessment Certificate (EAC) No. E15-02 (including amendment No. 1 and No. 2).
- Squamish National Environmental Certificate No. 2015-001.

A summary of the Project environmental approvals on which this WMP is based is provided in **Table 3-1**.

Table 3-1: Conditions Relevant to the Waste Management Plan

Condition Number	Condition	WMP Reference
EAC Application Table 22-1 M5.10-4	**Waste Management Plan**: Woodfibre LNG Limited will develop and implement a Waste Management Plan for hazardous and non-hazardous waste to ensure that waste generation is minimized and that waste is properly stored and disposed of. The plan will contain (but is not limited to) the following measures: • Hazardous Wastes: ○ The *Hazardous Waste Regulation* (Government of BC 1988) will be followed under the *Environmental Management Act* for containment, storage and handling, disposal, and transportation of substances identified as hazardous waste. ○ Where activities involve the handling, storage, and removal of hazardous waste, the following records will be maintained: ▪ Inventories of types and quantities of hazardous waste generated, stored or removed ▪ Manifests identifying hazardous waste haulers and disposal destinations ▪ Disposal certification documents. • Non-Hazardous Wastes: ○ Solid waste materials that are not acceptable under the existing landfill permit will be transported offsite by barge for disposal to an appropriate designated disposal or recycling facility. ○ Whenever possible, the materials used in construction will be reused and recycled. Recyclable materials will be separated and transported off site. ○ Clearly labeled garbage bins with lids and recycling containers will be made available for food waste and recyclables. ○ Food waste will be stored in wildlife-proof bins.	Section 5.0 Section 6.0
M5.10-3 (relevant clauses)	Used / decommissioned creosote piles will be disposed of on land in an appropriate waste management facility.	Section 5.0
M5.10-1	Construction materials, excavation wastes, overburden, sediment, or other substances potentially deleterious to marine life shall be disposed of off-site in accordance with regulatory requirements, or placed in such a manner by the contractor, to prevent their entry into the marine environment.	Section 5.0 Section 6.0
M5.8-1	Construction wastes, overburden, soil, or any other substances potentially deleterious to riparian, aquatic or marine habitat will be stored or disposed of in such a manner as to prevent entry to riparian, aquatic or marine areas.	Section 5.0 Section 6.0

3.2 REGULATORY FRAMEWORK

Waste management activities must comply with applicable federal and provincial legislation and regulations as outlined in

Table 3-2.

Table 3-2*:* Applicable Legislation and Regulations

Name	Relevance
Federal Requirements	
Fisheries Act, RSC 1985, c.F-14 (DFO) – Section 35(2)(b) Authorization	Safeguards fish and fish habitat. It is also an offence for anyone to deposit or permit the deposit of deleterious substance in water frequented by fish without a permit or under a regulation.
Canadian Environmental Protection Act, 1999 (SC 1999, c. 33)	An Act aiming to prevent pollution and protect the environment and human health in order to contribute to sustainable development.
Canadian Environmental Assessment Act, 2012 (SC 2012 c. 19, s. 52)	Sets the responsibilities and procedures for environmental assessments of projects that require federal government decision making. The environmental assessment requires consideration of waste management, and that any potential negative impacts from waste are identified and mitigated.
Provincial Requirements	
BC *Health Act* Sanitary Regulations (BC Reg 147/59 O.C. 829/17), as amended	Outlines the requirements for the sanitary handling, disposal, and management of waste in order to protect public health and safety. It sets standards for the proper handling, storage, transportation, and disposal of waste.
BC *Environmental Management Act* (SBC 2003, c. 53), as amended.	The Environmental Management Act 2003 regulates the introduction of waste into the environment, including industrial and municipal waste discharge, pollution, hazardous waste, and contaminated site remediation.
BC Hazardous Waste Regulation (BC Reg 63/88 O.C. 268/88)	The Hazardous Waste Regulation addresses the identification, handling, transport, disposal and treatment of hazardous wastes.
BC Contaminated Sites Regulation (CSR), B.C. Reg. 375/96, as amended	Provides a framework for the identification, assessment, and remediation of contaminated sites. It specifies requirements for the management and disposal of hazardous waste to prevent contamination of the soil, groundwater, and surface water.
BC Waste Discharge Regulation (BC Reg 320/2004 O.C.723/2004), as amended.	Prescribes industries, trades, businesses, operations, or activities that are prohibited from discharging wastes and that must obtain ministry authorization to discharge waste into the environment.
BC *Wildlife Act* (RSBC 1996, c. 488), as amended	Protects wildlife, endangered species, and wildlife habitat. Prohibits feeding wildlife.
Occupational Health and Safety Regulation (OHSR), B.C. Reg. 296/97, as amended (relevant occupational health and safety requirements as outlined in WorkSafe BC).	Protects workers' health and safety. Requires the development and implementation of procedures for the safe handling, storage, transportation, and disposal of hazardous materials / wastes.
Municipal Requirements	
Greater Vancouver Sewerage and Drainage District Tipping Fee and Solid Waste Disposal Regulation Bylaw No. 306, 2017.	Sets the rules and fees for the disposal of solid waste in the district. It outlines the types of wastes accepted at the district's facilities and the procedures for handling and disposing of them.

Name	Relevance
District of Squamish Solid Waste Utility and Regulation Bylaw No. 2870, 2021	Construction and demolition waste is subject to this bylaw, which requires recyclables and organic waste to be separated from landfill waste (e.g., separating wood waste, metal, cardboard, plastic, etc.).
District of Squamish Demolition Waste Diversion Bylaw No. 2813, 2021	Applies to the diversion and disposal of waste generated by demolition activities (demolition, deconstruction or systematic disassembly of an existing building, structure or improvement regulated by the *Building Bylaw*).
District of Squamish Wildlife Attractant Bylaw No. 2781, 2020	This bylaw is intended to avoid human-wildlife conflicts. It outlines the following waste management requirements: have bear resistant bins for all food waste; keep barbeques on-site clean; store grease, antifreeze, paint or petroleum products so they are inaccessible to wildlife; and, keep food waste out of construction waste bins.
District of Squamish Zero Waste Strategy	The strategy established in 2017 set a target of 75% diversion of waste by 2020 and committed to a per capita target of 350kg by 2026 and zero by 2040. There are a number of Priority Initiatives to support the targets: Priority No. 1 – Implement an Organics Disposal Ban Priority No. 2 – Ensure Recycling and Organics Diversion Programs and Services are Available and Convenient for Everyone at Home, at Work and on the Go Priority No. 3 – Institute Construction and Demolition Waste Diversion Guidelines Priority #4 – Promote Waste Minimization Construction and Demolition Waste is subject to the Solid Waste Bylaw, which requires recyclables and organic waste to be separated from landfill waste. For most construction sites, this means separating wood waste, metal and drywall off cuts, and during the finishing stages separating cardboard and plastic overwrap from the garbage.

4.0 ROLES AND RESPONSIBILITIES

The organizational structure and overall roles and responsibilities are outlined in Section 3.2 of the CEMP. Key roles and their responsibilities for the Contractor to achieve compliance with the WMP during the Project are identified in **Table 4-1.**

Table 4-1: Roles and Responsibilities

Role	Responsibility
Environmental Manager	• Ensure effective implementation and monitoring of this WMP. • Ensure corrective actions are identified and completed in the event of non-conformance to the plan. • Ensure all requirements of the WMP are adequately addressed and that corrective and preventative actions are properly implemented. • Develop alternative mitigation measures if current measures are ineffective or may be improved. • Maintain waste disposal records. • Oversee the tracking and maintenance of the Waste Register.

Role	Responsibility
	• Document key waste statistics in the Monthly Environmental Report. • Vet proposed waste transport operators and disposal facilities. Review relevant permits, approvals, and licenses at least once per year. • Ensure all personnel is properly trained in waste management measures. • Ensure waste streams and quantities are identified. • Ensure hazardous wastes are appropriately handled, stored, transported and disposed of at an appropriate facility or location.
Contractor Environmental Monitor(s)	• Ensure construction activities proceed in an environmentally responsible manner meeting the requirements of the WMP. • Conduct daily site inspections to ensure waste materials are properly collected, stored, and handled. • Evaluate the effectiveness of waste mitigation measures and provide recommendations to modify or improve them. • Ensure any non-conformances and incidents are properly addressed and reported. • Update waste stream inventories at a minimum of once per month. • Ensure records of types and quantities of waste generated, stored, or removed from the Project site are maintained. • Ensure all relevant waste transport operators and disposal facilities are subject to an appropriate and diligently applied vetting process. • Collect waste disposal certification documents.
Construction Personnel	• Segregate waste streams to facilitate reuse, recycling or disposal. • Manage wastes in designated areas where appropriate or required, • Practice good housekeeping to minimize potential wildlife attractants.

5.0 BEST MANAGEMENT PRACTICES

Waste management measures to be considered during the Project are presented within **Section 5.0**. The following waste management guidance documents were reviewed to identify appropriate waste management measures (**Table 5-1**). The tools and processes for implementation of the identified management measures are provided in **Section 6.0**.

Table 5-1: Waste Management Guidance

Best Management Practice	Relevant Sections
A Best Practices Guide to Solid Waste Reduction (Canadian Construction Association, 2001).	• Section 2.0: Guidance on waste collection, handling, storage, removal / disposal, waste diversion and hazardous waste management • Section 3.0: Guidance on creating a waste audit – used to assist in waste planning including Waste Stream Profiles • Section 4.6: Guidance on separation of waste materials • Section 5.0: Guidance on effective establishment of sites and tracking waste.
Construction and Demolition Waste Reduction and Recycling Toolkit 2020	• Information on Hazardous Waste Management • Guidelines on Recycling and Waste Management Programs
Develop with Care 2014: Environmental Guidelines for Urban and Rural Land Development in British Columbia (BC MOE 2014).	• Section 3: Site Development and Management

Best Management Practice	Relevant Sections
British Columbia Hazardous Waste Legislation Guide (BC MOE 2016).	• Chapter 3: Process adopted for classification of Waste Streams • Chapter 5: Requirements for Hazardous Waste Containers • Chapter 6: Transportation of Hazardous Waste • Chapter 7: Disposal options for Hazardous Waste • Chapter 10: Storage requirements for Hazardous Waste

5.1 OVERVIEW OF KEY RISKS

Poor or inappropriate management of waste materials may result in an adverse effect to the surrounding environment. The risks of poor or inappropriate waste management include, but are not limited to:

- Improper storage, handling, and transport of wastes resulting in loss of waste material from site causing degradation to the environment.
    - Runoff of waste materials (including leachates) into the adjacent marine environment is identified as a key Project risk.
    - Removal of waste and placement into barges presents additional risk of loss to the marine environment.
    - Adverse weather reducing collection frequency of waste barges, creating risk of insufficient storage space available and loss of material from site.
- Improper handling and disposal of wastes resulting in:
    - Risk to human health and safety (e.g., personnel exposed to hazardous waste materials).
    - Incorrect disposal location with associated environmental and liability risk.
    - Attracting wildlife, increasing the potential for human/wildlife interactions.
    - Failure to comply with regulatory requirements.
- Attraction to wildlife including pests / wildlife interactions. Inadequate segregation of waste streams resulting in:
    - Disposal of material that may otherwise be reused or recycled.
    - Potential to increase volumes of hazardous waste.
- Hazardous pollution / contamination of the surrounding environment.

5.2 GENERAL MANAGEMENT PRACTICES

The following measures will be implemented to minimize potential adverse effects to the environment associated with waste generated by Construction activities.

- Project-specific orientation will be provided to all personnel in accordance with Section 3.3 of the CEMP, including training on waste management for collecting, handling, and storing waste.
- General site cleanliness will be maintained.

- All waste must be stored in designated locations.
- Use wildlife proof bins and remove waste at the end of each workday to designated storage locations.
- Identify any wastes onsite prior to commencing site works.
- Ensure waste management planning is undertaken in accordance with this WMP, including designation of a waste classification and Waste Stream Inventory (for all waste already onsite and expected to be produced during construction), determination of storage and handling facilities, determination of disposal requirements, and identification of waste transporters and disposal facilities prior to commencing works.
- Display the Site Layout - Waste onsite, so it is available to all workers for reference and guidance.
- If hazardous wastes are encountered unexpectedly, work shall be paused, taking any precautionary measures until the Environment Manager is notified and advises how to proceed.

5.3 WASTE CLASSIFICATION

Waste Classification is to be undertaken in accordance with the British Columbia Hazardous Waste Legislation Guide (BC MOE 2016), 'Chapter 3 When is a Waste a Hazardous Waste'. The Procedure provides an elimination-based process to determine if a waste is hazardous. An overview of the Procedure is provided below:

1. Starting Point – determine if the substance or stream is a waste.
2. Exclusions – identify if the waste is excluded from being hazardous by definition according to the British Columbia Hazardous Waste Legislation Guide (BC MOE 2016) shown in **Table *5-2*** below.
3. Characterization – determine the properties of the waste and what it is comprised of by using analysis, calculations, or knowledge of the waste origin.
4. Dangerous Goods Check – determine if the waste is classified and regulated as a dangerous good if transported. A waste is classified as dangerous goods if it is in one or more classes defined by the Transportation of Dangerous Goods (TDG) Regulation (BC 1985).
5. Hazardous Waste Regulation Check – determine if the waste is one of the other types of hazardous waste.

Construction waste classifications include, but are not limited to:

- Wood Waste (e.g., heavy timber, pallets, dimensional lumber)
- Metal Waste (e.g., metal strapping, rebar, steel beams, pipes)
- Concrete Waste (e.g., bricks, blocks, excess structural concrete)
- Electrical Waste (e.g., electrical equipment and cables)
- Asphalt Waste (e.g., saw-cuttings, excess asphalt paving)
- Packaging materials

Domestic waste classifications include, but are not limited to:

- Office Waste (e.g., paper, cardboard, aluminum containers, electronics, glass containers, green waste, food waste)

- Liquid Waste (e.g., sewage from portable toilets, vehicle wash water)

Table 5-2: Definition of Hazardous Waste (BC MOE 2016)

Types of wastes defined as hazardous wastes	*Hazardous waste* means:
	• dangerous goods if they
	  ○ are no longer used for their original purpose, and
	  ○ meet the criteria for class 2, 3, 4, 5, 6, 8, or 9 of the Transportation of Dangerous Goods Regulations,
	including those that are recycled, treated, abandoned, stored or disposed of, intended for recycling, treatment, or disposal or in storage or transit before recycling, treatment, or disposal
	• PCB wastes
	• biomedical wastes
	• wastes containing dioxin
	• waste oil
	• waste asbestos
	• waste pest control product containers and wastes containing pest control products, including wastes produced in the production of treated wood products using pest control products
	• leachable toxic waste
	• waste containing tetrachloroethylene
	• wastes listed in Schedule 7
	• waste containing polycyclic aromatic hydrocarbon, or
	• on site media that is stored ex situ unless the on site media is stored for one of the following purposes:
	  ○ transport from the contaminated site within 60 days, or a different period approved by the director, from the date when the on site media was physically removed or excavated from where it originated
	  ○ remediation activities that involve the handling, management or treatment of contamination in accordance with the Contaminated Sites Regulation, or
	  ○ another approved purpose

Types of waste excluded from definition as hazardous waste	Hazardous waste does not include:
	• household refuse that is collected from residential premises
	• domestic sewage
	• dangerous 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
	• asphalts and tars used in the manufacture of asphaltic concrete and roofing materials
	• waste wood products treated with wood preservatives or wood protection products registered under the *Pest Control Products Act* (Canada)
	• household hazardous waste that:
	  ○ is removed from a return collection facility in accordance with an authorization from the owner of the return collection facility and
	  ○ is to be reused for its originally intended purpose
	• wood ash, or pulp mill dregs and grit, that would be hazardous waste only because they are classified under the federal dangerous goods regulations as class 8
	• waste that
	  ○ has a pH greater than or equal to 2.0 and less than or equal to 12.5, and
	  ○ would be a hazardous waste only because it is classified under the federal dangerous goods regulations as class 8 because of pH, or
	• on site media

The Hazardous Waste Regulation addresses the proper handling and disposal of hazardous wastes under the Environmental Management Act. The Hazardous Waste Legislation Guide will be used for specific storage, handling, and disposal requirements of the different hazardous waste classes (BC MOE 2016). It is possible for waste to be in more than one class. If this is the case, the class that shows the most important hazard will take precedence. The classifications for hazardous wastes include, but are not limited to:

- Those described in Schedule 7 of the Hazardous Waste Regulation
- Asbestos Waste
- Hydrocarbon Wastes (e.g., PCBs, PAHs, dioxins, oils)
- Leachable Toxic Waste
- Pest Control Product Containers and Waste
- Dangerous Goods if they are no longer used for their original purpose including gases, flammable liquids, flammable solids, oxidizing substances and organic peroxides, toxic and infectious substances, corrosive substances, and miscellaneous dangerous goods.

5.4 WASTE HIERARCHY

Waste will be managed according to the following hierarchy:

- Avoid unnecessary resource consumption and by extension waste generation.
- Reduce quantity of waste generated during construction activities.
- Reuse potential waste resources where possible both on the Project and off the Project.
- Recycle (e.g., transporting excess materials to a recycling facility).
- Treat waste materials to enable reduction, reuse, or recycling (e.g., treatment of water to enable discharge from site).
- Dispose waste to a landfill.

Opportunities for avoidance, reduction, reuse, recycling, and treatment of waste materials in line with District of Squamish zero waste goals is provided in **Table 5-3**.

Table 5-3: Waste Reduction Opportunities

Management Process	Opportunities
Avoid and Reduce	• Minimize land clearance and retain vegetation. • Accurately measure and estimate material quantities – purchase only the necessary amounts of materials to meet Project requirements. • Use recycled and prefabricated materials where possible. • Wherever possible, require suppliers to reduce or take back plastic packaging and any damaged materials. • Purchase materials in bulk where possible to minimize packaging wastes. • Compost food scraps and other organic materials, where possible
Reuse	• If possible, store stripped topsoil for revegetation of site and save unused/excess materials for future use. Note, soils or material cannot be reused if they exceed criteria for contaminants of concern, exhibit the presence of knotweed or they do not meet geotechnical specifications for fill.

Management Process	Opportunities
Recycle and Treat	• Identify waste facilities that can receive the identified waste streams. Review transport and disposal costs to confirm disposal at waste facility is sustainable (i.e., economically feasible). • Process large trees as lumber or firewood. • Compost vegetation removed from site.

5.5 STORAGE AND HANDLING

Waste must be stored, handled, and disposed of in accordance with its classification.

The following provides management practices for the storage and handling of waste on the Project site. A layout for waste storage facilities will be developed and included in the EPP.

5.5.1 All Waste

- Plan for adequate storage / stockpiling locations that are on flat ground and outside of flood prone areas. Ensure waste is kept at least 30 m away from environmentally sensitive areas, including the marine environment, riparian protection zones, green zones, and watercourses or ditches that connect with watercourses. Exemptions in storage locations may be possible with approval from Woodfibre LNG. The exemption process will include a Site Level Environmental Change Request that includes additional mitigations, and requires signoff by WLNG Environmental, Compliance, Regulatory, and Construction management.
- Determination of adequate size for waste storage areas must consider risk of waste not being collected from barges due to adverse weather conditions.
- Ensure waste storage areas are bunded and well maintained to prevent runoff.
- Ensure storage bins are an appropriate size and are bunded, covered, and in good condition (e.g., not leaking).
- Separate waste into different waste streams and store in properly labeled containers and bins to avoid contamination.
- Clearly labelled garbage bins with lids and recycling containers will be made available for food waste and recyclables.
- Food waste will be stored in wildlife-proof bins. Feeding wildlife directly or indirectly is strictly prohibited.
- Organic materials generated from vegetation clearing will be stored onsite where it will be stockpiled for beneficial use (e.g., stabilizing re-vegetated areas).

5.5.2 Liquid Non-Hazardous Waste

In addition to the previously described storage and handling practices, the following management measures should be implemented for liquid non-hazardous waste:

- Where connection to sewage infrastructure is not possible, portable toilets and hand washing stations should be equipped with closed holding tanks that are emptied into sewage tanker trucks or equivalent on a regular basis.
- Portable toilets will be located on flat ground at least 30 m from environmentally sensitive areas, including the marine environment, riparian protection zones, green zones, and watercourses or ditches that connect with watercourses.
- Portable toilets will be secured to avoid or minimize damage from vandalism (e.g., tipping over) and weather (e.g., wind).
- Provide sufficient back-up capacity for sewage barges in case of adverse weather.
- Other non-hazardous liquid wastes consist of waste waters and shall be managed according to the Water Management Plan.

5.5.3 Hazardous Waste

In addition to the previously mentioned storage and handling requirements, the following management measures must be implemented for hazardous waste:

- Containers must be labelled with the shipping name of the hazardous waste it contains and stored, handled, and transported in ways that avoid leakage or rupture.
- Hazardous wastes should be stored in a secure area with appropriate signage.
- Secondary containment will be used when storing liquid hazardous material.
- Repacking of hazardous wastes will be avoided except when essential (e.g., container is leaking) to reduce the chance of spills and exposure to hazardous chemicals.
- Proper protective clothing and equipment will be worn when handling hazardous wastes.
- No smoking, drinking, or eating is allowed when handling hazardous wastes.
- Wash and clean up is required after handling hazardous wastes.
- Containers of hazardous waste must be kept closed at all times during storage or transport except when being filled or emptied.
- Hazardous wastes will not be burned or buried onsite.

5.5.4 Sewage

If sewage generated on-site (excluding the floatel) exceed the allowable discharge volume of the existing discharge authorization, the excess quantity will be taken off-site for disposal at an approved facility.

5.5.5 TRANSFER OF WASTE TO BARGE

The floatel service provider has been selected and planning is underway and mitigations specific to the floatel will be outlined in a waste management plan specific to the vessel.

The waste management plan for the floatel will include mitigations that will ensure no discharge of sewage to Howe Sound.

5.6 DISPOSAL

- No construction or demolition waste will be sent to District of Squamish facilities. All waste will be diverted to approved facilities determined by the Contractor. This action will contribute to the achievement of the District of Squamish Zero Waste Strategy Targets.
- Any waste materials disposed of offsite will be at appropriately licensed facilities (see **Section 6.1**).
- Waste disposal will be tracked as described in **Section 6.2.**
- Waste will be removed from site regularly. At a minimum, waste will be scheduled for removal from site when facilities reach 80% capacity.
- Sanitary waste will not be discharged into a watercourse or to ground.
- Waste containers may only be reused for other shipments if they are in good condition and meet relevant requirements. When reusing containers compatibility of wastes and residues in the container will be considered prior to reuse.
- If reuse or recycle of waste containers is not practical, they may be disposed of at a permitted disposal facility if they no longer contain enough waste to qualify as hazardous waste or have been properly decontaminated with suitable solvent.
- Ensure on-site sewage disposal systems are properly installed and maintained.

5.7 SPILLS

Construction activities have the potential for spills and leaks of fuels, concrete, oils, and other hazardous chemicals, particularly in relation to their use, storage, and handling. Spill kits are to be kept onsite and staff trained in their use. In the event of any accidental spills or leaks, works in the affected area will cease immediately, the waste will be contained and cleaned up, and the incident will be reported. Further details on the management of spills and emergencies are described in Section 6.0 Incident Management of the CEMP and the standalone Emergency Response Plan. Incident Response covered in the CEMP includes requirements and guidance on spill prevention, spill response and spill reporting.

6.0 IMPLEMENTATION

The tools and processes for implementation of the identified management measures are provided in **Section 6.0**.

6.1 WASTE STREAMS

All waste will be classified within a Waste Stream Profile. The Waste Stream Profile will be recorded in an inventory, including the types of waste (classification) and source, the quantity of each waste type, and the intended disposal option. In addition, the Waste Stream Profile will be used by the Contractor to determine:

- The facilities required onsite including the location and size of storage areas, management controls to contain wastes (e.g., as described by Chapter 10 of the British Columbia Hazardous Waste Legislation Guide, MOE 2016).

- License requirements for waste transporters and disposal facilities (e.g., as described by Chapter 19 of the British Columbia Hazardous Waste Legislation Guide, MOE 2016).

The Waste Stream Profile will be completed by the Contractor Environmental Manager prior to commencement of construction works. The Contractor Environmental Monitor will update the Inventory at a minimum, once per month and prior to the commencement of a new Project stage.

Templates for the Waste Streams for non-hazardous and hazardous wastes are provided in **Appendix A** and **Appendix B**.

6.1.1 WASTE CLASSIFICATION

The following provides an overview of the classification requirements to be undertaken for identified waste streams.

Table 6-1: Waste Classification Requirements

Waste	Classification Requirements
Sewage (not including floatel)	• Wastewater sampling to be completed to determine water quality • Note - Floatel sewage is managed under the floatel waste management plan.
Contaminated Soils	• Sampling to confirm contaminants of concern and removal options

6.2 WASTE TRACKING

The Contractor Environmental Monitor will ensure records of the types and quantities of waste generated, stored, or removed from the Project site are maintained. A Waste Register will be used to track transport and disposal of waste generated on the Project site (**Appendix C**).

The Waste Register will include:

- Site address and responsible person (for management of waste).
- Date waste was removed from site.
- Waste type (classification) and estimated quantity.
- Waste transporter (company name) and waste transporter vehicle registration.
- Intended waste disposal facility and licence number.
- Disposal docket (or similar) number and confirmed disposal volume.
- Intended waste facility and facility license/approval number.

The Contractor Environmental Monitor will cross check that the waste transporter and disposal facility have undergone the vetting process as described in **Section 6.3**.

6.3 RECORD RENTENTION

The Contractor Environmental Monitor is also responsible for collecting waste disposal certification documents. These records must be kept for at least two years in the form of paper or computer files.

The Contractor Environmental Manager is responsible for vetting all waste transport operators and disposal facilities prior to their engagement. This may be completed throughout the construction phase of the Project. The vetting process will include review of relevant documentation including permits, approvals, and licenses. Information received from the vetting process will be documented in the Waste Transporter and Disposal Facilities Manifest (**Appendix D**).

The Contractor Environmental Manager will review waste transport operators and disposal facilities relevant permits, approvals, and licenses at a minimum of once per year.

7.0 MONITORING

The monitoring of waste management during Project activities will be conducted as part of the Project's overall environmental monitoring program described in Section 7.0 of the CEMP. Specific monitoring of waste management will be conducted as follows:

- On-site inspections of management controls will be completed during the General Site Inspection (see Section 7.0 of the CEMP).

8.0 REPORTING

8.1 MONTHLY ENVIRONMENTAL REPORT

The Contractor Environmental Manager will document the following information regarding waste in the Monthly Environmental Report:

- Any non-compliance events identified during site inspections and implementation of corrective measures.
- Type and quantity of non-hazardous and hazardous waste generated during the reporting period.
- Amount of waste recycled / disposed of and the receiving location.
- Any reportable spill, including the effectiveness of cleanup measures.

9.0 LITERATURE CITED

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Appendix A Non-Hazardous Waste Stream Inventory

Table A-1: Non-Hazardous Waste Inventory

Waste Classification	Waste Description	Source(s)	Estimated waste (t)	Disposal Method(s)
Industrial / Construction Waste				
Domestic Waste				

Appendix B Hazardous Waste Stream Inventory

Table B-1: Hazardous Waste Stream Inventory

Waste Classification	Waste Description	Source(s)	Estimated waste (t)	Disposal Method(s)

Appendix C Offsite Waste Register Template

Table C-1: Waste Register

Date	Transporter[1] Company / Name	Waste Description	Check Appropriate Box[2]			Weight	Disposal Method	Disposal Facility / Destination	Disposal Certification Reference
			R	H	EW				

Received by: _____ On date: _____

[1] Include relevant information on the hauler (Company, Vehicle License/ Registration, etc)
[2] Recyclables (R) – Metal, paper, cartons, glass, precious metals, electric wires and cables, electronics, wood
Hazardous (H) – Chemical wastes (oil, acid, paints, adhesive sludge, inks, organic solvent, empty chemical containers, batteries), asbestos, fibers, fluorescent light bulbs
Exempted Waste (EW) – Garbage (domestic waste)

Appendix D Waste Transporter and Disposal Facilities Manifest

Table D-1: Waste Transporter and Disposal Facilities Manifest

Company Name	Facility / Transporter Name	License Number	License Date of Expiry (if applicable)	Approval Conditions	Date of Last Review