

## Preliminary Information Form

### PREAMBLE

Sections 22 and 23 of the *James Bay and Northern Québec Agreement* (JBNQA) establish an environmental and social regime in northern Québec. Some aspects of these sections are the responsibility of the Government of Canada, others of the Gouvernement du Québec, and still others of both levels of government. Québec's responsibilities are set out in Title II of the [Environment Quality Act](#) (c. Q-2). Title II presents the environmental and social impact assessment and review procedures that apply in the James Bay region (section 133) and in Nunavik (section 168) (<http://www.environnement.gouv.qc.ca/evaluations/mil-nordique/index-en.htm>).

The projects listed in Schedule A of the *Environment Quality Act* are automatically subject to one of the two procedures applicable to northern environments, whereas those named in Schedule B are exempt from the procedures. Those not listed in the Schedules are considered "grey zone" projects. They must be submitted to the Ministère de l'Environnement et de la Lutte contre les changements climatiques (environment and the fight against climate change, MELCC), which determines whether they are subject to either of the procedures applicable to northern environments.

The Preliminary Information Form is used to describe the general characteristics of the project. It must be filled out clearly and concisely so as to provide only the relevant information needed to clearly understand the project, its impacts, and anticipated challenges. This preliminary information is published in the environmental assessment register described in section 118.5.0.1 of the *Environment Quality Act*.

Project proponents seeking to carry out a project listed in Schedule A of the *Environment Quality Act* or a "grey zone" project on those territories must first apply for a certificate of authorization or an attestation of exemption, pursuant to sections 154 and 189 of the *Environment Quality Act*. This requires submitting preliminary information about the project to the MELCC.

Under sections 115.5 to 115.12 of the *Environment Quality Act*, applicants for any authorization under the Act must file, in order to be issued an authorization, the applicant or holder declaration as well as any other documents required by the Minister. This requirement does not apply to exempted projects for which an attestation of exemption has been issued. An explanatory guide (in French only) and the required forms can be found at [www.mddelcc.gouv.qc.ca/lqe/index.htm](http://www.mddelcc.gouv.qc.ca/lqe/index.htm).

The Preliminary Information Form must be accompanied by the payment listed in the fee schedule for environmental authorization applications. Payment must be made to the order of the Minister of Finance. The due dates for the applicable fees are listed at [www.mddelcc.gouv.qc.ca/ministere/tarification/ministere.htm](http://www.mddelcc.gouv.qc.ca/ministere/tarification/ministere.htm) (in French only; click on *Procédure d'évaluation environnementale – Québec nordique*). Note that the MELCC will not process the application until payment is received. The Preliminary Information Form must include ten (10) printed copies in French, four (4) printed copies in English and one electronic copy, and be sent to the following address:

Provincial Administrator of the James Bay and Northern Québec Agreement  
Deputy Minister of the Environment and the Fight against Climate Change  
Édifice Marie-Guyart, 30th Floor  
675 René-Lévesque Blvd. East, Box 02  
Quebec City QC G1R 5V7  
Telephone: 418-521-3933  
Fax: 418-646-0266

In accordance with the *Environment Quality Act*, the Preliminary Information Form is transmitted to the Evaluating Committee if it concerns the James Bay region, or to the Kativik Environmental Quality Commission if it concerns Nunavik. These committees examine the preliminary information and, for projects covered by Schedule A of the *Environment Quality Act*, issue a recommendation or an opinion on the directive specifying the nature, scope and extent of the environmental impact assessment the project proponent is required to prepare. For "grey zone" projects, the committees respectively prepare a recommendation or a decision on subjecting the project to the procedure and, if applicable, on the directive concerning the project. The recommendations, opinions and decisions are then transmitted to the MELCC, which communicates its decision to the project proponent either by delivering an attestation of exemption in the case of projects exempt from the procedure, or by issuing a directive in the case of projects subject to the procedure.

The Evaluating Committee is a tripartite committee composed of representatives appointed by the Cree Regional Authority and the governments of Canada and Québec. The Kativik Environmental Quality

Commission is a bipartite committee composed of Inuit or Naskapi representatives appointed by the Kativik Regional Government and representatives designated by the Québec government. In the exercise of their duties, both committees give due consideration to the following principles, which are listed in sections 152 and 186 of the *Environment Quality Act*:

- a) The protection of the hunting, fishing and trapping rights of the Native people;
- b) Environmental and social protection;
- c) The protection of Native people, societies, communities, and economies;
- d) The protection of wildlife resources, the physical and biotic environments, and ecological systems in the Territory;
- e) The rights and guarantees of the Native people within Category II lands;
- f) The involvement of the Cree, Inuit, and Naskapi people in the application of the environmental and social protection regime;
- g) The rights and interests of non-Native people, whatever they may be; and
- h) The right to develop by persons acting lawfully in the Territory.

**1. APPLICANT IDENTIFICATION AND INFORMATION**

<b>1.1 Identification of the Project Proponent</b>	
Name: Kativik Regional Government	
Municipal address: P.O. Box 9, Kuujuaq QC J0M 1C0	
Postal address (if different from municipal address):	
Name and title(s) of signator(y/ies) authorized to submit the application: Véronique Gilbert	
Telephone number: 819-964-2961 #2317	Telephone number (other):
E-mail: Gaëlle Baïlon-Poujol <a href="mailto:gbpoujol@krg.ca">gbpoujol@krg.ca</a>	
<b>1.2 Enterprise Number</b>	
Québec Enterprise Number (NEQ): 8817058918	
<b>1.3 Resolution of Municipal Council</b>	
If the applicant is a municipality, the preliminary information must be accompanied by a duly certified municipal council resolution authorizing the signator(y/ies) to submit the application to the Minister. Attach a copy of the municipal resolution to Appendix 1.	
<b>1.4 Identification of the Consultant Designated by Project Proponent (if applicable)</b>	
Name:	
Municipal address:	
Postal address (if different from municipal address):	
Telephone number: -	Telephone number (other): -
E-mail: @ .	
Description of mandate:	

**2. PROJECT LOCATION AND COMPLETION SCHEDULE**

<b>2.1 Identification and Location of Project and Related Activities</b>
Name of municipality, village or community where the project will be carried out (indicate whether several municipalities, villages or communities will be affected by the project):  Inukjuak.
Land category (I, II or III): I
Decimal geographic coordinates of the project's centre point (for linear projects, provide the start and end point coordinates):  Latitude : 58.456773 Longitude : -78.120245
<b>2.2 Description of Targeted Site</b>
Describe the main components of the physical, biological and human environments that may be affected by the project. Focus the description on the points of likely scientific, social, cultural, economic, historical, archaeological or aesthetic importance (valued components of the environment). Indicate, if applicable, the property status of the areas where the project would be carried out, along with the sites' main features such as zoning, available space, sensitive environments, wetlands, aquatic environments, compatibility with current use, availability of services, topography and presence of buildings.
The Inukjuak municipal council has selected the site to install the composter equipment. The Land Use committee of Inukjuak also approved this decision. This is a site approximately 300 m from the current northern landfill site. Given the zoning by-laws, no residential development can be done in

this area (500 m buffer zone from the landfill), see map in Appendix III . The site of the composting equipment will be set up on a gravel pad of a dimension of 30 m by 12.5 m approximately. It will include a concrete slab for the reception area of organic matter and three sea containers of 12m X 2.5 m X 2.5 m, which contain the necessary equipment for the composting project.

The site is located within municipal boundaries, thus a sector impacted by human activities. Indeed, it is on the border of an existing road, so it will not be necessary to build an access road. Behind the site is the access road to the northern landfill. Currently, this site is used to store sheds, waiting for their installation.

The site is surrounded by erect shrub tundra. To the west and south (across the road), the tundra is dominated by mounds of bedrock. At 80 meters to the north , there is a wet tundra zone.

All dwellings and organizations will receive a compost bin to deposit their organic materials. These bins will be placed outside to be emptied once a week during the collection of organic matter. It is the Northern Village (NV) that will be in charge of this operation, which will be carried out by the municipal employees and the garbage collection trucks.

The composting project aims to reduce the amount of organic matter and cardboard that ends up at the northern landfill. The project aims to divert 2 T of compostable residues sorted at the source and 600 kg of cardboard per week.

Composting has several environmental and socio-economic benefits: reducing nuisance to LEMN by decreasing wildlife attraction, odors and leachate, improving public health, and creating new local jobs for composter operations. Once ready, the compost can also be used for the rehabilitation of borrow pits, the revegetation of pads and roadsides, as capping material at the northern landfill or even for northern agriculture.

### 2.3 Project Schedule

Provide the project schedule (proposed time period and estimated length of each phase of the project), including the time required for preparing the impact assessment and the length of the procedure.

(See Feasibility Study Section 12 for schedule details)

The implementation schedule will depend on the funding for the project. If funding is confirmed by January 2020, the project will begin in February 2020 with calls for tenders for the purchase of the necessary services and equipment. The site set-up will be done in June 2020. The equipment will arrive on the first boat and can be installed in July 2020. Municipal employees will receive training in August 2020 and the bins will be distributed in early September. The composter will be ready to be in function for September 2020. In order to ensure the participation of the population, institutions and businesses of Inukjuak for the collection of organic materials, an awareness and information campaign will be done throughout in the year 2020, and more intensively during the summer, before the composter starts to operate.

### 2.4 Map

Attach to Appendix III a topographical or cadastral map of the project location, and if applicable, a map showing the location of the work or activities at an appropriate scale, indicating current infrastructures in relation to the worksite.

See Appendix III

## 3. GENERAL PRESENTATION OF THE PROJECT

### 3.1 Project Title

(Construction/expansion/set-up/etc.) of (facility/equipment /factory/etc.) on the territory of (municipality/village/community).

Organic Material Recycling Porject by Thermophile Composter, in Inukjuak

### 3.2 Project Subject to Authorization

To allow us to ascertain whether your project is subject to the authorization procedure, indicate the paragraph in Schedule A of the *Environment Quality Act* to which you believe your project pertains, and why (e.g. threshold reached). Indicate if your project is in the “grey zone,” if applicable.

As the project is related to residual materials management, it is located in “grey zone”.

### 3.3 Brief Description of Project and Project Variants

Briefly describe your project (length, width, quantity, voltage, surface area, etc.). For each phase, (set-up, construction and operation, and if applicable, closing and restoration), briefly describe the main characteristics of each variant of the project, including planned activities, set-up and work (tree clearing, expropriation, blasting, fill work, etc.).

#### **Set-up Phase:**

The set-up phase consists to develop the site and to install the equipment. This phase will run from June to September 2020. The site will be set up with a 30m by 12.5m gravel pad. A 3.1m by 3.1m concrete slab will be poured for the receiving area of the organic material.

All equipment will be inside three sea containers. In the first container, we find the mixer (which crushes organic matter, carcasses and cardboards); the remaining space will be used to store the cardboard. In the second container, we find the thermophile composter. The chosen technology is the thermophile composter 530 by Brome Compost, having a capacity of 14.5 m<sup>3</sup>. This method has been tested in northern conditions for the treatment of all kinds of organic matter, including animal carcasses, and is already established in other Aboriginal and remote communities. It allows composting in a closed environment, which facilitates the control of moisture and oxygen parameters while producing no leachate. The composter will have a venting hood to control odors and moisture. The pipe will lead to the outside of the container. At the exit of the composter, the compost will be sieved and then stored in bags (1m<sup>3</sup> bag). The third container will serve for storage of the compost bags during maturation phase.

The power supply will be connected to the local network. The system mixer-conveyor-composter is managed by an electric control panel. A composter 530 needs a motor of about 1.5 to 2 hp (1.12 kW to 1.49 kW). The frequency of operation may vary, but it will average one rotation per hour, so it does not consume a lot of electricity. It will work about 48 minutes a day. The composter's fan requires a motor of 0.5 hp (0.37kW) and runs continuously. The mixer has a 25 hp motor (18.64 kW). The conveyor has a motor of 1 hp (0.75 kW). All electrical equipment represents 21.25 kW or 28.5 hp.

#### **Operation phase :**

Municipal garbage collection staff will be responsible for the collection of organic materials. The collection will take place twice a week (one half of the village every collection, so every building will be serviced once a week). The bins will be lifted manually and their contents will be emptied into the garbage truck (previously swept of debris).

The truck will then drive to the composter site and discharge the organic material to the receiving area. A loader can then pick up and introduce the organic matter into the mixer. The employee will add the necessary cardboard in sufficient quantity (according to the recipe prescribed by the manufacturer). The organic materials and the cardboard thus mixed will transfer from the mixer to the composter by a conveyor. The composter must be "fed " twice a week for effective composting.

The composting process lasts 12 to 14 days in the composter. At the exit, the compost will be sifted and poured into a maturation bag. The ripening phase usually lasts 2 months in summer, up to 4 months in winter.

Once mature, the compost can be used for the rehabilitation of borrow pits, the revegetation of pads and roadsides, as capping material at the northern landfill or even in northern agriculture (if certain criteria of laboratory analysis are reached).

#### **Closing and restoration:**

Since all the equipment are inside containers, if necessary, the composting installations can be moved to a new site. In the event of a move or at the end of composting activities, the operator undertakes to restore the site within one year after the cessation of composting activities.

If relevant, attach to Appendix II all documents providing additional details on the project's characteristics (drawing, sketch, section view, etc.).

See plans and sketches in Appendix II

### 3.4 Project Objectives and Justification

Briefly describe the main objectives and reasons for carrying out the project.

According to RECYC-QUÉBEC, more than half of our household waste bin is made up of organic matter, it's the equivalent of 162 kg per person per year ( Recyc -Québec, 2015, <https://www.recyc-quebec.gouv.qc.ca/sites/default/files/documents/carac-2012-2013-report-synthese.pdf> ). In Inukjuak, organic matter is currently being eliminated at the northern landfill, mixed with other wastes. Although the regulations require the open burning of combustible waste when climatic conditions permit, residential development in recent years no longer allows burning at this location, which generates several nuisances. Garbage collection is difficult because of the lack of capping material (covering material). The decomposition of organic matter attracts wildlife, including flies, and produces foul smells that affect the health and quality of life of residents. Moreover, the northern landfill finds itself filled up much more quickly, shortening its lifespan.

The project will **divert from disposal a significant amount of the organic material generated in the community**, from the residential sector as well as from the village's businesses and institutions. The ready compost will be used for various projects allowing the organic material to return to the soil (agriculture, horticulture, rehabilitation, etc.).

The composting project aims to reduce the amount of organic materials and cardboard that end up ending up at the northern landfill. The project aims to divert 2 T of compostable residues sorted at source and 600 kg of cardboard per week.

Composting has several environmental and socio-economic benefits: reducing nuisance to LEMN by decreasing wildlife attraction, odors and leachate, improving public safety, and creating a new local job for composter operation. The compost could also be sold and thus generate income for the municipality.

### 3.5 Related Activities

Summarize the projected related activities, if any (e.g. construction of access roads, crushing, coffer dam placement or stream diversion) and any other project that may influence the design of the proposed project.

All residences, some institutions and businesses will have bins to collect organic materials. The residences will receive 45 L outdoor bins and 7 L bins for daily use in the kitchen. The institutions and businesses will receive, according to their needs, 45 or 80 L bins. For businesses selected for the collection of cardboard, they will have 360 L bins. Finally, a large bin to accommodate carcasses will be installed at the composter site so that the hunters can come deposit animal carcasses.

All outdoor bins are equipped with a heavy duty closure system that prevents wildlife from opening them. To fix the bin outside, waiting for the weekly collection, a hook will be installed on the garbage bin already present in front of each house. The compost bin can be hooked to this hook.

An essential related activity to the project realization is the information, awareness and education campaign. Citizen, business and institutions participation are key to the success of a municipal composting project. The initial information campaign will take place in the summer of 2020 (June, July, August). The first year of organic collection requires ongoing awareness as it is an important practice change. Home visits, radio messages, community Facebook pages, information booths and distribution of leaflets are ways to promote citizen participation. Generators need to understand why they have to sort their waste at source and what the benefits are for the community and for themselves.

#### 4. INFORMATION AND PUBLIC CONSULTATION

##### 4.1 Information and Consultation Activities Completed

Describe the characteristics of the public information and consultation activities carried out as part of the project design, if any (methods used, number of participants, and communities represented), including activities carried out with local populations, such as Cree, Inuit and Naskapi. Describe any concerns that were raised and how they were taken into consideration in the project design.

In its Residual Materials Management Plan 2015-2020, the Kativik Regional Government has planned to carry out a thermophile-composting project in one of the 14 northern communities. The thermophile composter project for the village of Inukjuak was presented to the KRG executive council on October 31<sup>st</sup>.

The project was presented to the Inukjuak NV Council for the first time on July 2<sup>nd</sup>, 2019. Since, to ensure the progress of the project, the communication with the municipal manager and his assistant is constant. Also, the site was selected by the NV Council and approved for use by the Land Use Committee .

In October 2019, the KRG presented the various options (type of collection, layout of the site, etc.) to the NV Council, which took the necessary decisions regarding these options. It was also in October 2019 that a public consultation was organized. Taking place in the NV council hall on October 22<sup>nd</sup> 2019, twenty-nine people came to discuss the project. The main concern raised during this evening is the fear that the number of collections will not be sufficient. This is always a point raised by residents of municipalities where a composting project is going to take place, even in southern Quebec. However, it is important to understand that households will not produce more waste than before, the waste will simply be separated into two categories: organic residues and garbage. As previously, waste will be collected twice a week, once for each category.

Finally, in Inukjuak, there is also a community greenhouse project in development. KRG met with the greenhouse committee in August 2019 to discuss the composting project and possible links that could be created between the two projects.

#### 5. DESCRIPTION OF THE PROJECT'S MAIN ANTICIPATED CHALLENGES AND IMPACTS ON THE RECEIVING ENVIRONMENT

##### 5.1 Description of Project's Main Challenges

For the project's set-up, construction and operation phases, and if applicable, closing and restoration phases, briefly describe the project's main challenges, i.e. the major concerns for the government, the scientific community or the public, including the aboriginal communities concerned, the analysis of which could influence the government's decision concerning authorization of the project.

The KRG will be in charge of the set-up phase, of the purchasing and installation of equipment. For the operation phase, KRG will provide ongoing support to the Inukjuak NV, which will be responsible for the management of the organic waste collection and operation of the composter. The main issues for collection are the same as those currently encountered for garbage collection. For the operation of the composter, the equipment manufacturer will provide initial training and technical support during the first year of use. In all cases, the benefits of the compost project will mitigate the important issues of the current waste management in the community: see section 5.2.

The choice of the site respects the zoning standards, according to the land use master plan.

Finally, for the environmental authorizations, the concerned administrations refer to the Guidelines for the supervision of composting activities (Lignes directrices pour l'encadrement des activités de compostage) (<http://www.environnement.gouv.qc.ca/matieres/valorisation/lignes-directrices/compostage.pdf>). To this end, the authorities want their project to meet the eligibility criteria for an administrative exclusion for closed thermophilic composting projects with a capacity of 50 m<sup>3</sup> or less. Therefore, a composting notice was submitted to the MELCC regional management. If the project do not receive the exemption, KRG will apply for an environmental authorization with the MELCC.



## 5.2 Description of Project's Main Anticipated Impacts on the Receiving Environment

For the project set-up, construction and operation phases, and if applicable, closing and restoration phases, briefly describe the project's anticipated impacts on the receiving environment (physical, biological and human).

The composter project itself is a mitigation measure for the current waste management in Inukjuak. As mentioned in section 3.4, it has not been possible to burn waste in the northern landfill for many years, as required by the regulations in force. Open burning of the waste would bother the population, regardless the direction of the wind because of recent residential development. In consequences, Inukjuak faces many problems of waste management. Burial is difficult because of permafrost and covering the waste is limited by the lack of granular material. Therefore, the decomposition of organic matter attracts wildlife and flies, and releases foul odors that affect the residents' quality of life. Moreover, the northern landfill finds itself filled up much more quickly, shortening its lifespan.

The thermophilic composter project will have a beneficial impact on waste management in Inukjuak by diverting about 15% of waste from disposal towards composting (see Section 3 of the Feasibility Study attached).

The selected Brome composter 530 technology does not generate leachate outside the composter and the hood system allows for odor filtration. The closest houses to the composting site are more than 300m away, it is unlikely to have a nuisance problem due to odors (regulation requires a minimum distance of 50m). The composting notice submitted to the MELCC provides an odor management plan.

As described in Section 2.2, the selected site is already in an area affected by human activities, so the site set-up will have minimal impact on the physical environment.

Although the collection of organic materials at residences and institutions consists of a major behavioral change for the residents of Inukjuak, by giving the necessary adaptation time and by offering information and education on this subject, the effects of this project will be very beneficial for the population. Moreover, the Northern Village will developed a unique expertise on organic material recycling.

In the case of a "grey zone" project, provide sufficient information to allow us to assess its social and environmental impacts so that we may determine whether the project should be subject to the environmental and social impact assessment and review procedure. Describe any mitigation or restoration measures planned.

## 6. GREENHOUSE GAS EMISSIONS

### 6.1 Greenhouse Gas Emissions

State whether the project could produce greenhouse gases, and if so, what kind. Briefly describe the main projected emission sources for the various project phases.

The recycling of organic matter contributes to the fight against climate change by reducing the generation of greenhouse gases. Indeed, organic materials buried in landfills undergo an anaerobic decomposition and produce a landfill gas consisting mainly of methane (CH<sub>4</sub>). Methane is a powerful greenhouse gas with a global warming potential 25 times higher than carbon dioxide (CO<sub>2</sub>), making landfills a significant contributor to greenhouse gas emissions. Besides, the atmospheric lifetime of methane is relatively short (about ten years) compared to carbon dioxide (which remains in the atmosphere for centuries). Due to this short atmospheric lifetime, reducing methane emissions has the potential to slow the pace of climate change in the short term. (Environment Canada, (2013), Technical Guide to the Management of Municipal Organic Matters, [https://www.canada.ca/content/dam/eccc/migration/main/gdd-mw/3e8cf6c7-f214-4ba2-a1a3-163978ee9d6e/13-047-id-458-pdf\\_accessible\\_eng\\_r2-reduced-20size.pdf](https://www.canada.ca/content/dam/eccc/migration/main/gdd-mw/3e8cf6c7-f214-4ba2-a1a3-163978ee9d6e/13-047-id-458-pdf_accessible_eng_r2-reduced-20size.pdf))

The collection of organic materials by truck will not generate more greenhouse gases than currently. Indeed, it is not planned to do more collections, but rather to reduce the number of domestic waste collections in favor of organic waste collections. Each house will be served by garbage collection minimally once a week and once a week for organic residues (currently, it is twice a week for garbage).



## 7. OTHER RELEVANT INFORMATION

### 7.1 Other Relevant Information

Provide any other information you feel is needed to better understand the project.

The details of the project are presented in **the feasibility study for a project for recycling organic matter by thermophilic composting in Inukjuak** (attached)

## 8. DECLARATION AND SIGNATURE

### 8.1 Declaration and Signature

*I declare that the documents and information provided in this form are accurate to the best of my knowledge.*

*Any false declaration may incur penalties under the Environment Quality Act. Any information provided will be considered part of the application and will be published on the website of the Evaluating Committee (COMEV) or the Kativik Environmental Quality Commission (KEQC), and recorded in the environmental assessment register.*

Given name and surname

VÉRONIQUE GILBERT

Signature



Date

December 20<sup>th</sup> 2019

**Appendix I**  
Municipal Council Resolution

If applicable, attach to this page the duly certified municipal council resolution authorizing the signatorf(y/ies) of the application to submit the application to the Minister.

**Appendix II**  
Characteristics of Project

If applicable, attach to this page the documents that provide further details on the project's characteristics (drawing, sketch, section view, etc.).

From the Feasibility Study:

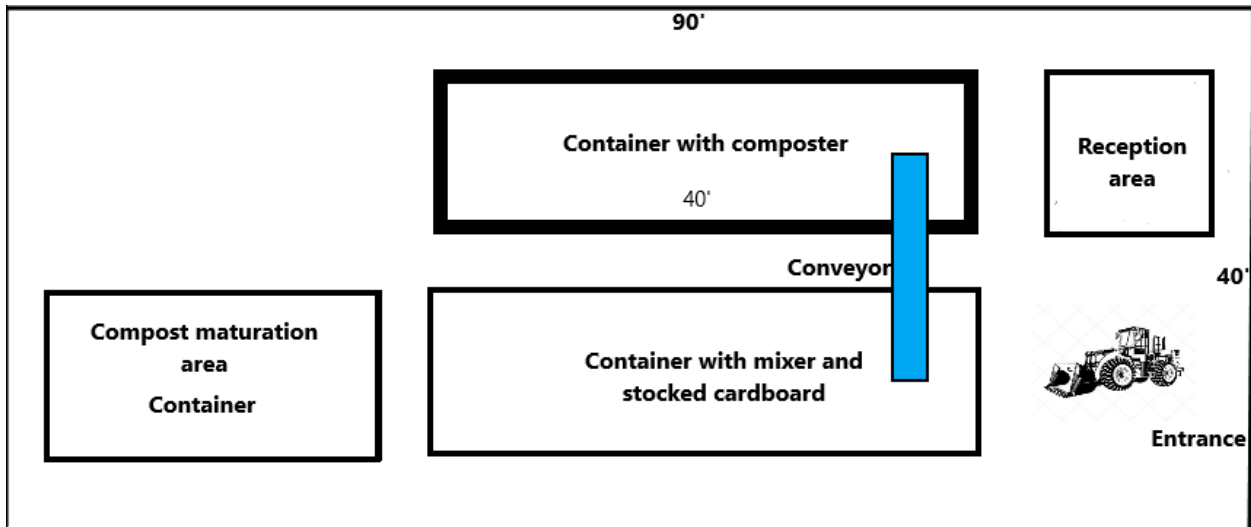


Figure 19: Site set up (not at scale)

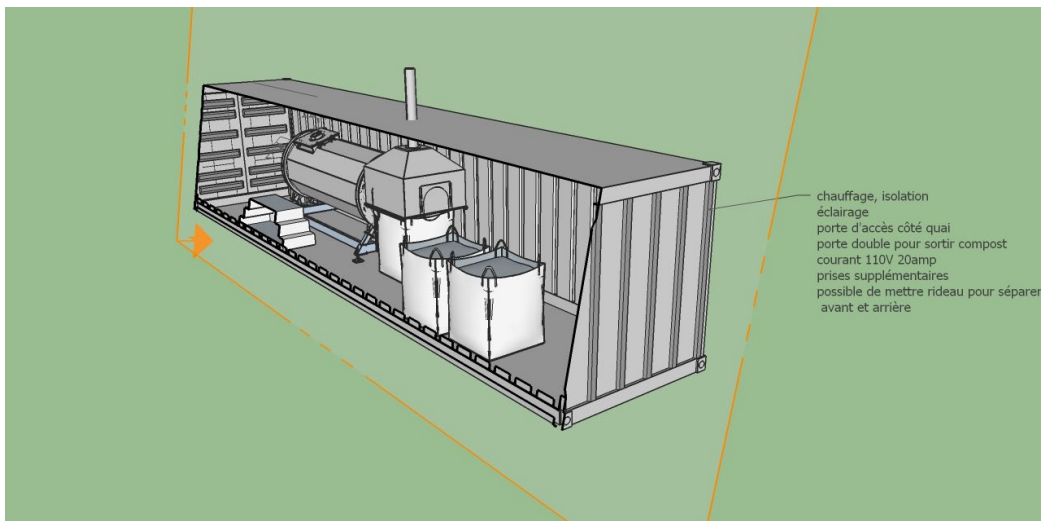


Figure 9: sketch of an adapted sea container with the thermophile composter.

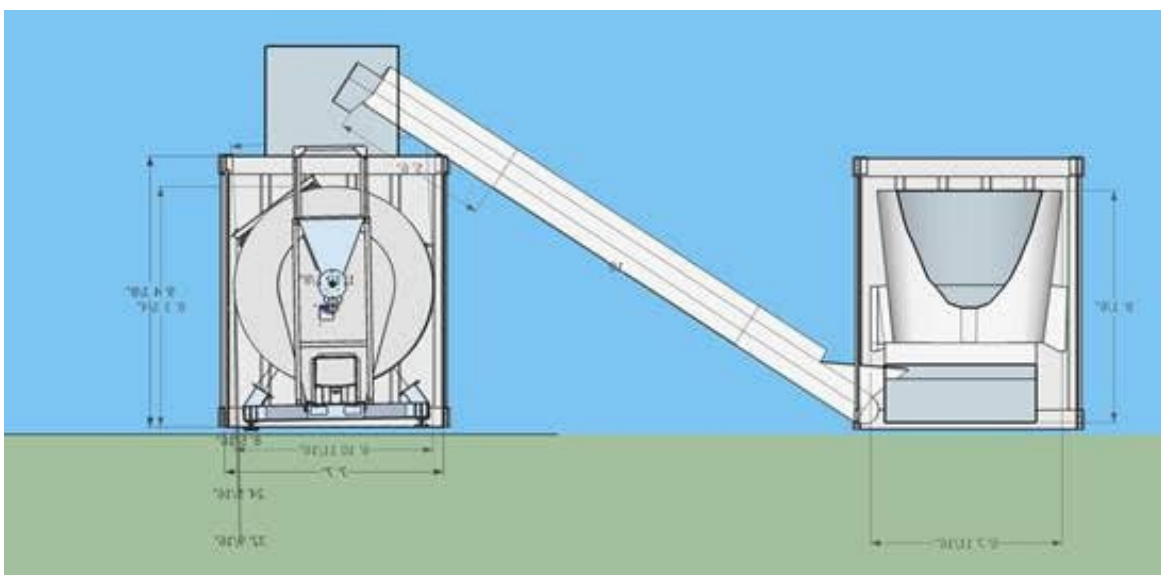


Figure 17: sketch of the equipment in sea containers.

**Appendix III**  
Map

Attach a topographical or cadastral map showing the location of the project, and if applicable, a map showing the location of the work or activities to an appropriate scale, indicating the current structures in relation to the worksite.

