

WASTE HIERARCHY – MILTOWN COMPOSTING SYSTEMS LTD.

Current Milltown Composting Waste Generation

The facility is designed to produce a Class 1 or Class 2 compost and/or stabilised biowaste. Class 1 and Class 2 compost is not categorised as a waste and can be used for agricultural, horticultural, and gardening purposes. The stabilised biowaste is currently used as landfill cover and for other suitable engineering/restoration applications as may be approved by the Agency. The oversized materials recovered during the pre and post screening of the materials are stored on site and depending on their nature may either be added to the bulking agents used in subsequent composting batches or sent off-site for disposal/recovery. The facility generates small volumes of wastes from the canteen and office and Milltown Composting operates a source segregation policy to maximise the recovery of potential recyclable and compostable materials from these waste streams. Milltown request that suppliers provide organic material with as little plastic contamination as possible. If material on site requires screening and plastics are removed then it is sent off site for recovery

Milltown Composting collects the leachate which comes off the waste during the composting process. This leachate is stored and recirculated back into the composting process.

The mobile plant used on site are subject to on-site maintenance. Waste oils and batteries generated during maintenance are stored in the container pending removal off-site for disposal/recovery at appropriately permitted licensed treatment/recovery facilities. When the oil interceptor on the surface water drainage system is cleaned the contents would be removed off-site for disposal at an appropriately licensed waste treatment/disposal facility.

Milltown Composting only uses appropriately licensed or permitted waste disposal/recovery facilities for all wastes generated at the facility. Details of those currently used are outlined in Table 1 below.

Table 1 – Facilities that Stabilised Biowaste is Transferred to

Facility Name	Facility Permit / Licence Number
Ballynagran Landfill	W0165-02
Drehid Landfill	W0201-03
Knockharley Landfill	W0146-03

All wastes leaving the facility are weighed at the on-site weighbridge and Milltown Composting retains records of the waste types (EWC codes), volumes (tonnes) and the destination. The waste generated on site is transported to approved facilities within Ireland. Stabilised biowastes other than those mentioned in EWC 19 03 04 were delivered to Ballynagran and Drehid landfills as cover material.

Proposed Development Waste Generation

The proposed increase of tonnage throughput and reconstruction of old agricultural sheds as maturation sheds (i.e., 2B and 3B) will not change the nature of the waste materials that would be generated on the milltown Composting site. The increased throughput at the site would potentially increase the tonnage of stabilised biowastes other than those mentioned in EWC 19 03 04 from a maximum of 50,000 tonnes to a maximum of 75,000 tonnes.

The internal floor in the proposed maturation sheds (i.e., 2B and 3B) will be an impermeable concrete construction and any minor runoff from process bays will be directed to drains along the shed floor

that will collect any small volumes of leachate (not thought to exceed 5m³ per year) and direct it to dedicated concrete containment sumps in the floors of shed 2B and 3B. Collected leachate in the sump can be collected by suction tanker and transferred internally to the leachate re-circulation system in the reception shed where it can be reused back on the process bays in shed 1. The exit door for the proposed maturation sheds 2B and 3B will be ramped or sloped back towards the shed interior. This will ensure that there can be no migration of floor liquid from the building to the exterior yard. The control measures in the existing composting facility and the design of the new maturation sheds will ensure that there is no leachate migration to ground or surface water.

The mobile plant used on site would still be subject to on-site maintenance. Waste oils and batteries generated during maintenance are stored in the container pending removal off-site for disposal/recovery at appropriately permitted licensed treatment/recovery facilities. The oil interceptor on the surface water drainage system will be routinely cleaned and the contents removed off-site for disposal at an appropriately licensed waste treatment/disposal facility. Other wastes related to machinery may increase slightly as there would be a requirement to increase the number of mobile equipment machines at the site to accommodate the tonnage increase.

Milltown Composting only uses appropriately licensed or permitted waste disposal/treatment facilities for all wastes generated at the facility. All wastes leaving the facility will be weighed at the on-site weighbridge and Milltown Composting will retain records of the waste types (EWC codes), volumes (tonnes) and the destination.

National Waste Management Policy

The EU Waste Framework Directive 2008/98/EC was introduced to ensure coordination on waste management within Member States to limit waste generation and optimise waste management and treatment options. The Directive was transposed into Irish law by the European Communities (Waste Directive) Regulations 2011. Under the requirements of the Directive Member States must reuse or recycle 50% of certain household wastes and reuse, recover or recycle 70% of C&D waste by 2020.

The Waste Policy Statement “A Resource Opportunity- Waste Management Policy in Ireland 2012” is also based on the original EU waste hierarchy and includes requirements for waste prevention, reuse, recycling, recovery and disposal. The document includes ways that the Country can reduce reliance on finite resources, almost entirely reduce dependence on landfill and minimise the impact of waste management on the environment. A key objective of the policy is that when waste is created the maximum value should be extracted from it by ensuring that it is recycled, reused or recovered.

The most recent Waste Policy Statement “Waste Action Plan for a Circular Economy” introduced in 2020. Within the policy it is acknowledged that composting will be important in terms of waste policy going forward, as outlined below

- *We want to realise the Anaerobic Digestion (AD) and composting potential of the food waste resource. AD and composting provide opportunities for regional development with benefits for communities through sales of locally generated energy and compost.*
- *The EPA has estimated that correct use of the three household bins could reduce the volume of the general waste bin by a third, and that municipal recycling (including organic waste for composting and anaerobic digestion through the organic bin) rate could increase by 50% (from 40%).*

A key objective of the policy is to drive further segregation of wastes and to support indigenous recycling and recovery enterprises. Miltown Composting fit into the waste hierarchy by treating and biostabilising the organic fractions of municipal waste to ensure that it can be recovered as compost or as landfill cover material. When used as landfill cover the biostabilisation process removes the potential for leachate and landfill gas generation when the material is used at the landfill site and uses the material in a way that reduces the use of virgin cover material.

Southern Region Waste Management Plan

In 2012, the Government's blueprint for a circular waste economy, as set out in *A Resource Opportunity – Waste Management Policy in Ireland*, established a new framework for the provision of effective and efficient waste management services through the establishment of three waste management planning regions. The Southern Region (SR), serving a population of 1,541,439, includes the administrative areas of the following local authorities – Carlow County Council, Clare County Council, Cork City Council, Cork County Council, Kerry County Council, Kilkenny County Council, Limerick City & County Council, Tipperary County Council, Waterford City & County Council and Wexford County Council.

The new approach aims to promote the following:

- prevent or minimize the production and harmful nature of waste,
- encourage and support the recovery of waste,
- ensure that such waste as cannot be prevented or recovered is safely disposed of, and
- address the need to give effect to the polluter pays principle, in relation to waste disposal.

Section 15.4.1 of the Southern Region Waste Management Plan assessed the waste projection in Ireland and according to the ESRI, reliance on landfill is projected to *“decrease significantly below current levels with recovery and recycling activities expected to dominate”*. It anticipates that incineration and other treatment technologies such as composting, refuse derived fuel manufacture etc., will play a key role in achieving waste management plan policy targets. The ESRI also notes that *“figures suggest that, while pre collection activity (e.g., segregation of waste for recycling) is important, increasingly greater capacity will be needed in post collection treatment of the residual bin”*. This indicates that the post collection processing of residual waste including the removal and treatment of the organic fraction is projected to increase.

Section 19 of the Southern Region Waste Management Plan (SRWMP) indicates three main targets. Of the three targets, two are directly related to ensuring that recycling materials and reducing direct disposal of unprocessed waste to landfill. The main targets that relate to Miltown Composting are:

- Target 2 – achieving a recycling rate of 50% of managed municipal waste by 2020
- Target 3 – reducing to 0% *the direct disposal of unprocessed residual municipal waste to landfill (from 2016 onwards) in favour of higher value pre-treatment processes and indigenous Recovery practices”*. (*Unprocessed residual waste means residual municipal waste collected at kerbside or deposited at landfills/CA sites/transfer stations that has not undergone appropriate treatment through physical, biological, chemical or thermal processes, including sorting*)

To achieve the targets the SRWMP indicates that there will be a need to increase the level of kerbside collection, implement and regulate a pay-by-weight system, plan and develop higher quality waste

treatment infrastructure (including biological treatment) and grow the biological treatment sector, in particular composting and anaerobic digestion.

Under the Waste Framework Directive, the recycling of waste is defined as “any recovery operation by which waste materials are reprocessed into products, materials or substances whether for the original or other purposes” and “includes the reprocessing of organic material”.

The requirements of the SRWMP indicate the need for new waste management methods, moving away from the previous method of landfill.

Biological treatment facilities for the primary and co-treatment of agricultural waste, along with bio-wastes and other organic wastes, are also required in the region and the waste plan supports the development of such facilities. Managing waste from a growing agricultural sector is a challenge which needs to be addressed to support Ireland’s growing agri-food sector.

The requirements of the SRWMP indicate the need for new waste management methods, moving away from the previous method of landfill, and biological treatment is clearly an activity which sits on the recycling tier of the hierarchy. It is considered that the proposed increase of throughput at Miltown fits well with the current and future policy of the SRWMP. To meet the targets set out in the SRWMP there is a requirement for the increased processing of municipal waste prior to landfill with a subsequent need for treatment of the residual organic fine fraction resulting from that treatment as well as treatment of source segregated brown bin waste material.