

Biodegradable Municipal Waste Landfill Ban

Purpose

This document provides guidance on the ban on landfilling Biodegradable Municipal Waste (BMW). It describes BMW, why it will be banned, how to decide if a waste is caught by the ban and how the ban will be implemented.

What is banned?

From 1 Jan 2021, landfill operators in Scotland will be prohibited from accepting Biodegradable Municipal Waste for disposal at the landfill. The purpose of the ban is:

- to reduce the amount of waste landfilled by directing residual waste to alternative treatment.
- to extract any remaining resource value from the residual waste stream.
- to reduce greenhouse gas emissions which result from landfilling biodegradable waste.

What is Biodegradable Municipal Waste?

Biodegradable Municipal Waste is defined in Regulation 11(3) of the Landfill (Scotland) Regulations 2003 (as amended) (“the Regulations) as “municipal waste that is also biodegradable”.

Biodegradable waste is defined (in Regulation 2 (1) of the Regulations as “any waste capable of undergoing anaerobic or aerobic decomposition such as food, garden waste, paper and cardboard”.

Municipal waste is defined (in Regulation 2 (1) of the Regulations as “waste from households as well as other waste which because of its nature or composition is similar to waste from households”.

BMW includes biodegradable household waste together with biodegradable waste which is similar to household waste such as, for example, waste from the retail and hospitality sectors. It includes residual (‘black bag’) waste and other mixed municipal wastes collected from households and commercial businesses coded as 20 03 01. In 2016, 1,223,587 tonnes of waste coded as 20 03 01 was landfilled in Scotland.

BMW also includes sorting residues from processing mixed municipal waste often coded as 19 12 12. In 2016, 779,521 tonnes of 19 12 12 waste was landfilled in Scotland although not all of this was from municipal sources. It is important to distinguish between sorting residues from different sources so that sorting residues from BMW are not landfilled. Mixed sorting residues derived from

sources which include municipal waste will be assumed to be wholly municipal waste for the purpose of the ban.

What is NOT Biodegradable Municipal Waste?

BMW does not include construction and demolition (C&D) wastes or other wastes which are not similar to household waste. Such wastes will still be able to be landfilled directly. These include mixed C&D waste, sorting residues from C&D waste processing, tannery sludges and fleshings, fish and other animal waste, water treatment sludges, sewage works screenings, scrubbers from thermal treatment facilities and wastes from other abatement processes.

Some biodegradable waste streams have municipal codes (chapter 20) but are not similar to household wastes. These include road and street sweepings, septic tank sludge and waste from sewage cleaning and are not within the scope of the ban. However, wastes consisting of litter and material from litter bins will be regarded as BMW.

If municipal waste that is also biodegradable waste has undergone a treatment process to the extent that it is no longer biodegradable, it will not be categorised as BMW and will not be subject to the landfill ban.

What treatment options are available?

The Regulations provide two ways to demonstrate that treated BMW is no longer biodegradable and can, therefore, be landfilled. The tests set out in the Regulations are linked to two types of treatment – Mechanical Biological Treatment (MBT) and Incineration (Energy from Waste (EfW)).

If the waste undergoes a **mechanical biological treatment**, any residues destined for landfill must achieve either;

- a Respiration Activity after four days (AT4) below 10 mg O₂/g dm; or
- a Dynamic Respiration Index below 1,000 mg O₂/kg VS/h

If the waste is **incinerated**, any residues destined for landfill must achieve a Total Organic Carbon value of less than 5%.

Further guidance will be provided on the methods and appropriate frequencies for testing.

How do I decide if my waste is BMW?

This decision process can be represented by 3 steps as described below and shown in Figure 1.

Step 1 – EWC List

Annex 1 provides a list of EWC Codes to use as an initial screen. If your waste is classified accurately using one of the listed codes, it may be banned from landfill – move to Step 2. If your waste genuinely does not fall into one of these codes, it cannot be BMW and is not covered by the scope of the ban.

Step 2 – Is it ‘municipal’?

Some wastes are classified using one of the codes listed in Annex 1 but are not similar to household waste or, in the case of sorting residues, not derived from municipal sources. If you can demonstrate the waste is not ‘municipal waste’ as defined in the Regulations, it is not covered by the scope of the ban. If it is municipal waste then you should next consider whether it is biodegradable.

Step 3 – Is it ‘biodegradable’?

If your municipal waste has been treated, it may no longer be regarded as “biodegradable” and therefore be able to be landfilled. See section 3 the section on treatment options above for the appropriate test.

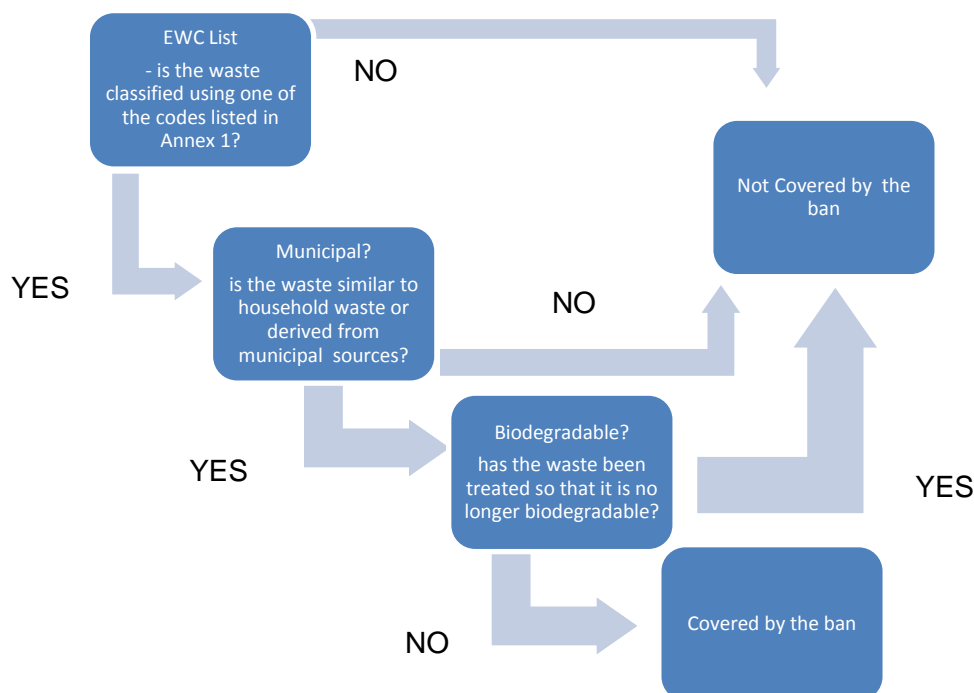


Figure 1

How will the BMW ban be implemented?

The Regulations require SEPA to include conditions which implement the ban in landfill Permits. Permits will therefore be varied in advance of the commencement of the ban to prohibit landfill operators from accepting BMW for disposal at their landfill from 2021.

At the landfill, BMW should be rejected and directed for alternative management. Otherwise, all waste accepted for landfilling would be expected to;

- a) Not be listed as a EWC code in Annex 1 to this guidance, or
- b) Not be ‘municipal’ waste, or
- c) Be from municipal sources but no longer regarded as biodegradable as the result of treatment.

Sites that treat municipal waste so that it can be considered for landfill disposal have a statutory duty to describe the waste accurately and must carry out sampling and analysis of the waste. The sampling frequency will depend on the nature and consistency of the waste stream.

Confirmatory or audit sampling will also be required on a representative number of loads by the landfill site operator. It is accepted that the results from this sampling are likely to be available after the waste has been landfilled (as the testing will take a minimum of 4 days) and it is not expected that loads will require to be quarantined until the results are obtained.

Landfill operators will be expected to inspect both the Waste Transfer Note (WTN) and the waste visually at the gate to ensure that the incoming waste complies with the new requirements. Where the waste is classified using one of the codes in Annex 1, the WTN must clearly state that the waste is either;

- Not from a 'municipal' source; or
- Has been treated and complies with the relevant biodegradability test.

It is for the landfill operators, as part of their waste acceptance procedures, to keep evidence that treatment has been undertaken and that the relevant tests have been satisfied. SEPA will inspect for compliance using the audit trail provided by WTNs and any associated evidence.

Disclaimer

This guidance applies only in Scotland. The terms of this guidance may be subject to periodical review and be changed or withdrawn in light of technological or scientific developments, regulatory or legislative changes, future government guidance or experience of its use. SEPA reserves its discretion to depart from the guidance outlined here and to take appropriate action to avoid any risk of pollution or harm to human health or the environment.

Annex 1 – Codes within Scope of the BMW Ban

EWC Code	Waste Description	2016 Landfill (tonnes)
20	Municipal wastes (Household waste and similar commercial, industrial and institutional wastes) including separately collected fractions	
20 01	separately collected fractions (except 15 01)	
20 01 01	Paper and cardboard	10
20 01 08	Biodegradable kitchen and canteen waste	2,366
20 01 10	Clothes	0
20 01 11	Textiles	52
20 01 25	Edible oil and fat	0
20 01 26	Oil and fat other than those mentioned in 20 01 25	0
20 01 37	Wood containing dangerous substances	0
20 01 38	Wood other than that mentioned in 20 01 37	433
20 01 99	Wastes not specified otherwise	1,774
20 02	garden and park wastes (including cemetery waste)	
20 02 01	Biodegradable wastes	6,602
20 03	other municipal wastes	
20 03 01	Mixed municipal waste	1,223,587
20 03 02	Waste from markets	330
20 03 07	Bulky waste	11,344
20 03 99	Waste not specified otherwise	1,096
19	Wastes from waste management facilities, off-site waste water treatment plants and the preparation of water intended for human consumption and water for industrial use	
19 05	wastes from aerobic treatment of solid wastes	
19 05 01	Non-composted fraction of municipal and similar wastes	8,475
19 05 03	Off-specification compost	542
19 06	wastes from anaerobic treatment of waste	
19 06 04	Digestate from anaerobic treatment of municipal waste	0
19 06 06	Digestate from anaerobic treatment of animal and vegetable waste	0
19 12	wastes from the mechanical treatment of waste (for example sorting, crushing, compacting, pelletising) not otherwise specified	
19 12 01	Paper and cardboard	0
19 12 06	Wood containing dangerous substances	0
19 12 07	Wood other than that mentioned in 19 12 06	0
19 12 08	textiles	0
19 12 10	Combustible waste (RDF)	17,007
19 12 11	Other wastes (including mixtures of materials) from mechanical treatment of waste containing dangerous substances	0
19 12 12	Other wastes (including mixtures of materials) from mechanical treatment of wastes other than those mentioned in 19 12 11	779,521 (not all from municipal sources)
15	Waste packaging; absorbents, wiping cloths, filter materials and protective clothing not otherwise specified	
15 01	packaging (including separately collected municipal packaging waste)	
15 01 01	Paper and cardboard packaging	8
15 01 05	Composite packaging	20
15 01 06	Mixed packaging	19,325
15 01 09	Textile packaging	0