

Title: The Waste (Circular Economy) (Amendment) Regulations (Northern Ireland) 2020	Regulatory Impact Assessment (RIA)	
	Date: 28/10/2020	
	Type of measure: Subordinate legislation	
Lead department or agency: Department of Agriculture, Environment and Rural Affairs	Stage: Final	
	Source of intervention: Domestic NI	
Other departments or agencies: None	Contact details: Ian Fleming	
	WasteFramework@daera-ni.gov.uk	

Summary Intervention and Options

What is the problem under consideration? Why is government intervention necessary? (7 lines maximum)

The European Union Circular Economy Waste Package (CEP) entered into force in 2018 and amended six existing Directives including the Waste Framework Directive and the Landfill Directive. Transposition of the majority of the changes is legally required by the UK during the implementation period. The CEP introduces new recycling and landfill targets, strengthens provisions on waste prevention, waste recovery and extended producer responsibility, and streamlines definitions, reporting obligations and calculation methods for targets.

What are the policy objectives and the intended effects? (7 lines maximum)

The purpose of the SR is to amend domestic legislation in order to reflect the main changes made to the key waste Directives by the CEP. The majority of the amendments are to update definitions and references to EU legislation. Other amendments include updated provisions in respect of requirements on record keeping in relation to hazardous waste, the content of future waste prevention programmes and waste management plans and in relation to the separate collection, landfilling and incineration of waste.

What policy options have been considered, including any alternatives to regulation? Please justify preferred option (further details in Evidence Base) (10 lines maximum)

The following two options have been considered:

- Option 1: Do nothing;
- Option 2: Amend domestic legislation to implement and comply with EU requirements set out in the CEP.

Option 2 is the preferred option. DAERA's priority is to ensure that Northern Ireland's domestic legislation in relation to waste management reduces the adverse impacts of waste generation by preventing waste, increasing recycling and reducing the volume of waste that is sent to landfill. The proposed measures are comparable to the approach taken in the rest of the UK to meet the implementation of the CEP package. Failure to do so could leave NI in breach of EU legislation with potential infraction implications.

Will the policy be reviewed? It will be reviewed

If applicable, set review date:

Cost of Preferred (or more likely) Option

Total outlay cost for business £m	Total net cost to business per year £m	Annual cost for implementation by Regulator £m
0	£0.014	£0

Does Implementation go beyond minimum EU requirements?	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>		
Is this measure likely to impact on trade and investment?	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>		
Are any of these organisations in scope?	Micro Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Small Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Medium Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Large Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

The final RIA supporting legislation must be attached to the Explanatory Memorandum and published with it.

Approved by:

A rectangular box containing a handwritten signature in black ink. The signature is cursive and appears to be "C. J. 6".

Date: 02/11/2020

ECONOMIC ASSESSMENT (Option 1)

Costs (£m)	Total Transitional (Policy)		Average Annual (recurring)	Total Cost
	(constant price)	Years		
Low	0Optional		0Optional	0Optional
High	0Optional		0Optional	0Optional
Best Estimate	0		0	0

Description and scale of key monetised costs by ‘main affected groups’ Maximum 5 lines
 If NI does not transpose the CEP amendments, it will be the only part of the UK not to do so and there would be significant infraction risks associated with such an approach. Infraction costs comprise of a lump sum, and daily costs which could amount to £millions. Furthermore a failure to strengthen current requirements and targets around recycling, landfill, waste prevention, recovery etc., in line with the CEP objectives, could have long term costs for NI as this could prohibit efforts to move towards a more sustainable circular economy.

Other key non-monetised costs by ‘main affected groups’ Maximum 5 lines
 If the key aspects and anticipated outcomes from applying a circular economy approach to waste management, in line with the CEP amendments, are not applied or realised in Northern Ireland, this will result in lower sustainability than our counterparts in Great Britain and Ireland.

Benefits (£m)	Total Transitional (Policy)		Average Annual (recurring)	Total Benefit
	(constant price)	Years		
Low	0Optional	0	0Optional	0Optional
High	0Optional		0Optional	0Optional
Best Estimate	0		0	0

Description and scale of key monetised benefits by ‘main affected groups’ Maximum 5 lines
 No benefits identified. The current approach to the management of waste would continue.

Other key non-monetised benefits by ‘main affected groups’ Maximum 5 lines
 No benefits identified. The current approach to the management of waste would continue.

Key Assumptions, Sensitivities, Risks Maximum 5 lines

BUSINESS ASSESSMENT (Option 1)

Direct Impact on business (Equivalent Annual) £m				
Costs:0	Benefits: 0	Net:0		

Cross Border Issues (Option 1)

How does this option compare to other UK regions and to other EU Member States (particularly Republic of Ireland) Maximum 3 lines
 Other UK regions have transposed the CEP into their domestic legislation. Ireland has transposed the CEP amendments and will also, as a Member State, be required to transpose future amendments to EU waste Directives.

Summary: Analysis and Evidence

Policy Option 2

Description: **Amend Northern Ireland legislation to implement and comply with EU requirements**

ECONOMIC ASSESSMENT (Option 2)

Costs (£m)	Total Transitional (Policy)		Average Annual (recurring)	Total Cost (10 years)
	(constant price)	10Years	(excl. transitional) (constant price)	
Low	Optional		Optional	Optional
High	Optional		Optional	Optional
Best Estimate	£0		£0.014	£0.147

Description and scale of key monetised costs by 'main affected groups' Maximum 5 lines
Landfill and incineration restrictions: Landfill and incineration operators may lose revenue due to restrictions specifying that waste separately collected for preparing for re-use and recycling should not be landfilled or incinerated.

Record keeping of hazardous waste: Costs for businesses in recording additional information and in adjusting to new requirements.

Note that for other related CEP measures, the potential costs are unknown or will be determined at a future point depending on the policy options taken to meet new requirements e.g. on increasing recycling rates going forward. These costs do not form part of this RIA because they will not arise as a direct result of the Statutory Rule.

Other key non-monetised costs by 'main affected groups' Maximum 5 lines
 Further public and private costs might be associated with regulatory adjustments in areas of end of waste criteria, collection of waste oils, ban on mixing hazardous waste, and amendments to mixing of waste oils. These are either currently unknown, in the case of end of waste criteria, or regarded as very minimal given current practice.

Benefits (£m)	Total Transitional (Policy)		Average Annual (recurring)	Total Benefit
	(constant price)	10Years	(excl. transitional) (constant price)	(Present Value)
Low	Optional		Optional	Optional
High	Optional		Optional	Optional
Best Estimate	£0		£0	£0

Description and scale of key monetised benefits by 'main affected groups' Maximum 5 lines
 There may be GHGs emission savings from diverting recycling rejects to incineration or other recovery processes; potential additional revenue to incinerators and savings to waste holders from diverting waste from landfill.

Other key non-monetised benefits by 'main affected groups' Maximum 5 lines
 Increased recycling rates and a reduction in waste going to landfill. Movement towards greater sustainability. As part of the reporting requirements (e.g. hazardous waste record keeping), Government and businesses are expected to benefit from greater transparency of the waste and secondary material movements and from better information around the availability of secondary materials derived from hazardous waste treatments and processes.

Key Assumptions, Sensitivities, Risks Maximum 5 lines
 Hazardous waste record keeping: the time and effort needed to adjust to new reporting requirements by the private sector is based on expert judgement and understanding of current practices.

BUSINESS ASSESSMENT (Option 2)

Direct Impact on business (Equivalent Annual) £m			
Costs £0.014	Benefits £0	Net	£0.014

Cross Border Issues (Option 2)

How does this option compare to other UK regions and to other EU Member States (particularly Republic of Ireland) Maximum 3 lines
 Other UK regions are transposing the CEP into their domestic legislation. Ireland are remaining in the EU and are required to transpose the CEP amendments, and any future amendments to the WFD.

Evidence Base

There is discretion for departments and organisations as to how to set out the evidence base. It is however desirable that the following points are covered:

- Problem under consideration;
- Rationale for intervention;
- Policy objective;
- Description of options considered (including do nothing), with reference to the evidence base to support the option selection;
- Monetised and non-monetised costs and benefits of each option (including administrative burden);
- Rationale and evidence that justify the level of analysis used in the RIA (proportionality approach);
- Risks and assumptions;
- Direct costs and benefits to business;
- Wider impacts (in the context of other Impact Assessments in Policy Toolkit Workbook 4, economic assessment and NIGEAE)

1. Problem under consideration

Global waste is currently projected to reach 3.4 billion tonnes annually by 2050, a 70% increase relative to 2016 (2.0 billion tonnes).¹ Waste generation yields negative effects on humanity, wildlife and the environment. For example, increased waste generation depletes raw materials and pollutes land, water and air. To promote a more circular economy, the European Commission published in 2015 proposals to amend six EU Waste Directives as part of a suite of measures referred to as the CEP. The UK Government voted in favour of the CEP. The UK aims to promote a circular economy, where materials are reused, recovered or recycled and are only disposed of when there is no other alternative.

This impact assessment responds to the legal obligation to review the implementation of the three CEP directives, (Waste Framework Directive (WFD), Landfill Directive and Packaging and Packaging Waste Directive), where substantive changes were made, in Northern Ireland. Furthermore, it prioritises measures that have a 2020 transposition deadline. There are no changes within the remaining three CEP directives on WEEE, Batteries and Accumulators or End-of-Life Vehicles that directly require transposing in UK law.

2. Rationale for government intervention

The production, use and end of life, i.e. when waste is generated, stages can result in negative externalities that are potentially harmful to the environment and human health if unregulated. The CEP 2020 measures are expected to drive changes towards a more circular and resource efficient economy resulting in environmental and wider societal benefits.

Amendment of End-of-Waste Criteria

End-of-waste criteria specify when certain waste ceases to be waste and obtains a status of a product (or a secondary raw material). Their aim is to encourage use of secondary materials and recycling activities across a number of material streams. This reduces the environmental costs of waste disposal and generates economic benefits associated with the use of secondary materials.

Landfill and incineration restrictions

The treatment of waste in landfill and energy recovery via incineration generates negative environmental externalities as it can emit GHGs when sent to treatment such as incineration or landfill. Landfilling and incineration also depletes natural resources, as raw materials are generally extracted to facilitate new production of goods. When waste cannot be prevented, recycling can minimise the environmental costs of products/materials being disposed of, and create value by providing valuable materials for manufacturing. Landfill and incineration restrictions of separately collected materials will

¹ World Bank (2018), [What a waste 2.0: A Global Snapshot of Solid Waste Management to 2050](#).

strengthen the application of waste hierarchy in this case and, as estimated below, will result in the reduced UK greenhouse gas emissions.

Hazardous waste and waste oils

Hazardous waste is a relatively small waste stream contributing around 2% of total waste arisings in the UK,² but its proper management is crucial in order to prevent it from having serious negative environmental impacts. Comprehensive documentation and management of hazardous waste is therefore necessary to mitigate any potential negative impacts. The removal of hazardous substances, components and mixtures from some hazardous waste is already commonplace. Such activities are waste treatment operations that must be carried out in accordance with the conditions of an environmental permit or licence, or a relevant exemption, ensuring protection of human health and the environment.

3. Policy objective and intended effects

The UK Government's ambition is to "leave the natural environment in a better state than we inherited it" and become a world leader in resource efficiency, including targets for landfill, recycling and packaging as well as a wider set of producer responsibility reforms and waste prevention measures. The aims of the CEP align to the UK's and Northern Ireland's domestic objectives, and ensures the value of products, materials and resources are maintained in the economy for as long as possible, reducing waste generation and negative environmental impacts. We want to enhance the security of the supply of raw materials, increase competitiveness, innovation, and growth, and create jobs, all of which are an essential contribution to the UK's efforts to develop a sustainable, low carbon, resource efficient and competitive economy. The CEP aligns with our ambitions here.

The changes made to the six waste Directives that constitute the CEP seek to build on the existing framework and further tackle the environmental and health issues that result from certain types of waste management across the EU. It requires the intervention by law to reduce the adverse impacts of waste generation and management by applying the waste hierarchy as a priority order in terms of waste prevention and management legislation and policies.

The objectives are to reduce the adverse impacts of the generation of waste and the overall impacts of resource use by:

- Introducing new targets for municipal waste; recycling 55% (2025), 60% (2030) and 65% (2035 – review clause in 2028); landfill limit of no more than 10% by 2035, packaging waste recycling target of 65% (2025) and 70% (2030) including material specific targets for packaging (see below).
- Clarifying arrangements for the separate collection of waste for recycling to allow clearer application of technically, environmentally or economically practical (TEEP) provisions and where derogations from separate collections can be applied. This is to ensure materials meet the high quality standards for the relevant recycling sector.
- Providing options to use economic instruments and other measures, such as deposit schemes, charges/restrictions for landfilling and incineration, to ensure appropriate application of the waste hierarchy.
- Revising the content of waste management plans.
- Amending end of waste criteria and hazardous waste management requirements.
- Introducing measures to prevent waste generation which must promote and support sustainable production and consumption models.

4. Description of options considered

This impact assessment has considered only two options with respect to the EU's CEP. No other options, such as voluntary or non-regulatory measures, were deemed as realistic given the legislative

² BIPRO (2017) on behalf of the European Commission, [Support to selected Member States in improving hazardous waste management based on assessment of Member States' performance.](#)

nature of the CEP measures. Additionally, the UK Government voted in favour of the CEP and fully committing to meeting all of its measures and obligations.

Option 1: 'Do nothing' (business as usual)

With this option Northern Ireland would continue with the existing resources and waste regulatory framework, and not transpose the amendments made to the six Directives covered by the CEP. This would leave the NI waste sector operating at a different level to that of the EU (and potentially the rest of the UK) for many areas, such as determining end-of-waste criteria or controls for hazardous wastes. Additionally, this would leave the UK open to possible infraction risks for the non-transposition of EU law. As the UK is legally bound to fulfil EU requirements during the transposition period, doing nothing is not a viable option. Furthermore a failure to strengthen current requirements and targets around recycling, landfill, waste prevention, recovery etc., in line with the CEP objectives, could have long term costs for NI as this could prohibit efforts to move towards a more sustainable circular economy.

Option 2: Full transposition of the Circular Economy Package into UK law, prioritising 2020 measures.

Transpose the CEP into NI law with the following key areas and proposals included below. Note that this impact assessment focuses on measures that were required to be transposed by July 2020 only and not yet consulted on elsewhere. In particular, the measures below are examined through this impact assessment and further referenced as '2020 measures' (note that references to Articles, unless otherwise stated, are to Articles of the Waste Framework Directive):

1. Article 6: Amendment of End of Waste Criteria: revision of the existing requirements for obtaining 'end of waste' status in order to provide buyers and sellers of secondary raw materials with more certainty as to the waste or non-waste status of products, while promoting a consistent approach across the EU.
2. Article 10(2) and (3): Clarifying arrangements for the separate collection of waste for recycling to allow clearer application of technically, environmentally or economically practical (TEEP) provisions and where derogations from separate collections can be applied. This is to ensure materials meet the high quality standards for the relevant recycling sector
3. Article 10(4) / Article 5 (Landfill Directive) – Incineration and landfill restrictions: ban on separately collected recycling and products for reuse that haven't undergone any recovery operation being sent to incineration or landfill unless it is the best environmental outcome.
4. Hazardous waste and waste oils:
 - 4.1. Article 10(5) - requirement to remove hazardous substances, mixtures, or components from hazardous waste, before or during recovery.
 - 4.2. Article 18 - Article 18(3) has been changed to remove the consideration of economic feasibility when deciding whether illegally mixed waste must be separated. Where separation of illegally mixed hazardous waste is not required, the waste must be treated at a facility that is authorised to accept it.
 - 4.3. Article 21 - a requirement to take into account good practices when separately collecting waste oils; clarification that priority should be given to the regeneration of waste oils, and the removal of the caveat that the prohibition on mixing waste oils with other waste oils of different characteristics or other waste only applies if it is technically and economically viable not to mix waste oils.
 - 4.4. Article 35 Hazardous waste record keeping: requirement for authorised hazardous waste treatment sites to report on non-waste materials and products that result from waste treatment; requirement to use an electronic registry or coordinated registries, covering the whole of the UK, to record data on hazardous waste.

The following indicates through which channels the other CEP Articles have already been or are going to be examined. These are considered out of scope of this impact assessment:

- Article 29 Waste prevention measures: to prevent waste generation which must, as a minimum, promote and support sustainable production and consumption models. Northern Ireland

published its current waste prevention programme in July 2020³ having consulted on this at the start of 2020 and so the updated CEP requirements will not apply until this programme is next updated.

- Article 10 Recovery: clarifying arrangements around separate recycling collections to allow clearer application of technically, environmentally or economically practical (TEEP) provisions and where derogations from separate collections can be applied. A consultation recently took place on a discussion document on the Future Recycling and Separate Collection of Waste of a Household Nature in Northern Ireland and the impacts of any policy changes in this areas will be separately assessed as part of this workstream.
- Extended Producer Responsibility (EPR): extends the producer's responsibility for obligated products to the post-use stage. Impacts will be addressed in specific applications of EPR for different waste streams. For example, packaging EPR impacts are addressed in a separate consultation – [Reforming the UK packaging producer responsibility system](#).
- Municipal waste recycling targets: setting mandatory targets for 55% (2025), 60% (2030) and 65% (2035 – review clause in 2028). This will be addressed through the ongoing policy work around the future recycling arrangements in Northern Ireland.
- Packaging waste targets - setting the overall packaging waste recycling target of 65% (2025), 70% (2030) and sub-targets for recycling individual materials:
 - Plastic: 50% (2025) 55% (2030)
 - Wood: 25% (2025) 30% (2030)
 - Ferrous materials: 70% (2025) 80% (2030)
 - Aluminium: 50% (2025) 60% (2030)
 - Glass: 70% (2025) 75% (2030)
 - Paper and cardboard: 75% (2025) 85% (2030)

Impacts were addressed in a separate consultation – [Reforming the UK packaging producer responsibility system](#).⁴

5. Analysis of options

For some of the 2020 measures, quantitative analysis is currently not feasible either due to limited evidence base or early stage of policy development. Note that the content in this RIA is to some extent derived from the Regulatory Triage Assessment which the UK Governments published alongside a policy statement on their policy approach to the transposition of the CEP. This can be viewed at: <https://www.gov.uk/government/publications/circular-economy-package-policy-statement>

5.1 Option 1 – do not transpose the Circular Economy Package

Under a 'do nothing' option, there are no additional costs or benefits as a result of not transposing the CEP package, except for potential infraction fines from the European Commission for failing to transpose the package. The following sections describe the current practice in relevant areas.

5.1.1 End of Waste Criteria

In the UK, businesses that process waste streams currently have several ways of meeting the end of waste (EoW) criteria. The EoW criteria specify when certain waste ceases to be waste and obtains a status of a product or a secondary raw material.

Firstly, they can use the EU Community level EoW Regulations for glass cullet, copper scrap and iron, steel and aluminium scrap. Individual businesses (recyclers and re-processors) must adhere to this guidance and these standards and could be subject to prosecution should they not comply with these.

³ <https://www.daera-ni.gov.uk/publications/waste-prevention-programme-northern-ireland-stopping-waste-its-tracks>

⁴ Defra (2019), [Consultation on reforming the UK packaging producer responsibility system](#).

Secondly, they can use national EoW Criteria (Quality Protocols). For England, Wales and Northern Ireland, the Environment Agency (EA), Northern Ireland Environment Agency (NIEA), Natural Resources Wales (NRW) and WRAP jointly published 13 Quality Protocols (QPs), which explain how to achieve EoW status for certain waste derived materials. Uses of these QPs/guidance is voluntary for businesses as they are industry-based documents. The information contained in the QPs identifies the point at which certain wastes would be regarded by the regulator as having ceased to be waste and thus when the Directive's waste management controls should no longer apply, as well as when the waste can be correctly counted as recycled or recovered. Compliance with the QPs is not enforced by the EA and regulators in the devolved administrations, however, it is possible for the regulators to prosecute should they find a case where a QP has not been complied with, a material therefore does not meet end-of-waste criteria, and waste legislation therefore still applies.

Finally businesses may make a submission of evidence for a case-by-case decision by the NIEA.

5.1.2 Landfill and incineration restrictions

Currently a proportion of waste separately collected for reuse and recycling is either sent to landfill or incineration either because it is too contaminated (i.e. it is rejected from its intended purpose and has to be treated as residual waste) or it is non-target material⁵ for either the recycling and reprocessing sectors.

If separately collected waste presented for recycling is so contaminated that it is rejected at the kerbside or at Material Recycling Facility (MRF)⁶ gates, it is managed through a mix of incineration (possibly via Refuse Derived Fuel production) and landfill. The choice of which treatment option depends on local location and contract arrangements of most waste holders.

The Landfill Regulations (Northern Ireland) 2003 (as amended) already bans landfill operators from accepting separately collected food waste and some other types of waste. Northern Ireland is proposing to further amend regulation 9 of the Landfill Regulations (Northern Ireland) 2003 (S.R. 2003 No.496) to prohibit other separately collected waste being landfilled.

5.1.3 Hazardous waste and waste oils

Article 18 of the Waste Framework Directive, which bans the mixing of hazardous waste, was implemented through regulation 14 of the Hazardous Waste Regulations (Northern Ireland) 2005. The regulators have issued guidance to their officers on the requirements of this Article of the Waste Framework Directive who, in turn, provide guidance to operators on how to comply with their authorisation.

Once waste oils, which are hazardous wastes, have been stored separately by waste producers, oil waste holders cannot currently mix them with different types of oils, other wastes, substances or materials.

Article 21(1)(c) sets further requirements on mixing that relate to waste mineral and synthetic oils only. The effect of this Article is to place further restrictions on waste oil even at an authorised facility. Article 21(1)(c) is implemented through regulation 19(5) of the Hazardous Waste (Northern Ireland) Regulations 2005 as amended by the Waste Regulations (Northern Ireland) 2011.

The current record keeping requirement is implemented by Regulation 38 of the Hazardous Waste (Northern Ireland) Regulations 2005, which require all holders of waste to keep a register containing the required information that is relevant to them. Further to this, those waste holders that are licensed to keep, treat or dispose of waste must also keep records of waste received and waste removed in accordance with licence conditions.

5.2 Option 2 – transpose the Circular Economy Package

The following sections discuss the key elements of 2020 measures and our current understanding of implied costs and benefits per each measure over the period of next ten years (2020-2029).

5.2.1 Amendment of End of Waste Criteria (Article 6)

⁵ E.g. plastic packaging included in 'plastic bottles only' collections

⁶ Typically, MRFs are designed to separate co-mingled recyclables into their individual material streams and prepare them for sale in the commodity markets.

There are a number of amendments to Article 6 in the WFD, which were required to be transposed by July 2020. For example:

- The new wording of Article 6.1 places a stronger obligation to ensure that end of waste is only achieved if it meets the specified conditions.
- The revised Article 6.2 specifies how end of waste criteria should be developed both at Community level and country level. Part (e) is particularly worth noting – that the end of waste criteria shall now include “a requirement for a statement of conformity.”
- Article 6.4 retains the ability for us to make case by case decisions on the end of waste although only based on the new specified conditions and not based on existing case law.
- Article 6.5 continues existing obligations on users or sellers of new waste-derived products to ensure that the material meets relevant requirements under applicable chemical and product related legislation.
- The revised Article 6 places a stronger obligation on all Member States to ensure a more standardised approach to achieving EoW status across the EU.

The impact assessment is primarily concerned with the transposition of the wording in Article 6 of the CEP. We are satisfied that our current systems of self-assessment, case-by-case decisions, and quality protocols are already appropriate non-regulatory measures to meet the various requirements set out in the new Article 6 wording. As a result, there will be no initial impact on business at the time of the transposition. In the future, it is possible that there will be changes depending on the more specific implementation guidance that is expected to be released by the Commission, and also on any future implementing acts under Article 6(2). In these circumstances, the broad areas where future implementation is likely to impact businesses are:

1. Changes to the Quality Protocols (QPs), which are currently under review and will take new wording into account, as well as the implementation guidance when it is released.
2. Changes to the NIEA approach to risk assessment and case-by-case assessment of end-of-waste status in line with the implementation guidance.
3. Any additional mandatory EU-wide end of waste criteria for specific substances, introduced by the European Commission via implementing acts in accordance with Article 6(2), which the UK will be obligated to implement if the UK is in a transition period, or still a Member State, and which the UK may wish to match if we are not still a Member State.

Each of these changes, should they come to pass, would require their own consultation and business impact assessments before being implemented. In the case of 1-3, this would be undertaken by the EA and/or devolved agencies. Option 3 would be undertaken by Defra and Devolved Governments in conjunction with the agencies. The impacts will be assessed in all cases, including on relevant businesses, local authorities, and charities who are involved in the process of creating, selling, or buying waste-derived products.

5.2.2 Article 10(2) and (3): Separate collection of waste

There are currently requirements in the Waste Regulations (Northern Ireland) 2011 on councils and private operators, when collecting waste paper, metal, plastic or glass, to take measures to ensure the separate collection of that waste which are available to it and are:

- technically, environmentally and economically practicable (TEEP);
- appropriate to meet the necessary quality standards for the relevant recycling sectors.

These requirements apply where keeping waste separate facilitates or improves recovery and have been in place for several years. District Councils in Northern Ireland currently collect dry recyclables using two methods; collection of different waste streams separated at kerbside or collection of co-mingled dry mixed recyclables. Bio-waste in the form of garden and food waste is also collected separately.

The updates to Article 10(2) and (3) of the WFD clarify arrangements for the separate collection of waste for recycling to allow clearer application of technically, environmentally or economically practical (TEEP) provisions and where derogations from separate collections can be applied. This is to ensure materials meet the high quality standards for the relevant recycling sector.

At this stage it is difficult to estimate what impact these changes may have in the longer term. Councils, as part of their current arrangements, will have taken into account the costs, feasibility and overall

outputs from collecting these waste streams separately or collecting them in a co-mingled system. The changes which will be made to the Waste Regulations (Northern Ireland) 2011 will require the separate collection of the waste streams unless one of the following conditions are met:

- collecting the waste paper, metal, plastic or glass together results in output from those operations which is of comparable quality to that achieved through separate collection;
- separate collection of the waste does not deliver the best environmental outcome when considering the overall environmental impacts of the management of the relevant waste streams;
- separate collection of the waste is not technically feasible taking into consideration good practices in waste collection; or
- separate collection of the waste would entail disproportionate economic costs taking into account the costs of adverse environmental and health impacts of mixed waste collection and treatment, the potential for efficiency improvements in waste collection and treatment, revenues from sales of secondary raw materials as well as the application of the polluter-pays principle and extended producer responsibility.

Therefore a number of factors will determine whether the changes will impact on the current practices of councils especially given that these factors and considerations are similar to the current TEEP provisions within the Waste Regulations (Northern Ireland) 2011.

As work is underway to look at potential policies and options in terms of future recycling and separate collection of waste of a household nature in Northern Ireland we have not tried to estimate any costs of benefits in terms of this change as part of this assessment as this is something which will be considered as part of that workstream.

5.2.3 Landfill and incineration restrictions across the UK

Article 5(3)(f) of the Landfill Directive is a new measure which requires us to take measures to ensure waste separately collected for preparing for re-use and recycling is not accepted in landfill, with the exception of waste resulting from subsequent treatment operations of the separately collected waste for which landfilling delivers the best environmental outcome.

Similarly, Article 10(4) under the WFD requires us to take measures to ensure that waste separately collected for recycling or recovery operations should not be incinerated with the exception of waste resulting from subsequent operations for which incineration delivers the best environmental outcome.

As both Articles aim to achieve the same objective, this impact assessment proposes the same policy option to meet Article 5(3)(f) and Article 10(4). This would put in place a regulatory change that will introduce statutory permit conditions to which all landfill and incineration sites should adhere to. This will mean that a legislative condition on all landfill and incineration sites will be introduced to not accept any separately collected waste that has not undergone some form of recovery operation, where feasible. There are currently 5 incinerators and 7 landfill sites in Northern Ireland whose permits would need to be amended.

District Councils in Northern Ireland currently collect dry recyclables using two methods; collection of different waste streams separated at kerbside or collection of co-mingled dry mixed recyclables. Bio-waste in the form of garden and food waste is also collected separately. In 2018/19 district councils collected over 500,000 tonnes of separated waste for the purposes of preparing for re-use or recycling. Of this waste collected 12,315 (<2.5%) was rejected at sorting sites for the purposes of recycling and was sent for energy recovery and 465 tonnes was sent to landfill (<0.1%) (the relevant figures are taken from the Northern Ireland local authority collected municipal waste management statistics 2018/19 annual report <https://www.daera-ni.gov.uk/publications/northern-ireland-local-authority-collected-municipal-waste-management-statistics-2018>).

The new requirements under Article 5(3)(f) of the Landfill Directive and Article 10(4) of the Waste Framework Directive are in line with the provisions set out in Article 4 of the Waste Framework Directive and the updated targets as set out in Article 11 in terms of promoting the application of the waste hierarchy. Sending waste for incineration or landfill should be the least preferred options.

District Councils and other waste operators will need to continue to apply the waste hierarchy and for any waste that was collected for preparing for re-use or recycling but is then rejected as unsuitable which is currently sent for incineration or to landfill they will need to have conducted the necessary

treatment operations and be satisfied that incineration or landfill is the option that delivers the best environmental outcome in accordance with Article 4 of the WFD.

The impact of the two Articles on landfill operators and incineration waste operators is considered to be minimal as the majority of waste going to these waste operators results from the collection of residual waste, amounting to 192,537 tonnes incinerated and 285,905 tonnes landfilled (in 2018/19). Currently all waste operators should be applying the waste hierarchy and therefore separately collected waste should generally not be disposed of or incinerated if it can be recycled. The cost implications of the new change are therefore difficult to measure. There may be some loss of revenue to landfill operators as a result of this change but the volume of waste going to landfill over the past number of years has been steadily decreasing and the most significant impacts in terms of increased volumes of waste being recycled and reduced volumes going to landfill will arise as a result of future policy decisions taken on recycling and not as consequence of the changes which will be made to legislation at this point.

Although in practice this may not be the actual outcome, for calculation purposes we have assessed the impact based on the assumption that waste which was originally separately collected for recycling (and subsequently rejected for that purpose) will not be landfilled and a process higher up the waste hierarchy will now apply. Based on the volumes of waste rejected at sorting sites and subsequently sent to landfill in 2018/19, this will result in a loss of revenue to landfill operators in respect of around 465 tonnes which will no longer be sent to landfill. Excluding the landfill tax, which is a reserved matter, landfill operators receive on average around £25- £30 per tonne in Northern Ireland (for calculation purposes we have used the higher figure of £30). In total and based on the 2018/19 figures, this would result in reduced revenue of £13,950 based on 2018/19 volumes. As the intention is for recycling levels to continue to increase year on year it is assumed that the total rejects resulting from waste that was separately collected for recycling will also continue to rise. To consider the full impact of the new Article 5(3)(f) of the Landfill Directive we have assumed that rejects will rise at a rate of 1% per year.

We have also assessed the impact for industry in adhering to the new Article 10(4) of the WFD. The volume of waste going to incineration that was separately collected is very low (2.5%) and it is fair to assume that, as in all areas of the UK, some waste which was originally collected for recycling will continue to be incinerated, and that this is the best environmental outcome. Due to some unavoidable contamination preparing for re-use and recycling is not always feasible. We have therefore considered that there will be no loss of revenue to incinerator operators. Energy recovery is higher in the waste hierarchy than disposal and it is for this reason that we have focussed on the loss to landfill operators. Depending on other factors, the small volumes of waste which were previously rejected for recycling and landfilled may end up going for incineration but we have not tried to estimate this as a benefit for incinerator operators.

Year	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6	Yr 7	Yr 8	Yr 9	Yr 10
Loss of tonnage going to landfill	470	474	479	484	489	494	499	504	509	514
Loss of revenue at £30 a tonne	£14,100	£14,220	£14,363	£14,520	£14,670	£14,820	£14,970	£15,120	£15,270	£15,420

5.2.4 Article 10(5) - Recovery of hazardous waste

Article 10(5) of the Waste Framework Directive introduces a new requirement to remove hazardous substances, mixtures or components from hazardous waste, before or during recovery, if that is necessary to enable preparation for re-use, recycling or recovery of hazardous waste in accordance with the waste hierarchy and to ensure protection of human health and the environment.

The removal of hazardous substances, components and mixtures from some hazardous waste is already commonplace. Such activities are waste treatment operations that must be carried out in accordance with the conditions of an environmental permit, a licence or a relevant exemption, ensuring protection of human health and the environment.

Hazardous waste producers and treaters should be already following available guidance on applying the waste hierarchy to hazardous waste where removing hazardous substances, components or

mixtures would enable those wastes to be managed higher up the waste hierarchy. Amending statutory guidance on the waste hierarchy for hazardous wastes to explain the new requirements is likely to have minimal impact on the Regulators. The waste industry is already applying the principles of the waste hierarchy as it aims to both reduce the environmental impact of its operations and reduce their costs.

Costs and benefits: Article 10(5) is consistent with existing practices, but, places a stronger obligation on the industry to streamline their production and treatment of hazardous waste.

5.2.5 Article 18 – Ban on mixing hazardous waste

Article 18(1), which sets out the mixing ban, and Article 18(2), which provides a derogation from the ban, remain unchanged. Article 18(3) amendments requires illegally mixed hazardous waste to be separated in certain circumstances.

In particular, Article 18(3) has been changed to remove the ability to consider economic feasibility when deciding whether illegally mixed waste must be separated. Separation must now be carried out if technically feasible and necessary to protect human health and the environment from the impact of waste management.

Costs and benefits: Amending the hazardous waste regulations to reflect the new wording will require minimal change from the regulators and industry. This is because mixing hazardous waste is already illegal, and the change means those undertaking the illegal mixing are more likely to have to pay to separate the illegally mixed waste. The change therefore provides a further economic incentive to comply with existing law and may possibly benefit the legitimate businesses in terms of higher profits.

There may be costs to those that had previously not followed the guidance and used the argument of 'expensive separation' to avoid separating illegally mixed waste. From now on, they can no longer use such arguments as they have an option of sending such hazardous waste to sites that are permitted to separate them. It is not possible to place financial value to this amendment at the moment due to data limitations.

5.2.6 Article 21(1)(c) – Mixing of waste oils

Article 21(1)(c) removes the caveat that the prohibition on mixing waste oils with other waste oils of different characteristics, or other waste, only applies if it is technically and economically viable not to mix waste oils. There is also a change to clarify that priority should be given to regeneration when treating waste oils and that the mixing of waste oils of different characteristics should not impede regeneration.

We intend to transpose this by amending regulation 19(5) of the Hazardous Waste (Northern Ireland) Regulations 2005.

In addition to this, the NIEA will have to review operational practices at any sites that are permitted to mix waste oils to ensure that mixing does not impede regeneration.

Costs and benefits: The impact of this change depends on how waste oils are currently managed by industry. If waste oils are mixed at permitted sites because it was not technically or economically viable to keep them separate, then this practice must stop. Similarly, if waste oils are mixed in a way that does not impede treatment, but does impede regeneration, this will also need to stop. Our understanding is that this change will have little impact on waste oil managers. This is because few permits authorise the mixing of waste oils and waste oils are not routinely mixed in a way that would impede regeneration.

5.2.7 Article 35 – Record keeping of hazardous waste

Domestic legislation is being amended to ensure that, in line with Article 35(1)(a) of the Waste Framework Directive, a producer or holder of hazardous waste, and where different from the producer, a consignor of hazardous waste, keeps chronological records which (in addition to current requirements) also include detail on the quantity of products and materials resulting from preparing for re-use, recycling or other recovery operations.

Hazardous waste makes up a small percentage of the total waste generated and processed in Northern Ireland. Given the nature of hazardous waste the treatment of it does not often result in the creation of a product or material. In Northern Ireland there is treatment carried out on hazardous materials such as waste oils that eventually results in a new product or material being produced, however, although some form of treatment may be carried out in NI, the waste is shipped to GB where further treatment is carried out to create the new product or material. The shipment of the waste and quantity would be recorded, however the product is not created until treated by the GB site and therefore would be recorded by this facility.

We understand that there may be some Authorised Treatment Facilities (ATF's) that would treat hazardous waste which results in products being produced. For example, the treatment of End-of-Life-Vehicles (ELV's) may result in products such as catalytic convertors and airbags being produced, both of which contain hazardous materials. The treatment of WEEE can include fridges which are then prepared for re-use before being sold. In such cases, it is considered that, where products or materials are created following the treatment of the hazardous waste, information is already recorded and retained for other purposes such as for internal purposes relating to sales records and for HMRC purposes. We have not identified any organisations in the waste industry that create products and materials following the treatment of hazardous waste that would not retain this information already. Even if there were some establishments which do not do so, we consider that the numbers concerned would be very low. The impact on them from keeping a record of the quantity of products and materials resulting from preparing for re-use, recycling or other recovery operation should be very minor and the time taken to record the information is likely to be minimal. Therefore we have assessed that this new requirement will have little to no impact on the current waste industry in Northern Ireland.

6. Small and micro business assessment (SaMBIT)

This section discusses estimated costs and benefits to micro, small and medium businesses with respect to the measures with quantified impacts only. At this stage, it is not possible to assess impacts of other measures on micro, small and medium businesses, though the overall impacts are thought to be either minimal or are currently unknown.

6.1 Landfill and incineration restrictions

There are 7 licensed landfill operators in Northern Ireland, some of which would fall under the categories of small or micro businesses. This Regulatory Impact Assessment has identified that there may be some financial impact on landfill operators as a direct result of the new requirement set out in Article 5(3)(f) of the Landfill Directive which prohibits separately collected waste going to landfill unless landfill delivers the best environmental outcome. All separated waste with the exception of separately collected bio waste (none of which goes to landfill), goes through a treatment process. In 2018/19 465 tonnes of this separately collected waste was sent to landfill- this equates to less than 0.1% of the total waste that was separately collected. It is understood that for some waste, which is separately collected for the purposes of preparing for re-use, recycling or other recovery operations, incineration or landfill may represent the best environmental outcome. However, for the purposes of this assessment, we have based our figures on the assumption that none of this separately collected waste will be sent to landfill. As the vast majority of waste sent to landfill is residual waste, the overall impact of this change will not be significant for landfill operators.

As highlighted earlier, it is expected that landfill operators may experience some reduced revenue due to the potential for waste, which is rejected at sorting sites and currently sent to landfill, being sent elsewhere. This may result in additional revenues for businesses which carry out recovery operations.

In Northern Ireland there are 5 incinerator plants, some of which may fall under the categories of small or medium businesses. Article 10(4) of the Waste Framework Directive prohibits waste that was separately collected being sent to incineration unless that option delivers the best environmental outcome. Around 2.5% of separately collected waste is currently sent for incineration. For different reasons, not all waste that is separately collected can be recycled, and it is inevitable that some will end up being sent for incinerated or possibly even to landfill. It is not known how much of the separately collected waste which is sent to incineration could have been diverted and sent for a further treatment process and a process higher up the waste hierarchy. It is possible that some of the separately

collected waste currently sent to landfill could end up being sent to incineration. However we have not tried to estimate this as a benefit for incinerator or other waste recovery operators.]