Future Recycling and Separate Collection of Waste of a Household Nature in Northern Ireland

Public Discussion Document





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Glossary

AD	Anaerobic Digestion
BID	Business Improvement District
BLACMW	Biodegradable local authority collected municipal waste
CCEN	Collaborative Circular Economy Network
CEP	Circular Economy Package of Directives
Co-mingled	Involves the collection of materials in a single compartment vehicle with the sorting of these materials occurring at a MRF (Materials Recovery Facility).
CWR	Controlled Waste and Duty of Care (Northern Ireland) Regulations 2012
DAERA	Department of Agriculture, Environment and Rural Affairs
DEFRA	Department of Environment, Food and Rural Affairs
DOE	Department of the Environment
EC	European Commission
EfW	Energy from waste
EPR	Extended Producer Responsibility
EU	European Union
GHG	Greenhouse gas
нн	Household waste
НМО	House in Multiple Occupancy
HWRC	Household Waste Recycling Centre
IVC	In Vessel Composting
Kerbside sort	Sorting of materials at kerbside into different compartments of a collection vehicle
Крі	Key performance indicator
NHM	Non-household municipal waste
MRF	Materials recovery facility
NI CEP Report	Northern Ireland Circular Economy Package Report
NIEA	Northern Ireland Environment Agency
NISRA	Northern Ireland Statistics and Research Agency
PfG	Programme for Government
Recycle Now	The national recycling campaign, supported and funded by Government, managed by WRAP
Recycling Tracker	WRAP's annual survey of UK households that gathers evidence on recycling attitudes, knowledge and behaviour.

Residual	Waste which remains after recycling
rWFD	revised Waste Framework Directive (2008/98)
SDG	United Nations Sustainable Development Goal
TEEP	Technically, Environmentally and Economically Practicable
Two stream	Residents are provided with two recycling containers and are asked to place different materials in each container, typically paper/card (fibre) in one and plastics, glass and cans (containers) in the other. These materials are kept separate but collected on one vehicle which has two chambers.
WasteDataFlow	The web-based system for municipal waste data reporting by UK local authorities to government.
WCLO	The Waste and Contaminated Land (Northern Ireland) Order 1997
WML	Waste Management Licensing Regulations (NI) 2003
WRAP	Waste and Resources Action Programme
UK	United Kingdom

Executive Summary

Background

This year will see the introduction of a range of new requirements relating to the management of waste as part of the Circular Economy Package. This includes requirements around recycling and the separate collection of waste. In particular, businesses who produce mixed waste and waste which is similar in nature and composition to waste from households will be required present their waste for recycling. As with households, businesses will be required to facilitate the separate collection of the main household waste streams such as paper, metal, plastic and glass. These measures do not extend to waste resulting from production.

This discussion document will not introduce any new policies, but rather seek views on steps towards improving the quality and quantity of household and non-household recyclate in Northern Ireland and cut landfill rates whilst having minimal impact on businesses and householders. It seeks views on a series of proposals for what our recycling environment could look like in the future, and makes suggestions on possible ways to improve the quality and quantity of municipal waste recycled in Northern Ireland.

Section 1 of the document sets out the current position of recycling in Northern Ireland, and the current and new regulatory, climate change and market drivers that will influence policy in the future and in particular, changes in relation to the new definition of municipal waste and proposed new recycling targets. It begins to explore some of the ways in which these measures might be implemented, in order to have minimal impact on householders and businesses, to help reduce confusion around recycling and to ensure that the targets might be met.

Purpose

Section 2 of the document outlines the aim of the discussion. The overall aim is to seek views from stakeholders on steps towards improving the quality and quantity of household and non-household recyclate in Northern Ireland, how to improve reductions in food waste, cut landfill rates and how to get businesses on board. It outlines a series of proposals on what our recycling environment should look like in the future, and makes suggestions on possible ways to improve the quality and quantity of municipal waste recycled in Northern Ireland, to achieve better value in materials markets and to supply more local re-processors. The key areas which we are seeking views in this discussion on are:

- 1. Business food waste (Proposal 1)
- 2. Segregating waste (Proposal 2)
- 3. Rural Needs Impact (Proposal 3)
- 4. Maximising business recycling whilst alleviating cost burden (Proposal 4)
- 5. Business waste data (Proposal 5)
- 6. Restricting residual waste (Proposal 6)
- 7. Food waste from households (Proposal 7)
- 8. Changes to core set of materials (Proposal 8)
- 9. Definition of core materials (Proposal 9)
- 10. Review of core materials (Proposal 10)
- 11. Separate collection (Proposal 11)
- 12. Separate collection and local decision making (Proposal 12)
- 13. Information on the end destination of recyclable materials (Proposal 13)
- 14. Improving transparency of information on recycling (Proposal 14)
- 15. MRF reporting requirement (Proposal 15)
- 16. Performance indicators(Proposal 16)

17. Developing additional recycling metrics (Proposal 17)

Rationale

Sections 3 and **4** describes the strategic context and policy rational for the discussion. It provides more detail of the rationale behind the proposed changes outlined in Section 2 and outlines how reducing the tonnages of food waste going to landfill is a large influencing factor in improving how we recycle in the future. Current plans for reforming Expended Producer Responsibility (EPR) in Northern Ireland is also explored.

Proposals and Questions

Section 5 sets out the <u>Proposals (1-5)</u> and associated questions we are seeking your views on in relation to improving recycling from businesses and other organisation who produce mixed waste and separately collected waste which is similar in nature and composition to waste from households to present their waste for recycling. Some background is also provided to help explain the reasoning behind the questions we are asking.

Section 6 sets out the <u>Proposals (6-17)</u> and associated questions we are seeking your views on in relation to improving recycling from households. Some background is also provided to help explain the reasoning behind the questions we are asking.

Section 7 of this document provides information on how you should respond to this discussion.

1. Introduction

1.1. Background

Household recycling has long been supported by government in Northern Ireland and over the past two decades former Executives have consistently agreed to increasing household waste recycling targets. The NI Waste Management Strategy 2000-2005 set a target of 25% recycling and composting of household waste by 2010. The subsequent waste strategy, Towards Resource Management (2006-2020), set a more ambitious target of 45% recycling of household waste by 2020. The revised Waste Framework Directive (rWFD, 2008/98/EC) target of 50% recycling of household waste by 2020 was then adopted in the current strategy, *Delivering Resource Efficiency - NI Waste Management Strategy* - published in 2013¹.

Since 2000, Councils have responded to these challenges and have introduced services and capacity to increase re-use and recycling at HWRCs and by providing comprehensive kerbside recycling services to households across Northern Ireland.

Through a range of support measures since 2010, DAERA and its predecessor Department, the Department of the Environment, has invested £40m into recycling. This has supported councils to increase recycling capacity for dry materials, for food waste and organics as well as providing householders with communications guidance to improve recycling behaviours.

In addition to diverting more waste from landfill and helping meet statutory landfill targets, there has been a year-on-year increase in overall citizen awareness and participation in recycling, growth in the market value of collected materials and a reduced tax burden on councils through reducing waste to landfill. The recycling sector has also benefitted the Northern Ireland economy, employing over 1000 people and contributing over £100m value per annum^{2,3.}

In 2018/19, Northern Ireland's household recycling rate was 50.2%, meeting the delivery plan target set out in the draft Programme for Government (PfG)⁴. The programme is outcomes based and designed to target those things that will make real improvements to peoples' quality of life. Outcome 2 –"we live and work sustainably, protecting the environment"- includes an indicators for increasing household waste recycling, reducing greenhouse gas emissions and increasing environmental sustainability. The proposals in this document set out approaches to achieving a more sustainable approach to the use of resources, delivering environmental benefits and supporting economic growth in Northern Ireland in line with the draft Programme for Government. The PfG's Outcome 2 supports the principles of a circular economy.

This is a significant achievement but there are new challenges such as retaining more of the value of these materials in the NI economy, providing recycling support to businesses and wider municipal sector organisations, ensuring that there is adequate waste infrastructure to meet our future needs and addressing plastic pollution.

While this is great progress from the low base for recycling in 2000 of 5% with an associated heavy reliance on landfill, there is more to do. Not only to meet upcoming regulatory requirements for increased recycling targets and reduced reliance on landfill, but to make the most of opportunities

¹ https://www.daera-ni.gov.uk/publications/delivering-resource-efficiency-northern-ireland-waste-management-strategy

² http://www.wrapni.org.uk/content/daera-recycling-discussion-document

³ https://ulstereconomix.com/category/ni-jobs-report/

⁴ Northern Ireland Executive, Draft Programme for Government Framework 2016-21

⁽https://www.northernireland.gov.uk/sites/default/files/consultations/newnigov/draft-pfg-framework-2016-21.pdf)), accessed September 1st 2017.

to maximise the economic potential of recycling, to make a contribution to meeting future climate change commitments set out in the New Decade, New Approach Deal (January 2020) and help the UK reach net zero carbon emissions by 2050⁵

To support this next stage, in 2019, DAERA commenced a three-year £23 million capital programme through the Household Waste Recycling Collaborative Change Programme⁶. It provides assistance to Councils to transform kerbside recycling and HWRC infrastructure and services. The aims of the programme are:

- To support Outcome 2 of the draft PfG⁴ "To live and work sustainably protecting the environment".
- To transform local council household waste recycling services in readiness for delivering a circular economy for Northern Ireland between 2020 and 2030
- To improve the quality of household waste recycling collected by Councils to a standard allowing wide market access
- To increase the quantity of household waste recycling collected by Councils and reduce the reliance on landfill
- To raise awareness of, and encourage best practice in, recycling and change the perception of waste to one of a valuable resource

The draft PfG will also ensure that there is a stronger linkage between waste management and developing the local economy as opposed to the historical emphasis on solely meeting an EU Directive recycling target. The services and infrastructure being funded will provide Northern Ireland with a sound foundation for the next 10-15 years as the UK and EU moves towards the delivery of a circular economy as well as contributing to our economic competitiveness and resilience.

Linked to targets within the 2013 Strategy, and outcomes and objectives of the Household Waste Recycling Collaborative Change Programme, DAERA produced the Northern Ireland Central and Local Government Municipal Waste Action Plan to foster existing partnerships with Councils to support, promote a circular economy and improve waste governance.

While targets adopted by previous waste strategies only addressed household waste, new targets set within a revision of the Waste Framework Directive 2008/98/EC ⁷ (as amended by (EU) 2018/851) within the EU Circular Economy Package (CEP) or from now referred to as the "the updated Waste Framework Directive", are focused on all waste of a household nature from businesses, public bodies (schools, universities, hospitals and local national government buildings) and other bodies such as charities or not for profit organisations where they produce municipal waste (See Section 3.1 for definition). The new targets are a recycling rate of 65% by 2035, with interim targets of 55% by 2025, 60% by 2030 and to reduce landfill to 10% by 2035.

The Department has also consulted in 2019 on reforming the UK packaging producer responsibility system alongside the rest of the UK, and on introducing a Deposit Return Scheme (DRS) in England, Wales and Northern Ireland at the beginning of last year. Further consultation on the same are planned for later in the year. HMT has consulted on a plastic packaging tax and following the UK government decision to introduce the tax, further consultations on implementing the tax are planned.

Recycling is important to ensure the supply of sufficient quantity of good quality secondary materials to manufacturers and the packaging sector. This presents great opportunity in NI and to further realise the value of recycling to the local economy and build resilience in the waste materials market.

6 https://www.daera-ni.gov.uk/news/daera-pumps-ps23-million-making-recycling-easier

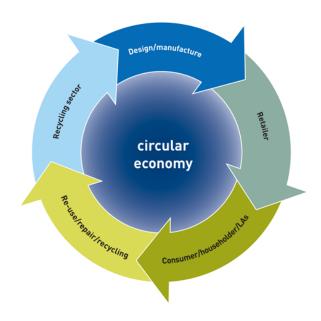
⁵ https://www.gov.uk/government/news/deal-to-see-restored-government-in-northern-ireland-tomorrow

This discussion document sets out the current position of recycling in Northern Ireland, and the current and new regulatory, climate change and market drivers that will influence policy in the future. It will not introduce any new policies but will seek views on how to best implement the new circular economy package provisions as included in the updated Waste Framework Directive, in relation to separate collection and highlight the benefits of better-quality recyclable materials for the circular economy.

1.2. Challenges and Opportunities

1.2.1 EU Circular Economy Package

The circular economy refers to the notion of the continual use of resources and the elimination of waste (Figure 1). In contrast to the current linear system of "make, use, dispose", a circular economy keeps resources in use for as long as possible, extracting the maximum value from them and minimising the generation of waste. Products and materials are then recovered and regenerated at the end of each service life. Circular economy principles build on elements of the traditional waste hierarchy and move toward cyclical, or closed loop systems, demonstrating the need for 'life cycle thinking' in order to create a more sustainable, low carbon, resource efficient and competitive economy.





Recycling is an essential component of an effective circular economy. Meeting the new targets will support Northern Ireland's progress towards a circular economy, where resources are kept in use for as long as possible and products and materials are recovered and regenerated at the end of each product's life. Through the application of the 'waste hierarchy' focussing in turn on prevention of waste, preparing for re-use, recycling, energy recovery and disposal, resources, including recycled materials can be retained within the economy. Using material resources in the most efficient way while minimising the impact of their use on the environment, i.e. resource efficiency, has positive benefits for the economy, jobs and the environment and will:

- benefit consumers by reducing landfill costs as a result of less waste going to landfill;
- increase business competitiveness by reducing material costs;

- help create 'green' jobs;
- give greater security of supply of resources to the manufacturing sector;
- help accelerate development of a circular economy in NI; and
- help reduce the environmental impacts of our production and consumption, by reducing greenhouse gases and reducing pollution.

The implementation of the EU Circular Economy Package (CEP) amends six existing Directives including the Waste Framework Directive 2008/98/EC and requires relevant updates to NI waste legislation in relation to waste collection, recovery and preparing for re-use and recycling. The CEP entered into force across the EU on 5 July 2018 and transposition is required by 5 July 2020. The UK will be legally bound to implement in full this package of amendments to EU Directives during the implementation period. The CEP expands waste and recycling targets to include municipal waste defined as 'that which is similar in nature and composition to household waste'. Changes introduced by the CEP include a requirement for measures to ensure better compliance with the waste hierarchy; a widening of the scope of waste streams that must be separately collected; and incrementally increasing recycling targets (65% for municipal waste by 2035 with interim targets of 55% by 2025, 60% by 2030). It also defines specific recycling targets for packaging; requires specific measures for littering; contains a landfill reduction target (maximum of 10% municipal waste by 2035); and sets minimum requirements for all extended producer responsibility schemes.

The updated Waste Framework Directive broadens the scope of municipal waste arisings to include commercial waste of a household nature for the first time. 'Municipal waste is defined as waste which is similar in nature to household waste (see Section 3.1) and includes that which is collected from businesses, public bodies (schools, universities, hospitals and local national government buildings) and other bodies such as charities or not for profit organisations where they produce municipal waste.

Key new targets in the Waste Framework Directive 2018 include:

- A 65% binding target for recycling for municipal waste by 2035;
- A 70% target for recycling of all packaging by 2030 and
- A cap on waste to landfill of 10% by 2035.

The CEP will mean higher ambitions in managing resources and increasing recycling performance. DAERA is now considering how its EU obligations should be achieved in this area.

This discussion document provides the public and businesses with the opportunity to provide input and influence in respect of one of the key aspects of the implementation of the CEP requirements, recycling of waste.

Circular Economy systems retain resources within the economy when a product has reached the end of its life and resources can be productively used repeatedly, so creating further value, i.e. getting quality materials back in the loop for the Northern Ireland economy. Consequently, the added value in products remains in the systems for as long as possible, so reducing waste and reducing the amount of waste ending up in landfill.

The economic, environmental and social benefits of moving to a circular economy are widely accepted and, in line with global trends, momentum has been building in Northern Ireland to ensure that the circular economy is firmly embedded in the current draft PfG. All waste sectors generating municipal waste, working together with Councils, waste collectors and public have been identified as having a central role to play in this transition.

1.2.2 Landfill in Northern Ireland

The Department's latest review of landfill capacities ⁸ shows that at current rates of fill the overall remaining non-hazardous landfill capacity is likely to run out within nine years. The remaining lifespan for landfills accepting 'active' Municipal Waste is likely to be considerably less. Without a substantial reduction in the amount of waste ending up in landfill, action will be required to alleviate significant land pressures, potentially leading to extra demand for increasingly limited pressure on available landfill, escalation of gate fees and additional likelihood of illegal dumping.

There is potential to reduce the amounts going to landfill for example, support for increased provision of Recycling and Residual Waste treatment infrastructure or the development and use of Energy from Waste (EfW) facilities in Northern Ireland. Options for residual waste treatment are still being explored in Northern Ireland to improve resilience and reduce risks from external factors.

All of Northern Ireland's Councils are on track to meet their landfill diversion targets to reduce the tonnage of biodegradable local authority collected municipal waste (BLACMW) to landfill to no greater than 35% of the 1995 baseline by the end of 2020 (429,000 tonnes). Statistics indicate that Northern Ireland has exceeded this diversion rate year on year since 2012. For 2018/2019 the amount of BLACMW sent to landfill was 153,323 tonnes which was 10.5% lower than the 171,295 tonnes sent in 2017/18, and 65% of the allowance used compared to 69% in 2017/18⁹.

The landfill rate for household waste reached its lowest rate of 28.4% in 2018/19, a drop of 3.6% on the 2017/18 rate (32%) and a significant reduction from 72.3% in 2007/08. The proposed updated Waste Framework Directive cap on landfill of 10% by 2035 would be a challenging target to meet. It is imperative that we continue to find better ways of diverting waste from landfill.

Apart from Landfill Tax, the Northern Ireland Landfill Allowance Scheme (NILAS) and the requirement to provide receptacles for food waste are the only direct policy levers. These have assisted Councils to expand recycling services to improve the scope and quality of recycling and for businesses to invest in recycling services.

1.2.3 Responding to the Climate Change Emergency

Climate change is at the forefront of public concern. Globally there is a significant acceptance of the desirability to shift towards a low-carbon economy but there is less consensus on how we should go about it. The UK Government legislated in 2019 for a net zero carbon target by 2050. The next UN Conference on climate change ("COP 26"), to be attended by most world leaders, was to be held in Glasgow in November 2020 and would have focused global attention on the issue. Due to the impacts of Covid-19 this has now been postponed until 1-12th November 2021. Reducing carbon emissions will have many benefits, including those for business and energy efficiency. Northern Ireland has no separate, climate change legislation, however Northern Ireland is included under the UK Climate Change Act¹⁰ and contributes to UK greenhouse gas emission targets and carbon budgets .

Greenhouse gas emissions is one of the indicators in Outcome 2 'We live and work sustainably - protecting the environment' of the draft PfG. A report from the UK Committee for Climate Change 'Reducing emissions in Northern Ireland '¹¹ is being considered by DAERA and other government

⁸ Update on Landfill Capacity - based on 2018 figures (NIEA) <u>https://www.daera-ni.gov.uk/sites/default/files/publications/daera/annual-nilas-report-201819.pdf</u>

⁹ https://www.daera-ni.gov.uk/sites/default/files/publications/daera/lac-municipal-waste-2018-19-report.pdf

¹⁰ https://www.legislation.gov.uk/ukpga/2008/27/contents

¹¹_https://www.theccc.org.uk/publication/reducing-emissions-in-northern-ireland/

Departments. It contains sector-specific waste options and recommendations, which could assist Northern Ireland in contributing equitably towards the UK fifth carbon budget. All the political parties in Northern Ireland recognise the need for a coordinated and strategic approach to the challenge of climate change within the PfG and the UK Climate Change Act 2008. Actions and interventions will be required across a wide range of areas in order to address both the immediate and longer-term impacts of climate change in a fair and just way. To this end:

- the Executive's strategies to reduce carbon emissions will be reviewed in light of the upcoming 6th UK Carbon budget;
- the Committee on Climate Change is to clarify later in 2020 Northern Ireland's equitable contribution to meeting the UK net zero by 2050 target;
- a new Energy Strategy will set ambitious targets and actions for a fair and just transition to a net zero-carbon society;
- The Executive will consider plans to meet climate change commitments and approaches outlined in 'New Decade, New Approach'
- the Economic Strategy will support clean and inclusive growth and create jobs as part of a Green New Deal.

1.2.4 Increasing Capture of Household Recyclables

A recent waste composition analysis of kerbside collected household waste ¹², commissioned by DAERA, suggests that although there is separate kerbside food waste collection provided by Councils to all households, just under 25% of the residual waste bin is food waste. Indeed, 55% of the residual bin waste is potentially recyclable material, for example, just over 15% is paper and cardboard and 7% is glass. Therefore, this provides an opportunity to further reduce waste to landfill and increase recycling in Northern Ireland.

Although we have seen household recycling rates in Northern Ireland increase significantly over time, rates are starting to level off and progress has been slower over the last few years. While many Councils continue to make improvements and have introduced new services, some do not collect the full range of materials that can be recycled. Public awareness of plastics as an environmental concern has risen in recent years, with greater focus on recycling and waste management adding pressure to tackle plastic waste – now regarded as one of the world's most urgent environmental problems.

The introduction of the Food Waste Regulations (Northern Ireland) in 2015 has helped increase the amount of food waste being captured and recycled in NI from both households and businesses. However, capture rates could be improved to meet UK best practice levels and food waste will be important in meeting future recycling targets.

1.2.5 Global Markets and Material Quality

The best value for recycled materials in the marketplace is for clean and high quality materials. In 2018, China restricted its imports of post-consumer plastics, paper and card, setting very low contamination levels for materials accepted. This effectively prevented most collected recyclates from being exported, adversely affecting the value of collected materials and the recycling

<u>12 https://www.daera-ni.gov.uk/publications/northern-ireland-kerbside-waste-composition-2017-summary-report-volume-1</u> and <u>https://www.daera-ni.gov.uk/publications/northern-ireland-kerbside-waste-composition-2017-volume-2-local-authority-waste-composition-analysis</u>

economy as well as risking stockpiling or landfilling of recycled materials with no end markets. Other countries initially provided alternative export destinations for material previously accepted in China, but the high levels of contamination led to these closing, leaving most developed countries to make urgent reviews of recycling strategies and markets. As set out in the CEP, many European countries recognise the need to develop more indigenous recycling capacities to compensate for reduced export potential. With the implementation of the CEP, policies are being developed to address this and the economics of recycling require continuing progress to produce high quality recycled feedstocks.

In turn the economics of recycling and investment will dictate the necessity for improvement, which in turn will drive the development of a viable circular economy, making use of these quality materials and creating further demand for them.

Recycling and recovery of high-quality materials also helps address the growing concern for the increasing global demand for resources. By using resources more efficiently through waste prevention and high reuse and recycling rates, material security is improved and dependence on primary resources (whether from inside or outside the UK) is reduced.

In order to maximise a high-resource value, it is important that recyclate materials are kept as separate from other wastes at source as much possible. This supports market demand for high quality and high value recyclate, which in turn, is also likely to be used in manufacturing operations rather than lower quality recyclate. Producing high quality recyclate in Northern Ireland also reduces the likelihood of materials being sent overseas for treatment.

Other economic drivers are creating new investment and market opportunity for the development of a circular economy. The UK Plastics Pact ¹³ sets targets by 2025 for recycled content in plastic packaging and to increase plastic packaging recycling to 70% as well as eliminating unrecyclable plastic packaging and using packaging that is fully recyclable or compostable.

The Collaborative Circular Economy Network (CCEN) final scoping study report published in March 2017¹⁴ indicates that three of the re-processors (for paper, plastics and glass) in the network in Northern Ireland generate around £110 million in added value from manufacturing recycled-content products and employ over 700 people. It is also estimated that with an increased supply of high quality recyclate material, another £47 million of unrealised economic potential could be generated. As components of a successful circular economy, these manufacturers help protect existing jobs and create new jobs, build resilience into Northern Ireland's economy within the reprocessing sector and increasing demand for recycled materials, reducing waste disposal and greenhouse gas emissions

Considerable progress has been made with recycling in Northern Ireland, particularly from households. However, at non-domestic premises, such as businesses and in the public sector, there is significant potential to increase the capture of large quantities of recyclable materials by reducing the need or option to dispose of recyclable materials in residual waste collections or co-mingled with other recyclables wastes that prevents later separation. This will increase the supply of high-quality input materials to these industries.

1.2.6 Covid-19

Since March 2020, the Covid-19 virus has resulted in significant changes in the operations of businesses and other organisations, including an increase in the number of people working from home or furloughed. These changes have impacted and will continue to impact waste arisings and composition for the foreseeable future. Long term impacts on recycling, waste arisings and operations are unknown and it will take a while to properly understand data to determine the cross-

¹³ https://www.wrap.org.uk/content/what-uk-plastics-pact

¹⁴ http://www.wrapni.org.uk/content/daera-recycling-discussion-document

sector impacts. The Northern Ireland CEP study was based on the best available historical data and evidence and WRAP intends to update the CEP analysis with the most up to date scheme figures. WRAP will undertake an initial review of the impacts of Covid-19 on the sectors affected in this study to identify any early trends in results and implications on resource management for the next few years.

2 Purpose of the Discussion Document

DAERA recognises that more needs to be done to increase the rates of recycling and as a result improve not just the quantity of recyclates but the quality of recyclates going to the re-processors for the end markets. We support the view that there is a strong strategic, economic and environmental opportunity to improve the quality and quantity of recyclate collected from both households and non-household organisations within Northern Ireland. The UK and Northern Ireland is now considering how best to meet EU obligations, that is, changes to the Waste Framework Directive 2008/98/EU via the Circular Economy Waste Package (CEP) and DAERA would welcome views from stakeholders. This includes trying to achieve the target of 65% municipal recycling rate by 2035 and reducing landfill rates to 10% by 2035.

DAERA is currently working with WRAP on how to achieve the CEP recycling target of 65% of municipal waste recycled by 2035 and sectoral contributions. WRAP has identified that improvements in the recycling rate requires contributions from all household waste collections, improvements at HWRCs and significant improvements from across the newly obligated non-household municipal sectors and indicates that there is a large potential for the non-household municipal sectors to contribute to Northern Ireland meeting the 65% target by 2035 ¹⁵(see Figure 2)

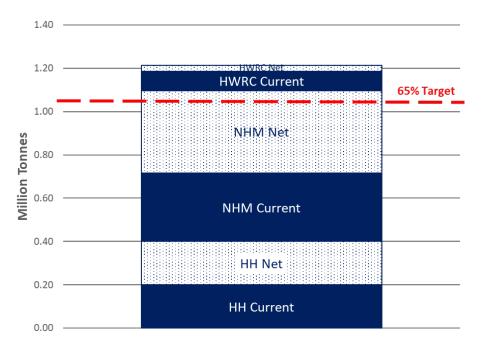


Figure 2: Potential net recycling gains in Northern Ireland

DAERA estimates that about 56,000 businesses and other organisations in Northern Ireland produce municipal waste within the scope of the CEP (i.e. they generate waste which is similar in

nature to household waste). Building on recent successes for household recycling – WRAP¹² estimates that households have the potential to achieve 58% waste recycling by 2035. Increases from improved HWRC provision are also key and the council role will continue to be vital in enabling this. In the non-household municipal sector, and businesses in particular, there is the potential to contribute 80% of the municipal waste recycling target as there is a greater quantity of target recycling materials in non-household municipal streams. The challenge is to develop recycling collection systems that can capture increased quantity at the right quality and be economic.

The purpose of this discussion document is to give you, the stakeholders who will be affected by any decisions taken in the future, an opportunity to express your views on what our recycling environment should look like in the future, and how to improve the quality and quantity of municipal waste recycled in Northern Ireland. We welcome views on how our environmental priorities and objectives could and should be integrated into meeting these targets and how to include businesses and not for profit organisations.

In order to do this we need your views on steps towards improving recycling rates (55% by 2025, 60% by 2030 and 65% by 2035) in household (HH) and non-household municipal (NHM) sectors, how to improve reductions in food waste, cut landfill rates (10% by 2035) and how to get businesses on board. By radically changing the way we think about waste at every level; the producer, the processor, the retailer and the consumer, we can provide a sustainable basis to developing a circular economy and achieve the targets.

We want input from the widest possible range of respondents, and we look forward to receiving responses from all sectors, age-groups, organisations and individuals. Every response will be carefully considered and fed into the policymaking process.

For businesses and other organisations: we are asking for views on requirements for eligible duty holders in this sector (i.e. those businesses and other organisations that produce municipal waste) to separate their dry recyclables from residual waste so that these materials (e.g. plastic packaging, paper, card, metal and glass) can be collected for recycling, similar to households. We are also asking for views on how eligible businesses and other organisations in this sector, especially those that produce food waste in significant quantities, which are already required to be collected separately, should present this separately for recycling.

We estimate that between 30-40% of municipal waste produced by businesses and other organisations, which is similar in nature to household waste, is currently recycled. Given that the waste composition profiles of these sectors suggest high proportions of recyclable products, this performance could rise to 80%+ with the right measures. This represents a huge opportunity to increase recycling in this sector and a significant step towards a more circular economy.

A summary of proposals to improve recycling from businesses and other organisations that produce municipal waste which we are seeking views on are listed in Table 1.

Table 1: Proposals for businesses and other organisations producing municipal waste.

Proposal 1: In order to increase food waste collected from the non-household municipal sector, the Food Waste Regulations (Northern Ireland) 2015 should be reviewed to ensure obligated businesses segregate food waste for collection.

¹⁵ http://www.wrapni.org.uk/content/daera-recycling-discussion-document

Proposal 2: We want to increase recycling from businesses and other organisations that produce municipal waste. We think the most effective way of doing this would be to require these establishments to segregate their recyclable waste from residual waste so that it can be collected and recycled by waste collectors.

Proposal 3: As rural communities make up a significant proportion of Northern Ireland, we propose to review the impact on businesses in rural communities so that they are not disproportionally affected by laws introduced to increase recycling of non-household municipal waste.

Proposal 4: We propose to review options to maximise business recycling whilst alleviating cost burden on businesses.

Proposal 5: In advance of implementing changes to business recycling, we will work with waste producers and waste collectors to improve reporting and data capture on waste and recycling performance of businesses and other organisations. Any requirements will be subject to further consultation.

For households: We know that householders care very much about recycling but can be confused about what can be recycled. Rules about what can be placed in each bin can add to householders' confusion. To reduce this confusion, we want every Council in Northern Ireland to collect from households the same range of dry recyclable materials. We think this should include: plastic bottles and plastic pots tubs and trays, glass packaging (bottles and jars), paper and card, and metal packaging. It could also include food and drink cartons. We are seeking views on how best to achieve these changes and what materials to include views on whether statutory guidance to Councils on minimum service standards for waste management would help to support Councils to deliver these changes. These services should be supported by regular and frequent residual waste collections and we seek views on whether the guidance should include advice on minimum frequency for this service. The guidance will be developed with Councils taking account of comments in this discussion.

In addition to the changes above we think these ambitions could be supported by non-binding performance indicators to help Councils to deliver high quantities of good quality recycling. We would want to work with the Councils to develop these indicators and are therefore consulting on what the indicators might look like and whether this approach would assist Councils to help deliver recycling ambitions.

We also recognise that the current weight-based recycling targets favour the collection and recycling of heavy materials, for example garden waste, over other more environmentallybeneficial measures to promote dry recycling. Carbon intensity is one metric that has been used widely as an alternative for measuring recycling performance. Reforms to producer responsibility may drive further changes in product design and make weight-based metrics less effective at driving environmentally sustainable behaviours. We are therefore seeking views on how best to apply supplementary targets to weight-based targets and metrics.

A summary of proposals to improve recycling from households in Northern Ireland which we are seeking views on are listed in Table 2.

Table 2: Proposals for households producing municipal waste.

Proposal 6: We propose that all Councils in Northern Ireland should be required to restrict capacity for residual waste from households to help divert more materials into the recycling waste streams.

Proposal 7: By 2023 we propose to legislate for Councils to provide all kerbside properties and flats with access to at least a weekly collection service for food waste.

Proposal 8: We propose that all Councils in Northern Ireland should be required to collect a core set of dry recyclable materials at kerbside from houses and flats.

Proposal 9: We propose that the core set of materials will be glass bottles and containers, paper and card, plastic bottles, plastic pots tubs and trays, and steel and aluminium tins and cans.

Proposal 10: We propose that this core set of materials should be regularly reviewed by government and, if appropriate, expanded over time provided that:

- evidence supports the benefits;- there are viable processing technologies for proposed materials;

- there are sustainable end markets;
- Councils would not be adversely affected, including financially.

Proposal 11: We propose to review the separate collection of materials in Northern Ireland and supporting guidance to help clarify the position on current and future collections to help Councils and waste operators in decision making on separate collection.

Proposal 12: We propose to provide national guidance to help establish greater consistency in recycling and waste collection services and reduce confusion for households.

Proposal 13: We will continue the support by the Department for Recycle Now and the tools produced by WRAP to help Councils and other campaign partners to communicate effectively on recycling.

Proposal 14: We will work with Councils and others to improve transparency of information available to householders on the end destination for household recycling.

Proposal 15: We will introduce statutory regulation in line with the other three UK nations requiring MRFs to report on input and output materials by weight to determine the average percentage of target, non-target and non-recyclable material.

Proposal 16: We propose developing an updated set of recycling and waste indicators to monitor performance and cost efficiency and to highlight where services may be improved. We will work with Councils to develop these and other indicators to reflect areas such as quality or contamination levels and service delivery.

Proposal 17: We will look at metrics that can sit alongside weight-based metrics and will work with stakeholders to develop these to better measure reductions of carbon emissions associated with waste in Northern Ireland.

The changes we propose will help us to:

- meet our EU Withdrawal Agreement obligations to the CEP;
- achieve consistency in the materials collected for recycling;

- divert all food waste from the residual stream;
- make it easier for householders to recycle; and
- help to significantly increase the quantity of material collected for recycling from businesses and improve the quality of recycling collected to respond to increasing demand and achieves better value in materials markets.

3 Strategic Context/Policy Rationale

Today, recycling has become much more commonplace. Citizens, Councils and businesses have engaged with recycling to great effect and it has become a way of life for a lot of people. Recycling success can be attributed to:

- Policy / regulation.
- Investment in infrastructure by DAERA, Councils and the waste sector.
- Introduction of comprehensive recycling services.
- Restriction of residual waste capacity.
- Increasing householder knowledge around correct recycling.

Some recycling improvements can also be attributed to the rollout of mandatory collections of food waste. Since April 2017, all Councils have been required to provide households a container for food waste and deliver this service. With separate food waste collections mooted for commercial and business enterprises, a similar result could be realised in the next few years. There have also been calls for more investment in separate food waste collection to further reduce the amount of food waste going to landfill, where it releases harmful greenhouse gases.

Throughout the past few years DAERA has delivered theme-based recycling campaigns, investments and training in partnership with WRAP and Councils. These include:

- provision of funding support to local government to help improve recycling infrastructure and services by investing in communications, staff training and capital works;
- provision of information and guidance to householders on recycling a broader range of materials in order to reduce greenhouse gas emissions, improve sustainability within the home, increase recycling rates and increase diversion from landfill;
- raising awareness of recycling and providing information to the public on how to recycle items; and
- provision of advice on reducing contamination within household kerbside schemes and improving the quality of recycling.

The campaigns have been aimed at raising public awareness on dealing with specific household waste items in order to increase recycling and reduce contamination.

In addition, funding through the Household Waste Recycling Collaborative Change Programme outlined above, is providing Councils with financial assistance to improve recycling services and infrastructure in order to divert waste from landfill. This also helps Councils to realise the economic potential of recycling through improving recyclable quality as well as increasing the quantity of recycling, giving consideration to any additional requirements needed to manage risks connected to Covid-19 and protect employees and the public. The programme is being primarily delivered through collaboration with Councils. The services and infrastructure being funded will help provide

Northern Ireland with a sound foundation for the next 10-15 years as the UK and EU moves towards the delivery of a circular economy, in line with the CEP, and contribute to our economic competitiveness and resilience.

With greater emphasis on the quality of recyclate produced, as well as increasing the recycling rate, greater economic potential could be realised for the local economy, reducing reliance on landfill and helping lower greenhouse gas emissions. It will also help create and protect jobs by making Northern Ireland manufacturing companies more resource efficient and resilient in terms of the security of supply of raw materials.

3.1 Municipal (Household and Non-Household) Waste

Municipal waste is the waste we produce in households and similar to the type waste produced by the commercial sector. It includes what is collected from households and also from all businesses, public bodies (such as schools, universities, hospitals and local and national government buildings) and other bodies such as charities or not for profit organisations where they produce municipal waste. Typically, this waste is collected at the kerbside and back door or brought directly to bring banks or HWRCs and separated into different streams (e.g. at kerbside - general waste bin, dry recycling container, organic waste bin).

More specifically for the purposes of this document, municipal waste means:

a) mixed waste and separately collected waste from households, including paper and cardboard, glass, metals, plastics, bio-waste, wood, textiles, packaging, waste electrical and electronic equipment, waste batteries and accumulators, and bulky waste, including mattresses and furniture;

(b) mixed waste and separately collected waste from other sources, where such waste is similar in nature and composition to waste from households;

Municipal waste does not include waste from production, agriculture, forestry, fishing, septic tanks and sewage network and treatment, including sewage sludge, end-of-life vehicles or construction and demolition waste.

(This definition is without prejudice to the allocation of responsibilities for waste).

'Bio-waste' means biodegradable garden and park waste, food and kitchen waste from households, offices, restaurants, wholesale, canteens, caterers and retail premises, and comparable waste from food processing plants.

3.2 Food Waste

Food waste is a global problem, with around a third of all food being wasted. In the UK, post-farm gate, around 10 million tonnes of food waste is generated annually. Food waste generated in the UK alone has a value of over £20 billion and is associated with more than 25 million tonnes of greenhouse gas emissions. Northern Ireland has a population of 1.8 million and produces food for export that can feed 10 million people, therefore waste in primary production is likely to be a major source of food waste arising in Northern Ireland.

A recent WRAP report¹⁶ has estimated that food wasted in the UK has fallen by 7% since 2016. This is in part due to changing behaviours around food waste, following awareness

¹⁶ https://wrap.org.uk/content/courtauld-commitment-2025-milestone-progress-report

raising campaigns. However, on average around £700 worth of food is still wasted per UK household, per year.

Goal 12.3 of the UN Sustainable Development Goals (SDGs)¹⁷ states "By 2030, halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains". The CEP reflects this goal and identifies food waste as one of five priority sectors. The UK Government re-affirmed its commitment to this target in the Climate Action Plan¹⁸.

In 2015, the Food Waste (Northern Ireland) Regulations ¹⁹ were made. This legislation required Councils to provide receptacles for the separate collection of food for the occupier of every domestic property. A duty was also placed on food businesses producing over 5kg of food waste per week to present it for separate collection. Following the implementation of these regulations, Northern Ireland has diverted over 1 million tonnes of biodegradable waste from landfill. Instead, the collected organic waste is sent for composting or anaerobic digestion. Separate collection of food waste has positively impacted the levels and quality of waste recycling. There is, however, still an issue with organic waste being put into residual waste bins, with a recent WRAP study showing that up to 24.7% of kerbside residual waste is food waste. Councils, with support from DAERA, are working to improve performance further.

Food donation plays an important role in matching unsold food with charities that can get the food to people who need it, for example, FareShare NI ²⁰. FareShare NI is a regional food sharing and re-distribution network that aims to help vulnerable groups suffering from food poverty by distributing surplus food, donated by the food industry, to member organisations who provide meals to disadvantaged groups across Northern Ireland. In 2019-20, the FareShare Centre in Belfast redistributed over 377 tonnes of food that would have otherwise been wasted (approximately 897,619 meals). 1,583 tonnes of CO2 emissions was also prevented as a result of the food not going to landfill. Currently, FareShare NI have 40 industry partners and 115 charity partners. DAERA recently funded FareShare NI in the purchase of an industrial freezer room to enable them to expand their operations. DAERA will continue to collaborate with FareShare NI and other food redistribution networks to minimise avoidable food waste.

DAERA has provided funding to WRAP to deliver the 'Love Food, Hate Waste' campaign, which raises awareness and offers easy ways to take action. DAERA is continuing to work with WRAP to develop follow-up campaigns to build capacity for behavioural change and waste prevention messaging.

Many of Northern Ireland's major supermarket retailers and food producers have signed up to the Courtauld Commitment 2025²¹. This ten-year voluntary agreement delivered by WRAP supports industry efforts to make food and drinks consumption and production more sustainable. The agreement has a collective ambition to reduce food and drinks waste arisings in the UK by 20% by 2025 (compared to 2015). Achieving this target would reduce the per capita food waste by 31kg per person, resulting in 1.5 million tonnes a year less food waste, post-farm gate.

3.3 Extended Producer Responsibility

The current producer responsibility packaging regime was introduced on a UK-wide basis in 1997 and is based on the 'polluter pays principle'. The UK government is to introduce measures to adopt Extend Producer Responsibility (EPR) as part of the Directives under the CEP.

This reform will propose that the full net costs of managing packaging waste are placed on those businesses who generate the packaging and who are able to influence its design. These measures

¹⁷ https://www.un.org/sustainabledevelopment/sustainable-consumption-production/

¹⁸ https://www.gov.uk/government/news/uk-to-go-further-and-faster-to-tackle-climate-change

¹⁹ http://www.legislation.gov.uk/nisr/2015/14/made

²⁰ https://fareshare.org.uk/fareshare-centres/northern-ireland/

²¹ https://wrap.org.uk/food-drink/business-food-waste/courtauld-2025

will reduce the amount of unnecessary and difficult to recycle packaging and increase the amount of packaging that can be and is recycled.

The management of packaging waste currently costs Councils in the region of £1 billion per year. EPR liabilities will meet the ongoing costs for collections Councils are responsible for providing.

In 2019, a UK Consultation was launched to help refine the details of how EPR could be delivered. In terms of obligations for producers of packaging waste, it is anticipated they will be required to fund the full cost of managing packaging waste both from Council's statutory household collections and commercial waste management services to commercial businesses.

The consultation was designed to consider the scope of the obligations and materials included as well as the design of payments under full net cost recovery arrangements. Further work is currently being undertaken to develop the proposals based on feedback received and further Industry consultation.

The introduction of EPR is expected to drive circular economy changes in the quality and quantity of materials collected and processed. Producers will be contributing large subsidies to support packaging waste collections and being required to meet new high recycling targets. As such, producers will have greater influence over collection systems in terms of driving quality and through re-design of packaging materials in order to reduce their funding obligations. Reprocessors can expect to have greater confidence in the supply of materials resulting from the adoption of more consistent approaches to collecting recyclable materials and the guidance provided to the public.

4 Shaping the Future Recycling and Separate Collection of Municipal Waste in Northern Ireland

4.1 Case for Action/Approach

In order to work towards improving recycling rates in line with CEP and the updated Waste Framework Directive obligations, we will need to think about how we can transform the recyclates currently collected in Northern Ireland and to provide a truly comprehensive service for waste and recycling. We think it is the right time to consider how we can best achieve these changes. In summary we are seeking your views on how to:

- improve the quality of recycled materials as well as increasing the quantity collected;
- ensure there is a strong linkage between waste management and the local economy as opposed to the historical emphasis on solely meeting the EU Directive targets;
- assist in realising the potential economic benefits to the local economy, thus supporting NI move towards a circular economy;
- help Northern Ireland improve our 'municipal waste' recycling rates and reduce the amount of materials going to landfill: and
- help reduce carbon emissions, greenhouse gases and pollution in Northern Ireland.

4.2 Businesses and Other Organisations that Produce Municipal Waste

Although some businesses recycle, there are a large proportion of business and industries and other large non-profit making organisations which generate municipal waste that have the potential to significantly increase recycling rates by opting in to recycling collection schemes.

There is currently no robust reporting for waste collection and recycling in the non-household municipal sector, nor has this sector had many direct policy measures to drive recycling performance.

To meet CEP targets and to grow the circular economy, it will be necessary to increase recycling and collection of dry mixed recyclable materials, food and other recyclable material in the nonhousehold municipal sector. This non-household municipal sector includes businesses, public bodies (schools, universities, hospitals and local national government buildings) and other bodies such as charities or not for profit organisations that produce municipal waste (section 3.2). As well as delivering the desired step change in resource management and carbon emissions reductions, it will also ensure we keep pace with other exemplar countries on recycling and will allow us to meet our ambition to recycle 65% of municipal waste by 2035.

As with household waste, the Waste (Northern Ireland) Regulations 2011 ²² require measures to be taken to ensure paper, metal, plastic and glass are collected separately from businesses and other establishments where it is technically, environmentally and economically practicable (TEEP). Research has shown that this can be a challenge for some businesses in terms of cost for waste management services, which are generally sold on a per-bin or per-lift basis. For businesses in the scope of this document, recycling will require additional collection containers, which could increase service costs and be greater than current service costs for a mixed general waste collection with some recycling. This is a key consideration for all businesses and organisations, but smaller businesses may find the cost increase more disproportionate than larger-scale businesses.

Successfully addressing this need to re-organise operations to enable separate materials collections is a key aim of any future policy. Current measures designed to increase recycling and therefore reduce carbon emissions from businesses, such as the Landfill Tax, are proving insufficient. Therefore, intervention is potentially needed to ensure that businesses separate materials for recycling and waste operators collect and recycle them in line with current requirements. In addition, placing responsibility for separating waste for collection on the waste generators, i.e. businesses, rather than the waste collectors would help to ensure waste is presented separately and suitable arrangements are made for its collection with waste collectors providing necessary bins and/or supporting collections infrastructure.

Stakeholder discussions around business recycling held with WRAP and Northern Ireland business waste representatives in October 2019 indicate that there is a preference for greater alignment in approach to household collections and non-household municipal waste in terms of range of materials and access to services. This will help support a standardised approach to recycling and make communications easier. As well as improving access to services to recycle, small businesses are likely to need incentives to use the services and targeted action directed at those businesses that refuse to recycle despite support.

We would expect businesses to be able to at least segregate recyclable waste from residual waste in all circumstances so that it can be collected and recycled. We would be interested in views on where this may not be practicable for example for technical, environmental or economic reasons. The legislation under the separate collection requirements means that the four main dry recyclables (paper and containers made from metals, plastic or glass) should be collected separately. The extent of material segregation and associated guidance for collectors and businesses will be reviewed to take account of derogations where co-mingling would not affect quality or separate collection is not practicable.

We aim to engage further with stakeholders throughout this discussion and afterwards, to ensure we get these measures right and minimise costs of implementation.

²² http://www.legislation.gov.uk/nisr/2011/127/contents/made

5 Improving Recycling from Business and Other Organisations that Produce Municipal Waste

5.1 Background

We want to increase rates of recycling of dry mixed recyclables, food and other recyclable material in the wider municipal sectors outside household recycling. This NHM sector would include businesses, public bodies (schools, universities, hospitals and local national government buildings) and other bodies such as charities or not for profit organisations, where they produce municipal waste.

The WRAP analysis of the NHM sectors estimates the recycling rates to be below 40% at the moment. However, the level of recycling has been found to vary significantly over different sectors and sizes of firms and organisations, so it is difficult to be certain of exact levels without robust monitoring.

The sheer size of the sector and type of waste generated, (approximately 56,000 businesses and organisations generating almost 800,000 tonnes of non-household municipal waste per year), means that there is potential to make a significant contribution to the overall municipal recycling rate. WRAP estimate the following split for the estimate of 791,000 tonnes of waste arisings:

- 542,220 tonnes could be collected as dry material recyclates (including glass).
- 157,353 tonnes represent total food waste available for recycling.
- 91,859 tonnes are currently non-recyclable materials.

Given the high proportion of recyclable materials in the current waste composition for this sector it is thought that with the right measures in place recycling rates in this sector could theoretically rise to as much as 88% overall.

We want NHM waste collections and recycling services to be affordable for all businesses and organisations. This isn't the case at the moment – many businesses, particularly the smaller ones, find it prohibitively expensive. Research suggests that businesses can reduce their costs if they overhaul and optimise the services they have at the moment through providing more containers for recycling and less capacity for residual waste. This transition could be done at the stage where services are procured. Another option would be to work within the current framework of Business Improvement Districts (BID) and contract one waste operator to provide all the waste and recycling services for an area. As part of stakeholder engagement activities ahead of this consultation, we have held discussions with industry leaders drawn from bodies such as Business Improvement District managers, waste collection companies, and waste management companies in Northern Ireland. Additionally, WRAP has undertaken workshops with SME business representatives on our behalf, to better understand the barriers to improving NHM recycling, and to identify suitable mitigation measures.

A wide range of barriers to increased recycling were raised by business representatives with the most common themes and challenges captured below in Table 3.

Themes linked to Barriers	Business challenges & questions
Cost	How to keep costs down, whilst doing the right thing?
Behaviour change - keeping things simple and incentivising recycling	Achieving staff 'buy-in' to new ways of working
Making informed decisions - data transparency & consistent guidance	You can't manage what you don't (or are unable to) measure
Service design - options applicable to different businesses	Getting access to a common system but which will practically work for my business

In trying to achieve a 65% recycling rate, it is expected there will need to be an increase in the range of services and also potential for economies of scale to be achieved. We would like to explore further the possibility of Councils that collect both business waste and household waste at the same time. This may have environmental benefits, such as fewer waste disposal journeys along streets where there are both homes and businesses.

Table 4 below shows the NHM analysis split by the number of business types by unit numbers and an estimate of the annual tonnes generated:

Table 4: Estimated tonnes of waste generated by sector and business size

		Micro	Small	Medium	Large
Hotel and	Number of businesses	3,435	1,185	150	3
Catering	Waste arisings in tonnes	52,715	37,506	15,507	1,785
Health	Number of businesses	2,742	1,477	398	48
1 Ioditi'i	Waste arisings in tonnes	16,630	36,645	19,156	24,516
Retail and	Number of businesses	12,507	2,723	326	36
wholesale	Waste arisings in tonnes	103,361	99,131	51,769	27,750
Education	Number of businesses	1,590	1,439	303	6
	Waste arisings in tonnes	461	14,716	19,144	5,547
Office	Number of businesses	20,562	2,539	548	126

	Waste arisings in tonnes	45,668	45,706	39,718	35,322
Transport and	Number of businesses	2,338	373	121	8
Storage	Waste arisings in tonnes	12,322	16,961	23,293	2,064
Food	Number of businesses	307	125	51	19
Manufacturing	Waste arisings in tonnes	488	3,661	5,175	34,714
Total number of businesses		43,481	9,861	1,897	246
Total Waste arisings (tonnes)		231,645	254,325	173,762	131,699

5.2 What Changes are we Proposing?

We propose to require all non-domestic businesses, public bodies and other organisations generating municipal waste to have to segregate the four recyclable waste streams glass, paper and card, metal and plastics from residual waste in order for it to be collected and recycled appropriately. The supporting analysis assumed that all businesses could segregate recyclables from residual and that in most cases the core dry recyclables would be collected mixed together. Further review of the circumstances in which it may not be technically or economically practicable to collect it separately, or in which separate collection may not have significant environmental benefit will be undertaken by government. These proposals are in addition to the existing requirement for food businesses producing 5kg or more of food waste to separate it for recycling. We have proposed two scenarios for this as outlined below. The scenarios government has looked at are all aimed at diverting key materials to meet future targets and obligations, increasing the consistency of services, and keeping services easy to use and accessible. The Northern Ireland Circular Economy Package Report (NI CEP Report) sets out two different options for improving the collection of recyclable materials from businesses and organisations (NHM waste). These propose that where a business or public sector organisation produces recyclable waste that is similar in nature to household waste it should be separated from residual waste for recycling. The two options considered for this are as follows:

Option 1: Separate Dry Recycling and Separate Food Waste.

This option would require all businesses and public sector organisations to segregate dry mixed recycling (except glass) and to adopt separate food waste collection. In this scenario, eligible businesses and organisations would collect 5 key dry materials – paper, card, plastic bottles, plastic pots, tubs and trays, and metal. Glass would remain in the residual stream, unless optional additional arrangements were made. Businesses would also present food waste separately for collection. We estimate this could deliver a 70% recycling rate for the non-household sector.

Option 2: Separate Dry Recycling, Separate Glass and Separate Food Waste.

Under this option, all businesses and organisations will be required to separate dry material, food waste and glass for collection. This option would deliver a 74% recycling rate across the non-household municipal sector.

In both options, the waste materials in scope are those that are covered by the definition of municipal waste on page 28 of this consultation document.

At the moment, very little NHM waste is segregated for recycling. Therefore, at the very least, implementation of Option 1 would see dry recyclables separated from food waste, which would improve quality. Ideally, we would want all eligible businesses and other organisations to also separately collect glass and food waste. To make these changes it would be necessary to amend legislation to require businesses and other eligible organisations in this sector to present their waste separately for collection.

It might be appropriate to exempt some firms from provisions, similar to current exemptions for food waste, and these circumstances are considered below. This might be most appropriate for micro firms where the costs of compliance might be higher.

DAERA's intention would be to legislate to ensure materials are segregated from residual waste for collection. Detailed requirements on arrangements for segregation of dry materials, glass and food waste would be set out in guidance following a review of the current advice that sets out TEEP. The updated guidance would cover best practice service delivery and options to assist businesses to comply with requirements. Similar to household collections a core set of recyclable materials would be proposed, which allows for differences in the waste material generated by different establishments and the range of materials can be expanded over time.

We would expect businesses to segregate recyclable waste from residual waste in all circumstances so that it can be collected and recycled or we will probably not meet 10% landfill target. We would be interested in views on where this may not be practicable for example for technical, environmental or economic reasons. Where waste was not appropriately segregated for collection, the Northern Ireland Environment Agency (NIEA) would be able to take enforcement action, requiring arrangements to be made for segregating waste as necessary.

5.3 Costs of Introducing Recycling Services for Business Waste

The costs of these options and the numbers of businesses affected are described in the supporting impact assessment. The businesses and other organisations under consideration and relative numbers are set out below in Table 5.

The current waste management costs to the sector are estimated at £143 million per year. Micro and small businesses face the highest costs of £60 million and £55 million per year respectively. This is due to the number of micro businesses which account for 78% of the business sector population in Northern Ireland.

Under Option 2, we estimate that this policy will generate savings of nearly £65 million a year from 2023-2035 as a result of a phased-in approach, starting first with business sectors where changes can be implemented most cost effectively (Table 3). This is because recycling waste costs less than sending it to landfill or EfW and prices charged to businesses for recycling collections are lower than for refuse collections. In other words, for the whole sector, diverting waste away from refuse bins generates savings.

Large businesses would see some savings from higher recycling. In particular, we estimate total waste management cost savings of £9 million per year by 2025, or around £10 million annual waste management costs from 2025 onwards. These figures are based on full waste separation once 80% of remaining dry mixed materials, separate glass and separate food waste are presented in separate containers and refuse collections are reduced.

Medium businesses could also see some savings from high recycling performance. We estimate these to be a total of £13 million in savings from reduced waste management costs, resulting in \pounds 16 million in annual waste management costs per year by 2028 and onwards.

Small businesses are estimated to potentially realise up to £25 million savings per year from the implementation of full waste separation and reduced refuse waste collections as well as shared service provision of waste services (such as making use of Business Improvement Districts). This would reduce their total waste management costs to £30 million per year by 2031. However, there is a significant variation across sub-sectors with some small businesses experiencing net zero costs.

Micro businesses are estimated to potentially realise up to £17 million savings per year from the implementation of full waste separation and reduced refuse waste collections as well as shared service provision of waste services (such as making use of Business Improvement Districts). This would reduce their total waste management costs to £44 million per year by 2031. However, there is a significant variation across sub-sectors with some micro businesses experiencing net zero costs.

Micro and small businesses may see cost increases. This is because increasing recycling is unlikely to reduce the number of refuse bins a business needs, although capacity of the bins could be reduced. Overall, the full separation of waste materials under prices currently offered from waste management companies would result in cost savings to the whole sector of 39% over the period of 2023-2035 but with significant variation across sub-sectors and business sizes.

	Micro	Small	Medium	Large	Total
Hotel and Catering	-£2,712,350	-£3,376,441	-£1,095,949	-£151,061	-£7,335,801
Health	-£1,848,207	-£3,205,433	-£1,947,822	-£1,998,331	-£8,999,793
Retail and wholesale	-£15,311,983	-£13,680,922	-£5,262,627	-£2,463,501	-£36,719,033
Education	£208,134	-£945,464	-£1,078,616	-£318,849	-£2,134,795
Office	£4,200,765	-£2,256,010	-£2,180,117	-£2,270,660	-£2,506,022
Transport and Storage	-£1,205,863	-£1,696,279	-£1,275,493	-£132,632	-£4,310,267
Food Manufacturing	£10,390	-£153,071	-£223,284	-£1,295,913	-£1,661,877

Table 5: Estimated costs to by business size of full separation of waste materials

5.4 Reducing Costs of Waste Management for Small and Micro-Sized Firms

Our analysis shows that large and medium-sized firms should benefit financially from greater segregation of materials for recycling and evidence suggests that some may already have such arrangements in place. This would suggest that costs should be manageable for them and benefits should be realised. For some small and micro firms, however, the costs do increase substantially depending on container types and service level offered. It is important to note however that many small and micro businesses use sack type collection systems and so actual costs, particularly under longer term contracts, would be expected to be lower than the numbers outlined above. Without detailed reporting of container systems nationally it is not possible at this stage to estimate costs more accurately.

Regardless of actual costs, it is important to develop options with which to mitigate against any cost increase for businesses. We want to identify ways to reduce the costs of waste collection for this sector and support sustainable recycling behaviour. WRAP UK has worked with small firms and their representatives to explore options for reducing costs; this work is ongoing.

The Northern Ireland workshops with local business representatives, held in October 2019, outlined a range of potential options to investigate and develop further that could alleviate pressure on businesses. These included:

- building more confidence in end-destinations where waste and recyclables are treated;
- better access and availability of services;
- rewards for businesses that recycle such as incentives, ratings systems and reduced costs;
- more clarity on legal responsibilities and government policies on waste management;
- cheaper costs of collection services;
- more standardised charges that are easier to understand and compare;
- services better tailored for business needs;
- opportunities for cross boundary (both local authority and national) working;
- creating joint procurement opportunities for businesses in order that service charges are reduced;
- improving HWRCs for business use;
- one to one support for businesses;
- waste minimisation initiatives;
- clearer information on what can be recycled;
- better data to measure performance and benchmark;
- more focus on problem materials such as office furniture, tyres, batteries, printer cartridges, florescent lights, fats and oils, and;
- more networks for re-use centres.

There are a number of measures available that could be used to minimise the costs of waste collection and recycling. Some of these are outlined below and we will assess the feasibility and costs of these options over the period of this consultation and beyond. We would welcome views on these and also evidence of other measures that may be available to support business recycling and to reduce costs for small and micro firms.

5.5. Consultation Questions on Measures to Increase Recycling from Businesses and Other Organisations that Produce Municipal Waste

5.5.1. Food Waste

Since April 2017, the Food Waste Regulations (Northern Ireland) 2015 require that any food business that produces over 5kg of food waste per week to segregate and secure the separate collection of food waste. Premises where food is brought from elsewhere to be consumed, such as an office where members bring their own food to consume during breaks, are not defined as food businesses. Fines for not complying with the legislation range from fixed-penalty notices of £300 to fines of £10,000 for repeated non-compliance. Since the statutory duty was introduced, in tandem with mandatory household food waste collection, there has been a 5 percentage point increase in recycling rates, mainly attributed to the regulations.

A recent survey of NHM businesses and facilities in Northern Ireland undertaken by WRAP showed that 43% of food businesses did not have separate food waste collection. Overall, for the NHM sectors only 25% had separate food waste collection. Modelling on food waste production from the NHM sectors estimates that most businesses would be producing 5kg or more of food waste per week. This indicates that many businesses in these sectors are not complying with the Food Waste Regulations. There may be a number of reasons for this lower than expected compliance of the regulations, including lack of awareness of requirements, constraints on the amount of monitoring and enforcement undertaken, difficulty in measuring the 5kg or more threshold and additional cost of the service or accessibility to service providers.

Proposal 1: In order to increase food waste collected from the non-household municipal sector, the Food Waste Regulations (Northern Ireland) 2015 should be reviewed to ensure obligated businesses segregate food waste for collection

Q1. Do you agree or disagree that that the Food Waste Regulations (Northern Ireland) 2015 should be reviewed regarding food waste collections from food businesses?

□Agree

Disagree

If you selected Disagree, please explain why.

[Free form box]

	Strongly Agree	Agree	Disagree	Strongly Disagree	Not Sure/don't know
Awareness of the Regulations to obligated businesses					
Requirements to separate food from all business types					
Options to amending the regulations for more business types to be in scope of the requirements					
Access to food recycling services for businesses					
Charging levels for food waste collection services					

Q2. If the Food Waste Regulations (Northern Ireland) 2015 were to be reviewed which of the following areas should be investigated:

Monitoring of business compliance			
Enforcement of business compliance			
Data and reporting of food recycling			

Which other areas of the Regulations, if any, do you think should be investigated?

[Free form box]

5.5.2. Segregating Recyclable Waste

Proposal 2: We want to increase recycling from businesses and other organisations that produce municipal waste. We think the most effective way of doing this would be to require these establishments to segregate their recyclable waste from residual waste so that it can be collected and recycled by waste collectors.

Q3. Do you agree or disagree that all businesses, public bodies and other organisations that produce municipal waste should be required to separate dry recyclable material from residual waste so that it can be collected and recycled?

□Agree

Disagree

□Not sure/no opinion

If you selected Disagree, please explain why

[Free form box]

Q4. Which of the two options do you favour?

□ Option 1: mixed dry recycling and separate food recycling; no glass recycling

□Option 2: mixed dry recycling, separate food recycling and separate glass recycling

□Something else (please explain below)

□Not sure/no opinion

[Free form box]

Q5. We would expect businesses to be able to segregate waste for recycling in all circumstances but would be interested in views on a preferred position for instances where this may not be practicable for technical, environmental or economic reasons

□Yes – it should be practicable to segregate waste for recycling in all circumstances

No – some exceptions are needed for particular circumstances (please provide examples below)

□Not sure/no opinion/not applicable

If you selected No, please provide examples below.

[Free form box]

Q6. Should some businesses, public sector premises or other organisations be exempt from the requirement?

□Yes

□No

□Not sure/no opinion

If you selected Yes, please tell us which ones and why?

[Free form box]

Q7. Do you have any other comments to make about Proposal 2? For example, do you think that there are alternatives to legislative measures that would be effective in increasing business recycling?

[Free form box]

5.5.3 Rural Needs Impact

The default definition of "rural" used in Northern Ireland is those settlements with populations of less than 5,000 together in the open countryside. Around 670,000 people in Northern Ireland live in a rural area representing approximately 37% of the population. Most strategies and policies developed and implemented across government have a rural dimension and it is recognised that they can have a different impact in rural areas than urban areas due to issues relating to, for example, geographical isolation and lower population densities. It is recognised that as a result of rural circumstances people in rural areas may have different needs and therefore a policy or public service that works well in urban areas may not be as effective in rural areas. The Rural Needs Act (Northern Ireland) 2016 ('the Act') introduced a new duty on public authorities in Northern Ireland to have due regard to rural needs when developing, adopting, implementing or revising policies, strategies and plans, and when designing and delivering public services.

Proposal 3: As rural communities make up a significant proportion of Northern Ireland, we propose to review the impact on businesses in rural communities so that they are not disproportionally affected by laws introduced to increase recycling of non-household municipal waste.

Q8. Considering rural needs, what factors should be included in the review of the proposals on non-household municipal waste:

	Yes	No	Not sure/don't know
Cost of recycling services proposed compared to collections in urban areas			
Ability to reconfigure services to alleviate cost burden in rural addresses			
Access to recycling services in rural areas			

Issues with communicating to rural businesses

Q9. Please list any other specific factors that should be included in the assessment of the policy proposals that may have a different impact on businesses in a rural settlements.

[Free form box]

5.5.4 Maximising Business Recycling Whilst Alleviating Cost Burden

Increasing recycling would be expected to save businesses money especially in situations where the majority of waste is being disposed as residual waste. However, the extent of savings and financial impact often depends on what services are already in place and the business size or amount of waste generated. Research has suggested that for small and micro sized businesses there may potentially be a cost increase in achieving the highest quality recycling systems based on the current range of services and offered in Northern Ireland. At this stage, government is keen to hear initial preferences for options that have the impact of maximising recycling of waste without financially burdening businesses.

If the proposals above are adopted, we would like to support businesses, the public sector and other organisations to make the transition successful. In particular, we would like to find ways to reduce the impact on small and micro businesses. There are a number of measures available that could be used to minimise the costs of waste collection and recycling. The options outlined below have been suggested by Northern Ireland business representatives. We will assess the feasibility and costs of a reduced list of these options over the period of this consultation and beyond.

Proposal 4: We propose to review options to maximise business recycling whilst alleviating cost burden on businesses

Q10. We would welcome views on these options and also evidence of other measures that
may be available to support business recycling and to reduce costs for businesses.

	Likelihood of increasing recycling without a cost burden to businesses.						
Option	Very likely	Likely	Unlikely	Very Unlikely	Not sure/don't know		
Improving access to drop off sites and HWRCs for business use.							
More focus on problem materials such as office furniture, tyres, batteries, printer cartridges, fluorescent lights, fats and oils.							
Providing business advice on optimising/rationalising current services.							
Sharing of containers with neighbouring businesses.							
Regional procurement of services to enable economies of scale and reduce charges levied on businesses.							
One to one support and advice for businesses.							

Clearer information on what materials can be recycled and how.			
On-line tools and calculators to provide information on reducing costs.			
Better data to help businesses measure performance and benchmark.			
Standardisation in pricing approaches from private contractors.			
Combining door to door household and business collections.			
Better access and availability of kerbside services.			
Rewards for businesses that recycle such as incentives, ratings and reduced costs.			
Government or Industry subsidised cheaper costs of collection services.			
Reviewing cross boundary working options (both local authority and national level).			
Clarity in where and how waste and recyclables are treated.			

Other:

[Free form box]

Q11. What are your general views on the options proposed to reduced costs?

[Free form box]

Q12. What might be other viable options to reduce the cost burden that we have not considered?

[Free form box]

Q13. Do you have any other views on how we can support businesses and other organisations to make the transition to improved recycling arrangements?

[Free form box]

5.5.5 Business Waste Data

Having good data on business waste is essential to be able to understand the impacts of waste flows of the environment and to design support for a wide range of organisations in scope of the proposals. Currently business are not legally obligated to report their waste tonnages in the same way as Councils report on household waste. There is a gap in comprehensive data on the flow of waste from businesses and other organisations, limited information on container provision and on the service profiles adopted. If we want to achieve higher recycling rates for municipal waste we will need to improve the quality of data and information available on the current baseline of services in order to determine the scale and cost of making improvements.

Government does already require waste facilities to report flows and types of waste and recycling managed at their sites. However, the nature of collecting mixed loads of waste in rounds means that it is not straightforward to estimate amounts originating from specific businesses or individual sectors. Government has commissioned surveys, but they are often expensive and not wholly reliable or representative of the diverse sectors generating waste and so have not been repeated recently. As a result, our estimates of business and public sector waste rely on incomplete, fragmented data and a number of assumptions, which impacts on its robustness. This issue must be addressed if we are to assess our progress towards a 65% recycling rate target for municipal waste and develop support mechanisms which alleviate the costs on businesses.

We want to work with waste producers and waste collectors in this sector to develop more reliable reporting systems for waste and will look at whether we can implement harmonised waste reporting systems that can be used by Councils, businesses and public sector organisations. For example, we are currently undertaking proof of concept work on waste tracking which, if successful, will help us to obtain more transparent, timely, robust and cost-effective waste management data.

We are not consulting on specific proposals for reporting here but will develop proposals with the sector and develop a future consultation on detailed measures to implement consistency.

Proposal 5: In advance of implementing changes to business recycling, we will work with waste producers and waste collectors to improve reporting and data capture on waste and recycling performance of businesses and other organisations. Any requirements will be subject to further consultation.

Q14. Should businesses and other organisations be required to report data on their waste recycling performance?

□Yes

□No

□Not sure/no opinion/not applicable

If you selected No, please explain why

[Free text box]

Q15. Who should bear the responsibility for reporting data on waste from businesses and other organisations (please select all that apply)?

□Producers (businesses and other organisations where waste is produced)

- □Collectors (the organisations responsible for the collection of waste from businesses and other organisations)
- □ Re-processors/ treatment facilities (the organisations responsible processing and treatment of waste)

□Not sure/no opinion/not applicable

Q16. What specific data sets would your organisation find useful if businesses were required to report under Proposal 5?

[Free form box]

6 Improving Recycling from Households in Northern Ireland

Members of the public are often confused about what their local authority collects for recycling and by sometimes complex bin rules or inconsistencies between Councils in what they recycle and what can be placed in each bin. WRAP's 2019 Recycling Tracker Survey shows that over three quarters of UK households (82%) add one or more items to their recycling collection that is not accepted locally. More than half (51%) put at least one recyclable item in the general rubbish bin. In Northern Ireland this is 81% and 64% respectively.

As a result, some householders either do not recycle all they can, or they might inadvertently contaminate recycling bins with items that are not collected locally for recycling or that cannot be recycled, (e.g. soiled packaging or nappies). Such contamination can reduce the quality and value of materials recycled and might even lead to whole loads being rejected at reprocessing or sorting centres. Contamination can also reduce demand for secondary materials as producers lose confidence in the flow and quality of recycled materials and turn to primary raw materials instead. UK stakeholders have also stated that the need to improve the quality of recyclate and demand for secondary materials are important preconditions for increasing recycling and to encourage producers and packagers to use more recycled materials.

6.1 Current Legislative and Collection Arrangements

The types of waste collected by Councils in Northern Ireland and how collections are undertaken are principally shaped by four pieces of legislation;

- the Waste and Contaminated Land (Northern Ireland) Order 1997 (WCLO) ²³;
- the Waste (Northern Ireland) Regulations 2011 (as amended 2019) ²⁴;
- the Controlled Waste and Duty of Care (Northern Ireland) Regulations 2012 ²⁵ (CWR); and
- Food Waste (Northern Ireland) 2015 (as amended) ²⁶.

The Waste and Contaminated Land Order (WCLO) defines household waste, commercial waste and industrial waste. The provisions relate to the collection, disposal and treatment of controlled waste by Councils. It is amended by the Food Waste Regulations (Northern Ireland) 2015 which ensures that separately collected food waste is not mixed with other waste to the extent that would hamper future recycling.

The Controlled Waste and Duty of Care (Northern Ireland) Regulations (CWR) 2012 makes further provision as to which materials are household waste, commercial waste or industrial waste, and what household waste streams can attract a charge from Councils for their collection and/or disposal. With certain exceptions, such as ad hoc collections, i.e. large items which do not fit in the bin, Councils do not charge for the collection of household waste. Outside of these requirements,

²³ http://www.legislation.gov.uk/nisi/1997/2778/contents/made

²⁴ http://www.legislation.gov.uk/nisr/2011/127/contents/made

²⁵ Controlled Waste and Duty of Care (Northern Ireland) Regulations 2012

²⁶ The Food Waste Regulations (NI) 2015 which amend the Waste and Contaminated Land (Northern Ireland) Order 1997 (S.I. 1997/2778 (N.I. 19)); the Pollution, Prevention and Control (Industrial Emissions) Regulations (Northern Ireland) 2013 (S.R.2013 No.160); the Waste Management Licensing Regulations (Northern Ireland) 2003 (S.R.2003 No.493) and the Landfill Regulations (Northern Ireland) 2003 (S.R.2003 No.493) and the Landfill Regulations (Northern Ireland) 2003 (S.R.2003 No.493) and the Landfill Regulations (Northern Ireland) 2003 (S.R.2003 No.496)

Councils can decide what waste they collect for recycling, and how they collect it – for example, the number of bins and the frequency of collections.

The Waste (Northern Ireland) Regulations 2011 also require waste operators to separately collect paper, metal, plastic and glass to be recycled. This measure is intended to reduce contamination of recycling and drive higher quality so that collected materials can attract a higher value on secondary markets. The regulations state that separate collection is required except where this is not necessary to ensure waste undergoes recovery operations and to facilitate or improve recovery or where it is not technically, environmentally or economically practicable (TEEP) to do so. In some cases, it may not be practicable to separately collect materials, or it may not be necessary to do so because the quality achieved from mixed collection of recycling is sufficient to meet demand. In these cases, waste collectors can collect materials in a mixed or co-mingled fashion and these are later separated and sorted at a materials recovery facility (MRF).

The Food Waste Regulations (Northern Ireland) were made in January 2015 and amend the WCLO (amongst three other pieces of legislation referenced below but which not discussed here). They provide for the collection, transport and treatment of food waste, and for related matters. The objectives of the Regulations are to push food waste up the waste hierarchy, encourage the prevention of such waste in the first place, improve the quality of its recycling and prohibit the landfilling of separately collected food waste. They place duties on;

- Councils to provide householders with a receptacle for the separate collection of food waste by 1 April 2017;
- on food businesses producing in excess of 5kg of food waste per week to present food waste for separate collection and place a duty on businesses to ensure food waste is not deposited in a lateral drain or sewer;
- operators that transport separately collected food waste to keep it separate from other waste (including other bio-waste) during transport;
- operators that treat separately collected food waste to keep it separate from other waste (including other bio-waste) unless it needs to be mixed for treatment purposes;
- They place a duty on food businesses producing in excess of 5kg of food waste per week to present food waste for separate collection and place a duty on businesses to ensure food waste is not deposited in a lateral drain or sewer; and
- the prohibition of landfilling separately collected food waste.

Over time, the way Councils have collected waste and the range of what could be recycled has evolved. This has resulted in a variety of collection practices across different Councils with different categories of materials being collected. The reasons for this variety of systems are often linked to the cost of collection, the waste treatment infrastructure available in a local area and to contractual arrangements for collection services. Some Councils have co-mingled collections and others have separate collections. Some authorities state that they are unable to collect some materials such as glass as it would negatively affect quality and/or entail additional investment to modify existing sorting facilities or to modify collection vehicles.

Geography and housing stock also present challenges and play a role in determining how Councils collect recyclables, (e.g. co-mingled or separated). For example, distances between housing might be significant especially where large parts of some Councils may be rural. Or internal and external space for separation of materials in some properties may be constrained, for instance in apartment blocks, flats or Houses in Multiple Occupancy (HMOs) in cities.

6.2 Consultation Questions on Measures to Increase Recycling from Households

6.2.1 Restricting Residual Waste

As food waste and dry recycling collections increase, we expect the amount of residual waste collected to reduce. Since 2006, residual waste has fallen by 56%, from approximately 205,000 tonnes to 115,000 tonnes. These reductions in the level of residual waste have led Councils to review the frequency of residual collections and reduce them to fortnightly whilst refocussing efforts in improving recycling services.

In line with Northern Ireland government's commitment to support frequent and comprehensive waste and recycling collections, the government wants to ensure that householders are not inconvenienced by being unable to get rid of putrescent or smelly waste at a high frequency or having insufficient capacity to recycle and conversely too much capacity for residual waste.

Newtownabbey

In 2014 a trial was introduced to 3944 households in Newtownabbey and 836 households in Castlereagh. In both areas, a new multi-stream scheme was introduced with a wheelie box for containers. In Newtownabbey the residual bin size was reduced from 240 litres to 180 litres. With a fortnightly residual collection, this reduced the capacity by 30 litres per week. Alongside the reduction in residual capacity the new recycling containers increased the dry recycling capacity by 40 litres per week.

There was an observed increase in set out rate in both areas, however there was a larger increase in Newtownabbey (+20%) compared to Castlereagh (+13%). For recycling yields, Newtownabbey saw an increase of 32% (+0.85 kg/hh/wk) compared to 4.8% (0.12 kg/hh/wk) in Castlereagh. In the survey responses, 610 (53% of respondents) indicated that the smaller residual bin encouraged them to recycle more.

While there was an increase in recycling from residents in Castlereagh with the new dry recycling scheme, the reduction in bin size had a clear effect of diverting more waste into the dry recycling scheme for households in Newtownabbey.

Trends show that in recent years local authorities across the UK have considerably increased restrictions to the available capacity of residual waste for households. These residual waste restrictions have been achieved typically through lower frequency collections or by reducing the volume of residual containers for households. Research shows higher levels of recycling performance are associated with restricted capacity for residual waste. It is understood that Councils have made the restrictions in residual waste in order to deliver financial savings to the local council, to increase recycling performance and the capture of key materials, to help with the introduction of new recycling services or a combination of these reasons. Consumer feedback shows that satisfaction in waste and recycling services is dependent on the comprehensive profile of services offered and that despite reductions in residual capacity public support can remain very high.

Most Councils restricting residual waste capacity have tended to reduce frequency of the service since this offers greater financial savings than replacing the container and maintaining the frequency. In restricting the capacity of the residual stream Councils have sometimes made enhancements to the recycling collections at the same time. Enhancements to recycling collections could be made by either increasing the range of materials collected, increasing the frequency of the recycling collections, or increasing the available recycling container capacity. The supporting

analysis highlighted that the key scenarios which appear optimum in recycling performance and cost, all feature some form of restriction of residual waste.

Currently, most residual bins in Northern Ireland are 240 litre capacity and are collected fortnightly at a minimum. Average residual waste capacity in Wales, the highest performing recycling nation in the UK, shows that households have less than 100 litres per week on average.

The restrictions to residual waste tend to be placed on kerbside door to door collections rather than to flats or high density housing. Exemptions for high density or other difficult to service properties would need to be considered in any policy on restrictions of residual capacity.

The discussion document is looking at interest in the principles of residual restriction rather than the precise service specification at this stage. Further dialogue on the detail of the type of residual restriction, the accompanying recycling service profiles and the expected service standards for delivery will be included in a further consultation which would take place later this year or early 2021.

Proposal 6: We propose that all Councils in Northern Ireland should be required to restrict capacity for residual waste from households to help divert more materials into the recycling waste streams.

Q17. Do you agree or disagree with the proposal that Councils should be required to restrict residual waste capacity (either by frequency or by residual container volume)?

- □Agree Councils should be required to restrict residual waste capacity
- Agree –Councils should be required to restrict residual waste capacity, but on the condition of also enhancing the recycling collections. Enhancements to recycling collections could be made by either increasing the range of materials collected, increasing the frequency of the recycling collections, or increasing the available recycling container capacity.
- Disagree Councils should not be required to further reduce residual waste capacity by any means

□Not sure/don't have an opinion

Q18. Assuming there will be necessary exemptions for key property types, do you have any preference with the proposals below that Councils should be required to restrict the residual waste in different ways?

(Note that Q17 looks at possible enhancements that could be made to possible restrictions of residual waste)

- □Agree Councils should be required to restrict residual waste bin volume while retaining existing collection frequency
- □Agree Councils should be required to restrict residual waste by reducing the collection frequency while retaining the same size container
- □Agree Councils should be required to restrict residual waste bin volume and reduce frequency
- □Not sure/don't have an opinion

Q19. If residual restriction was to be implemented which enhancements should be made to the recycling service to help increase performance and ensure consumers are satisfied with the overall services offered?

Potential Enhancement	Yes	No
Increased frequency of the dry recyclables collection		
Increased frequency of the food recycling collection		
Larger container capacity for the dry recyclables collection		
A higher frequency sanitary waste collection		
A collection of nappies for young families		
Not sure/don't have an opinion	•	

Other (please specify below)

[Free form box]

6.2.2 Food Waste from Households

Approximately 285,000 tonnes of household food waste (that is incorrectly placed in residual waste bins) is sent to landfill in Northern Ireland each year. Here it can release methane, a harmful greenhouse gas, into the atmosphere unless captured for energy generation. If collected separately from residual waste materials, food waste can be sent for in-vessel composting (IVC) or anaerobic digestion (AD), where it breaks down in a controlled way and the methane from AD is converted into gas that can be fed into the national gas grid, used to generate electricity, or used as a vehicle fuel. The AD process also produces a nutrient-rich fertiliser (called digestate) that farmers can use in place of chemical fertilisers.

Currently, all Councils in Northern Ireland offer a collection of food waste separately from residual waste. Out of this, 19% of households receive separate food waste collection on a weekly basis and 81% of households receive collection of food waste mixed with garden waste, usually on a fortnightly basis. UK research shows that collecting food waste mixed with garden waste fortnightly can lead to lower yields compared to a weekly separate food waste collection. On the other hand, mixed food and garden waste collections can be easier to implement as it does not require separate arrangements for collection of food and garden waste. UK Local Authorities do provide weekly mixed garden and food collections but to keep costs low collections tend to be lower frequency.

In order to maximise capture of food waste we propose to require that from 2023, all Councils offer all households a weekly food waste collection. This would be expected in all circumstances except where it was not technically, environmentally or economically practicable to collect this waste separately from other bio-waste. Although there may be some circumstances where a mixed food and garden waste collection is necessary, these should be limited. This might include for lower transport costs arising from using local IVC facilities.

Proposal 7: By 2023 we propose to legislate for Councils to provide all kerbside properties and flats with access to at least a weekly collection service for food waste.

The following question is designed to consider preferences for the proposal and consultees are encouraged to select more than one option where they may be interested in multiple aspects of the proposal.

Q20. Which aspects of the proposal do you agree and disagree with?

	Agree	Disagree	Not sure/don't have an opinion/not applicable
(i) at least a weekly collection of food waste			
(ii) a separate collection of food waste (i.e. not mixed with garden waste)			
(iii) a weekly mixed food and garden waste collection			
(iv) services to be changed only as and when contracts allow			
(v) providing free caddy liners to householders for food waste collections			

For any element of the above question where you answered "disagree" please provide explanation of your views in the box below. For any views on the above or preferences to retain the current fortnightly food waste collection service profile please provide evidence to support your statement.

[Free form box]

6.2.3 Core Materials

The UK is obliged to transpose the requirements of the CEP, which includes ambitious recycling targets. In order to do that, we need to transform the way resources are managed from households in Northern Ireland and to provide a truly comprehensive service for residual waste and recycling. We think the time is right to put in place changes that will ensure the same range of materials is collected for recycling from kerbside for every household in Northern Ireland to help avoid any confusion for households. We therefore propose to legislate for all Councils in Northern Ireland to be required to collect a minimum or core set of 'dry' recyclable materials from kerbside households and flats. This will ensure that every householder is able to recycle a consistent set of materials. We think it is unlikely that Councils will need to deviate from collecting these materials but would welcome views on circumstances where this might be necessary. This core set of dry materials should include at least the following:

• glass bottles and containers - including drinks bottles, condiment bottles, jars etc.;

- paper and card including newspaper, cardboard packaging, writing paper etc.;
- plastic bottles including drinks containers, detergent, shampoo and cleaning products etc.;
- plastic pots tubs and trays; and;

• steel and aluminium tins and cans.

The core set of materials above would have to be collected by all Councils in Northern Ireland, meaning every householder could expect to recycle the same set of materials regardless of where they live in Northern Ireland. We acknowledge that all Councils in Northern Ireland already collect these dry recyclable materials for at least some of their households. The method of collection may be subject to local circumstances and this is covered elsewhere in this consultation. This means that in following these reforms every householder could expect to recycle the same materials regardless of where they live, but the way in which these materials are collected, (e.g. the bins or other containers used) may vary locally.

Our proposals for packaging under Extended Producer Responsibility (EPR) and the UK-wide introduction of a plastic tax related to levels of recycled content in plastic packaging will ensure producers bear responsibility for the net costs of collecting packaging of this type, encourage design for greater recyclability, and stimulate demand for recyclable plastic. These reforms will help re-processors gain greater confidence in the supply of materials increase the demand for recyclable packaging, providing greater economic incentive for Councils to collect all the core recyclable materials. We expect future revenues raised from these measures to enable investment to address problems with single-use plastics, waste and litter to meet the government's ambitions for managing resources and waste.

6.2.4 Changes to the Core Set of Materials

Consolidating the range of materials collected will help build a platform for additional materials to be added to a core list and provide greater clarity for funding going forwards. The waste streams generated by households contain some items or materials that could be considered 'difficult to recycle' using conventional sorting and reprocessing infrastructure in Northern Ireland and across the UK. These items include a wide range of products including plastic films, non-bottle glass, sanitary products and composite packaging. Over time, the composition of waste from households is expected to change under the influence of EPR on packaging design and industry initiatives and this may consequently have an impact on collection systems.

As a consequence, the core set of materials specified by government may need to adapt to these changing circumstances, as products are re-designed and manufacturing processes develop to reprocess these materials. Therefore, we will maintain flexibility within the law to update the core set of materials to be collected, if required, in the future.

New materials would be added to the core set, subject to further consultation and evidence being provided that they are collected or can reasonably be collected for recycling and can reasonably be recycled. The range of materials would also be determined by packaging EPR and DRS proposals (as outlined above). It is expected that the additions to the core set would be considered with the UK countries to ensure greater clarity for consumers and also to help develop UK reprocessing facilities.

Other materials that could be included either immediately or over time might be:

- plastic bags and other plastic film and;
- black plastic food and drink packaging.

Some Councils have expressed concern over the economic viability of collecting all recyclable materials because of a lack of market demand or low prices offered by re-processors for materials. This is a valid concern, but it is expected that the materials added to the list will be in scope of reforms to producer responsibility which will ensure full net cost recovery overall for packaging

materials and so costs of collection would be covered. The greater consistency in collections will help to support more sustainable secondary materials markets and better-quality recycling.

We would welcome views on whether the proposed core set of dry materials identified above is sufficient and whether it could include other materials which might be regarded as more difficult-to-recycle. We also welcome views on circumstances where such a comprehensive service for dry recycling may not be practicable from a logistical perspective and challenges for the householder.

We are also aware of a growing trend of businesses and public bodies switching from using plastics to certified compostable plastic packaging and tableware. Compostable plastics are also being used to manufacture packaging of short-life products and container lids.

Where compostable plastics are collected in dry recycling collections they may contaminate the dry recycling process and compromise quality. Clear labelling and communications would be necessary to help manage these risks. Appropriate treatment infrastructure would also need to be in place before we considered adding compostable plastics to the core list of materials to be collected for recycling.

Proposal 8: We propose that all Councils in Northern Ireland should be required to collect a core set of dry recyclable materials at kerbside from houses and flats.

Q21. Setting aside the details of how it would be achieved, do you agree or disagree with the proposal that Councils should be required to collect a set of core materials for recycling?

□Agree – Councils should be required, to collect a core set of materials

Disagree – Councils should not be required, to collect a core set of materials

□Not sure/don't have an opinion

Q22. We think it should be possible for all Councils to collect the core set of materials. Do you agree with this?

□Agree

Disagree

If you select Disagree, please provide further information and evidence as to what circumstances it is not practicable to collect the full set of materials

[Free form box]

Q23. What special considerations or challenges might Councils face in implementing this requirement for existing flats and Houses in Multiple Occupancy (HMOs)?

[Free form box]

Q24. Do you have any other comments to make about Proposal 8? Please use this space to briefly explain your responses to questions above, e.g. why you agree/disagree with proposals.

[Free form box]

6.2.5 Definition of Core Materials

Proposal 9: We propose that the core set of materials will be glass bottles and containers, paper and card, plastic bottles, plastic pots tubs and trays, and steel and aluminium tins and cans.

	This should be included in the core set but phased in over time	This should be excluded from the core set	Not sure/don't have an opinion/not applicable
Glass bottles and containers			
Paper and card			
Plastic bottles			
Plastic pots tubs and trays			
Steel and aluminium tins and cans			

Q25. Do you believe that all of these core materials should be included or any excluded?

Q26. What other products or materials do you believe should be included in the core set that all Councils will be required to collect?

	This should be included in the core set from the start	This should be included from the core set but phased in over time	This should be excluded from the core set	Not sure/don't have an opinion/not applicable		
Plastic bags and film						
Black plastic food and drink packaging						
Other materials (please specify)						

Q27. If you think these or other items should be considered for inclusion at a later stage, what changes would be needed to support their inclusion?

[Free form box]

Q28. Do you have any other comments to make about Proposal 9?

[Free form box]

6.2.6 Reviewing Core Materials

Proposal 10: We propose that this core set of materials should be regularly reviewed by government and, if appropriate, expanded over time provided that:

- a) evidence supports the benefits
- b) there are viable processing technologies for proposed materials
- c) there are sustainable end markets
- d) Councils would not be adversely affected, including financially.

Q29. Do you agree that the core set should be regularly reviewed and, provided certain conditions are met, expanded?

□Yes

□No

□Not sure/don't have an opinion

Q30. Do you believe that the proposed conditions a) b) c) and d) above are needed in order to add a core material?

□Yes – but I would also add some

 \Box No – some/all should be removed

□Not sure/don't have an opinion

If you selected Yes, please specify which conditions you believe should be added

[Free form box]

If you selected No - some/all should be removed, please specify below

[Free form box]

Q31. Do you have any other comments to make about Proposal 10?

[Free form box]

6.2.7. Separate Collection

In addition to the new core set of materials that we will require to be collected, we want to promote separate collection of materials where this is feasible and can help to improve quality of valuable resources collected for reprocessing. Research shows that greater separation of materials does

increase the likelihood of these resources being utilised in closed loop recycling processes which significantly increases the overall environmental benefits gained (see Encirc case study below).

It is also likely that producers paying into EPR with their own incentives of packaging targets will want to ensure that resources they are accountable for are recycled into optimum end-markets in the UK.

Regulations 18 and 20 of the Waste Regulations (Northern Ireland) 2011 transposed the Waste Framework Directive requirements for ensuring separate collections of paper and cardboard, plastic, metal and glass. The Regulations encourage separate collections of dry recyclables but allow for deviations in approach and service delivery and mixing of materials on the basis that locally it may TEEP to do so UK Guidance from the Regulator²⁷ and key stakeholders provides advice on the application of the regulations.

Typically, separate collection should take place except where:

- collecting certain types of material together does not affect their potential to undergo reuse, recycling or recovery operations and results in output from those operations which is of comparable quality to that from separate collection;
- separate collection does not deliver the best environmental outcome;
- separate collection is not technically feasible taking into account good practice in waste collection;
- separate collection would entail disproportionate cost, taking into account costs of adverse environmental and health impacts of mixed waste collection and treatment, as well as potential for efficiencies from separate collection and revenues from secondary material sales and polluter pays principles.

Since the available UK guidance is now a few years old and with recent and potential forthcoming changes it is important to clarify the requirements of separate collection in law to make these clearer for Councils and waste operators to follow.

Collecting a broader range of materials may alter the approach under which collection systems could be considered more or less efficient. The revisions to the Waste Framework Directive under CEP and the proposals for a core set of materials with potential expansions means that it is now time to review the supporting guidance.

Subject to views from this consultation we will prepare guidance setting out further advice on separate collection and seek to clarify the law as necessary.

Proposal 11: We propose to review the separate collection of materials in Northern Ireland and supporting guidance to help clarify the position on current and future collections to help Councils and waste operators in decision making on separate collection.

Q32. Do you agree that a review of separate collection requirements is required for Northern Ireland to inform municipal collections in light of proposals for core sets of recyclable materials and new producer obligations under Extended Producer Responsibility (EPR)?

□Yes

□No

□Not sure/no opinion/not applicable

If you selected No, please provide examples below

²⁷ https://www.wrap.org.uk/sites/files/wrap/Route%20Map%20Revised%20Dec%2014.pdf

Q33. What circumstances may prevent separate collection of paper, card, glass, metals and plastics? Please be as specific as possible and provide supporting evidence for your statements. Supporting evidence for your statements can be emailed to: recyclingdiscussion@daera-ni.gov.uk

[Free form box]

Case study: Encirc, Derrylin

Encirc Ltd is part of the Vidrala Group, a Spanish owned glass manufacturing group with eight sites throughout Europe. The Derrylin site is a manufacturing plant for glass bottles and containers for the food and drink sector, employing 441 staff, making it one of the largest employers in Fermanagh. Encirc is a major exporter, generating income into the Northern Ireland economy. Exports account for the vast majority of Encirc's sales. Encirc accounts for almost a third of the total GB market and is by far the most dominant player in Ireland. In 2016, more than £650k was invested in refurbishing the furnaces at Derrylin to improve productivity and efficiencies, and the company is planning a major rebuild investment in the furnaces in 2019 and 2021.

Encirc uses recycled glass ("cullet") along with virgin materials to manufacture green, amber and clear glass containers. Encirc currently purchases over 100,000 tonnes/yr of recycled glass. However, if it was available, they could use significantly more. Using cullet as opposed to virgin material produces less carbon emissions in the production of glass. Currently, the average mix for manufacturing all coloured glass is 60% cullet and 40% virgin materials. A study by Carbon Trust for British Glass identified that the energy requirement to produce 1 tonne of glass was 793 kWh, but when cullet is used there is an energy saving of 343kWh. Therefore, a key strategic aim for the company is to increase the cullet fraction in its products - not only from a cost perspective but also in support of Encirc's environmental and sustainability credentials. The critical factor in achieving this aspiration will be sourcing adequate supplies of cullet at the required quality levels.

Of the 100,000+ tonnes of cullet used annually, Encirc currently sources 26% from Northern Ireland and the rest from the Republic of Ireland. The cullet is supplied from Glass Recycling Facilities ("GRFs") which segregate the glass by colour, remove any contamination and prepare a uniform product to Encirc's specification. Glass from co-mingled collections is generally too contaminated to be recovered, as the processing and sorting costs are considered to be prohibitive for the GRFs. Indeed, the main Northern Ireland GRF will only accept glass that has been collected separately. For Encirc, the availability of glass cullet from Northern Ireland is directly linked to the quantity of glass recycled through separate collection channels. The cullet must be clean and uncontaminated, with contamination levels set at 0.1%.

Encirc's main challenge is securing sufficient volumes of quality glass cullet. Encirc could use more cullet if it was available, not only to drive growth but also to increase the cullet fraction in its glass blends.

The issue for Encirc is the quantity of glass which could be reprocessed but, due to contamination, is not being made available to Enirc - either being rejected from the recycling stream and going to landfill or going to lower value recycling applications (such as aggregates).

From the company's experience to date, Encirc has found that kerbside sorting has proven to be the most effective way to minimise contamination (a view shared by the GRFs) and thereby increase the volume of glass recyclate available for higher value reprocessing. Better segregation means lower contamination and higher quality, which in turn means higher recycling rates.

Securing increased and reliable supplies of glass cullet is a key strategic priority for Encirc. If more glass cullet was available within Northern Ireland at the required quality levels, Encirc would be able to:

- increase the cullet fraction in its blends for green and amber glass, which would in turn save on energy and labour costs, and thereby improve cost efficiencies and profitability. It would also reduce Encirc's carbon footprint, by reducing fossil fuel energy consumption, reducing carbon emissions and increasing recyclate usage; and;
- drive continued growth in the business, providing Encirc with the confidence to make decisions to expand
 production and, therefore, employment.

In summary, Encirc is confident that, if more glass cullet was available in Northern Ireland at its quality specification, it would improve the company's ability to grow and create additional jobs, result in cost savings, enhance profitability and reduce environmental impact.

Source : 'Collaborative Circular Economy Network Scoping Study (2017) <u>http://www.wrapni.org.uk/content/daera-recycling-discussion-document</u>

6.2.8. National Guidance

This next section considers the need for National Guidance against the backdrop of several key drivers such as material quality, separation collection requirements, EPR, budgetary pressures, householder satisfaction, and the resulting potential divergence in approaches without guidance.

Expanding the range of materials collected for recycling will clearly make more secondary material available for re-processors. Yet, just as pressing is the need to improve the quality of recyclate collected for reprocessing. Challenging export markets for dry recyclables have highlighted the need to increase the quality of materials collected for recycling from households.

In addition, confusion over what can be recycled has been said to be a major cause of contamination; evidence from WRAP's annual Recycling Tracking Survey shows that householders are often unsure what they can put in their recycling bin and try to recycle non-target items that are either not recyclable or are heavily soiled.

Proposed measures under packaging EPR will see clearer labelling of products for recycling. Requiring the collection of a core set of materials, as proposed here, alongside clearer communication and labelling regarding which items can and cannot be recycled should also help reduce contamination. Many stakeholders have argued that higher quality recycling is fundamentally reliant on having separate collection of dry recyclable materials that have been segregated by householders, as opposed to mixed or co-mingled collections. The extent to which glass is separated from other materials is seen as a particular issue that impacts significantly on the quality of recyclate and especially on the quality of paper collected, where fine shards of glass can become embedded in paper and card and lead to significant disruption at later processing stages.

There have been long argued positions on the benefits of different approaches to collecting dry recyclables. Fully co-mingled collection of dry materials undoubtedly have some advantages. They yield marginally more recyclate than separate collection of the waste streams, they eliminate the need for householders and collection crews to sort dry recycling into individual materials streams at the kerbside and they are less reliant on householders putting only targeted recyclable materials in the recycling bin. They also reduce the number of bins each household needs to accommodate and enable the same type of vehicle to be used on alternate collection rounds to collect residual waste and dry recycling.

However, the available evidence ²⁸ suggests a key disadvantage in terms of the quality of recyclate with co-mingled collections typically containing more contamination, which cannot always be dealt with efficiently by sorting facilities. Higher levels of contamination can increase costs of collection and sorting and reduce the overall value of secondary materials. Using available data ²⁹, the estimated rejection rate for MRFs in Northern Ireland only receiving co-mingled material over the past four years was 14.6%, which is two orders of magnitude higher than the estimated rejection rate from MRFs receiving solely material segregated at the kerbside.

Kerbside sort or two stream collections on the other hand are significantly less contaminated by materials not accepted by the collection service, as shown by research undertaken by WRAP ³⁰

²⁸ https://www.letsrecycle.com/news/latest-news/mixed-collections-contamination/

²⁹ Data collated by NIEA using data on MRFs from WasteDataFlow at https://www.wastedataflow.org/

³⁰ https://www.zerowastescotland.org.uk/sites/default/files/Contamination%20in%20source-

 $[\]underline{separated\%20 municipal\%20 and\%20 business\%20 recyclate\%20 in\%20 the\%20 UK\%20 report.pdf$

and Zero Waste Scotland ³¹ and supported by work by the Welsh Government and WRAP Cymru. This is because materials are sorted into separate streams by the householder before collection and the crew will carry out further sorting at kerbside before loading onto collection vehicles. Nontarget and non-recyclable items can be left with the householder at the kerbside, so never enter the recyclate stream, keeping the materials purer from the start.

WRAP undertook research asking respondents to rank a number of service features of a household recycling system. The three key service features identified by respondents as being important are having a regular and reliable service, being clear on what can/cannot be recycled and sufficient capacity in the recycling container for all their materials. The aspect of not having to separate waste into multiple containers scored lower in importance.

In reviewing consumer satisfaction of services with varying residual waste collections WRAP identified that the highest contentment ratings occurred when provided with comprehensive range of recycling and food waste collections, regardless of refuse frequency. Households with lower frequency residual collections with limited or no additional recycling collections tend to be amongst the least satisfied.

6.2.9 UK Variation in Collection Services

Currently there is a large variation in service profiles and frequencies offered to households across the UK (Table 6). Note that some Councils offer more than one system design.

Service Variation in Dry Recyclables Collection Design				
	Multi-Stream	Co-Mingled	Two Stream	Single Material
UK	23%	55%	37%	2%
NI	30%	56%	14%	0%

Table 6. UK Service variation in dry recyclables collections design

Regardless of scheme design there are large differences in service frequency (Table 7). Although the majority are fortnightly collections in recent years the trends have been to less frequent services.

³¹ https://www.zerowastescotland.org.uk/sites/default/files/Contamination%20in%20sourceseparated%20municipal%20and%20business%20recyclate%20in%20the%20UK%20report.pdf

Service Variation in Collection Frequency for Dry Recyclables and Refuse Collections							
		More than weekly	Weekly	Fortnightly	3-weekly	4-weekly	Other
Dry recyclables	UK	2%	36%	80%	2%	7%	3%
	NI	0%	23%	77%	0%	0%	0%
Residual collections	UK	4%	41%	80%	5%	1%	1%
	NI	0%	0%	100%	0%	0%	0%

Table 7. UK service variation in collection frequency for dry recyclables and refuse collections

The UK has steadily been increasing to weekly food waste collections over the past decade (Table 8). There are still a large proportion of households with no collection service.

Table 8. UK service variation in food waste collection services

Service Variation in Food Waste Collection Services					
	BothFood mixed in gardenNoneSeparate waste				
UK	6%	13%	41%	40%	
NI	55%	45%	0%	0%	

6.2.10 Moving Towards Common Collection Systems in the UK

Over the past decade each of the nations has made steps to promote commonality in collection systems within their own country. Whilst there have been common aims the extent to which each country requires adherence to the specific service profile or retain flexibility does vary.

In Wales, the Government has endorsed a collections blueprint which defines the optimum service profile for high recycling, covering food waste, dry recyclables, garden waste and residual waste. Whilst there is no legal requirement to follow the framework Government has set statutory recycling targets with penalties for not meeting tailored high performance levels and there have been programmes of technical support to help transition, grant and funding³².

In Scotland, Government and Local Authority bodies endorse a Recycling Charter which promotes good practice scheme design, greater consistency in services and delivering communications. An accompanying "Code of Practice" details the service standards which covers the operational delivery of services for a wide range of services³³.

In England, the Government has supported and encouraged an Industry Framework towards greater consistency in services. Local Authorities have been provided with technical support in moving towards the promoted service profiles but adherence to the principles is voluntary. ³⁴

³² http://www.wrapcymru.org.uk/sites/files/wrap/Municipal%20Sector%20Plan%20Wales%20-%20Collections%20Buleprint.pdf

³³ https://www.zerowastescotland.org.uk/content/charter-household-recycling

³⁴ https://wrap.org.uk/collections-and-reprocessing/consistency

The recent Consultation on consistency in collection services in England³⁵ sought opinions in moving towards a minimum service standard approach and use of Statutory Guidance to set out the proposals.

6.2.11 Separate Collection and Local Decision Making

We want to increase the quantity of materials collected for recycling, but we do not wish to do so at the expense of quality. We want to help Councils improve the quality of what is collected for recycling so that its value can also increase. We also want Councils to make the best decision for local circumstances. However, we recognise that since EPR is likely to be adopted across the UK there is a need to encourage some convergence in scheme profiles to benefit producers who would be expected to financially support service delivery going forwards.

National guidance would help waste collectors to meet their duties in relation to separate collection and promote high quality recycling. Guidance could also set out the process by which Councils should use the conditions above to support decisions on local collection arrangements and what information should be recorded in relation to any assessment of separate collection.

Proposal 12: Based on the preceding summary of the key issues, we therefore propose to provide national guidance for Northern Ireland to help establish greater consistency in recycling and waste collection services and reduce confusion for households.

6.2.12 The Nature of Future Guidance

The detail of service specifications will be considered in a follow up consultation. At this stage we are seeking views on the type of guidance that should be put in place in order to encourage the level of change desired. This national guidance could come in one of three forms of detail and specification from Government:

- Statutory Recycling Service Guidance: This option would develop statutory guidance for specifically how recycling services must be provided to residents, that all Councils are required to follow.
- 2. Statutory Guidance Setting Minimum Standards for Recycling Services: This option would provide Statutory Guidance on a minimum level of service beyond which Councils will able to design and deliver services locally for their area.
- 3. **Non-Statutory Guidance for Recycling Services:** This option would provide good practice Guidance on service standards and local flexibility in service design but with no requirement to meet these standards.

³⁵ https://consult.defra.gov.uk/environmental-quality/consultation-on-consistency-in-household-and-busin/

Q34. What would be your preferred approach to Government encouraging greater national consistency in collection services?

Proposal	Agree	Disagree	Not sure/don't have an opinion/not applicable
Publish Statutory recycling service guidance to detail service requirements?			
Publish Statutory minimum service standards guidance?			
Publish non-statutory guidance?			

Q35. Do you have any further comments to make about the Proposal outlined above?

[Free form box]

6.2.13 Communication on Recycling to Residents

If proposals for consistent collections are to be implemented successfully, it will require householders to be well-informed about how they should present waste for collection. As indicated earlier in this document, the presence of contamination from non-target materials in recycling bins currently accounts for a significant amount of material rejection at MRFs. Rejected materials often have to be disposed of in landfill sites or sent to EfW facilities at great cost to Councils. The level of contamination is particularly acute in on-the-go recycling bins, and our discussions with local Council stakeholders indicate that some services have been withdrawn by Councils because it is no longer cost effective to provide these recycling bins.

Apart from contamination issues, there is a considerable amount of recyclable material and organic material which is disposed of in residual waste receptacles. According to WRAP's 2019 Recycling Tracker Survey, 64% of households in Northern Ireland disposed materials into the residual bins that could have been recycled.

While changing people's behaviour can be challenging, many householders want to recycle. For example, in WRAP's 2018/9 Recycling Tracker Survey, 55% of householders in Northern Ireland said '*I want to be a really good recycler and I take the trouble to ensure that I'm doing everything right*'. Therefore, we should make it easier for them to participate by providing clear information. Effective and sustained communications with householders will be critical for ensuring that we achieve our main objectives of increased recycling quantity and quality, and will help to:

• minimise public confusion over what can and cannot be recycled and help increase participation in recycling schemes and minimise contamination;

- give the public suitable information on how and where their waste is recycled. Lack of transparency and understanding over whether their waste is actually recycled can often dent public confidence in recycling schemes;
- help deter public misuse of collection bins and other poor behaviours, e.g. fly-tipping, vandalism;
- build a culture of sustainable waste management underpinned by appropriate waste separation for recycling among householders and businesses; and;
- clarify the responsibilities that Councils would have for undertaking separate waste collections from households.

6.2.14 Labelling Packaging for Recycling

The recent UK consultation on packaging EPR proposes the introduction of mandatory labelling of packaging. This will require labels to clearly state whether packaging is collected for recycling or not collected for recycling. This will bring an end to confusing 'check locally' messages for recycling and ensure the public can confidently place packaging labelled as collected for recycling in their recycling bin.

There will always be a small minority of householders who ignore recycling information, for example by failing to present their waste properly for collection and thereby risk causing harm to environment health. Government will continue to work with Councils to ensure that they have the legislative powers they need to help minimise poor behaviour from householders. Government will also continue to work with Recycle Now and other communications partners to ensure that householders and the general public have access to relevant information to help them recycle better.

6.2.15 Information on the End Destination of Recyclable Materials

Householders are not always clear on the benefits of recycling and what happens to materials following collection. For example, some people believe that materials are landfilled or incinerated rather than properly recycled or are sent overseas to be landfilled rather than recycled.

We want to ensure that householders have a clearer understanding of where the waste they sort for recycling goes to and what the final outcome is, and that they are confident that what they do is helping to reduce waste and preserve environmental health. Changes within the data system Councils use to record waste information (WasteDataFlow³⁶) have provided the facility to improve the transparency of details on waste treatment for different materials, and wider publicity of end destination might help to support public confidence in recycling.

Current reporting on contamination from MRFs in Northern Ireland is inconsistent. One of the difficulties comes from the need to report contamination by Councils, which can be problematic as material can be sent to multiple MRFs. The information on contamination is recorded by MRFs, but there is no requirement to report these figures. Accurate reporting on contamination can have a big influence on assessing the benefits of different recycling schemes and in the future could influence funding delegation from EPR.

³⁶ https://www.wastedataflow.org/documents/guidancenotes/NorthernIreland/KeyPerformanceIndicators/Kpisummarysheetv3.pdf

Government is currently undertaking proof of concept work through the GovTech Challenge to test the feasibility of developing a means of more effectively tracking waste from production, through treatment and final destination, including waste exports. This has potential to provide a more transparent stream of information to the public and industry about recycling and materials flows. If successfully implemented, this may help to increase public and stakeholder confidence in the benefits of recycling.

Consistent collections will make it more efficient and cost-effective to communicate with the public, irrespective of where they live and work in the country. They will also help to improve the labelling of materials for recycling purposes.

Proposal 13: We will continue the support by the Department for Recycle Now and the tools produced by WRAP to help Councils and other campaign partners to communicate effectively on recycling.

Q36. Do you have any comments to make about Proposal 13?

[Free form box]

Q37. What information do householders and members of the public need to help them recycle better?

[Free form box]

Proposal 14: We will work with Councils and others to improve transparency of information available to householders on the end destination for household recycling.

Q38. Do you agree or disagree with this proposal?

□Agree – government should work with Councils and other stakeholders on this

Disagree – government should not work with Councils and other stakeholders on this

□Not sure/no opinion/not applicable

Q39. Do you have any other comments to make about Proposal 14?

[Free form box]

6.2.16 MRF reporting requirements

Codes of Practice with statutory reporting requirements on the weight of target, non-target & nonrecyclable materials currently exist in Materials Recovery Facilities (MRFs) in England, Wales and Scotland, but not Northern Ireland. Such reporting is also in line with circular economy reporting requirements for municipal waste. Introducing these codes of practice to Northern Ireland can assist in assessing performance and identifying opportunities for individual MRF and increase transparency for residents as to the destination of their recycling that is collected.

Proposal 15: We will introduce statutory regulation in line with the other three UK nations requiring Materials Recovery Facilities (MRFs) to report on input and output materials by weight to determine the average percentage of target, non-target and non-recyclable material

Q40. Do you agree or disagree with this proposal?

□Agree – government should introduce regulation on MRF reporting

Disagree – government should not introduce regulation on MRF reporting

□Not sure/no opinion/not applicable

Q41. Do you have any comments or ideas for improving reporting on MRF contamination rates?

[Free form box]

6.2.17 Performance Indicators

We want to ensure that the measures we have discussed in this consultation including having a minimum set of materials to collect, weekly food waste collection and garden waste collection, help us to move significantly towards meeting higher targets for recycling. We also want Councils to continually improve so that they become more efficient and can achieve higher levels of recycling. If Councils implemented the changes in this consultation, they would increase recycling significantly. The quality of the day-to-day service delivery, and the extent and quality of communication with householders are also key to increasing participation, yield and better quality of recyclables.

DAERA currently promotes 15 performance indicators related to waste and recycling services.

There are 12 Key Performance Indicators (KPIs) derived from WasteDataFlow ³⁷;

- 1. Kpi (a) Percentage of household waste arisings sent for recycling and composting
- 2. Kpi (a2) Percentage of household waste arisings sent for preparing for reuse & recycling (inc. composting)
- 3. Kpi (b) Percentage of household waste arisings landfilled
- 4. Kpi (e) Percentage of Local Authority Collected Municipal Waste arisings sent for recycling and composting
- 5. Kpi (e2) Percentage of Local Authority Collected Municipal Waste arisings sent for preparing for reuse & recycling (inc. composting)
- 6. Kpi (f) Percentage of Local Authority Collected Municipal Waste arisings landfilled
- 7. Kpi (g) Biodegradable Local Authority Collected Municipal Waste landfilled
- 8. Kpi (h) Total household waste collected per household
- 9. Kpi (j) Total Local Authority Collected Municipal Waste arisings
- 10. Kpi (m) Percentage capture rate for collected household kerbside primary waste categories
- 11. Kpi (n) Percentage growth rate in Local Authority Collected Municipal Waste arisings
- 12. Kpi (p) Total household waste collected per capita

There are three Waste Management Indicators that were set out in legislation under the Local Government (Performance Indicators and Standards) Order (Northern Ireland) 2015;

- W 1 The percentage of household waste (1) collected by Councils that is sent for recycling (including waste prepared for re-use).
- W 2 The amount (tonnage) of biodegradable Local Authority Collected Municipal Waste that is landfilled.
- W 3 The amount (tonnage) of Local Authority Collected Municipal Waste arisings.

Given the changes in waste management and recycling practices likely to occur in the near future DAERA is seeking views on the benefits of the current indicators or how new indicators might be delivered. We want to know if such an approach would help to support continuous improvement in recycling. This would help Councils to benchmark their performance and to identify areas for

³⁷ https://www.wastedataflow.org/documents/guidancenotes/NorthernIreland/KeyPerformanceIndicators/Kpisummarysheetv3.pdf 58

service improvement to increase recycling yield, to reduce residual waste and to make services more cost efficient.

WRAP evidence ³⁸ suggests that Councils performance is influenced by a number of factors, some of which are contextual variables outside the local authority's control. These can include higher levels of deprivation, which are associated with lower recycling rates, or the increased rural nature of an authority, which is associated with higher recycling rates. Related factors might be the density of housing and the size of gardens for example, which might influence the level of garden waste generated. These contextual factors (i.e. outside of the control of a local authority) can explain up to 30% of variation in recycling performance among Councils. Other factors are more within local authority control, for example the range of dry materials targeted for collection, provision of a separate food waste collection or the capacity of residual waste collection. These can explain 39% - 65% of variation in recycling performance variation.

There is a strong case that these influencing factors should be taken into account when considering Councils' recycling performance. For example, it may be appropriate to have separate indicators for green and dry recycling performance or to group authorities according to their local context (urban, suburban, rural etc.) and their recycling potential compared to that of similar Councils.

We would want to make as much use as possible of currently available information and data sources such as WasteDataFlow to develop these indicators. This would minimise the burden of collecting and reporting data. We would also want to work with local authority bodies and waste operators to develop these performance indicators so that they are useful locally and fit for purpose.

A suite of performance indicators would allow Councils to assess services more effectively than just using the overall recycling rate. For example, indicators could take into account the extent of dry recycling and organic recycling collected; the amount of residual waste collected; numbers of complaints on service provision and other factors such as quality or contamination levels. This approach would reduce the risk that authorities focus on achieving recycling targets at the expense of other activities such as waste prevention or service delivery. It should also help Councils to achieve high recycling levels while also reducing the amount of residual waste that needs to be collected.

Waste and recycling indicators could be calculated on a yield basis and aligned to household numbers in a local authority collection area to enable the effect of housing growth to be taken into account. A benefit of retaining household yield indicators is that other metrics such as cost are calculated as household based formulae so can be easily compared.

Subject to consultee views, yield-based non-binding performance indicators could be developed for at least the following material streams:

- dry recyclables (total);
- food waste; and
- garden waste.

It may also be useful to consider performance indicators for residual waste yields. This will incentivise low levels of waste generation, thereby enabling Councils to make the case for waste prevention and reuse efforts, as well as maximising recycling. Information on actual performance

³⁸ https://www.wrap.org.uk/collections-and-reprocessing/collections-and-sorting/kerbside-collections/reports/factors-influencing-recycling-performance

would be collected from the data submissions Councils make currently through WasteDataFlow or any successor data reporting system and would minimise additional reporting burdens on Councils. We would want to work with Councils to develop a suitable suite of indicators and to ensure data gathering was straightforward and not burdensome. The indicators would be reviewed on a regular basis to ensure they remain relevant and are of assistance to Councils in monitoring and waste management and recycling. Any new data set developed with Councils will be included in the governments Single Data Set which lists all the datasets that local government must submit to central government.

Proposal 16: We propose developing an updated set of recycling and waste indicators to monitor performance and cost efficiency and to highlight where services may be improved. We will work with Councils to develop these and other indicators to reflect areas such as quality or contamination levels and service delivery.

Q42. Do you agree or disagree that a new set of recycling and waste indicators is required?

□Agree

Disagree

□Not sure/no opinion/not applicable

Q43. Do you consider that any of the current set of 15 indicators should be removed?

□Agree

Disagree

□Not sure/no opinion/not applicable

Q44. If you selected Agree in Q43, which indicators do you think should be removed?

[Free form box]

Q45. Are there any specific recycling and waste indicators for household waste which you think should be included?

[Free form box]

Q46. Do you have any general comments to make about performance Indicators?

[Free form box]

6.2.18 Developing Additional Recycling Metrics

Numerous stakeholders have argued for ways of monitoring performance other than the weight of recycling, which underpins current and proposed recycling targets.

Weight (in kilogrammes or tonnes) is currently the common method for the measurement of waste arisings and recycling performance. Weight is operationally important – for example for specifying lifting equipment and for moving waste around the road, rail and river network. We will therefore continue to use weight-based data to measure and understand performance.

However, weight is not always an important factor for making judgements about whether we are doing well or badly, and it is not necessarily the most important factor for making decisions about policies or services. For example, managing waste has impacts on our climate and our natural capital, not all of which are best considered on a weight basis. It also has economic and social aspects which may best be reflected using financial and economic measures, such as economic value or jobs created, or social measures, such as well-being.

When used in isolation, weight-based decisions can lead to unintended consequences such as a focus on recycling heavier waste materials, e.g. garden waste over other materials whose recycling may achieve greater environmental benefit. It may also incentivise recycling and waste collectionled services over waste prevention and reuse, despite the benefits that can be realised from reducing waste or repairing and passing on goods. Weight can also encourage a focus on the quantity of material collected for recycling over its quality. Measuring recycling rates based on weight tends to favour Councils in suburban and rural areas due to the important influence of garden waste tonnages, whilst authorities in urban areas or those having a higher ratio of flats and HMOs tend to be disadvantaged.

If Northern Ireland is to become a world leader in resource efficiency, as set out in the Environmental Strategy for Northern Ireland public discussion document (Sept 2019), it will be important that we develop and implement indicators and ways of understanding actual performance – nationally and locally. These should be better suited to reflecting the environmental costs and benefits of managing various waste materials sustainably (environmentally, economically and socially). Discussions with Council representatives have suggested that new ways of measuring waste management performance would be beneficial but should not replace weight-based metrics. Rather, they should be used alongside existing weight-based metrics.

Further work needs to be undertaken to develop metrics that can be used alongside weight to help us make better decisions. The DEFRA Resources and Waste Strategy for England sets out a number of alternative indicators of the impacts of waste which could be used by DAERA to help us judge the sustainability of resource management at the end-of-life stage. Scotland has developed a 'carbon metric' that supplies a figure for the 'whole-life carbon impacts' of waste. We are not proposing new metrics as part of this consultation but are interested in your views on whether we should supplement weight as the primary means of measuring recycling performance. For example, carbon intensity is one metric that has been used widely as an alternative for measuring recycling performance. UK Government is currently working with WRAP to develop a suitable carbon intensity metric for measuring and reporting waste management performance.

We would like to hear your views on alternative ways of monitoring and reporting the impacts of waste.

Proposal 17: We will look at metrics that can sit alongside weight-based metrics and will work with stakeholders to develop these to better measure reductions of carbon emissions associated with waste in Northern Ireland.

Q47. Do you agree that alternatives to weight-based metrics should be developed to understand recycling performance?

□Agree

Disagree

□Not sure/no opinion/not applicable

If you selected Disagree, please explain why.

[Free form box]

Q48. Do you agree that these alternatives should sit alongside current weight-based metrics?

□Agree

Disagree

□Not sure/no opinion/not applicable

If you selected Disagree, please explain why.

[Free form box]

Q49. What environmental, economic or social metrics should we consider developing as alternatives to weight-based metrics?

[Free form box]

7 How to Respond

Due to the Covid-19 pandemic the Klondyke Building in Belfast is currently closed to staff. Royal Mail post continues to be delivered to the building and is currently being forwarded on to relevant staff who are working remotely. Therefore post may take longer to process. For this reason, we would ask that in the first instance, you consider responding to this discussion document either directly through the online survey on the DAERA website below or via email to the email address below.

Online Survey

This discussion uses the <u>Citizen Space</u> Hub as the primary means of response, in order to make it as accessible as possible.

If you are unable to respond to the stakeholder consultation exercise via Citizen Space, written responses will also be accepted and should be sent to:

Single Use Plastics, Waste Prevention and Waste Recycling Policy Team

Environmental Policy Division

2nd Floor, Klondyke Building

1 Cromac Avenue

Gasworks Business Park

Belfast

BT7 2JA

Or e-mailed to: recyclingdiscussion@daera-ni.gov.uk

If you have any queries regarding making a response you can call 02890 569746 for assistance.

Early responses are encouraged but all responses should arrive no later than 4th October 2020 at **midnight**. Before you submit your responses please read the "Freedom of Information Act 2000 - Confidentiality of Consultation Responses" section below, which gives guidance on the legal position.

7.1 Freedom of Information Act 2000

7.1.1 Confidentiality of Consultations

The Department will publish a summary of responses following completion of the consultation process. Your response, and all other responses to the consultation, may be disclosed on request. The Department can refuse to disclose information only in exceptional circumstances. Before you submit your response, please read the paragraphs below on the confidentiality of consultations and they will give you guidance on the legal position about any information given by you in response to this consultation.

The Freedom of Information Act 2000 gives the public a right of access to any information held by a public authority (the Department in this case). This right of access to information includes information provided in response to a consultation. The Department cannot automatically consider as confidential information supplied to it in response to a consultation. However, it does have the responsibility to decide whether any information provided by you in response to this consultation, including information about your identity, should be made public or treated as confidential.

This means that information provided by you in response to the consultation is unlikely to be treated as confidential, except in very particular circumstances.

The Lord Chancellor's Code of Practice on the Freedom of Information Act provides that:

- the Department should only accept information from third parties in confidence if it is necessary to obtain that information in connection with the exercise of any of the Department's functions and it would not otherwise be provided;
- the Department should not agree to hold information received from third parties 'in confidence' which is not confidential in nature;
- acceptance by the Department of confidentiality provisions must be for good reasons, capable of being justified to the InformationCommissioner.
- For further information about confidentiality of responses, please contact the Information Commissioner's Office:

Tel: (028) 9027 8757 Email: <u>ni@ico.org.uk</u> Website: https://ico.org.uk/