DERRY CITY AND STRABANE DISTRICT COUNCIL

LOCAL DEVELOPMENT PLAN (LDP) 2032

Derry City & Strabane District Council
Comhairle Chathair Dhoire & Cheantar an tSratha Báin
Derry Cittie & Stràbane Destrick Cooncil

EVIDENCE BASE EVB 18

Waste Management

(Updated May 2017)

This Document is one in a series, which builds up to form the 'evidence base' that informs the preparation of the Local Development Plan (LDP).

It comprises initial Workshop Paper(s) on this Planning topic that were presented to Council Members during 2016 / 2017, which have been subject to Member discussion and input, before further discussion at the Planning Committee (LDP) and in turn feeding into the LDP Preferred Options Paper (POP) and then the Plan Strategy (PS) and eventually the Local Policies Plan (LPP) which together forms the LDP.

The afore-mentioned evidence base will be continually updated, to additionally include the latest information, input from public engagement, statutory consultees, stakeholder groups, Sustainability Appraisal and from other Departments within the Council, including Community Planning.

The Evidence Base is published as a 'supporting document' in accordance with Article 10(a) and 15(a) of the Planning (LDP) Regulations (NI) 2015.

CONTENTS

Paper 4: Waste Management

Purpose of Paper: The purpose of this paper is to provide Council Members with a review of current waste management provision and to consider future needs across the District. The paper also examines how the LDP policies can strategically meet the planning needs of Waste Management in the District.

Content: The paper provides information on:-

i. The Relevant Legislative, Policy and Guidance Context for Waste Management In Northern Ireland
ii. Key Players in Waste Management
iii. Northern Ireland Local Authority Collected Municipal Waste Annual Statistics 2015-2016
iv. A Profile of current Waste Management Provision, both Rural and Urban.
v. Conclusion, seeking input on how the LDP can address Waste Management Needs.

Conclusion: Councillors should note the contents of this paper in relation to Waste Management and provide input / feedback on how this aspect should contribute to our LDP

1.0 Introduction to Paper

1.1 A rising quality of life, and high rates of resource consumption patterns have had an unintended and negative impact on the urban and rural environments which in turn present challenges for the handling capacities of urban governments and agencies. In particular, public agencies are now grappling with the problems of high volumes of waste, the costs involved, the disposal technologies and methodologies, and the impact of wastes on the local and global environment.

1.2 Further to the reform of local government on April 2015, waste management continues to be a key responsibility for local government and represents a significant cost risk. While costs associated with waste management are subject to volatility, the expectation is that over time these costs will continue to rise. While Northern Ireland is striving to manage its waste in a more environmentally responsible and sustainable way due to strict EU legislation, the amount of waste being sent to landfill needs to be reduced further. It is therefore vital that alternative solutions and the necessary infrastructure to deal with our waste is developed and failure to do so, will result in the potential for fines which will ultimately impact on ratepayers.

1.3 With local government reorganization, planning applications for waste proposals has come to the Council with other planning responsibilities which were previously dealt with by DOE Planning at HQ in Belfast. Therefore, the elected members and Council planning team has to develop its expertise in this specialist area of planning – including enforcement.

1.4 According to the Department for Agriculture Environment and Rural Affairs (DAERA) (2016), Northern Irelands district councils collected 969,157 tonnes of local authority collected (LAC) municipal waste during 2015/16 compared to 951,423 tonnes collected during the previous year. In addition to the rise in waste tonnage, the following trends were also identified;

- Recycling rates are starting to plateau;
- Tonnage going to landfill continues to fall;
- Volume of Refuse Derived Fuel being exported is growing year on year in the absence of indigenous infrastructure;
- Waste Crime has distorted the local market. This typically occurs when users of waste services opt for unscrupulous illegal operators who charge less and dump illegally;
- Northern Irerland is unlikely to meet the revised Waste Framework Directive target of 50% recycling by 2020 based on the current trajectory; and
- Proposed EU Circular Economy Target will only heighten the need for infrastructure and increased recycling.

1.5 Council provides a range of waste and environmental services across the city, towns, villages and district such as the collection and treatment of waste from 58,798 domestic properties and approximately 300 commercial customers on a weekly basis and the provision of a street cleaning services to cover approximately 1130 kilometres of carriageway - with an emphasis on cost effective Waste Management services to all its citizens.

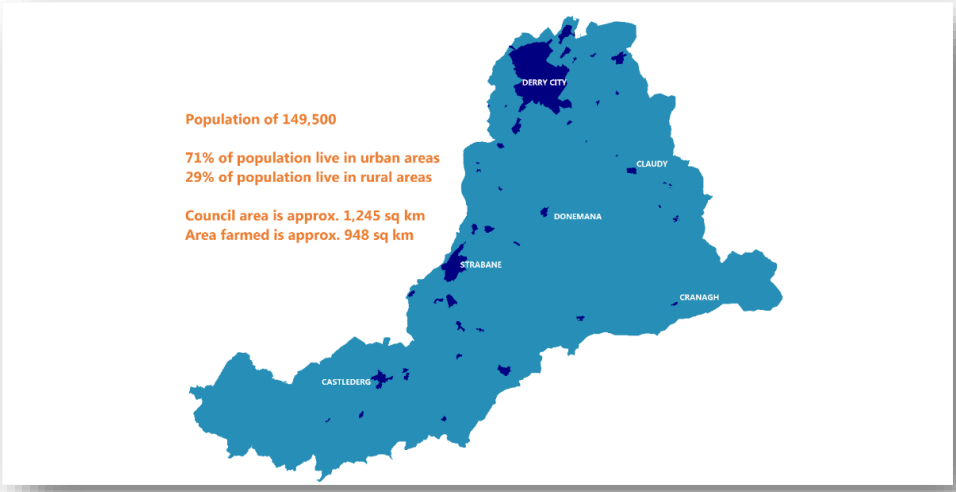


Figure 1: Derry and Strabane District Council Area and Profile

1.6 The Waste Management information presented in this paper will assist the Council in highlighting the importance of Waste Management within the Local Development Plan, as a basis for informed debate at Workshop 9 and hence working towards options on Waste Management designations/policies and then LDP Preferred Options to be published in June 2017.

2.0 Strategic and Policy Context for Waste Management in the LDP

2.1 In preparing the new LDP, the Council will have regard to several existing plans and documents which set out the main legal and policy contexts and considerations of what the LDP is required to do and can include, in relation to Waste Management in the District.

2.2 **The Regional Development Strategy 2035** (RDS, launched 2012)

2.2.1 *Regional Development Strategy 2035 (RDS)*: Waste management is covered under **RG10: Manage our waste sustainably:** Managing waste is a significant part of how we treat our environment. If waste is not managed safely then it can become a serious threat to public health, and cause damage to the environment as well as being a local nuisance. RG10 can be achieved by applying the *Waste Hierarchy* and *Proximity Principles* which are embodied in the **EU *Waste Framework Directive*** and provides a 5-step waste hierarchy which is widely used in other jurisdictions.

The 5 step waste management hierarchy, laid down in Article 5 of the Waste Framework Directive, is a core principle of the Northern Ireland Waste Management Strategy and is also referenced in the RDS 2035. This waste hierarchy aims to encourage the management of waste materials in order to reduce the amount of waste materials produced, and to recover maximum value from the wastes that are produced. Waste disposal should only be used when no option further up the hierarchy is possible. The application of the 'Proximity Principle' is also highlighted. The following diagram taken from Scottish Government's web page illustrates these key principles.

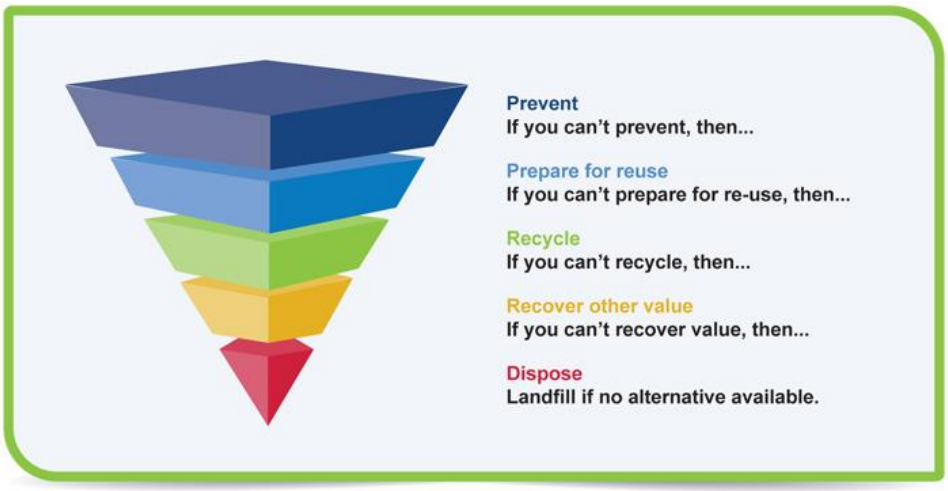


Figure 2: Waste Management Hierarchy

2.2.2 In addition, the **Proximity Principle** also emphasises the need to treat or dispose of waste as close as practicable to the point of generation to minimise the environmental impacts of waste transport.

2.2.3 The RDS is also intended to be sufficiently flexible to allow the private sector to bring forward innovative development proposals which are of significance to the whole or substantial part of Northern Ireland and create employment, wealth and important assets for the Region.

2.2.4 The RDS also states under its aims that everyone should contribute to reducing the Region's carbon footprint. Policy ***RG 9: Reduce our carbon footprint and facilitate mitigation and adaptation to climate change whilst improving air quality*** states that consideration needs to be given on how to reduce energy consumption and the move to more sustainable methods of energy production. For example, the use of fossil fuels and greenhouse gas emissions can be reduced by recycling waste and recovering energy from it.

2.2.5 Meeting the targets through the diversion of waste from landfill to other treatment methods will require the development of significant new waste management infrastructure. This is a challenging, costly and time consuming process which will require a substantial programme of investment if the aims set out in Strand 3 of the NI Waste Management Strategy 2006-2020, are to be achieved.

2.2.6 Central Government is working closely with local government in the development of new waste facilities to ensure that Northern Ireland's long term needs for all waste streams are met. These will be developed at a limited number of key sites, convenient to the major centres of waste production. Research suggests that to meet the Landfill Directive targets, Northern Ireland will require a combination of up to seven Mechanical Biological Treatment (MBT) and three Energy from Waste plants. This includes both incineration and gasification plants, to deal with the residue from the MBT process.

2.2.7 Tackling waste management and increasing the use of renewable energy sources will help address climate change targets. The Executive's *Sustainable Development Strategy*, recognises that concentrated efforts across all sectors will be needed to improve energy efficiency and reduce carbon emissions in order to address the challenges presented by climate change and the need for sustainable development.

2.3 Programme for Government (PfG) 2011-2015 and Draft PfG 2016-2021

2.3.1 The Northern Ireland Executive's Programme for Government 2011-2015 contains a specific commitment to achieve a household recycling or composting rate of 45% for Northern Ireland by 2014/15, under the objective *'Protecting our People, the Environment and Creating Safer Communities'.* It also aims to reduce the consumption of single use carrier bags by at least 80%. More recently, the published draft Programme for Government Framework (PfG) 2016-2021 highlights the importance diverting waste away

from landfill and the importance of recycling which can contribute to the Circular Economy.

2.4 Strategic Planning Policy Statement 2015 (SPPS)

2.4.1 Sustainable waste management is essential for the health and well-being of society, and our quality of life. The waste management industry is an important provider of jobs and investment across the region, with the potential to support future business development, investment and employment.

2.4.2 The Northern Ireland Waste Management Strategy - '*Delivering Resource Efficiency'* (October 2013) – emphasises that waste is a resource and an opportunity, rather than a burden. The strategy recognises that smarter use of scarce resources is both a strategic necessity and an economic opportunity. It reflects the EU Waste Framework Directive (WFD) target of recycling (including preparing for re-use) 50% of household waste by 2020, as well as the Executive's Programme for Government commitments.

2.4.3 The aim of the SPPS is to support wider government policy focused on the sustainable management of waste, and a move towards resource efficiency. It sets three strategic objectives for waste management:

- Promote development of waste management and recycling facilities in appropriate locations;
- Ensure that detrimental effects on people, the environment, and local amenity associated with waste management facilities (e.g. pollution) are avoided or minimised; and
- Secure appropriate restoration of proposed waste management sites for agreed after-uses.

2.4.4 Our local development plan should set out policies and proposals that support this aim and policy objectives, tailored to the local circumstances of the plan area. Our Council must assess the likely extent of future waste management facilities for the plan area. Specific sites for the development of waste management facilities should be identified in the Plan together with key site requirements.

2.4.5 In the case of a regional scale waste collection or treatment facility, its location should relate closely to and benefit from easy access to key transport corridors such as the A5 and A6 and where practicable make use of the alternative transport modes such as the Derry to Belfast rail link or River Foyle. Council's new plan should also identify the need for appropriate waste management facilities within new development.

2.4.6 The preparation of a LDP affords the opportunity to engage with relevant government departments and agencies responsible for various aspects of

waste management, fostering a necessary joined up approach. This approach should also be extended to neighbouring councils where appropriate.

2.5 The Northern Ireland Strategic approach is set not only within the context of Northern Ireland policy and legislation, but also takes into consideration the wider context of relevant **EU Environmental Directives** and the *current 'direction of travel'* of EU policy toward life cycle thinking and a resource efficient Europe. The EU provides strong direction to Member States on waste issues and much of the UK and NI waste policy and guidance is based on EU legislation. As part of the UK, Northern Ireland must comply with the EU's waste management policy as laid down in the Framework Directive and associated legislation. The EU Waste Framework Directive was established in 1975 and provides a legal framework for all EU waste regulation. It has been updated repeatedly in response to changes in the waste burden and waste management tools. The **revised EU Waste Framework Directive (2008/98/EC)** (The revised *WFD) seeks to position the EU as a 'recycling society', with broad aims 'to avoid waste generation and to use waste'.* Decoupling economic growth from the environmental impacts associated with waste generation is a key objective of the revised WFD. Stabilising waste generation is no longer considered enough and this needs to be reversed. The '*Roadmap to a Resource Efficient Europe'* which was published by the European Commission in September 2011 defines medium to long-term objectives and the means for achieving them.

2.5.1 A key milestone is not just to manage waste but to recognise it as a resource and thereby create a **'Circular Economy'** with residual waste reduced as far as is possible. An integral part of this concept is greater focus on waste prevention followed by increased recycling. The requirements of the WFD have been transposed into NI legislation through the Waste Regulations (NI) 2011.

2.6 **Planning Policy Statement: *PPS 11: Planning and Waste Management* –**

During plan preparation, Council waste management groups may wish to discuss the likely extent of future waste management facilities for the plan area. Sites for the development of waste management facilities may be identified together with the need for appropriate waste management facilities associated with new development. Development plans will also consider the potential impact of existing or approved waste management facilities when zoning adjoining lands for other forms of development and the need to separate incompatible land uses. The COMAH Directive (EU Directive 96/82/EC) requires development plans to consider the location of hazardous installations including the need to maintain an appropriate distance between establishments where hazardous substances are present and residential areas, areas of public use or areas of nature conservation interest.

2.6.1 Planning applications for waste collection and treatment facilities are considered against the policies contained in PPS 11. Proposals for the

development of any waste management facility will be considered against Policy WM1 and will be subject to a thorough examination of the environmental effects and will only be permitted where it can be demonstrated that it meets an extensive criteria such as not causing harm to human health or unacceptable adverse impacts to the environment.

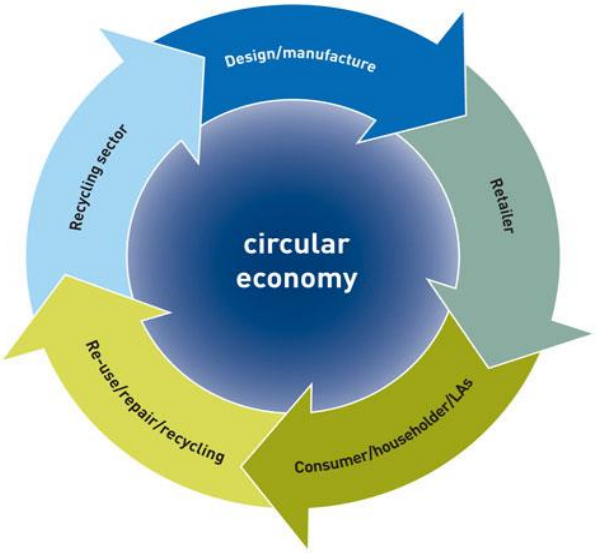


Figure 3: Circular Economy (Resource Magazine)

2.7 Derry City and Strabane District Council Corporate and Improvement Plan 2015-16

2.7.1 This plan has been developed in the context of the **Community Plan** which will provide the long term strategic planning framework for the Council and the wider community. During the course of this process, Council has actively brought together a range of community, private and statutory stakeholders to develop a long-term vision for the social, economic and environmental regeneration of this area. It is anticipated that the Draft Community Plan will go out to public consultation in June 2017.

2.7.2 The new style of LDP provides a unique opportunity for the Council to genuinely shape the district for local communities and will enable them to adopt a joined up approach, incorporating linkages to other functions such as regeneration, local economic development and community planning. The Local Government Act introduces a statutory link between the Community Plan (CP) and the LDP, in that the preparation of the LDP must 'take account of' the CP – which provides the higher-level strategic aspirations. It is intended that the LDP will be the spatial reflection of the CP and that the two should work in tandem towards the same vision for the Council area and our communities and set the long term social, economic and environmental

objectives for the District. It therefore provides the key context at the local Council level for the preparation of the LDP.

2.8 The most recent version of the **Northern Ireland Waste Management Strategy** entitled *'Delivering Resource Efficiency'* was published in October 2013. During 2011, the DOE carried out a scoping exercise and it was agreed that the original 2006 version should be revised to cover all EU Directive requirements and provide a coherent approach to the waste policy framework for Northern Ireland. While it builds on and retains the core principles of the 2006 Waste Management Strategy, it places a renewed emphasis on the Waste Hierarchy. The new Strategy moves the emphasis of waste management in Northern Ireland from resource management, with landfill diversion as the key driver, to resource efficiency i.e. using resources in the most effective way while minimising the impact of their use on the environment.

2.9 It also emphasises that waste as a resource can provide an opportunity, rather than be perceived as a burden. The strategy recognises that smarter use of scarce resources is both a strategic necessity and an economic opportunity. It sets out the EU Waste Framework Directive (WFD) target of recycling (including preparing for re-use) 50% of household waste by 2020, as well as the Executive's Programme for Government commitments.

2.10 Northwest Region Waste Management Group (NWRWMG) has prepared a Waste Management Plan aimed at improving waste management practices through a regional approach to economies of scale and resource-sharing. The North West Region Partnership's **'Review of the Waste Management Plan 2006-2020** sets out arrangements for waste management and covers the period from 2012 to 2020. One of the main objectives of this plan is to promote recycling/recovery and reduce the reliance on landfill sites as the primary means of waste management. The future of the waste management groups, following local government reorganisation in April 2015, the long-term future remains uncertain and is yet to be determined.

2.11 The existing **Derry Area Plan 2011 (DAP)** was adopted in 2000 and is now beyond its notional date of 2011. The DAP 2011 has one waste policy under Chapter 13 Public Utilities: *Policy WD 1 Waste Disposal within Areas of Scenic Quality – Planning permission will not normally be granted for the disposal of waste materials within the Sperrins AONB, Bonds Glen and Ness Wood/Ervey Wood Countryside Policy Area or within the Areas of High Scenic Value.* At the time of publication, the predominant method of dealing with waste materials was landfilling/landraising. Sites at Culmore and Duncastle were used and operated by the former Derry City Council, while others were privately operated. However it was recognised that the life of these facilities is limited and that new arrangements, including facilities for re-cycling and recovery as well as disposal by landfilling or other means, would be required. Various options were being considered for the management and disposal of

waste, some in conjunction with neighbouring Councils, but it was clear that there would be an ongoing need for landfilling/landraising facilities.

2.12 **Strabane Area Plan (SAP) 2001** was adopted in 1991 and is also beyond its notional end-date. The SAP stated that waste disposal would continue to be disposed of in landfill. SAP identified two sites that the district uses for landfill i.e. at Spamount, for inert materials and at Carricklee where most of the waste was disposed by the Council, and is now closed.

3.0 Key Players in Waste Management

3.1 The **NI Executive** oversees nine government departments which includes the Department for Infrastructure (DfI) - formerly DOE. Amongst the Department of Infrastructures aims is to improve the quality of life for everyone in NI through the promotion of sustainable development principles in all the activities of government and wider society in particular, their application in DOE's responsibilities for land use, air and water quality, waste management and the natural and built environments. The DOE published a Revised Northern Ireland Waste Management Strategy in order to delivery statutory and non-statutory targets, comply with the revised Waste Framework Directive and move the emphasis of waste management in NI from resource management (with landfill diversion as they key driver) to resource efficiency.

3.2 **The Department of Agriculture Environment and Rural Affairs** (DAERA) is responsible for the drafting of legislation on waste and implementation of waste management policy and the promotion of a more sustainable approach to dealing with waste in Northern Ireland. They also have responsibility for monitoring, recording, reporting and setting standards for compliance, issuing consents, licenses, permits and authorisations and enforcing legislation.

3.3 **The Strategic Investment Board Limited** is a professional advisory company within the public sector in Northern Ireland, working wholly in the public interest. The company was established under statute by Ministers in 2003 to bring high calibre investment skills into the public sector in order to accelerate the delivery of major infrastructure programmes and to ensure a good deal for the public purse. The company remains fully owned by and accountable to the Office of the First Minister and deputy First Minister (OFMDFM). SIB supports the Northern Ireland Executive to deliver major and complex infrastructure projects successfully including waste related projects.

3.4 The Northern Ireland Waste Management Strategy 2006-2020 proposed the establishment of a Ministerial-chaired advisory committee, the **Strategic Waste Board**, to co-ordinate and monitor the Waste Strategy Delivery Programme. The Board is made up of senior representatives of all the key statutory organisations, and will include representatives of local government at both officer and elected member level.

3.5 **The Waste Infrastructure Task Force** was established in April 2005 to consider and report on key stakeholders' views on how best to facilitate the delivery of the waste infrastructure required to enable Northern Ireland to meet national and European waste management targets.

3.6 **The Waste Programme Board** was established in September 2010 and is a non-statutory advisory committee chaired by the Minister of the Environment. Its role is to oversee the implementation of the targets contained within the NI Waste Management Strategy 2006-2020.

3.7 **The Waste Infrastructure Programme Board (WIPB**) is also an advisory board, accountable to the Waste Programme Board and responsible for overseeing the delivery of an effective and efficient Waste Infrastructure Programme. It is chaired by the Department of Environment's Deputy Secretary Environment and Marine Group, and is comprised of representatives from Central and Local Government and the Strategic Investment Board.

3.8 **The North-West Region Waste Management Group (NWRWMG**) is a voluntary coalition of Derry City and Strabane District Council and Causeway Coast and Glens Council responsible for formulating local waste management plans and delivering effective waste management across its area.

3.9 **Derry City and Strabane District Council** provides a range of waste and environmental services across the District. The services involve the collection and treatment of waste from both domestic and commercial customers as well as street cleaning services 9 (see Section 5).

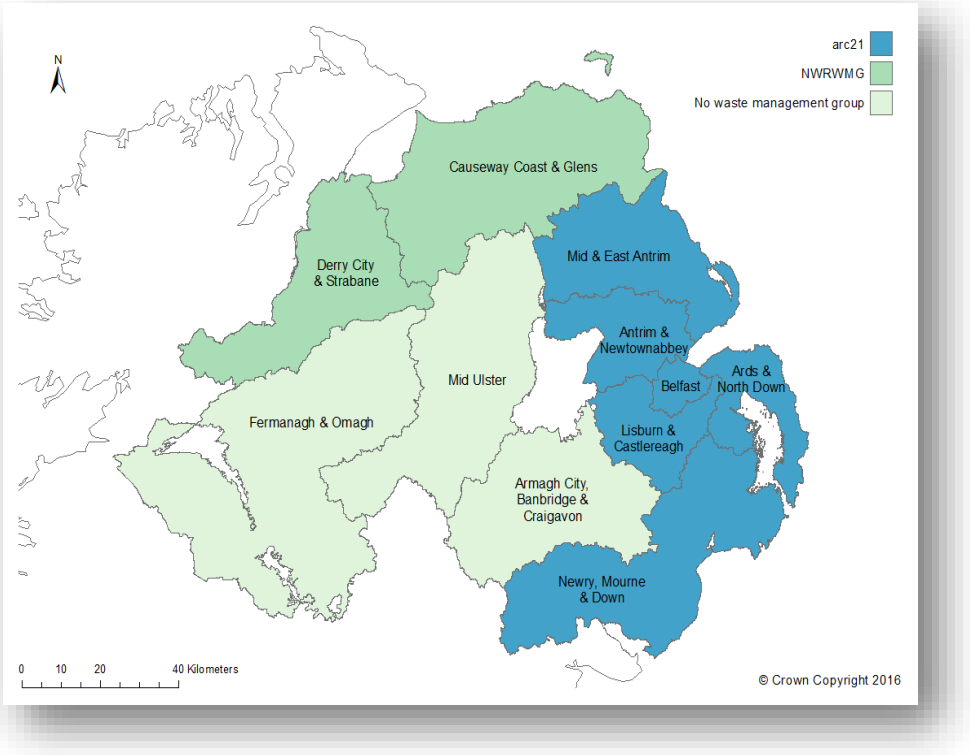


Figure 4: Northern Ireland Sub-Regional Waste Management Group

4.0 Northern Ireland Local Authority Collected Municipal Waste Statistics 2015-2016

4.1 The following statistical data which has been compiled by DAERA is the first to be released on an 11 council basis since reorganisation on the 1st April 2015. During this period in Northern Ireland 8 of the 11 councils were split into two Waste Management Groups (WMGs) with 3 councils unaffiliated to any group. WMGs produce, develop and implement Waste Management Plans for their areas of responsibility and are an important part of the data submission process.

4.2 The group with the largest share of the population is arc21 with 59%. The North West Regional Waste Management Group (NWRWMG) has 16% of the population with the remaining 25% residing in councils belonging to no waste management group. There were six councils in the arc21 Waste Management Group: Antrim & Newtownabbey; Ards & North Down; Belfast; Lisburn & Castlereagh; Mid & East Antrim; and Newry, Mourne & Down. NWRWMG contained two councils: Causeway Coast & Glens; and Derry City & Strabane. The remaining three councils were not members of any WMG: Armagh City, Banbridge & Craigavon; Fermanagh & Omagh; and Mid Ulster.

4.3 The proportion of Northern Ireland's total LAC municipal waste collected by each council broadly reflects the population within the councils. Belfast City Council had the greatest LAC municipal waste arisings in 2015/16 with 169,964 tonnes. This was 18% of total NI LAC waste arisings, the same as its 18% share of the total NI population. Interestingly, it also had the largest proportion of non-household local authority collected municipal waste arisings, at 26%, likely reflecting the concentration of businesses in this area. Fermanagh & Omagh District Council had the lowest arisings in 2015/16 with 53,963 tonnes collected. This represented 6% of total NI arisings during the period and again was the same as the 6% of the NI population living in this council area.

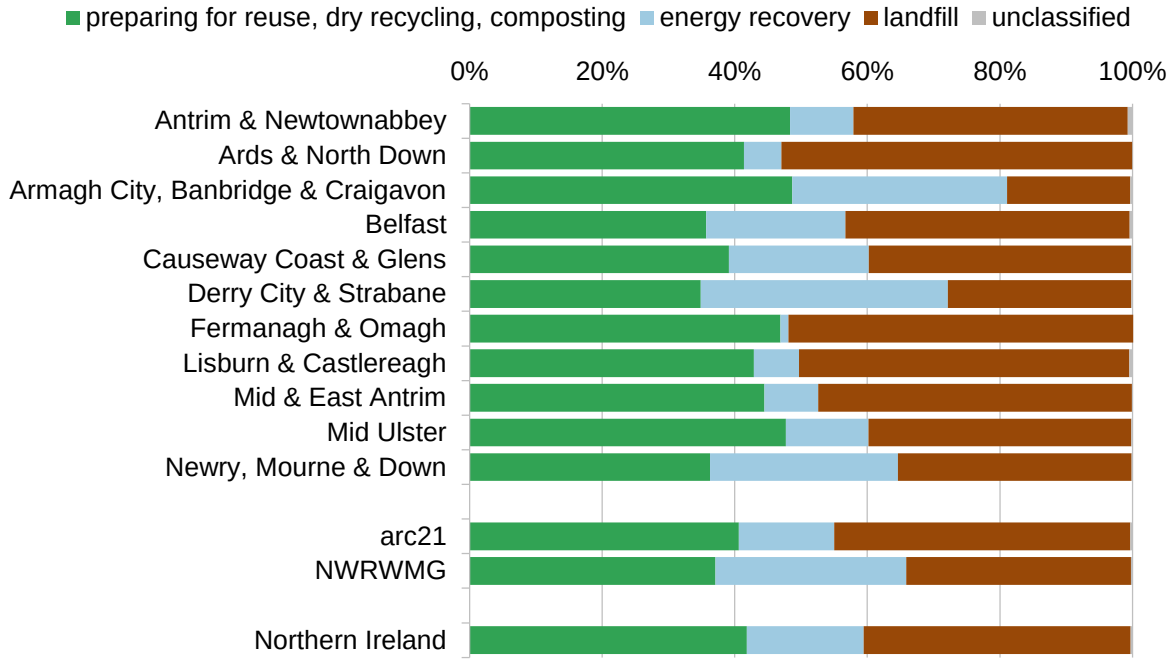
4.4 Table 1 provides an overview of waste management performance (tonnes) in regard to the key performance indicators for 2015/16 in Northern Ireland while Figure 5 represents the key performance indicators as a % value.

Table 1: Key Figures for LAC Waste Arisings, Recycling, Re-Use and Composting & Landfill for 2015/16

Authority	LAC Municipal Waste Arisings (tonnes)	LAC Municipal Waste Preparing for Re-Use, Dry Recycling and Composting (tonnes)	LAC Municipal Waste Landfilled (tonnes)
Antrim & Newtownabbey	85,058	41, 137	35, 231
Ards & North Down	99,770	41, 275	52, 812
Armagh City, Banbridge & Craigavon	102, 957	50, 101	19, 158
Belfast	169, 964	60, 679	72, 937
Causeway Coast and Glens	78, 363	30, 642	30, 966
Derry City and Strabane	**70, 901**	**24, 734**	**19, 648**
Fermanagh and Omagh	53, 963	25, 292	28, 059
Lisburn and Castlereagh	70, 480	30, 234	35, 129
Mid and East Antrim	75, 541	33, 593	35, 741
Mid-Ulster	77, 701	37, 082	30, 814
Newry, Mourne and Down	84, 459	30, 643	29, 762
Arc21	585, 271	237, 561	261, 611
NWRWMG	**149, 265**	**55, 377**	**50, 615**
Northern Ireland	969, 157	405, 414 (42.2%)	390, 256

Source: DAERA 2016

Figure 5: LAC Municipal Waste Preparing for Reuse, Dry Recycling, Composting, Energy Recovery and Landfill Rates by Council and Waste Management Group (DAERA 2016)



4.5 During 2015/16 reporting period, Northern Ireland's councils collected 969,157 tonnes of LAC municipal waste. This was a 1.9% increase on the 951,423 tonnes collected in 2014/15. Household waste accounted for 88.8% of total LAC municipal waste.

4.6 In 2015/16, 42.2% of household waste was sent for preparing for reuse, dry recycling and composting, similar to the 2014/15 rate of 42.0%. At council level, rates vary from 33.3% in Derry City & Strabane to 49.6% in Mid Ulster.

4.7 The LAC municipal waste energy recovery rate was 17.6% in 2015/16, an increase of 2.7 percentage points on the 14.9% recorded in 2014/15. Derry City & Strabane had the highest energy recovery rate in 2015/16 at 37.2% whilst the lowest was 1.2% in Fermanagh & Omagh. The NWRWMG had an energy recovery rate of 28.8%, double that of arc21 at 14.4% and significantly higher than the overall Northern Ireland rate of 17.6%.

4.8 Derry City & Strabane had the highest energy recovery rate for mixed residual waste at 33.1%. Generating energy from waste by incineration is preferable to landfill, although preparing for reuse, dry recycling and composting are preferable to both.

4.9 The landfill rate for household waste recorded a new low of 39.7% in 2015/16, a drop of 3 percentage points on the 2014/15 rate (42.7%) and a fall from 72.3% in 2006/07. There were 218,898 tonnes of BLACMW sent to landfill

during 2015/16, 4.5% lower than the 229,099 tonnes sent in 2014/15. However, in both years a similar proportion of allowance was used (around 79%).

4.10 At local level, Derry City and Strabane District Council sent 28.4% of its household waste to landfill compared to Fermanagh and Omagh with 53.3% while Armagh City, Banbridge and Craigavon landfilled 18.8% of their household waste.

4.11 The lowest recycling rate was recorded in Derry City & Strabane at 33.3%. Just over one quarter (25.4%) of their waste was sent for dry recycling whilst 7.9% was sent for composting and 0.1% was sent for preparing for reuse.

5.0 Councils Roles, Responsibilities and Services

5.1 The collection and disposal of refuse is the responsibility of Derry City and Strabane District Council. During 2015-2016 Derry City and Strabane District Council managed 70,901 tonnes of local authority collected municipal waste. In coalition with Causeway Coast and Glens Council as part of the NWRWMG 149, 265 tonnes of waste was collected during the same period. Recycling and composting is similarly the responsibility of the Council and is facilitated through the provision of domestic recycle bins, bottle banks and civic amenity sites throughout the Districts. The Council provides a 'bulky household waste' collection service for those who cannot transport their waste to civic amenity sites. Recycling is the collection and sorting of waste materials and reprocessing to produce, material or substance whether for the original or other purposes. This usually involves the following phases: collection, sorting, reprocessing and resale. The advantages of recycling include:

- Environmental and other cost savings associated with production (including raw materials, energy, transport and processing) as the life of raw materials is extended and the value extracted from them is maximised;
- Reduced disposal needs and costs; and
- Consumer participation through enhanced public awareness and understanding of environmental issues.

5.2 There are three systems used for the collection of household recyclable materials in the NWRWMG:

- Kerbside Collections;
- Recycling Centres; and
- Bring Sites/Community Recycling Centres (CRCs).

5.2.1 *Kerbside Collection*

Various methods have been implemented throughout Northern Ireland for the kerbside collection of recyclable materials. These include the following systems:

5.2.2 Mixed Dry Recyclables Collection

With the mixed dry recyclables system (blue bin system), the householder is provided with a wheeled bin specifically for the collection of mixed dry recyclables. The bins are collected by conventional refuse collection vehicles, usually on an alternate weekly basis. The mixed dry recyclables are then taken to a Materials Recovery Facility (MRF) where the material is sorted and the recyclables densified and/or bailed for dispatch to reprocessing markets.

5.2.3 Recycling Centres

Derry City and Strabane District Council operate 12 Civic Amenity sites, 7 in Derry District and 5 in Strabane District. They are currently located at:

- Brandywell
- Glendermott Road
- Pennyburn
- Strathfoyle
- Eglinton
- Claudy
- Park
- Strahan's Road, Strabane
- Ligford Road, Plumbridge
- Berryhill Road, Donemana
- Scraghey Road, Killen
- Douglas Road, Newtownstewart

Strahan's Road, Strabane

5.2.4 A new multi-million pound waste station and recycling centre has recently opened (December 2014) at Strahan's Road in Strabane. The £4.2m project involved the construction of a waste transfer building and an office building with adjoining garage. The Strahan's site was chosen as a central location for the residents of Strabane, Sion Mills, Glebe, Clady, Ballymagorry, Artigarvan and the surrounding district. The new state-of-the-art facility replaces Carricklee Recycling Facility ('Urney dump') and the leased Waste Transfer Shed at Strabane Road in Newtownstewart. The facility is a large fully enclosed industrial unit capable of handling various types of waste collected by council, currently in the region of 20,000 tonnes per year for Strabane District. The unit also acts as a facility for the segregation of waste including furniture, carpets, washing machines, fridges, cookers, windows, doors, plumbing items, kitchen units, garden waste and coal bunkers. The centre has revolutionised how Strabane's rubbish is managed and is aimed at driving down dramatically the amount of waste currently being sent to landfill.

Pennyburn Household Recycling Centre - £1.5m Investment

5.2.5 Pennyburn Recycling Centre has recently benefitted from a major refurbishment works to transform it into a new multi-functional Recycling Centre. The site has increased its capacity and also offers a wide range of enhanced recycling services. This has been a key capital development project representing an investment of over £1.5m from Council, including £250,000 from Rethink Waste. The new facility is more accessible, safer and more user friendly and represents a commitment to improve recycling across the Council area.

Brandywell Civic Amenity Site

5.2.6 Once the new Pennyburn site is up and running the existing recycling centre at Brandywell is to permanently close to allow for the development of a new play facility for the area. The new play area is to be located within the site of the existing civic amenity site. Works will commence later in 2016 following the completion of the removal of existing plant and machinery equipment over the summer.

Bring Sites/Community Recycling Centres (CRCs)

5.2.7 Bring banks are located throughout NI for the recycling of glass, aluminium drinks cans and steel food cans, paper and textiles. There are Bring Sites at the following locations in Derry City and Strabane District:

- Sainsburys
- Northside Shopping Centre
- Lettershandoney Community Centre
- Tesco Lisnagelvin
- Drumahoe Service Station
- Council Offices
- All Civic Amenity Sites (as listed above)
- Student Village Duncreggan Road
- Mace-Creggan Road
- Newbuildings Community Centre car park
- Creggan Country Park
- B&Q

5.3 Other Council Initiatives

5.3.1 Food Caddy

Food waste is taken to a processing plant where it is recycled into compost which is used on farms and community gardens. Recycling food waste reduces the amount of food waste in landfill sites. Rotting food produces methane gas which contributes to climate change and, as the cost of sending food waste to landfill is increasing, it will help the council and its residents save money too. This is currently only available to some households across the District.

5.3.2 BIN-Ovation

The free BIN-Ovation App is revolutionising recycling for households and local councils by providing citizens with clear information about bin collection and recycling centres in the Derry City and Strabane District Council area. Citizens

can easily check what waste items go where, 24 hours a day, 365 days a year.

5.3.3 Bulky Collections

As noted previously, this service is provided on a scheduled weekly basis within fixed zones and remains free to all householders within the Council District.

5.3.4 Home composting

Composting is the aerobic decomposition of biodegradable organic matter to produce compost. The composting of kitchen and garden wastes has the potential to be a major factor in achieving the recycling and composting targets for municipal waste. It is anticipated that approximately 25% of our household waste can be compostable.

5.3.5 Education Programme

Derry City and Strabane District Council employ Waste Minimisation and Recycling officers and offer a recycling education programme and workshops to local schools. This is aimed at stimulating awareness of the issues associated with waste and of the range of solutions available through waste minimisation and recycling activities. A free education programme is offered to all primary and secondary schools in the Council area. Council officers will visit schools to give short presentations and workshops to pupils on Waste Management topics. The programme aims to educate children about the problems associated with waste and how they can take responsibility for changing habits.

5.3.6 Restoration of Culmore Landfill Site

- Culmore Landfill Site operated from 1971 to 2007. The restoration of the landfill site presented a unique opportunity to transform the landfill into a valuable green space for the region and a Landscape Plan has been produced. The £7m restoration programme commenced in 2013 and will be completed in 2016. This involves installing a capping system which will:
- Reduce the amount of rainwater entering the historic waste and prevent contamination;
- Utilise the gas emissions produced by the landfill, to produce ‘green’ electricity that will be sold to the National Grid, to generate revenue for Council; and
- Provide a landscaped green space for the public and habitat creation for internationally important over-wintering birds within Lough Foyle.

5.4 Waste Crime and Illegal Dumping

5.4.1 Waste crime is the unauthorised management of waste, including illegal dumping. A number of illegal sites have been discovered across Derry City and Strabane District and more recently in the neighbouring jurisdiction of Donegal.

5.4.2 The Faughan Valley is designated as an Area of Outstanding Natural Beauty (AONB) characterised by its attractive valleys, rivers, undulating landscape and ancient woodlands and provides the context for one of Districts most infamous cases of waste crime at the what is now commonly referred to as the the Mobuoy Road waste site. The site consists of two distinct parcels of land, namely the City Industrial Waste (CIW) Site and the Campsie Sands and Gravels (CSG) site and are located approximately 1.5km east of Derry. The site occupies an area of circa 46 hectares and is thought to be the largest illegal dump in NI.

Mobuoy Road Site

5.4.3 Licensed landfill sites are where local authorities and industry can take waste to be buried and compacted with other wastes and regulated to ensure that the impact to the environment is minimised. Conversely, illegal dump sites involves the deposit of any waste onto land without the relevant regulation and licenses. Investigations by DOE in 2015 have improved their understanding of the nature and extent of waste illegally disposed at this site. At a stakeholder meeting in November 2015, the estimated volume of controlled waste illegally disposed at the site was reported to be a minimum of 913,105 m^3. The nature of the illegal deposits includes municipal waste, construction and demolition (C&D) waste and municipal waste mixed with C&D waste.

5.4.4 The River Faughan forms the western boundary of the site and is not only a source for drinking water but is also an Area of Special Scientific Interest (ASSI) and a Special Area of Conservation (SAC) that supports an Atlantic salmon population of international importance.

5.4.5 DOE has spent £1.2million clearing the site, removing leachate, completing an extensive risk assessment of the waste site and in managing surface water run-off where necessary. DOE is now developing a detailed remediation strategy for the site at additional costs of £150,000. This study will be complete by the end of 2016, although given the size and complexity of this site, full implementation of any strategy is unlikely to be immediate. The development of this strategy will consider all viable options. The options for dealing with the waste will ensure the protection of the river. Options included removing the waste and potentially leaving it in place. Officials from NIEA told MLAs that if the waste was to be left in place a system to collect any liquid run-off and landfill gas would be needed to prevent pollution reaching the river. Estimates have put the cost of fixing the problem at anything from £800,000 to £100m, depending on the approach taken.

5.4.6 More recently, an illegal dump suspected to contain tens of thousands of tonnes of waste has been uncovered close to the County Donegal village of Manorcunningham close to the border which mirrors the situation at the Mobuoy Road site. It is suspected that this site contains thousands of tonnes of potentially toxic materials and the situation is currently under investigation. Such cross-border illegal dumps will need to be considered in the Local Development Plans (LDPs) Sustainability Appraisal (SA), Strategic Environmental Appraisal (SEA) and Habitats Regulation Assessment (HRA).

5.4.7 In response to waste offences within the Council area, there has been a notable increase in the number of fixed penalty notices issued by Council since 2012/13, peaking at 448 in 2014/15. According to the Enforcement Officer, approximately 75% of these fines relate to littering offences while the remaining 25% to fly-tipping.

Table 2: Fixed penalties issued for both Fly-Tipping and Littering 2012-2016

2010/2011	2011/2012	2012/2013	2013/2014	2014/2015	2015/2016	2016 -
No records	No records	85	175	448	374	48

Source: Derry City and Strabane District Council

6.0 Future Waste Management Proposals

6.1 The following issues and proposals regarding future waste management are currently being considered or planned for implementation. In the event of being progressed, these will be subject to securing the relevant statutory approvals and consents:-

- A Waste Transfer Station at the RiverRidge Site in Newbuildings is currently being explored to deal with wastes arising in the wider Derry area.
- The current Castlederg facility is located just outside Killen and Council is currently looking at the possible acquisition of nearby land to provide an upgraded community recycling centre in the area. The current Eglinton facility is located within Benbow Industrial Estate, but it is likely that the replacement will be on the edge of the village, with the area next to the Rainbow shelter currently under consideration. The current Waterside facility is located on Glendermott Rd and Council would like a replacement site close to the Crescent Link.
- At present there are no plans to develop additional bring sites, but this is subject to change if amendments are made to existing waste regulations/obligations etc.
- The Culmore District Park on the outskirts of Derry opened in November 2016 following major restoration work that saw the former landfill site transformed into a valuable green space for locals to enjoy. The landfill site operated for 36 years and was closed in 2007. Following closure, the site has been restored by Council to reduce its impact on Lough Foyle and the surrounding environment – including the capping of the site to reduce rainwater coming into contact with waste and becoming polluted and to trap gas being emitted by the infilled waste.
- The current Waste Plan covers the period up to 2020 and Council will be required to develop and implement an updated plan for the period thereafter. Council(s) are presently awaiting guidance and direction from NIEA (DAERA) on this and related matters such as the continuation of the sub-regional waste groups etc.
- Council officers are currently exploring the potential of developing a small scale Anaerobic Digestor on a Council owned site and currently considering the findings of a feasibility study.
- There are no active landfill sites in the District, however there are a small number of inactive sites. Details of these can be found on the DAERA website https://www.daera-ni.gov.uk/northern-ireland-environment-agency
- There are no plans for Council to develop or operate a landfill site at any point in the future.
- Council remains concerned about the number of illegal sites across the district, particularly the Mobuoy Road site.

7.0 Conclusion

7.1 Given that the vast majority of environmental policy and legislation in Northern Ireland, and UK as a whole, is governed by legal frameworks and regulations set at the European Union level, it is not yet clear what the NIs relationship with the EU will be after withdrawal. For example, the EU influences the implementation and delivery of waste management and legislation and in NI these responsibilities are split between DAERA, NIEA local councils and waste management groups. Local targets are set under the NI Waste Management Strategy (2013) and reflect the overarching Waste Framework Directive (2008) which includes definitions of waste, sets a hierarchy of waste management, introduces the 'polluter pays' principle and 'extended producer responsibility' and sets recycling targets. Perhaps an exit would see a change in targets as NI which has fallen short of its own interim recycling targets to date. There is speculation that in any event NI may have to adhere to targets set by the UK. That said, only time will bring clarity to what the future arrangements will be.

7.2 Working on the basis that the status quo will remain, Waste Management proposals will be dealt with through Planning's Development Management process. The Local Development Plan will have regard to and take account of the current Waste Management Plan. Planning can contribute to the timely provision of an integrated network of waste facilities which are essential if EU targets are to be met. Following the recent transition of the two councils to form the new Derry City and Strabane District Council, the future of the waste management in the District is likely to be subject to change. In the event that the Council needs to safeguard land for waste management to cater for the municipal waste needs of the District over the plan period this would be best identified in principle at the Preferred Options Paper (POP) and Plan Strategy (PS) stages.

Implications for LDP 2032

7.3 The LDP will identify the main existing and proposed waste sites, which will help to achieve a sustainable management of waste in the Plan Area. It has recently been indicated that there are requirements for a new waste transfer station to deal with wastes arising from with the wider Derry City area, 3 replacement community recycling centres at Eglinton, Castlederg and Waterside. There is no active landfill site within Derry and Strabane District and no plans to develop or operate one, therefore the Council will have to carefully consider the destination of their waste and sustainable options. Council could also investigate recycling and up-cycling leading to employment generation e.g. training schemes operate at the 4Rs recycling centre in Pennyburn. It is also important to note that the recycling and use of waste for energy production is a growth area in the private sector and while planning permissions have been granted for a Compost Plant for Municipal and Biodegradable Waste and a Gasification Facility for Treatment of Refuse

Derived Fuel at Electra Road and Maydown Road, these are not yet operational.

7.4 It is recommended that Members note the contents of this paper and we now seek feedback. Members may wish to consider the following:

- The most appropriate locations for Waste Management facilities which may include Waste Management Transfer Stations (WTS) and/or Mechanical Biological Treatment (MBT) Plants;
- How can the Local Development Plan (LDP) be harnessed as a vehicle to encourage better environmental awareness (recycling/reuse) through policy formulation and environmental/land-use designations?
- Waste Management policies in PPS 11 can be reviewed/brought forward in the Local Development Plan (LDP).

7.5 Sustainable waste management is essential for the health and well-being of society, and our quality of life. Waste can also be considered as a resource, with potential for energy generation, or employment creation / businesses. The LDP will assess the likely extent of future waste management facilities for the District and in doing so will take account of the Northern Ireland Waste Management Strategy.

7.6 The findings contained in this paper, Members views and advice from the relevant parties have informed the following options which have been carried forward and subjected to SA/SE appraisal as part of the Preferred Options Paper (POP) process.

7.7 In considering the options, **Option 1** proposes the protection of committed capital projects, whereas **Options 2** proposes to identify a long term reserve of potential projects.

	Option 1	**Option 2**
G - Waste	Existing Capital committed proposals identified / protected	Identify / Protect a long-term reserve of potential projects / sites

7.8 In the absence of firm proposals from the relevant authorities, further feedback will be required to enable the LDP to be fully informed of future proposals which can subsequently be subjected to the SA/SE appraisal.

8.0 Appendices

Appendix 1: Glossary of Terms

Term	Explanation
Biodegradable waste	Any waste that is capable of undergoing anaerobic decomposition, such as food and garden waste, and paper and paperboard
Bring Site	An unmanned site with a container or a collection of containers for depositing recyclable waste.
Capture rate for household kerbside collected waste	The amount of 'available' material that is actually being collected for recycling through household kerbside collection schemes.
Civic amenity site	A manned site for depositing waste.
Composting	An aerobic, biological process in which organic wastes, such as garden and kitchen waste, are converted into a stable granular material which can be applied to land to improve soil structure and enrich the nutrient content of the soil.
Composting Rate	The percentage of waste sent for composting. It excludes waste collected for composting that was rejected at collection or at the gate of the reprocessor.
Dry recycling	The recycling of dry materials such as paper, card, cans, plastic bottles, mixed plastic, glass.
Dry recycling rate	The percentage of waste sent for recycling. It excludes waste collected for recycling that was rejected at collection, during sorting or at the gate of the recycling reprocessor. It includes residual waste which was diverted for recycling but excludes waste sent for preparation for reuse.
Energy recovery rate	The percentage of waste sent for energy recovery. It includes mixed residual and specific sources components.
Household waste	Includes materials (except soil, rubble and plasterboard) collected directly from

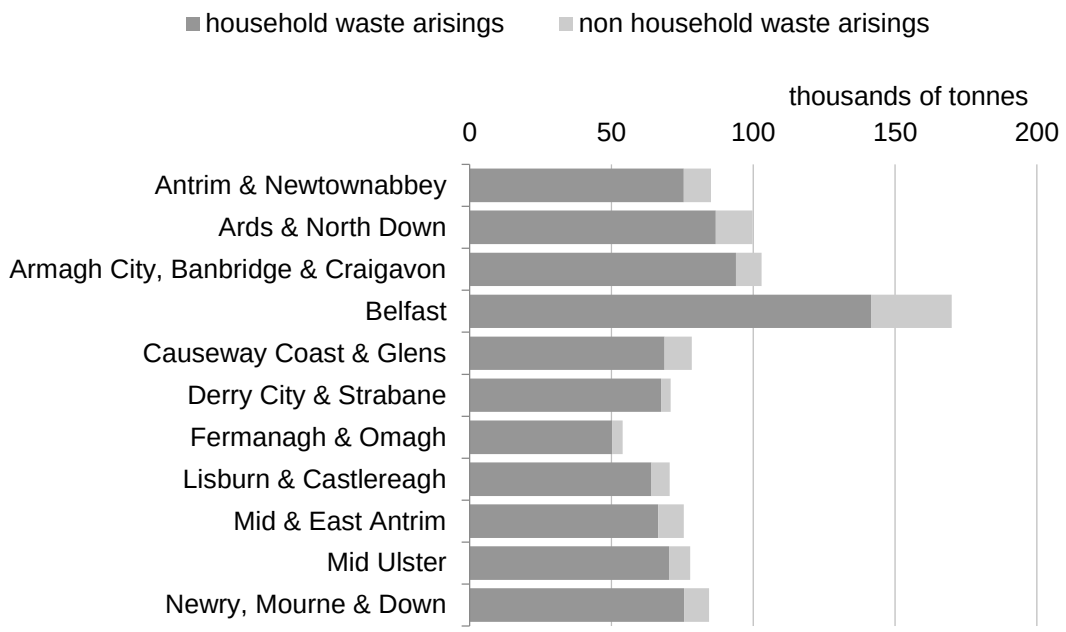
	households (e.g. kerbside collections) or indirectly (e.g. bring sites, civic amenity sites, collected by private and voluntary organisations not included elsewhere or street sweepings).
Kerbside	A regular collection of waste from premises
Key Performance Indicators (KPIs)	A set of measures used to gauge performance in terms of meeting waste strategy targets.
LAC	Local Authority Collected, as in LAC municipal waste
Landfill Sites	Any areas of land in which waste is deposited. Landfill sites are often located in disused mines or quarries. In areas where they are limited or no ready-made voids exist, the practice of landraising is sometimes carried out, where waste is deposited above ground and the landscape is contoured.
Local authority collected municipal waste	Waste which is collected under arrangements made by a district council.
Mixed Dry Recyclables	Waste streams intended for recycling found together with each other but separately from other waste.
Recycling	Any recovery operation by which waste materials are reprocessed into products, materials or substances whether for the original or other purposes. It does not include energy recovery and the reprocessing into materials that are used as fuels.
Refuse Derived Fuel (RDF)	Consists largely of organic components of municipal waste (such as plastics and biodegradable waste). This can then be used in a variety of ways to generate electricity, most commonly as an additional fuel used with coal in power stations or in cement kilns.
Waste arisings	The amount of waste collected in a given locality over a period of time.
Waste collected for disposal to landfill	Collected for disposal is residual waste that has not been sorted to separate out recyclable material from other waste

	before being presented to the Council for collection at various locations
Waste from households	Not the same as 'household waste'. This is a narrower definition and includes material (except soil, rubble and plasterboard) collected only from households (e.g. kerbside collection, bring sites, civic amenity sites or community skips managed by councils).
Waste sent to landfill	The amount of waste sent to landfill. Excludes residual waste which was diverted for energy recovery, recycling or composting. Includes household waste collected for energy recovery, recycling or composting which was diverted to landfill.

Appendix 2: Commonly Used Acronyms in this Paper

Arc21	Regional waste management group in Northern Ireland
BLACMW	Biodegradable Local Authority Collected Municipal Waste
CIWM	Chartered Institution of Wastes Management
DAERA	Department of Agriculture, Environment and Rural Affairs
EC	European Commission
EU	European Union
KPI	Key Performance Indicator
LAC	Local Authority Collected
LACMW	Local Authority Collected Municipal Waste
LPS	Land and Property Services
MDR	Mixed Dry Recyclables
MRF	Materials Recovery Facility
NI	Northern Ireland
NIEA	Northern Ireland Environment Agency
NILAS	Northern Ireland Landfill Allowance Scheme
NISRA	Northern Ireland Statistics and Research Agency
NWRWMG	North West Regional Waste Management Group
RDF	Refuse Derived Fuel
SASB	Statistics and Analytical Services Branch, DAERA

Appendix 3: LAC Municipal Waste Arisings by Council Northern Ireland, 2015/16



Note: The NI and waste management group figures are not shown on this chart as their larger waste arisings distort the scale and make it difficult to distinguish the differences between councils.

- There are two key performance indicators which look at household waste arisings in more detail by considering household waste arisings per capita, KPI, and per household KPI. In Northern Ireland there were 465 kilogrammes (kg) of household waste collected per capita (per head of population) and 1.179 tonnes per household during 2015/16. These were increases on the 456 kg collected per person and 1.158 tonnes per household in 2014/15. The proportion of Northern Ireland's total LAC municipal waste collected by each council broadly reflects the population within the councils. Belfast City Council had the greatest LAC municipal waste arisings in 2015/16 with 169,964 tonnes. This was 18% of total NI LAC waste arisings, the same as its 18% share of the total NI population. Interestingly, it also had the largest proportion of non-household local authority collected municipal waste arisings, at 26%, likely reflecting the concentration of businesses in this area. Fermanagh & Omagh District Council had the lowest arisings in 2015/16 with 53,963 tonnes collected. This represented 6% of total NI arisings during the period and again was the same as the 6% of the NI population living in this council area.

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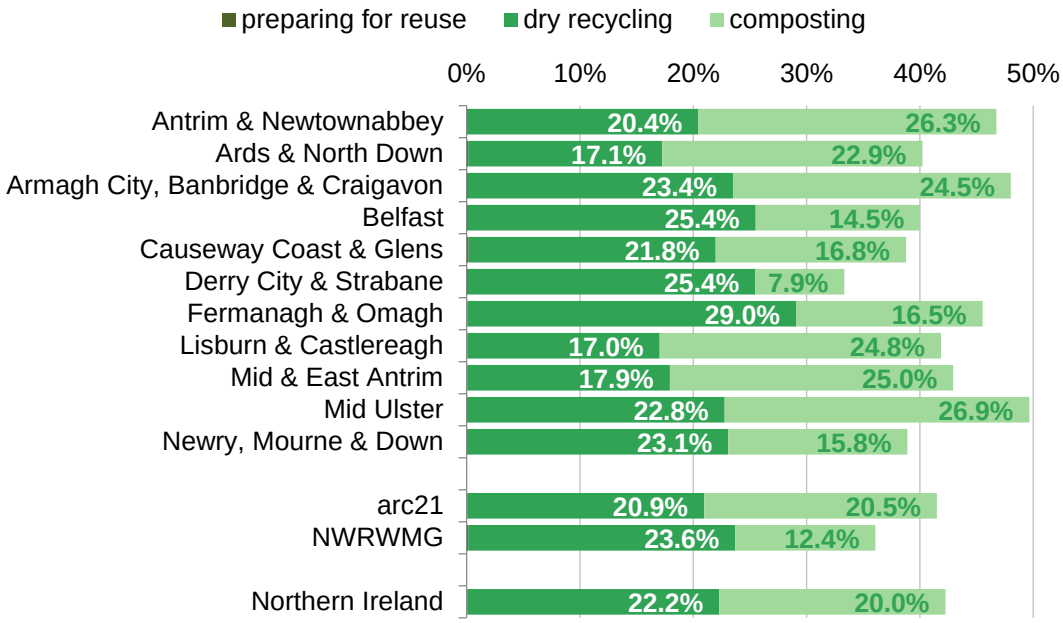
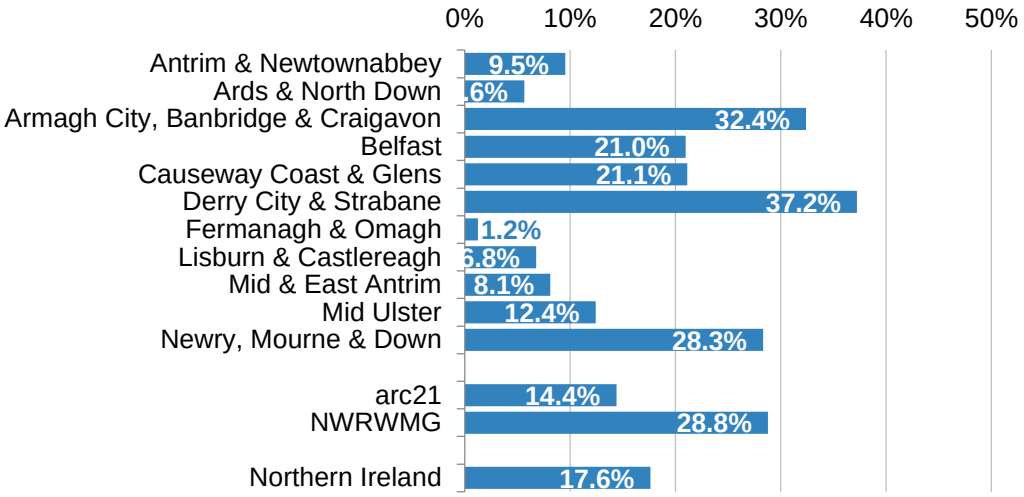
Appendix 4: Household Waste Preparing for Reuse, Dry Recycling and Composting



- Mid Ulster had the highest recycling rate at 49.6% with 22.8% sent for dry recycling and 26.9% sent for composting

Appendix 5: LAC Municipal Waste Energy Recovery by council and Waste Management Group

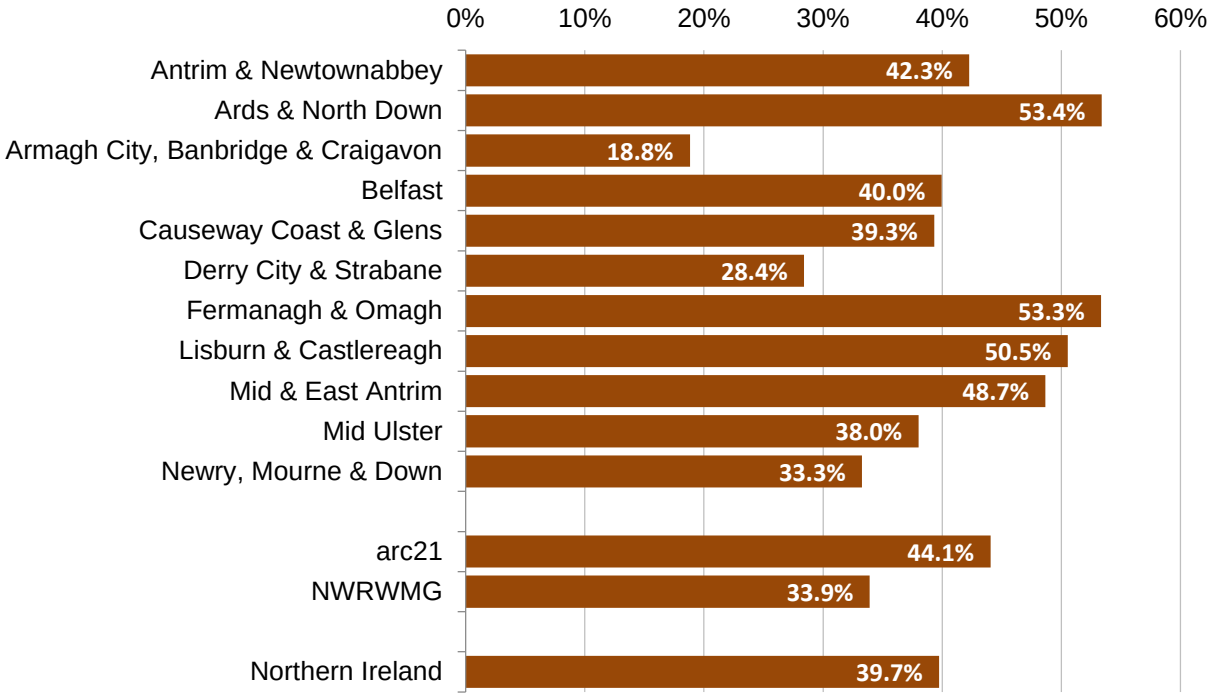


- The lowest energy recovery rate was 1.2% for Fermanagh & Omagh. For all councils except Antrim & Newtownabbey, Ards & North Down and Fermanagh & Omagh, energy recovery for mixed residual waste accounted for a greater proportion of their total energy recovery than specific streams such as wood. Antrim & Newtownabbey had the highest energy recovery rate for specific streams at 6.0% whilst

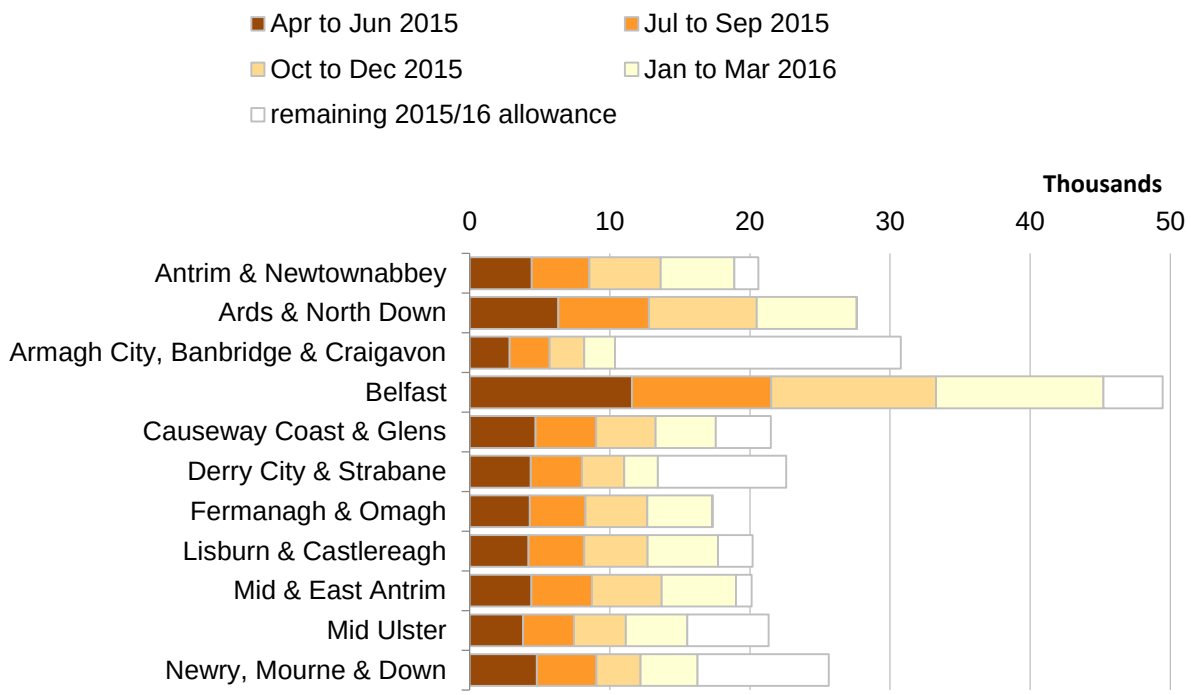
- Material, mainly from residual waste treatment, can also be sent for energy recovery in the form of refuse derived fuel (RDF) which also diverts it from landfill. In addition, the ongoing Rethink Waste campaign is encouraging the NI population to Reduce, Reuse and Recycle their waste. Landfill Tax for household waste continues to be the main driver for local authorities to reduce landfill. Other considerations include a limit on the amount of biodegradable LAC municipal waste as measured by KPI (g). Generating energy from waste by incineration is preferable to landfill, although recycling and reuse are preferable to both.

- Material, mainly from residual waste treatment, can also be sent for energy recovery in the form of refuse derived fuel (RDF) which also diverts it from landfill. In addition, the ongoing Rethink Waste campaign is encouraging the NI population to Reduce, Reuse and Recycle their waste. Landfill Tax for household waste continues to be the main driver for local authorities to reduce landfill. Other considerations include a limit on the amount of biodegradable LAC municipal waste as measured. Generating energy from waste by incineration is preferable to landfill, although recycling and reuse are preferable to both.

Appendix 6: Household Waste Landfilled by Council and Waste Management Group 2015/16



Appendix 7: Biodegradable LAC Municipal Waste Landfilled by Council and Waste Management Group 2015/16



Note: The NI and waste management group figures are not shown on this chart as their figures distort the scale and make it difficult to distinguish differences between councils.

- Article 5(2) of the EC Landfill Directive (1999/31/EC) requires member states to reduce the amount of biodegradable municipal waste sent to landfill, setting challenging targets. The Landfill Allowance Scheme (NI) Regulations 2004 (as amended) place a statutory responsibility on councils, in each scheme year, to landfill no more than the quantity of biodegradable LAC municipal waste (BLACMW) for which they have allowances. In order to ensure compliance with these targets, the amount of biodegradable LAC municipal waste sent to landfill, is monitored. This indicator is also used to monitor performance under the Local Government (Performance Indicators and Standards) Order (Northern Ireland) 2015