Zero Waste Strategy 2012 - 2022

Joint Main Issues Paper

Falkirk Council

Clackmannanshire Council

ZERO WASTE SCOTLAND

May 2012

Contents

Foreword

As individuals and organisations we are becoming increasingly aware of our impact on the environment, and the need to look after the precious resources and materials we all depend on within our society. Every day, at home and at work, we acquire, use and dispose of resources. Too many of those resources end up being wasted.

The communities within Clackmannanshire and Falkirk Council areas have already made huge progress on waste. The amount of waste requiring collection by both local authorities has decreased over the last five years, and of the waste produced, nearly 50% of it is now recycled or composted. This has dramatically cut the amount of waste we have "thrown away" into landfill sites.

However we must continue to improve. Above all, we have to recognise that everything we use and throw away is a resource which has a value, a value that we should try to preserve, capture, and use again in our local economy wherever possible. In addition to local authority collected waste there are many other wastes produced locally by businesses and industry. These wastes are significant in quantity and value and need to be tackled through greater resource efficiency in our local economy. In turn this will make local businesses more competitive, secure and profitable.

The Scottish Government has responded to the challenge with its Zero Waste Plan which sets out a vision for a Zero Waste Society. The Zero Waste Plan aims to bring a step change for Scotland. It is supported by ambitious climate change legislation, which includes powers to tackle the climate impacts of waste, and also a national Zero Waste Scotland programme. This programme supports action by businesses, householders and local authorities to reduce waste and their use of resources.

The Zero Waste Plan for Scotland proposes long term targets of recycling 70% of all Scotland's waste, and only 5% of all waste ending up in landfill by 2025. It also includes obligations to separately collect key recyclates and food waste from businesses and households. We believe that these targets and new obligations are ambitious but achievable aims.

A Zero Waste Society is not one where we can never throw anything away, instead it is a new approach to making the most effective use of all our resources, and avoiding wasting resources or making them unusable wherever we can. Aside from the environmental benefits this will bring, the economic benefits of this approach are also significant. There are new business opportunities associated with recycling, reprocessing and manufacturing, based around the capture of high quality materials from our recycling systems.

A Zero Waste Society will need commitment and resolve from every one of us. Within our communities we already see individuals and organisations taking action to prevent waste, and use resources more efficiently. We are convinced that both Councils should be leading the way, supporting the efforts of others. To provide a basis for this leadership both Councils are committed to the production of new Zero Waste Strategies.

This Main Issues Paper is a consultation to enable you to comment on the key issues that require to be addressed in the new strategies for each Council. We hope that you share our enthusiasm for meeting, or exceeding, the national targets and gaining the associated benefits in our communities from doing so.

1. Introduction

The purpose of this Main Issues Paper is to consult with key stakeholders at an early stage in the development of draft Zero Waste Strategies for both Councils. The aim of these is to set out the strategic direction for waste issues within each Council's control over a period of 10 years. A Joint Main Issues Paper has been developed because both authorities already work closely together and both face similar waste management challenges in order to deliver waste services.

The process for the development of a Zero Waste Strategy for each Council will involve a public consultation using this document and also a Strategic Environmental Assessment (SEA) of the proposed strategies and impacts, culminating in the publishing of an Environmental Report for each council area. This process, supported by Zero Waste Scotland, will occur prior to any finalised strategy being approved by each Council. Ultimately there will be a separate Zero Waste Strategy produced for each Council however these are expected to contain many common themes.

The need for the development of a strategy for each Council has arisen from the creation of a new national policy framework for waste issues. Waste is primarily a devolved matter and therefore the national policy framework is set by the Scottish Government; within the wider European Union policy context. The new national policy is contained in Scotland's Zero Waste Plan, launched in June 2010 by the Scottish Government. The launch of the Zero Waste Plan has meant that there is a requirement to prepare new local strategies to reflect the significant change to the national policy framework.

The Zero Waste Plan introduced a step change in the thinking and approach to waste within Scotland. The focus has moved away from addressing municipal waste through avoiding its landfill, to the more ambitious aim of moving towards a zero waste society. In this new policy context the creation of waste should ideally be avoided. Where waste prevention is not possible all waste should be considered as a valuable material resource that needs to be brought back into use within the Scottish economy at the highest level of value.

The new Council strategies must reflect this change in direction and maximise the potential benefits they can bring to the local economy and the environment.

2. Executive Summary

Background

The Councils' existing strategies are the Forth Valley Area Waste Plan (2003) and the Forth Valley Strategic Outline Case (2006). These plans addressed the strategic objective to reduce the amount of Municipal Solid Waste (MSW) going to landfill and, in particular, to achieve European Union Landfill Directive (1999/31/EC) targets to reduce Biodegradable Municipal Waste (BMW) material being landfilled.

Both Councils have now implemented the majority of the actions agreed within these Plans. This includes, amongst other things, the harmonisation of kerbside collection services and the retaining of a flexible approach to the use of treatment processes for non-recyclable waste through their current waste disposal contracts.

Performance to date

Currently Clackmannanshire and Falkirk are the two top performers for recycling/composting within Scotland's 32 local authorities with rates of 49.8 % and 49.3 % respectively for the period April 2010 – March 2011[1]. This compares to the Scottish local authority average of 38.2% for the same period.

Both Councils have successfully undertaken a range of waste prevention actions and in recent years the total waste arising collected by both authorities has peaked. However the most recent analysis for both Council areas shows that a significant proportion of recyclates are still being placed in Green wheeled bins as non-recyclable waste and ending up in landfill. So while both Councils have performed well it is clear more needs to be done to ensure recyclable material is appropriately separated for collection and onward recycling.

Scope of the new Strategies

In line with the new national policy the new strategies will cover "all" waste collected and produced by the Councils, rather than just municipal waste as in the previous plans. Each strategy will summarise current arrangements for waste management and set out the actions that will be necessary for both Councils to move towards the vision for a zero waste society over a period of 10 years. The new strategies will be used to guide future decision-making by the Councils and successful delivery will require the engagement of all key stakeholders. This includes the support of a wide range of Council services, as well as Community Planning Partners, the Scottish Government, Zero Waste Scotland, the community sector, businesses and householders.

Key Drivers

There are a range of key drivers for the new strategies including the new obligations arising from the European Waste Framework Directive, Scotland's Zero Waste Plan and the forthcoming Zero Waste Regulations. In addition both Councils have become top performers in Scotland and a continuation of this high level of performance is expected by local communities and other key stakeholders. However it is also recognised that the next steps required will be very challenging. Budget constraints, increasing costs

[1] SEPA Waste Data – Local Authority Collected Waste reporting
http://www.sepa.org.uk/waste/waste_data/waste_data_reports/lacw_reporting/lacmw_summary_reports.aspx

associated with transport & landfill tax, and ensuring that householders & businesses continue to receive an equivalent service regardless of their rural or urban location will all present significant challenges.

The Main Issues to be addressed by the Strategies

The main issues below are summarised from the more detailed report text. For explanations of terminology and the details of current services please refer to the Glossary and Appendix 1.

Issue 1 - Climate Change

Over time the emphasis of performance monitoring on waste management will move from the current simple tonnage measurement approach to performance based on overall Climate Change impact, using the government's Carbon Metric. As a result of this new way of measuring performance there will be greater emphasis on the recycling of waste materials that have a high embedded carbon impact and which score highly on the Carbon Metric; examples of these materials are metals, plastics and textiles. This will require the Councils to be adaptable and flexible as they focus their collection efforts on capturing a high percentage of these materials within the mix of recyclates in order to meet the 70% target.

At the same time, in order to comply with the public duty under the Climate Change Act, emissions from the transport and collection of waste will need to be tackled through the efficient design of any new collections and the procurement of efficient vehicles. The Act also aims to encourage greater levels of recycling away from the home and workplace through "Recycling on the Go". In practice this means providing the opportunity to recycle materials in public places such as high streets, shopping centres and other public venues. This ensures that waste is treated as a resource in all locations and reinforces the behaviour change required in all of us to achieve a Zero Waste society.

The proposed objectives are:

- Adopt the Carbon Metric as a key performance measure.
- Minimise the environmental and climate change impacts from waste management activities.

The proposed actions are:

- Design and implement services to address the Carbon Metric and the Climate Change Act (CCA) duty to reduce the overall emissions from waste collections.
- Ensure the ongoing procurement of more efficient vehicles.
- Support the development of new "Recycling on the Go" infrastructure based on best practice guidance from Zero Waste Scotland.

Issue 2 - Waste Prevention

Household waste, which is the main competent of the waste collected by the Councils, has shown a declining trend across both Council areas. However with the projected growth in population and the number of households this situation is unlikely to continue.

Previous waste growth estimates prepared for the Area Waste Plan suggested a 1.5% per annum growth in total waste arising in the medium to long term; although the total waste arising has stabilised across Scotland in 2010. In light of these previous estimates, and given the limited tools available to the Councils to prevent waste, the Councils may wish to set a waste arising reduction target based on waste per household, rather than an overall tonnage figure.

The proposed objectives are:

- To work with the Scottish Government, Zero Waste Scotland and waste producers to reduce the amount of waste created.
- To use the Waste Hierarchy in decision making to ensure that waste prevention is the top priority.

The proposed actions are:

- The Councils set a total waste arising reduction target, on a per household basis, after considering the actions and targets proposed in the national Waste Prevention Plan.
- The Councils support the Scottish Government's efforts on improved Producer Responsibility obligations.
- The Councils adopt a zero waste policy for its own activities including service waste reduction targets.
- The Councils support greater levels of reuse for targeted materials through the design of its waste management services.
- The Councils exert influence on external stakeholders to adopt waste reduction targets and zero waste principles, for example by encouraging greater use of Site Waste Management Plans for new construction projects.
- Improved signposting, through the Councils' waste and economic development functions, to ZWS Business Support services in order to assist local businesses reduce the amount of waste they generate.

Issue 3 - Leadership and engagement on waste and resource use

The Councils have to continue to show leadership to their communities, as they did when the Area Waste Plans were first launched and the first recycling systems were introduced to households. The new strategies will be a further step change on the previous approach due to the new drivers towards a Zero Waste Society and the recognition that waste materials are actually valuable resources. Key to the future success of these strategies will be the Councils taking robust action on the waste they produce themselves and supporting their communities to tackle their waste issues. Key functions where action plans, targets and changes to meet the new obligations will be required include: Building Maintenance, Facilities and Estates, Architects & Design, Procurement, and Catering Services.

The Zero Waste strategies should link to other strategies, policies and plans on Local Development, Litter, Procurement, Sustainable Development, Climate Change, Service Plans and Outcome Agreements, as well as the Zero Waste Plan at a national level, to ensure they incorporate the Zero Waste objectives and help contribute to a Zero Waste Society.

The proposed objectives are:

- All future Council policies, strategies and plans should incorporate the new zero waste national policy framework.
- The Councils should continue to maximise the opportunities to attract funding to further support zero waste community projects.
- The Councils should continue to develop shared services opportunities with each other and also with other councils, Zero Waste Scotland, private and third sector partners.

The proposed actions are:

- Both Councils should continue to facilitate volunteering within their communities in tandem with the ZWS volunteer programme.
- The Councils should collaborate with and coordinate, where appropriate, relevant grant funding schemes, including the Landfill Tax Trusts, to ensure that their funding programmes and criteria reflect the move towards zero waste targets and where possible there is targeted support for zero waste projects.
- The Councils should encourage the Scottish Government to implement support for community level zero waste projects under any new tax regime post 2015.
- The Councils should adopt a common approach on the new policy & regulation framework with ZWS and the Scottish Government to ensure consistent messages are given to all stakeholders on the major changes ahead.

Issue 4- Optimising Services for the future

The current collection services for recyclates and organic material will require to be significantly improved in order to meet the new national targets set out Scotland's Zero Waste Plan and also the requirements of the Zero Waste Regulations. The Council is required to introduce Food Waste Collections for households in line with the requirements in the Zero Waste Regulations Policy Statement Section 5.3. The Regulations will also require the Councils to change their "Trade Waste" services to provide food waste collections for large business by 2013 and small businesses by 2015. The removal of this food waste material with a new collection would mean that the volume and weight of material in the average Green Bin would shrink substantially.

Given the new obligations on the Councils at time of general budget contraction the opportunities for savings are limited. However there are opportunities to use existing budgets to greater effect in an "invest to save" approach. In particular, reducing contamination and the amount of recyclates incorrectly landfilled will

reduce costs. Incentivising householders & businesses to use the correct containers by adjusting collection frequencies and container capacities will also help offset any cost increases.

Material quality is now fundamental to ensuring there are secure markets for recycled material, and also a high market value to offset some of the costs of collection. The Councils must ensure they can meet the emerging national quality and collection standards in the future or they risk being required to collect recyclate materials separately at greater cost. The Councils will need to strengthen their current approach to contamination by continuing to improve information to householders and using greater enforcement action on those residents who continue to disregard the separate collection systems. This may include treating recyclates in the Green Bin as contamination.

The requirement to develop more extensive collection services to meet the new targets and regulations, plus the need to ensure local residents fully utilise the collection systems and minimise any contamination, will result in increased expectations on both the Council and from householders & businesses. A clear statement of expectations is therefore a sensible way to address this issue and a Customer Charter is proposed.

The proposed objectives are:

- To meet or exceed the targets set in Scotland's Zero Waste Plan.
- To ensure that the Councils' waste collection services deliver the Best Practical Environmental Option and comply with the Waste Hierarchy and Zero Waste Regulations.
- To maximise the quality and value of material collected in line with the Waste Hierarchy.

The proposed actions are:

- A review of all household and business collections, focusing upon the introduction of food waste collections, the potential change of all waste collections to balance this, and ensuring that the high quality of recyclate/compostable material collected is maintained.
- The development of a customer charter explaining the service standards customers should receive from the Councils and also the expectations and requirements of householders & businesses, linked to the Councils' Biennial Public Statement on performance.

Issue 5 - Maximising the Economic Benefit from Zero Waste

In addition to the "invest to save" approach proposed in the design of waste collections there are also a range of partnership opportunities available to both Councils that should be further developed and explored. These include joint education and awareness campaigns, the continuation of joint procurement arrangements (for waste services), shared trade waste collections particularly with regard to food waste, and shared bulky uplift services. Partnership opportunities also include working closely with the Scottish Government, ZWS and Community Planning partners to further share the zero waste vision.

The proposed objectives are:

- To maximise the value of waste generated by minimising the amount of low value non-recyclable waste and ensuring that any waste is collected and reused/recycled/composted to achieve the highest economic value possible.
- To seek to maximise, where appropriate, the local economic benefit from the Councils' procurement processes and support the inclusion of recycled or reused content where ever practical.
- Create conditions that make it easier to invest in Zero Waste Opportunities in both Council areas.

The proposed actions are:

- Use the Councils influence to boost economic activity and reduce the costs to businesses of zero waste through working in partnership with Business Gateway, Scottish Enterprise, Zero Waste Scotland and existing mechanisms e.g. the Forth Valley Environmental Business Partnership and BIDs.
- Improved signposting, through the Councils' waste and economic development functions, to ZWS Business Support services in order to assist local businesses.
- Both Councils should continue to work together on a range of joint working opportunities.
- Provide guidance and support for the Council's commercial collection customers to help them through the implementation of the Zero Waste Regulations.

Issue 6 - Waste and Resource Management Infrastructure

The move to a Zero Waste Society will require a range of infrastructure and facilities to ensure that the targets can be met. However the current infrastructure, locally, and across Scotland is focused on landfill disposal and on levels of recycling & composting lower than we can expect from achieving the Zero Waste targets. As more and more recyclate material is returned to use within the economy there will be a greater need for the expansion of reprocessing facilities, high quality recyclate sorting & bulking facilities, and treatment facilities for non-recyclable waste. The higher value of materials treated through recycling and reprocessing facilities will ensure greater economic benefit to communities and a key focus for the future will be to capture that economic benefit for both Council areas.

With the need to capture more materials for recycling there is also a need to ensure the existing council owned recycling infrastructure can be expanded & developed if required, particularly with regard to transfer and bulking facilities. Therefore it is proposed that suitable planning policies that recognise this situation are incorporated into the Local Development Plans for each Council.

Clackmannanshire's current arrangements for sharing Stirling Council's Transfer Station and Composting Site will also require to be kept under regular review to ensure this continues to meet Clackmannanshire's needs.

At a high level the Zero Waste strategies should raise awareness amongst decision makers of the infrastructure needed and steer & encourage investment primarily in reprocessing, high quality sorting, and recycling/composting infrastructure.

The proposed objectives are:

- To continue the Proximity and Self Sufficiency Principles applied to waste management within the Council areas.
- The Councils' economic development and planning functions should prioritise waste prevention over reuse and recycling, wherever possible, to minimise overall infrastructure requirements.
- To use the Councils' influence, planning and economic development policies to ensure the right mix of waste infrastructure is developed to meet future targets, focusing upon the high value reprocessing and recycling opportunities.

The proposed actions are:

- The Councils' economic development and planning functions should develop an "open for business" economic strategy specifically to encourage the development of new high value facilities where there are clear gaps in current recycling & reprocessing infrastructure.
- Through the Local Development Plan an appropriate screening process, or set of policy criteria, should help identify potentially suitable industrial sites for the different types of infrastructure in line with wider planning policies.
- Existing Council infrastructure should be safeguarded for future use.
- Prepare an annual update report on progress in developing the infrastructure to meet the capacity needs identified by SEPA and ZWS.

Issue 7 – Treatment of Non Recyclable Waste

The Forth Valley Councils proposed a flexible approach to the procurement of non-recyclable waste treatment in their SOC Plan, as opposed to the alternative option of entering into a major infrastructure investment in the form of a Public Private Partnership (PPP) arrangement. In a rapidly changing policy and regulatory environment this flexible approach has proven to be a prudent and successful tactic as EU and national policy has increasingly moved towards eliminating mixed non-recyclable waste in favour of greater separate collection of waste materials. As recycling and composting rates increase to meet the new targets the maximum level of non-recyclable waste treatment required by the Councils will continue to fall and should become 30% or less of their total waste arising.

The proposed objectives are:

- To minimise the amount of non–recyclable waste requiring treatment in line with the Waste Hierarchy.
- To adopt a policy of zero waste going directly to landfill (i.e. any non–recyclable waste must be

treated to extract any remaining value before the residual element is landfilled).

- Continue the policy of a flexible approach to procurement of non-recyclable waste treatment, utilising short to medium term contracts to ensure that the Councils can respond to future changes in regulation and taxation.
- To reduce the environmental impact from the Councils' waste management legacy sites where practical and feasible.

The proposed actions are:

- Examine all Council controlled non-recyclable waste streams to assess the options for maximising the value and opportunities from them.
- Explore the use of further policy options, and procurement mechanisms, to maximise the value and opportunities from non-recyclable waste and prevent direct-to-landfill disposal routes.
- Investigate opportunities for methane gas flaring/capture and the generation of renewable energy on Council waste management legacy sites.

The Next Steps

Following receipt of comments upon this Main Issues Paper and on the accompanying Environmental Reports, which summarise the Strategic Environmental Assessment (SEA) for each strategy, a Zero Waste Strategy will be developed for each Council's approval.

3. Background

3.1 The Existing Waste Management Plans

The Councils' existing Strategies are the Forth Valley Area Waste Plan (2003) and the Forth Valley Strategic Outline Case (2006). These plans addressed the strategic objective to reduce the amount of Municipal Solid Waste (MSW) going to landfill and, in particular, to achieve European Union Landfill Directive (1999/31/EC) targets to reduce Biodegradable Municipal Waste (BMW) material being landfilled.

The Forth Valley Area Waste Plan (AWP) was aligned to the National Waste Plan (2003) and was one of 11 such plans focusing on MSW. The AWP was focused on implementing the Best Practical Environmental Option (BPEO), with a range of recycling and waste prevention measures to reduce waste production and the amount of waste going to landfill. The BPEO was supported by the (then) Scottish Executive through funding from the Strategic Waste Fund (SWF). The Councils successfully implemented the targets and actions, and many of the policy principles within this plan are still relevant today. However the introduction of the Scottish Government's Zero Waste Plan in 2010, and its focus on all waste rather than just Municipal Waste, has confirmed the abandonment of the Area Waste Plan structure for future waste planning[2].

The Forth Valley Strategic Outline Case (SOC) detailed how the Councils intended to meet the long term EU Landfill Directive Targets up to 2020 and also formed the key element of the Councils' partially successful bid in 2006 to the (then) Scottish Executive SWF for a second tranche of funding.

The Scottish Executive's response to the SOC submission was twofold. Firstly they provided funding for a range of extra recycling collections. Secondly, in contrast to the flexible approach proposed within the SOC, the Executive encouraged the Forth Valley Councils to work with the councils of Fife and Perth & Kinross with a view to joint procurement of a non-recyclable waste treatment facility through a PPP approach. This decision was on the basis of assumed greater economies through the procurement of a single, shared facility. Although work was started to progress this, events were overtaken by the 2007 Scottish Parliamentary elections, and the announcement by the Cabinet Secretary for the Environment on the new 'Zero Waste' approach in January 2008. This signalled the abandonment of large scale non-recyclable waste treatment solutions and was affirmation of the Forth Valley BPEO approach.

Both Councils have now implemented the majority of the recycling & composting actions agreed within the AWP & SOC Plans. This includes, amongst other things, the harmonisation of kerbside collection services and the recognition of the importance of food waste. Both Councils continue to retain a flexible approach to the use of non-recyclable waste treatment through their current waste disposal contracts.

It should be noted that, at the time, both Councils were at the forefront of zero waste thinking with their SOC Plan. This, in contrast to many others, focused on further waste prevention action, and maximising recyclate & organic waste capture, before considering any treatment of the remaining fraction of waste in the form of non-recyclable waste treatment.

3.2 Performance to date

Currently Clackmannanshire and Falkirk are the two top performers for recycling/composting within Scotland's 32 local authorities with rates of 49.8 % and 49.3 % respectively for the period April 2010 – March

[2] Disbandment of Area Waste Groups – Letter from SEPA Director of Operations, April 2010

2011[3]. This compares to the Scottish local authority average of 38.2% for the same period. The long term trend in performance for both Councils, also recorded by SEPA Data, is shown in the Charts 1 & 2 below. The charts show what method was used to manage the total waste collected by each Council i.e. composted/recycled, incinerated or landfilled.

Chart 1 - Falkirk Council Performance for Waste Collected *

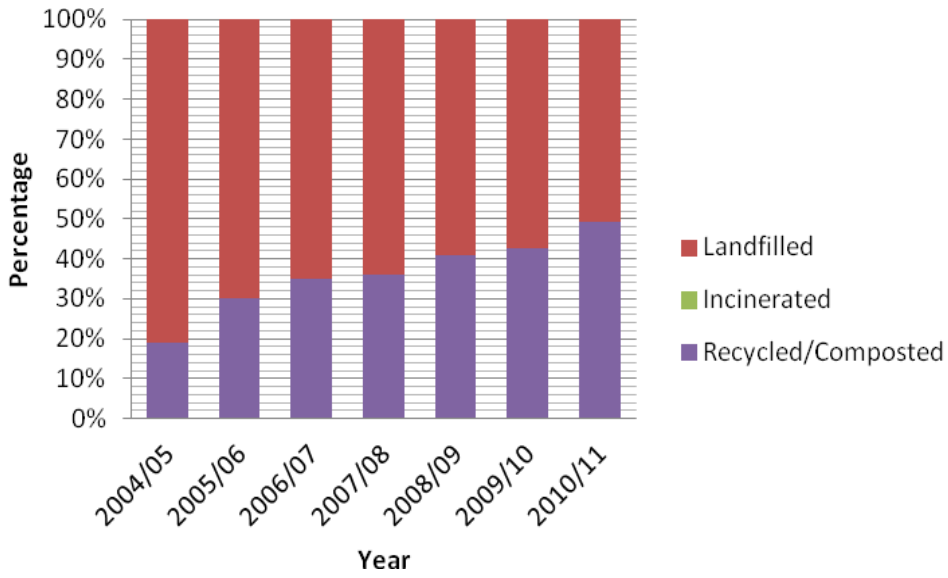
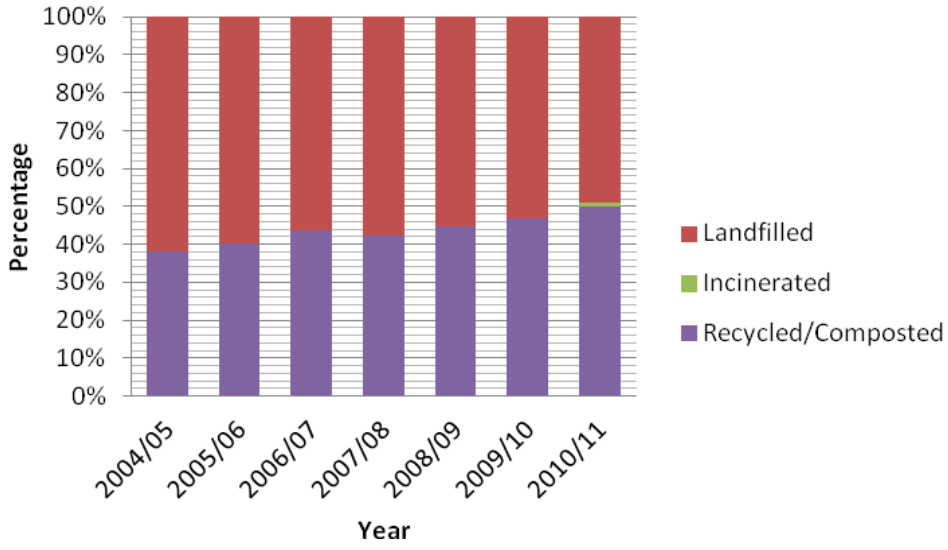


Chart 2 – Clackmannanshire Council Performance for Waste Collected*



*Note these charts include waste produced directly by the Councils' through their own functions and activities. The incinerated material in the Clackmannanshire graph represents the small element of non-recyclable waste recovered by the Council's MRF contractor from the comingled recyclates collected in Blue bins.

[3] SEPA Waste Data – Local Authority Collected Waste reporting
http://www.sepa.org.uk/waste/waste_data/waste_data_reports/lacw_reporting/lacmw_summary_reports.aspx

Charts 3 & 4 below show the total waste arising that was collected by the Councils in their own area. During the time period shown in the charts the total waste arising collected by both authorities peaked. For Clackmannanshire this was in the 2006/07 year at 38,004 tonnes and for Falkirk during 2005/06 at 115,257 tonnes. Thereafter the total waste declined for both to 31,368 and 90,122 tonnes respectively in 2010/11. This represents a reduction of nearly 18% for Clackmannanshire and 22% for Falkirk and compares favourably to an average reduction of 8.6% for Scotland's local authorities as a whole during the same period (derived from SEPA annual reports for all 32 Councils[4]).

Chart 3 – Falkirk Council Waste Arising

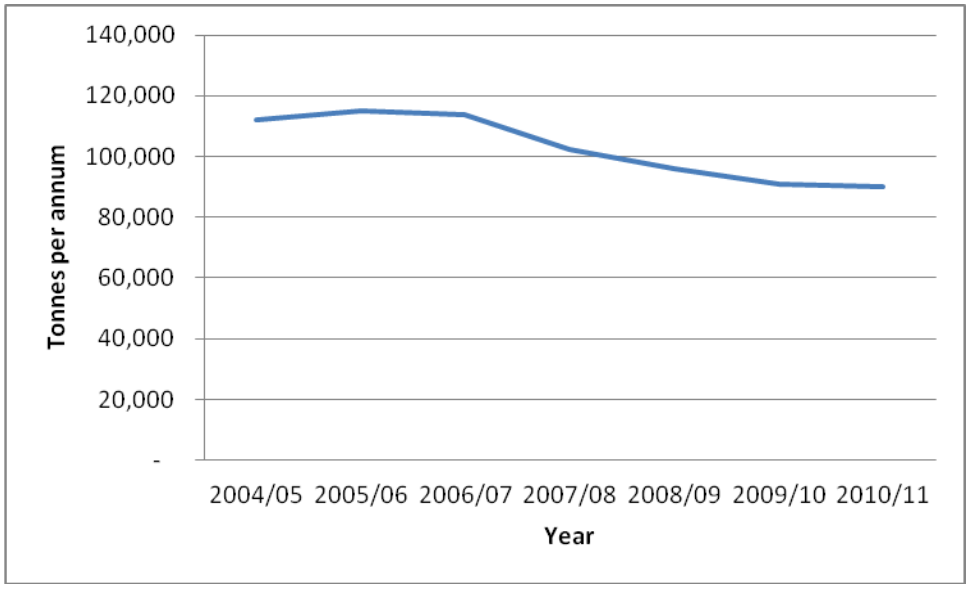
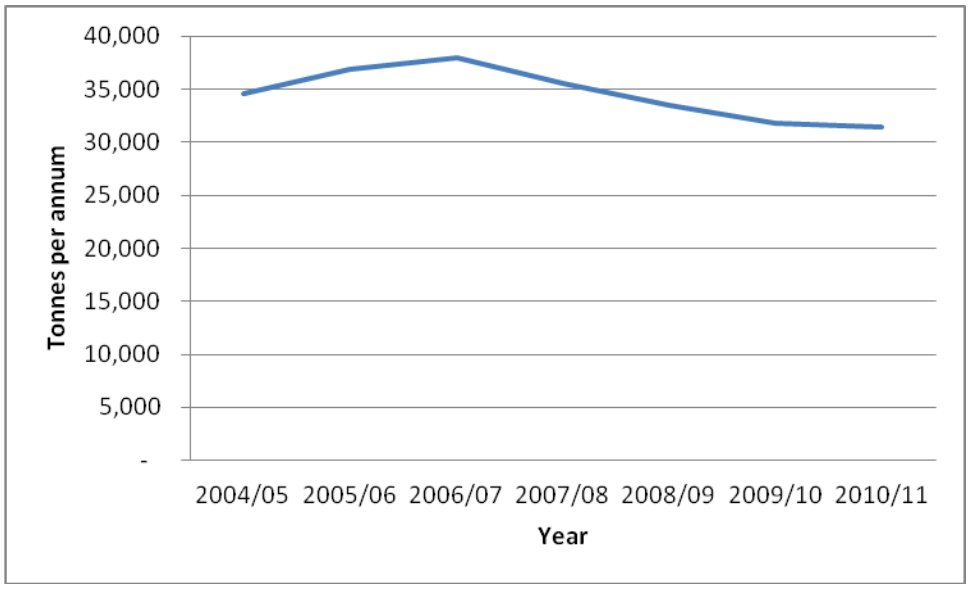


Chart 4 – Clackmannanshire Council Waste Arising



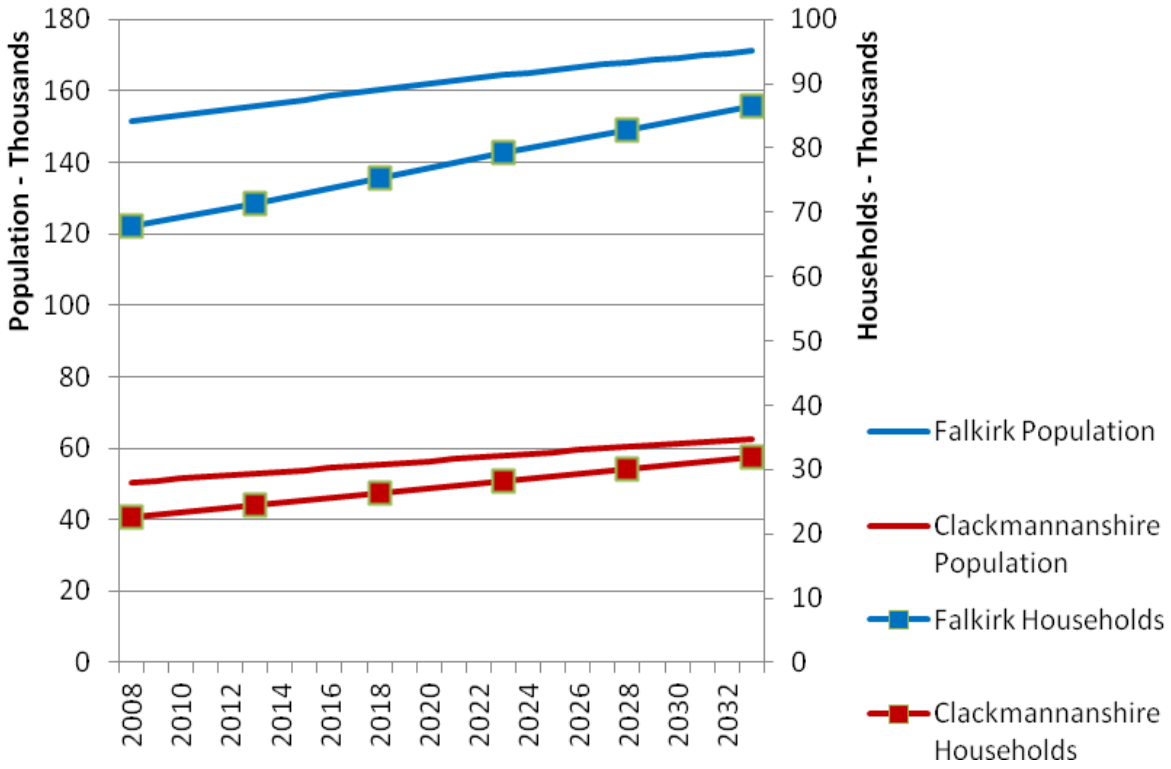
[4] SEPA Waste Data – Local Authority Collected Waste reporting
http://www.sepa.org.uk/waste/waste_data/waste_data_reports/lacw_reporting/lacmw_summary_reports.aspx

The total waste arising in each Council area is affected by a range of factors such as changes in population, the number of households, and also in response to levels of economic growth. Waste arising can be reduced by a range of waste prevention actions, such as the use of lighter weight packaging, greater levels of home composting, reductions in "junk" mail, and when waste material avoids the Councils' waste collection systems altogether, for example when clothes are donated directly to charity shops for reuse.

While both Councils have successfully undertaken a range of waste prevention actions it is unclear whether the downward trend of waste arising shown in Charts 3 & 4 will continue, and both graphs are already displaying a levelling off in the reduction of waste arising. It is also unclear how much of the downward trend over the last five years is a result of the recent economic downturn, and how much is long term change due to the waste prevention actions taken by the Councils and national bodies such as Zero Waste Scotland.

Perhaps the most significant drivers of the increase in the total waste arising are population and household growth. The most recent projections, using 2008 General Registrar Office for Scotland (GROS) information, are that Clackmannanshire's population will grow by 24% between 2008 and 2033, from 50,480 to 62,577[5]. The Falkirk Council area will see a 13% increase from 151,570 to 171,211 during the same period. This compares to a 7.3% increase in Scotland's population as a whole. Chart 5 below shows the predicted population and household changes for both Council areas.

Chart 5 – Population[6] and Household [7] Growth Projections

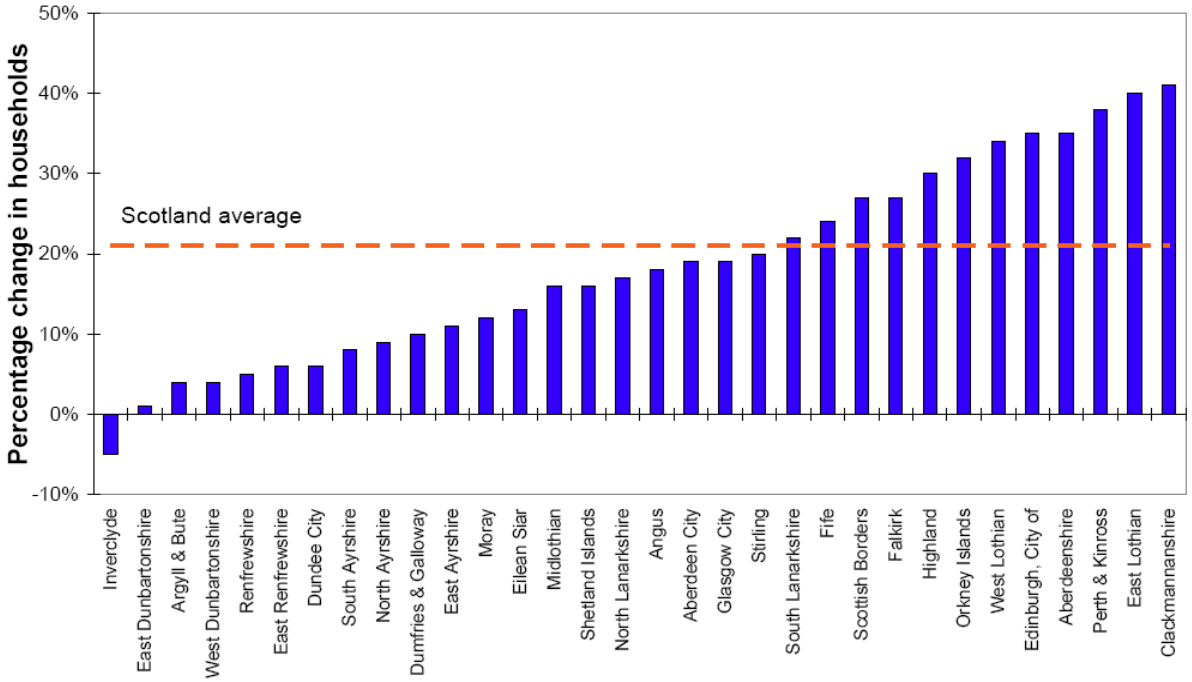


[5] Clackmannanshire Research & Information Bulletin, April 2009
[6] Sourced from Household Projections for Scotland 2008-based, Table 5 - http://www.gro-scotland.gov.uk/statistics/theme/households/projections/hproj-08-based/tables.html
[7] Sourced from 2008-based Population Projections for Scottish Areas, Table 1 - http://www.gro-scotland.gov.uk/statistics/theme/population/projections/sub-national/2008-based/tables.html

The trend in the growth of household numbers is driven by more adults living alone, which is generally accompanied by an increase in waste production per capita. Research work by the Open University and Department for the Environment, Food and Rural Affairs (DEFRA) suggests that the average person living alone will produce twice as much waste as a person living in a household which has five or six people[8].

The Scottish Government predicts that on average the number of households will increase by 20% across all Council areas in the period of 2008-2033. However the largest projected increase in the number of households in Scotland will be in Clackmannanshire with an increase closer to 40% during that period[9]. Chart 6 below is extracted from the GROS Household Projections for Scotland 2008-based, Published on 20 May 2010 and shows these predictions graphically.

Chart 6 –Scottish Household Growth Projections



Given these projections for household and population growth it will be challenging for both Councils to halt or reverse growth in total waste arising in the short term, especially if there is also an upturn in economic growth. For this reason it may be best to focus upon measuring future performance in terms of the kilograms of waste produced per household per annum, rather than the total waste arising.

3.3 Waste Composition

Periodic analysis of non-recycled waste, often referred to as “black bag waste”, is undertaken by both Councils with assistance from Zero Waste Scotland. This analysis technique is used to establish what materials are not being recycled and enables the targeting of communication efforts to help reduce the amount of recyclable material that is mistakenly treated as non-recyclable waste by householders and businesses. It also assists in the design process for collection systems.

[8] The Open University Household Waste Study, Factsheet No 2, Factors which influence Household Waste Generation, October 2008

[9] General Register OS Household Projections for Scotland 2008-based, Published on 20 May 2010

The most recent analysis for both Council areas in 2010/11 shows that a significant proportion of recyclates are still being placed in Green bins as non-recyclable waste and ending up in landfill. For example the analysis showed that, despite the paper and card collection offered via the Blue Bin service in Falkirk, around 14% of the waste by weight in Green bins is recyclable paper and card. Across the district this is equivalent to 4,945 tonnes of paper and card unnecessarily landfilled per year.

In Clackmannanshire over 50% of the material found in the analysis of Green bins could have been recycled. Charts 7 & 8 below show the percentage breakdown for each material identified in the Councils' waste analysis.

Chart 7 – Clackmannanshire Waste Analysis 2010/11*

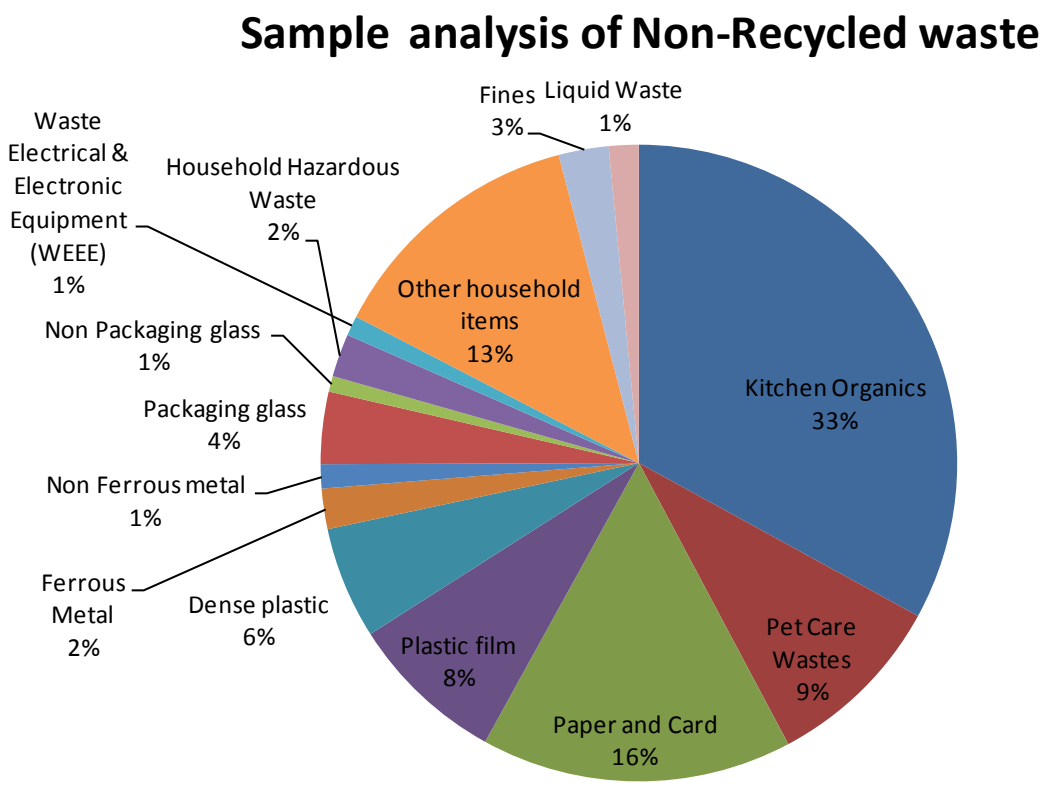
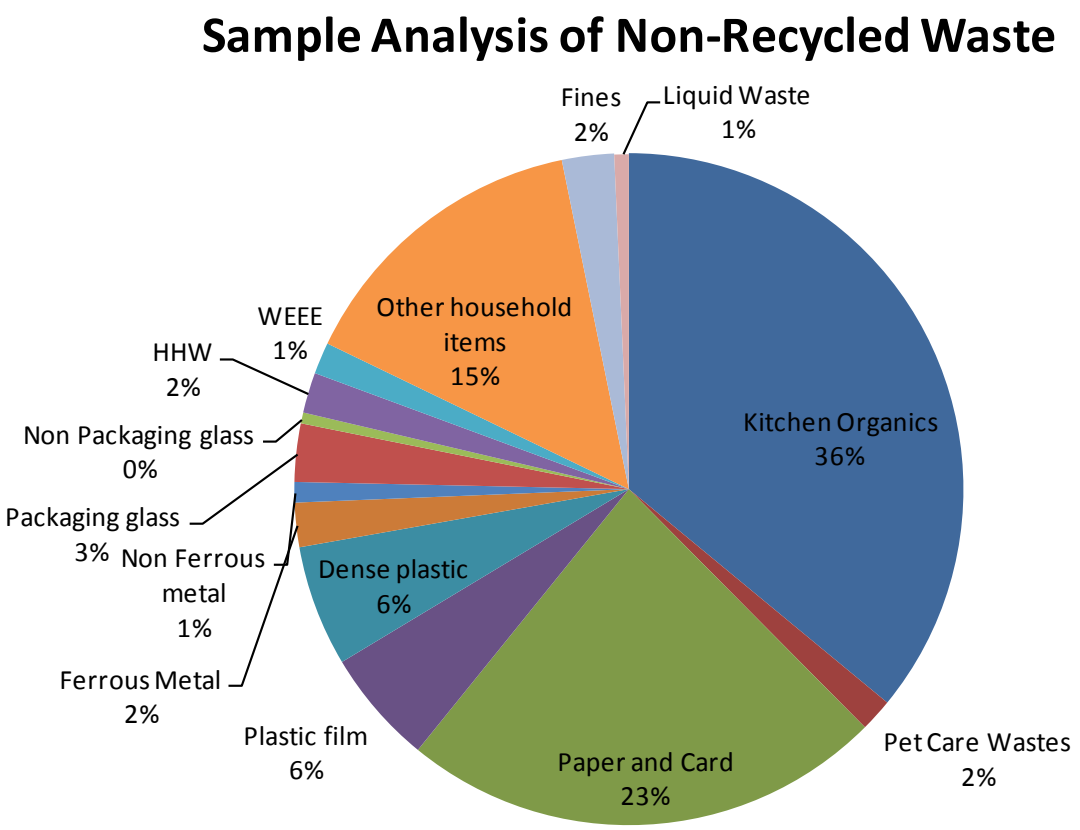


Chart 8 – Falkirk Waste Analysis 2010/11*



* The "Other household items" category includes a range of waste items including textiles, shoes, nappies, furniture and rubble. The "Household Hazardous Waste" category includes batteries, light bulbs and hazardous chemicals.

In line with the agreed SOC Plan Clackmannanshire Council have recently introduced the checking and sorting of black bag waste presented by local residents at their Forthbank Recycling Centre. This process has been undertaken to further assist householders sort their waste materials appropriately and to prevent recyclable/compostable material being landfilled. This process has already indicated that over half the waste that is destined for the non-recyclable landfill collection is actually recyclable or compostable, however residents are either unaware of this or not adequately motivated to separate the material for recycling.

It is clear from these examples that there is still more that needs to be done to ensure recyclable and compostable material is appropriately separated for collection and onward recycling.

During 2010/11 Zero Waste Scotland funded both Councils to undertake a study into the Impact of Targeted Campaigns on Kerbside Recycling and Residual Waste Arising. This showed that targeted advice and encouragement could reduce the amount of recyclates and food waste in non recycled waste. In the longer term it is recognised that greater enforcement in tandem with engagement & participation measures will be required to achieve the recycling targets and reduce collection costs.

Both Councils have committed to a further Waste Composition study to provide up to date figures for the new Zero Waste Strategies.

3.4 Scope of the New Strategies

In line with the new national policy the strategies will cover "all" waste rather than just municipal waste, as in the previous plans. This means that all waste materials "produced" and "collected" by the Councils will be within the scope. Each strategy will summarise current arrangements for waste management and set out the actions that will be necessary for both Councils to move towards the vision for a zero waste society over a period of 10 years.

The new Strategies will be used to guide future decision-making by the Councils mapping out a way forward in terms of:

- achieving national recycling and composting targets;
- initiatives to control waste arising and waste growth;
- potential partnership arrangements and community benefits;
- determining the way forward for the procurement of residual waste treatment;
- determining future resource implications for waste management;
- determining the gaps in infrastructure;

The successful delivery of the Strategies will require involvement, consultation and engagement across all sectors. This includes the support of other services across each Council, as well as Community Planning Partners, Scottish Government, Zero Waste Scotland, the community sector, businesses and householders.

4. Key Drivers

4.1 The European Context

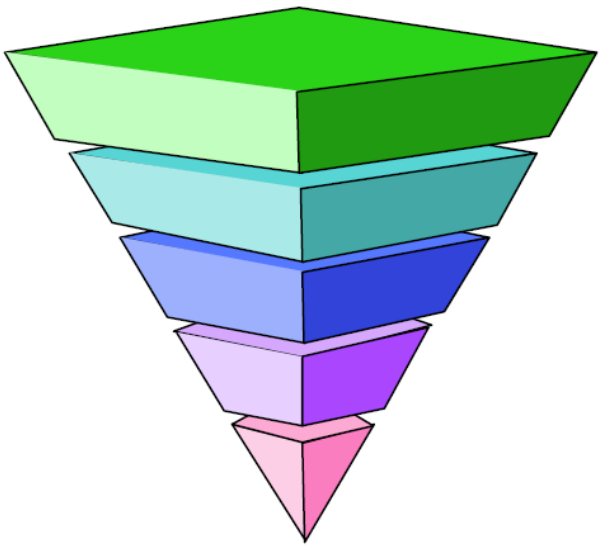
The European Union (EU) has established a number of Directives aimed at harmonising waste policies throughout Europe, guaranteeing environmental protection and supporting economic growth through resource efficiency. The following EU directives have strongly influenced national waste management policy and have led to the introduction of several new pieces of national legislation.

The Waste Framework Directive

In December 2008, the revised Waste Framework Directive (2008/98/EC) came into force, amending some articles of the previous Waste Framework Directive, which provides the overarching structure for waste policy and legislation across EU member states. The revised Waste Framework Directive (rWFD) also introduces the first EU wide recycling targets. By 2020 Member States must reuse or recycle 50 per cent of household waste (this includes composting of organic wastes) and reuse, recycle or recover 70 per cent of non-hazardous construction & demolition waste. There is also the requirement for nation states to produce a Waste Prevention Plan and to have a National Waste Management Plan (NWMP) in place. Scotland's Zero Waste Plan is our NWMP and this sets the national policy structure to implement the Directive in Scotland.

The rWFD has reaffirmed the waste hierarchy as a core policy principle. Figure 1 below shows a depiction of the waste hierarchy with the most preferred solution to waste being the top segment of the pyramid and the bottom section being the least preferred solution.

Figure 1 – The Waste Hierarchy[10]



[10] Waste Hierarchy Diagram extracted from the Scottish Governments Policy Statement, Zero Waste Regulations, October 2011

The Waste Management Licensing (Scotland) Regulations 2011 translates the rWFD into Scots law, and notably Schedule 4 provides a duty on local authorities to implement the waste hierarchy. The government is proposing to issue further guidance on this duty and how it may be discharged. It is clear that local authorities will have to ensure that recyclates and compostable material collected can be redirected to the highest value use in order to comply with this guidance. This will have implications for the design of future collection systems and enforcement policy as new material standards are required to be met. Councils will also be required to show how they have complied with the hierarchy in publicly reported Biannual Statements. It is expected that these will also be linked to the Councils' developing Climate Change reporting framework.

The Landfill Directive

The Landfill Directive (1999/31/EC) requires a progressive reduction in the landfilling of biodegradable municipal waste (BMW) and the pre-treatment of wastes before landfilling, in order to reduce waste volume and minimise the environmental impact of disposal. The Landfill Directive sets targets and timescales for reducing the amount of biodegradable municipal waste (BMW) sent to landfill. These targets and timescales for the UK are as follows:

- *75% of 1995 levels by 2010*
- *50% of 1995 levels by 2013*
- *35% of 1995 levels by 2020*

Prior to the rWFD the Landfill Directive was the prime driver for national policy and it was also the main driver behind the Councils' Forth Valley Area Waste Plan. To help implement the targets in the Directive the Landfill Allowance Scheme (LAS) was developed to manage individual BMW targets for each Council in Scotland. Under the LAS every Council is allocated an annual BMW allowance for each year up to 2020. The Councils then have to meet their annual allowance to avoid heavy financial penalties.

The overall impact of this target regime on local authorities has been diluted due to the UK definition of Municipal Waste being broadened to also include waste collected by private waste management companies. The Directive targets have also now been overtaken by Scotland's plan to ban biodegradable material going to landfill completely, as set out in the Zero Waste Plan (see below). This means that the Councils will no longer be required to comply with the LAS in the future.

Other targeted Directives

There are a range of European Directives that target particular materials through producer responsibility schemes, for example End of Life Vehicles (ELVs), Waste Electrical & Electronic Equipment (WEEE), and Batteries. All of these impact in some way upon the Councils' waste management activities.

4.2 The National Context

The Scottish Government use the structure set by EU policy and the associated Directives to provide a national framework for the regulation of waste. The key components are:

Scotland's Zero Waste Plan

The Zero Waste Plan for Scotland was published in June 2010 setting a new vision for how waste will be managed in the future in a Zero Waste Society. The Zero Waste Plan proposes that the discarded materials Scotland produces are treated as a resource rather than a waste, and introduces a range of radical new measures that go further than the rWFD, including:

- landfill bans for specific waste types, such as organics, aiming to reduce greenhouse gas emissions and capturing their value as a resource for the economy;
- mandatory separate collections of specific waste types, including food (to avoid contaminating other materials and ensure high quality recyclates for reprocessing) and commercial collections;
- new targets that will apply to all waste, a 70% recycling target and a maximum of 5% sent to landfill, both by 2025;
- restrictions on the material input to all energy from waste (EfW) facilities with mandatory extraction of dense plastics and metals prior to treatment;
- development of a Waste Prevention Programme for all wastes, making prevention and reuse central to actions and policies;
- measuring the carbon impacts of waste using a Carbon Metric to prioritise the recycling of resources which offer the greatest environmental and climate change mitigation benefits.

The key targets are set out in Table 1 below.

Table 1 – Zero Waste Plan Targets[11]

Target/Cap	Year	Derivation
40% recycling/composting and preparing for re-use of waste from households.	2010	Scottish Government target.
No more than 2.7 million tonnes of biodegradable municipal waste to be sent to landfill.	2010	Article 5(2) of the EU Landfill Directive.
50% recycling/composting and preparing for re-use of waste from households	2013	Scottish Government target.
The preparing for re-use and the recycling of 50% by weight of waste materials such as paper, metal, plastic and glass from household waste and similar.	2020	Article 11(2)a of the EU Waste Framework Directive.
No more than 1.8 million tonnes of biodegradable municipal waste to be sent to landfill.	2013	Article 5(2) of the EU Landfill Directive.
60% recycling/composting and preparing for re-use of waste from households.	2020	Scottish Government target.
No more than 1.26 million tonnes of biodegradable municipal waste to be sent to landfill.	2020	Article 5(2) of the EU Landfill Directive.
70% recycling and preparing for re-use of construction and demolition waste.	2020	Article 11(2)(b) of the revised EU Waste Framework Directive.
No more than 5% of all waste to go to landfill.	2025	Scottish Government target
70% recycling/composting and preparing for re-use of all waste by 2025.	2025	Scottish Government target.

[11] Scotland's Zero Waste Plan, Annex A - Zero Waste Targets and Data Needs page 20, June 2011

Shortly before the publication of the Zero Waste Plan the government merged its seven previous support programmes into one, creating Zero Waste Scotland as the new delivery programme to support local authorities and businesses implement the objectives of the Zero Waste Plan.

Also flowing from the actions in the Zero Waste Plan are a range of new regulations and associated plans; the key ones are covered below.

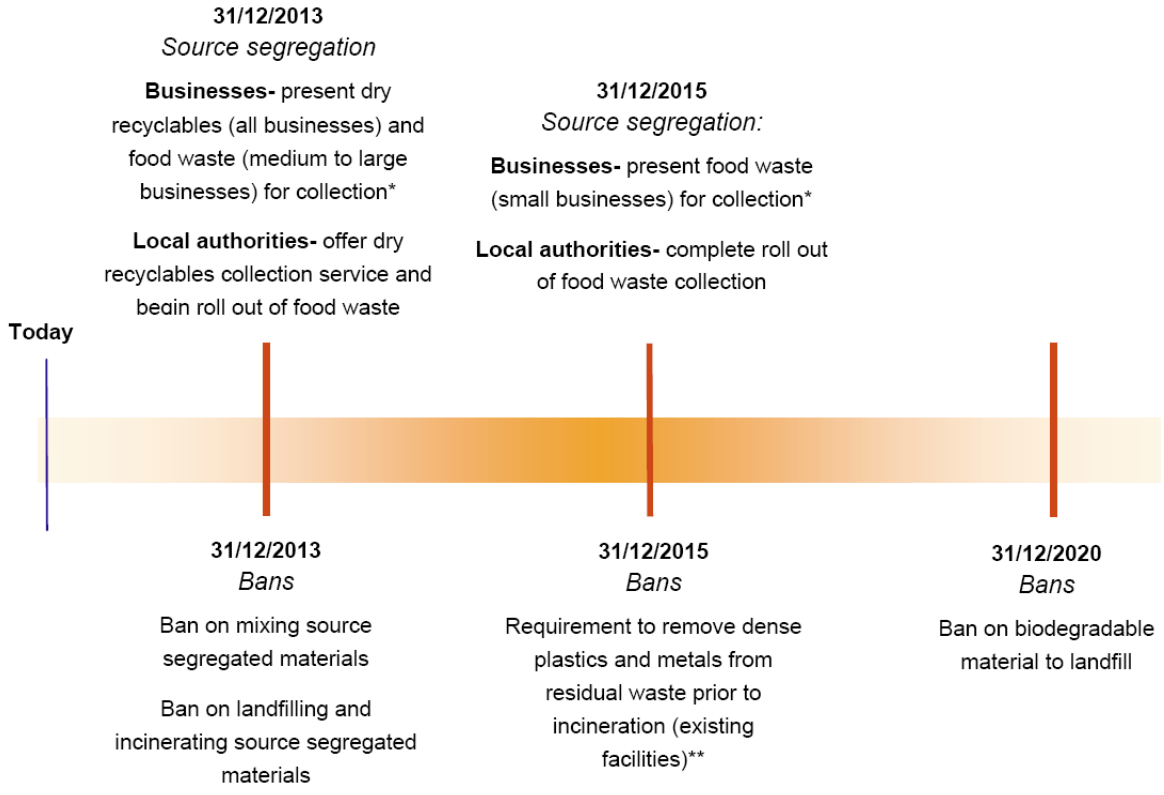
Zero Waste Regulations

These regulations are designed to help support the implementation of the Zero Waste Plan. A public consultation on the proposed regulations has already been conducted and a Policy Statement, produced by the government in October 2011, sets out the key aspects of the regulations. The regulations will implement the landfill bans and recyclate/food waste separate collection requirements proposed in the Zero Waste Plan and introduce:

- guidance on the application of the waste hierarchy for collections to ensure the quality of recyclate material is maintained (including how comingled recyclate collections should comply with quality standards and requirements);
- the provision for the government to develop further quality standards or codes of practice for recycling if required;
- the requirement for local authorities to offer separate collection of glass, metals, plastics, paper, card, and food waste to householders and businesses in their area;
- the mandatory separation of recyclates and food waste by businesses and other organisations;
- a biannual report for local authorities, developed in partnership with CoSLA, to build understanding and trust with the public on waste management within their area.

The timeline for the proposed bans and separation requirements is set out in Figure 2 below.

Figure 2 – Timeline for Separate Collections and Landfill Bans[12]



* Applies to businesses involved in food production, food retail or food preparation

** For new facilities, this requirement will come into effect on commencement of the regulations

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Carbon Metric

This Metric is a new system for measuring performance. Under the new system, tonnage diversion levels will be weighted by applying a 'carbon factor' to the materials collected. This takes into account the environmental benefits of recycling materials compared to sending them to landfill. It uses the carbon dioxide emissions saved as a proxy for wider environmental impact. This is believed to be the first attempt anywhere in the world to apply climate change weightings to waste management performance measurement.

The new system will help to prioritise the materials and waste management options needed to reach the target for 70% recycling by 2025. In particular it will prioritise materials with a high carbon impact such as plastics, which currently have relatively low levels of recycling in Scotland.

The Metric is focused on recycling impacts, although a separate Carbon Metric may also be developed for reuse impacts in the future. The Metric initially applies to local authority performance reporting from 2013; reported on an aggregated national basis. Application of the Metric to the private sector will occur by 2025.

[12] Extracted from the Scottish Governments Policy Statement, Zero Waste Regulations, October 2011

Waste Prevention Plan (WPP)

The government's WPP is set to be published in 2012 and it is possible that this may set targets for the reduction in total waste arising for Scotland as well as introducing a range of new waste prevention actions and obligations. In addition it may also pave the way for the introduction of greater use of Producer Responsibility & Voluntary Agreements within various industry sectors, if Scotland seeks to operate its own producer responsibility systems separately from the rest of the UK. This may have the beneficial impact of reducing waste arising that has to be collected by the Councils.

In the UK targets exist for the recycling and recovery of packaging waste as part of Producer Responsibility Regulations i.e. the producers of the material pay for the cost of collection of the waste. However most of the costs associated with collecting and recycling these materials fall upon local authorities. A recent report for the Scottish Government by *Eunomia Research & Consulting*[13] found that the companies obligated under the Regulations effectively avoided financial responsibility for meeting their obligations because local authorities provide the collection and sorting services, largely unsupported by those that put the products on the market. This means that at the moment tax payers are supporting the delivery of the Producer Responsibly obligations and not the waste producers.

Allied to the WPP is the possible introduction of Deposit Return Schemes and Reverse Vending in Scotland. These provide consumers with a small payment for the return of containers such as plastic/ glass bottles and cans. If such schemes were introduced and adopted by main stream retailers in Scotland the amount of this kind of material being collected by the Councils in recyclate collections could decrease significantly. This is also expected to occur with other waste materials such as textiles. As the international market price for used clothes rises then more and more businesses are expected to offer cash for used clothes, and so we can expect this material to decline in the waste stream as householders are encouraged to sell their unwanted clothes.

Climate Change (Scotland) Act 2009

Waste issues are a significant element of the Climate Change Act. Over the last ten years there have been major reductions in emissions from the waste sector due to the reduced landfilling of BMW waste. Continued improvement in emissions will be more challenging as landfill becomes a smaller element of the solution to waste.

Chapter 5 of the Act contains provisions which enable Scottish Ministers to make regulations relating to the acquisition of accurate information about waste, and the promotion of waste reduction and recycling by different methods. There are a range of provisions here:

- Section 78 – Waste Prevention and Management Plans.
- Section 79 – Information on waste.
- Section 80 – Recyclable waste: facilities for deposit etc.
- Section 81 – Recyclable waste: facilities for deposit at events etc.
- Section 82 – Procurement of recyclate.
- Section 83 – Targets for reduction of packaging, etc.

[13] Producer Responsibility: Policy Evaluation Final Report to the Scottish Government, Eunomia Research & Consulting, May 2011

- Section 84 – Deposit and Return Schemes.
- Section 85, 86, & 87 – Administration of Deposit and Return Schemes.
- Section 88 – Charges for the supply of carrier bags.

Depending upon future implementation these have the potential to impact upon the Council's waste management services. In addition Part 4 of the legislation refers to duties of public bodies relating to climate change:

"A public body must, in exercising its functions, act in the way best calculated to contribute to the delivery of the targets set in… this Act."

Section 44 of the Act places three climate change duties on a wide range of public bodies in Scotland and contains powers to enable the Scottish Ministers, by order, to create further duties. The current duties on the face of the Act require that a public body must, in exercising its functions, act:

- in the way best calculated to contribute to the emissions reduction targets;
- in the way best calculated to deliver any statutory adaptation programme; and
- in a way that it considers most sustainable.

4.3 The Local Context

At a local level both Councils have developed and implemented their own strategies set out in the AWP and SOC. These plans have enabled both Councils to become top performers in Scotland and a continuation of this high level of performance is expected by their communities and key stakeholders. However it is recognised that the next steps required will be very challenging. Budget constraints, increasing costs associated with transport, and ensuring that householders & businesses continue to receive an equivalent service regardless of their rural or urban location will all present challenges.

The Councils also face a new potential challenge due to the range of public duties required of them that have the potential to conflict with each other. There is the duty to provide Best Value, a duty to comply with Waste Regulations, a duty to meet the requirements of the Climate Change Act and now also a requirement to comply with the Waste Hierarchy and the subsequent guidance issued on it.

For example, the Councils will be obligated to collect food waste by the Zero Waste Regulations, however this increased level of service at a time of budget restrictions may appear to conflict with the Best Value duty. In practice the Best Value duty also includes a requirement for a local authority to discharge its duties, under Section 1(5) of the Local Government in Scotland Act 2003, in a way which contributes to the achievement of sustainable development. In this case the guidance requires the Councils to give "*consideration of the social, economic and environmental impacts of activities and decisions both in the shorter and longer term".*[14] It is clear in this example that in the long term the separation of food waste has social, economic and environmental benefits that will outweigh many of the short term economic issues.

In summary it is likely that the Councils may have to steer a path through a range of "Duties" to ensure their continued compliance with them in the future.

[14] Chapter 7 of the Best Value Guidance, Scottish Executive 2004.

4.4 Financial Drivers

The landfill tax escalator increases the standard rate of landfill tax by £8 per tonne per annum until 2014 when Landfill Tax will reach £80 per tonne. In comparison, the average cost of disposal by landfill, known as the 'gate fee' is currently around £18 per tonne[15]. This charge compares with alternatives to landfill for non–recyclable waste: £75 estimated for Mechanical Biological Treatment (MBT); and £85 - £120 for incineration (a form of EfW).

The funding provided by the Scottish Government through the Revenue Support Grant makes no provision for increasing landfill tax costs to local authorities, therefore this places an increasing expenditure pressure on the Councils; further driving the need to ensure all possible material is collected for recycling or composting. Audit Scotland's local authority performance indicators[16] show that the average net cost of Waste Collection & Disposal per premise for Scotland's 32 local authorities rose by 9% over the last 3 years (from £147.93 in 2008/09 to £161.83 in 2010/11). This is despite the increasing percentage of material recycled or composted during that period.

The Scottish Government has produced a Business and Regulatory Impact Assessment (BRIA) for the changes being brought about by the Zero Waste Regulations. This shows that over the long term the financial costs of implementing the Regulations should be less than a Business as Usual scenario. Overall the additional costs of collections, sorting and organic material reprocessing are anticipated to be outweighed by the financial cost savings from reduced levels of non-recycled waste plus the additional income raised from collecting more recycled material. The total annual saving to the Scottish economy as a whole is expected to be in excess of £17million per annum[17]. This aggregated total is comprised of a Household waste cost savings of £18m, Commercial & Industrial waste additional costs of £6m, and a Construction & Demolition waste cost savings of £5m.

There are a number of assumptions involved in the BRIA and for the Councils there is also an underlying assumption that the optimum benefit will be gained from reorganising services to minimise non–recycled waste and maximise the value of the recycled material collected.

4.5 The tools available to the Councils

While the challenges above are many, the Councils have been very successful to date at meeting past challenges in relation to waste. Overall, however, it is recognised that local authorities have a limited range of tools at their disposal in order to meet the new challenges. These tools are:

- The waste collection services which are offered to householders and businesses.
- Education and awareness activities, including waste prevention messages for householders, businesses and the Councils' staff.
- Minimising council produced waste and managing what is produced in line with best practice.
- Using regulatory powers in an enforcement role and to reinforce the "polluter pays" principle.
- Embedding Zero Waste Policy into all Council activities including procurement functions.
- Planning Policy – steering investment in the area to provide the correct mix of new resource management infrastructure.

[15] WRAP Gate Fees Report - Comparing the cost of alternative waste treatment options, July 2010, median landfill rate for Scotland (page 3), MBT rate, and current market estimate range for Incineration
[16] Derived from Audit Scotland Local Authority Performance Indicator 23
[17] Zero Waste (Scotland) Regulations Draft BRIA, October 2011, Table 6, page 43

- Economic Development Support – targeting the Council's services and partnerships in this area to assist local businesses with their waste issues and invest appropriately in the waste sector.
- Grant Funding - targeting funding support for Zero Waste Projects and embedding appropriate zero waste criteria in all grant funding.
- Community Planning – demonstrating clear leadership on Zero Waste that enables others to follow and gain the benefits.

5. The Main Issues to be addressed by the Strategies

Flowing from the drivers and challenges identified above a range of Main Issues have been identified. For each of these a range of Policy Objectives and Actions have been proposed.

Issue 1 - Climate Change

The creation and management of waste is major contributor to climate change and the impact of waste management may be greater than many other energy related emissions under the control of the councils. It should be noted that local authorities do not directly control waste production but they can exert some influence on it. The release of methane, which is 24 times more potent than carbon dioxide as a Green House Gas (GHG), is a major contributor to climate change. However, these methane emissions to the atmosphere originating from landfill sites are being reduced through increased recycling and composting rates, the use of treatment processes for non-recyclable waste and now a proposed Zero Waste Regulation ban on organic waste going to landfill sites. In Clackmannanshire's most recent Annual Report for the Scottish Climate Change Declaration a 27.9% reduction in carbon dioxide equivalent emissions from waste management activities was noted for the period 2006/07 to 2009/10[18].

Therefore the Main Issues to be addressed here are the adoption of the Carbon Metric as a key performance measure and meeting the obligations, relating to waste management, within the Climate Change (Scotland) Act.

It is now clear, that over time, the emphasis of performance monitoring on waste management will move from the current simple tonnage measurement approach to performance based on overall Climate Change impact, using the Carbon Metric. As a result of this new way of measuring performance there will be greater emphasis on the recycling of waste materials that have a high embedded carbon impact and which score highly on the Carbon Metric; examples of these materials are metals, plastics and textiles. This will require the Councils to be adaptable and flexible as they focus their collection efforts on capturing a high percentage of these materials within the mix of recyclates in order to meet the 70% target.

At the same time, in order to comply with the public duty under the Act, emissions from the transport and collection of waste will need to be tackled through the efficient design of any new collections and the procurement of efficient vehicles. The Act also aims to encourage greater levels of recycling away from the home and workplace through "Recycling on the Go". In practice this means providing the opportunity to recycle materials in public places such as high streets, shopping centres and other public venues. This ensures that waste is treated as a resource in all locations and reinforces the behaviour change required in all of us to achieve a Zero Waste Society.

[18] Clackmannanshire Scottish Climate Change Declaration Annual Report, January 2011

The proposed objectives are:

- Adopt the Carbon Metric as a key performance measure.
- Minimise the environmental and climate change impacts from waste management activities.

The proposed actions are:

- Design and implement services to address the Carbon Metric and the Climate Change Act (CCA) duty to reduce the overall emissions from waste collections.
- Ensure the ongoing procurement of more efficient vehicles.
- Support the development of new "Recycling on the Go" infrastructure based on best practice guidance from Zero Waste Scotland.

Question 1

Do you have any comments on future Climate Change impacts?

Issue 2 - Waste Prevention

Household waste, which is the main competent of the waste collected by the Councils, has shown a declining trend across both Council areas. However with the significant projected growth in population and number of households this situation is unlikely to continue.

The Scottish Government has met its initial target of the stabilisation in waste growth by 2010. It is expected that future waste reduction targets will be set as part of the national Waste Prevention Plan (WPP). This plan will be consulted upon in 2012 and may cover a range of measures focusing on improving resource efficiency within in the Scottish economy and the greater use of producer responsibility measures.

Previous waste growth estimates prepared for the Area Waste Plan suggested a 1.5% per annum growth in total waste arising in the medium to long term; although the total waste arising has stabilised across Scotland in 2010. In light of these previous estimates, and given the limited tools available to the Councils to prevent waste, the Councils may wish to set a waste arising reduction target based on waste per household, rather than an overall tonnage figure.

The proposed objectives are:

- To work with the Scottish Government, Zero Waste Scotland and waste producers to reduce the amount of waste created.
- To use the Waste Hierarchy in decision making to ensure that waste prevention is the top priority.

The proposed actions are:

- The Councils set a total waste arising reduction target, on a per household basis, after considering the actions and targets proposed in the national Waste Prevention Plan.
- The Councils support the Scottish Government's efforts on improved Producer Responsibility obligations.
- The Councils adopt a zero waste policy for its own activities including service waste reduction targets.
- The Councils support greater levels of reuse for targeted materials through the design of its waste management services.
- The Councils exert influence on external stakeholders to adopt waste reduction targets and zero waste principles, for example by encouraging greater use of Site Waste Management Plans for new construction projects.
- Improved signposting, through the Councils' waste and economic development functions, to ZWS Business Support services in order to assist local businesses reduce the amount of waste they generate.

Question 2

What further action would help prevent waste being created?

Issue 3 - Leadership and Engagement on Waste & Resource Use

The Councils have to continue to show leadership to their communities, as they did when the Area Waste Plans were first launched and the first recycling systems were introduced to households. The new Strategies will be a further step change on the previous approach due to the new drivers towards a Zero Waste Society and the recognition that waste materials are actually valuable resources. Key to the future success of these strategies will be the Councils taking robust action on the waste they produce themselves and supporting their communities to tackle their waste issues.

The Main Issues to be addressed by the Strategies here are:

<u>Leading by Example</u>

The Councils cannot expect householders and businesses to commit to the drive towards zero waste without Council services leading the way. The Zero Waste Strategies should steer Council policy and must be

embraced by all departments and services. Key functions where action plans, targets and changes to meet the new obligations will be required include: Building Maintenance, Facilities and Estates, Architects & Design, Procurement, and Catering Services.

In addition to any new obligations to separate waste there are a range of good practice agreements that council services could adopt. For example the ZWS " ½ waste to landfill" agreement is relevant to building maintenance and architects/design functions and is accompanied by hands on support to help implement good practice on waste and reduce costs. New voluntary agreements may soon extend to waste reduction & management in Hospitality & Events Management in order to help these functions comply with the new regulations and gain the associated economic benefits. The adoption of these agreements by the Councils, supported by ZWS, will help encourage local business to follow a similar path and lead to economic and environmental benefits while reducing costs. These would also further support the Councils' commitment to reduce greenhouse gases under the Scottish Climate Change Declaration. Table 2 below summarises the main impacts on the Councils' own services.

Table 2 – Initial assessment of impact of Zero Waste on council services.

Council Function	Waste Reduction Targets	Separate Food Waste Collection	Separate collection for key recyclates	Changes to Contract Specifications	Voluntary Commitments
Waste Collection	√√√	√√√	√√√	√√	√√
Schools	√√	√√√	√√√	√√	√√√
Facilities Management Services (including Public Buildings)	√	√√√	√√√	√√	√√
Architects & Design	√√√	√	√	√√√	√√√
Housing and Building Maintenance	√√√	√	√√√	√√√	√√√
Roads Maintenance	√√√	√	√√	√√√	√√
Catering Services	√√	√√√	√√√	√	√√√
Grounds Maintenance	√√	√	√√√	√√	√
Procurement	√√	√	√	√√√	√√√
Economic Development / Business Support	√√	√√√	√√√	√√	√√√

Level of impact: √ = minor, √√= significant, √√√= very significant

In addition to the table above there will also be a requirement to update the current Supplementary Planning Guidance in relation to , amongst other things, the requirements for waste storage space in new housing and commercial development.

Support to Local Communities

The Councils can support their local communities to take action through funding projects and providing other forms of support and guidance. Both Councils already facilitate Zero Waste volunteer schemes within their communities in tandem with the Zero Waste Scotland volunteer programme. In addition the staff from both authorities provide guidance and advice on resource management issues.

Funding for community led projects has become more restricted as a result of the constraints on public expenditure and other sources of funding in recent years. Both Councils have their own grant programmes, and in addition, under the Landfill Communities Fund (LCF) scheme a proportion of the Councils' landfill tax is refunded to the Falkirk Environment Trust (FET) and the Clackmannanshire & Stirling Environment Trust. Currently, under HMRC rules, the funds from both Trusts are restricted to particular categories of projects. These are targeted at general improvement of the physical environment, for example category *OBJECT D The provision, maintenance or improvement of a public park or other general public amenity.* As previously this funding cannot be directly invested in recycling or waste preventions schemes.

Currently the maximum amount the trusts can claim under HMRC rules is 6.2% of the Councils' landfill tax payments, which in exchange gives the landfill operators Avondale Environmental Ltd a 90% tax credit on this proportion of the tax. These refunded payments on the Councils tax may also be supplemented by landfill tax refunded from other users of local landfill sites, however under the new ZWP target regime landfill disposal will drop to 5% of waste arising by 2025. Avondale Environmental's new MRF facility may mean that landfill rates locally drop at a much faster rate as non-recyclable waste is turned into a refuse derived fuel (RDF) for use in energy from waste (EfW) facilities.

Under proposals for the Scotland Bill the landfill tax and aggregate tax regimes could be devolved to the Scottish Government by 2015. If this is the case then the shape of the new tax regime may be consulted upon in the future. While landfill is expected to decline significantly, several other European countries have taxes on other waste treatments such as EfW as well as landfill; this is to further encourage recycling in preference to energy recovery. Therefore, it is possible, depending on the approach taken by the Scottish Government, that this area of taxation could continue to raise substantial revenue in the future.

With the new national policy emphasis on Zero Waste, the Grant Schemes and Environmental Trusts representing each Council area could be further encouraged to support projects targeted at achieving Zero Waste Communities. This approach could utilise the principles of leverage to access other sources of funding.

Linking to Other Plans and Strategies

The Zero Waste strategies should link to other strategies, policies and plans on Local Development, Litter, Procurement, Sustainable Development, Climate Change, Service Plans and Outcome Agreements, as well as the Zero Waste Plan at a national level, to ensure they incorporate the zero waste objectives and help contribute towards a Zero Waste Society.

The proposed objectives are:

- All future Council policies, strategies and plans should incorporate the new zero waste national policy framework.
- The Councils should continue to maximise the opportunities to attract funding to further support zero waste community projects.
- The Councils should continue to develop shared services opportunities with each other and also with other councils, Zero Waste Scotland, private and third sector partners.

The proposed actions are:

- Both Councils should continue to facilitate volunteering within their communities in tandem with the ZWS volunteer programme.
- The Councils should collaborate with and coordinate, where appropriate, relevant grant funding schemes, including the Landfill Tax Trusts, to ensure that their funding programmes and criteria reflect the move towards Zero Waste targets and where possible there is targeted support for zero waste projects.
- The Councils should encourage the Scottish Government to implement support for community level zero waste projects under any new tax regime post 2015.
- The Councils should adopt a common approach on the new policy & regulation framework with ZWS and the Scottish Government to ensure consistent messages are given to all stakeholders on the major changes ahead.

Question 3

a) What more could be done to engage with, and support, communities in order to assist them move towards a Zero Waste Society?

b) Are there more areas where the Councils should show leadership or use their influence?

Issue 4 - Optimising Services for the Future

The collection services for recyclates and organic material will require to be significantly improved in order to meet the new national targets set out Scotland's Zero Waste Plan and the requirements of the Zero Waste Regulations. Although this improvement will require extra resources, in the long term it should also help to minimise the increasing costs of landfill/treatment of mixed non-recyclable waste. Table 3 below summarises the factors impacting on the Councils' collection services.

Table 3 – Factors Impacting on Collection Services

Drivers for Change	Impact on Council collections
Mandatory food waste collection (Zero Waste Regulations)	➢ Food waste collections require to be provided to householders and businesses. ➢ The capture of food waste separately will mean the non-recyclable waste element (Green Bin material) becomes a much smaller fraction of the collection service. This will necessitate a redesign of all the services to take account of this change. ➢ The costs of collections will increase in the short term as the changes for an additional service are made.
New material quality and collection standards (Zero Waste Regulations)	➢ A key range of recyclates must be collected to ensure compliance. ➢ Some materials may require to be collected differently to optimise their use in high value reprocessing opportunities. ➢ Contamination of Blue Bin recyclates will have to be minimised to ensure compliance with material quality standards. ➢ Greater use of enforcement and education effort will be required to achieve the reduced contamination levels. ➢ Material collected for recycling or composting must be used for that purpose. ➢ The non-recyclable waste (Green Bin) collection can no longer be treated as the priority collection over recyclable collections.
Compliance with Waste Hierarchy and Carbon Metric measure	➢ The collection of materials will have to be organised in a way that ensures they can be used for the highest value purpose e.g. glass collected separately to enable re-melt rather than collected in a mixed fashion. ➢ Collections will need to focus on capturing the materials with the greatest Carbon Metric impact, while minimising transport emissions.
Zero Waste Plan targets	➢ Recyclable material incorrectly placed in the non recyclable (Green Bin) must be reduced to near zero to ensure future targets are met. ➢ Greater use of enforcement powers and engagement will be required to reduce the loss rate for recyclable material.
Best Value	➢ Greater use of enforcement powers and engagement / education effort will be required to reduce the cost of recyclates lost in non-recyclable waste collections.

The Main Issues to be addressed by the Strategies here are:

<u>The Redesign of Collection Services</u>

The Council is required to introduce Food Waste Collections for households in line with the requirements in the Zero Waste Regulations Policy Statement Section 5.3. This is a significant addition to the current collection services and the new collection will require some time to become established. The Zero Waste Regulations will also require the Councils to change their "Trade Waste" services to provide food waste collections for large business by 2013 and small businesses by 2015.

It should be noted that, in recent waste analysis sampling, food waste was found to be in excess of 30% of the mixed non-recyclable waste in household Green Bins. The removal of this food waste material with a

new collection would mean that the volume and weight of material in the average Green Bin would shrink substantially. In Best Value terms it would no longer be justified to provide the current capacity or frequency of the current Green Bin collection, except for special cases where householders are unable to fully participate, for example on medical grounds. For these special cases appropriately safeguarded capacity and frequency of services would be required.

It is recognised that a reduction of the frequency or volume of the non-recyclable waste collection (Green Bin) can increase recyclates captured by up to a third, by incentivising householders to use the correct collection container. This process has already been successfully implemented by the Councils' when they moved to a fortnightly collection for non-recycled material on the introduction of the initial recycling collections. The new drivers will require a further change to reflect that the vast majority of material has now been removed from the non-recyclable waste stream.

Given the new obligations on the Councils at time of general budget contraction the opportunities for savings are limited. However there are opportunities to use existing budgets to greater effect in an "invest to save" approach. In particular, reducing contamination and the amount of recyclates incorrectly landfilled will reduce costs. Incentivising householders & businesses to use the correct containers by adjusting collection frequencies and container capacities will also help offset any cost increases.

Material quality is now fundamental to ensuring there are secure markets for recycled material, and also a high market value to offset some of the costs of collection. New material quality and collection standards are being developed as part of the new national policy framework. The Councils must ensure they can meet these in the future or they risk being required to collect recyclate materials separately at greater cost. To ensure the quality of collected material the Councils will have to take robust action to reduce contamination by householders and businesses. In addition the design of collection systems will require that high quality materials are captured at every stage; for example glass should be collected by colour so that it can be used for higher value "closed loop" re-melt use rather than low grade use in aggregate displacement. The Councils will need to strengthen their current approach to contamination by continuing to improve information to householders and using greater enforcement action on those residents who continue to disregard the separate collection systems. This may include treating recyclates in the Green Bin as contamination.

Improved Customer Engagement

The requirement to develop more extensive collection services to meet the new targets and regulations, plus the need to ensure local residents fully utilise the collection systems and minimise any contamination, will result in increased expectations on both the Council and from householders & businesses. A clear statement of expectations is therefore a sensible way to address this issue and a Customer Charter is proposed. This Charter should clearly explain the expectations of the Council and what residents & businesses can expect from the Council in terms of service standards. WRAP has developed a Waste Collection Commitment[19] for householders and a local authority Business Recycling and Waste Services Commitment[20] that may be used as a baseline for the development of this Charter.

[19] Obtainable via the WRAP website at http://www.wrap.org.uk/local_authorities/waste_commitment.html
[20] Obtainable via the WRAP website http://www.wrap.org.uk/local_authorities/business_recycling.html

In line with the Policy Statement on Zero Waste Regulations the Council will also issue a biannual statement on its performance for the benefit of residents. The Customer Charter should be closely aligned to this reporting process.

The proposed objectives are:

- To meet or exceed the targets set in Scotland's Zero Waste Plan.
- To ensure that the Councils' waste collection services deliver the Best Practical Environmental Option and comply with the Waste Hierarchy and Zero Waste Regulations.
- To maximise the quality and value of material collected in line with the Waste Hierarchy.

The proposed actions are:

- A review of all household and business collections, focusing upon the introduction of food waste collections, the potential change of all waste collections to balance this, and ensuring that the high quality of recyclate/compostable material collected is maintained.
- The development of a customer charter explaining the service standards customers should receive from the Councils and also the expectations and requirements of householders & businesses, linked to the Councils' Biennial Public Statement on performance.

Question 4

What further action can the Councils and their partners take to ensure that householders & businesses are fully aware of the need to separate their waste materials appropriately and use the systems provided to minimise their non-recyclable waste?

Issue 5 - Maximising the Economic Benefit from Zero Waste

In addition to the "invest to save" approach proposed in the review of waste collections there are also a range of partnership opportunities available to both Councils that should be further developed and explored. These include joint education and awareness campaigns, the continuation of joint procurement (for waste services), shared trade waste collections particularly with regard to food waste, and shared bulky uplift services. There are also existing arrangements with other Councils, such as Clackmannanshire's agreement with Fife on cross boundary recycling centre use by residents, which could offer opportunities for greater cooperation. Partnership opportunities also include working closely with the Scottish Government, ZWS and Community Planning partners to further share the zero waste vision.

The impact of the new zero waste regime on businesses will be significant. Many will benefit from reduced costs but they may also require help to implement the changes. ZWS has a Business Support function which will help businesses become aware of and implement their obligations under the Zero Waste regulations.

The proposed objectives are:

- To maximise the value of waste generated by minimising the amount of low value non-recyclable waste and ensuring that any waste is collected and reused/recycled/composted to achieve the highest economic value possible.
- To seek to maximise, where appropriate, the local economic benefit from the Councils' procurement processes and support the inclusion of recycled or reused content where ever practical.
- Create conditions that make it easier to invest in Zero Waste Opportunities in both Council areas.

The proposed actions are:

- Use the Councils influence to boost economic activity and reduce the costs to businesses of zero waste through working in partnership with Business Gateway, Scottish Enterprise, Zero Waste Scotland and existing mechanisms e.g. the Forth Valley Environmental Business Partnership and BIDs.
- Improved signposting, through the Councils' waste and economic development functions, to ZWS Business Support services in order to assist local businesses.
- Both Councils should continue to work together on a range of joint working opportunities.
- Provide guidance and support for the Council's commercial collection customers to help them through the implementation of the Zero Waste Regulations.

Question 5

What more can be done to gain the economic value from the move to a zero waste society?

Issue 6 - Waste and Resource Management Infrastructure

The move towards a Zero Waste Society will require a range of infrastructure and facilities to ensure that the targets can be met. However the current infrastructure, locally, and across Scotland is focused on landfill disposal and on levels of recycling & composting lower than we can expect from achieving the Zero Waste targets. As more and more recyclate material is returned to use within the economy there will be a greater need for the expansion of reprocessing facilities, high quality recyclate sorting & bulking facilities, and treatment facilities for non-recyclable waste. The higher value of materials treated through recycling and reprocessing facilities will ensure greater economic benefit to communities and a key focus for the future will be to capture that economic benefit for both Council areas. The paragraph below summaries this situation with an example:

"One of the key growth sectors is the reprocessing industry. As new material becomes available and the value of materials increases, new opportunities to process materials into viable market products are created. For instance, today some 440,000 tonnes of high grade plastics (food plastics) go direct to landfill, whereas

material collected, bailed and exported to global markets commands around £130 per ton. If these plastics were reprocessed back into food grade material they would have a value in excess of £1,000 per ton. This is value that could be benefiting the Scottish economy, by creating jobs and supplying, for example, local bottling companies, thereby displacing the use of virgin materials. To realise this opportunity we need to improve collection systems and encourage businesses to invest in reprocessing technology and capacity; something being promoted by ZWS. A similar story would apply to many other materials that are currently in the waste stream."[21]

The Scottish Government has begun to quantify the change required with some early forecasts of the changing need for resource management facilities provided by SEPA in Appendix B to the Zero Waste Plan.[22] These forecasts are currently based on the old Area Waste Plan boundaries and are likely to be updated periodically. These forecasts are for all waste types including waste collected by the Councils.

Estimated high level infrastructure need for the Councils' collected waste in 2025, based on current levels of total waste arising, are:

- 70% Recycling/Composting - 85,043 tpa (Falkirk 63,085tpa & Clackmannanshire 21,958tpa);
- 30% Non-recyclable Waste Treatment - 36,447tpa (Falkirk 27,037tpa & Clackmannanshire 9,410tpa);
- 5% landfill of residual material (after Treatment) – 6,074tpa (Falkirk 4,506tpa & Clackmannanshire 1,568tpa);

There is currently a significant 10 year landfill supply and also a 200,000 tpa MBT facility under construction in the Falkirk Council area. It therefore appears that from a future infrastructure perspective the Councils' Landfill and Non-recyclable Waste Treatment requirements could already be met locally; based on these tonnage estimates and subject to the outcome of competitive tendering. The necessary infrastructure for recycling and reprocessing is less certain and therefore the Councils priorities must be focused on securing sufficient facilities for these higher value processes.

The Councils have a range of their own recycling infrastructure, such as Forthbank, Roughmute and Kinneil Kerse Recycling Centres. The policy aim here should be to continue the Self Sufficiency & Proximity Principles from the previous waste plans and so achieve the targets firstly with internal services & resources and then seek to use other external providers for assistance where required. There are a range of private sector facilities within the Council's areas and also in other adjacent Council areas. Some examples of those located within the Councils' boundaries are shown in Table 4 below.

[21] Draft BRIA for Zero Waste Regulations, Scottish Government, October 2011

[22] Obtainable via the SG website http://www.scotland.gov.uk/Topics/Environment/waste-and-pollution/Waste-1/wastestrategy/annexb/table

Table 4 – Examples of Existing Resource Management Infrastructure within the Councils' boundaries *

Facility Type	Examples	Level of importance
Reprocessing Facilities	○ Glass Remelt, United Glass (OI Manufacturing), Alloa.	○ National & UK
	○ Windrow Composting Site, Falkirk Council, Kinneil Kerse, Boness.	○ Local
	○ Windrow Composting Site, Clackmannanshire & Stirling Council Polmaise, Stirling.	○ Local
	○ Plastics Reprocessing, Avanti Scotland, Alva.	○ Regional & National
	○ Wood Waste, AW Jenkinson Wood Waste Ltd, Boness.	○ Regional & National
	○ Soil & rubble, Eagle Recycling, Denny.	○ Local & Regional
High Quality Recycling Sort	○ Household &Commercial recyclates MRF, Oran Environmental Solutions, Grangemouth.	○ Regional
	○ Aluminium cans bulk collection point, ACE, Alloa.	○ National
	○ Textiles & Footwear, Nathans, Denny.	○ National & UK
	○ Metals, Foundry Steels, Grangemouth (one of a range of scrap metal collectors).	○ Local
	○ Construction & Demolition Waste, Central Demolition, Bonnybridge.	○ Regional
	○ Plastics, Oran Environmental Solutions, Kilbagie & Grangemouth.	○ Regional
Recycling Collection & Transfer	○ Roughmute Recycling Centre &Transfer Station, Falkirk	○ Local
	○ Polmaise Transfer Station, Stirling (shared with Clackmannanshire Council)	○ Local
	○ Kinneil Kerse Recycling Centre, Boness	○ Local
	○ Forthbank Recycling Centre, Alloa	○ Local
Non-recyclable waste treatment	○ MRF, Avondale Environmental Ltd, Polmont (under construction).	○ Regional
Landfill Disposal	○ Landfill Site, Avondale Environmental Ltd, Polmont (the largest of a range of landfill sites).	○ Regional

* Solid waste facilities only

The Main Issues to be addressed by the Strategies here are:

<u>Safeguarding existing sites</u>

With the need to capture more materials for recycling there is also a need to ensure the existing council owned recycling infrastructure can be expanded & developed if required, particularly with regard to transfer and bulking facilities. Therefore it is proposed that suitable planning policies that recognise this situation are incorporated into the Local Development Plans for each Council.

Clackmannanshire's current arrangements for sharing Stirling Council's Transfer Station and Composting Site will also require to be kept under regular review to ensure this continues to meet Clackmannanshire's needs.

Encouraging the right mix of new infrastructure

A key concern for the future is the new infrastructure generated by the private sector. There is a risk that this may focus upon non-recyclable waste treatment, such as the Energy from Waste (EfW), rather than on the higher value recycling processes that will be required to meet the Councils' Zero Waste obligations. At a high level the ZW Strategies should raise awareness amongst decision makers of the infrastructure needed and steer & encourage investment primarily in reprocessing, high quality sorting, and recycling/composting infrastructure. This should also include encouraging businesses to take back material they have a producer responsibility for.

The proposed objectives are:

- To continue the Proximity and Self Sufficiency Principles applied to waste management within the Council areas.
- The Councils' economic development and planning functions should prioritise waste prevention over reuse and recycling, wherever possible, to minimise overall infrastructure requirements.
- To use the Councils' influence, planning and economic development policies to ensure the right mix of waste infrastructure is developed to meet future targets, focusing upon the high value reprocessing and recycling opportunities.

The proposed actions are:

- The Councils' economic development and planning functions should develop an "open for business" economic strategy specifically to encourage the development of new high value facilities where there are clear gaps in current recycling & reprocessing infrastructure.
- Through the Local Development Plan an appropriate screening process, or set of policy criteria, should help identify potentially suitable industrial sites for the different types of infrastructure in line with wider planning policies.
- Existing Council infrastructure should be safeguarded for future use.
- Prepare an annual update report on progress in developing the infrastructure to meet the capacity needs identified by SEPA and ZWS.

Question 6

a) What more could be done to ensure the right mix of resource management infrastructure is developed?

b) How can investment in resource management infrastructure that has the greatest economic and environmental benefit be encouraged?

Issue 7 – Management of Non-Recyclable Waste

Non-recyclable waste has in the past been landfilled however the challenging restrictions on landfill set by Scotland's Zero Waste Plan will require non-recycled waste to be treated to extract some value from it before any final residual material is landfilled. Once recyclable material has been contaminated with non–recyclable waste it becomes very challenging to find a use for it and so any recycled materials still contained within this fraction of waste are generally used for energy production rather than being returned to the economy.

The Forth Valley Councils proposed a flexible approach to the procurement of non-recyclable waste treatment in their SOC Plan, as opposed to the alternative option of entering into a major infrastructure investment in the form of a Public Private Partnership (PPP) arrangement. In a rapidly changing policy and regulatory environment this flexible approach has proven to be a prudent and successful tactic as EU and national policy has increasingly moved towards eliminating mixed non-recyclable waste in favour of greater separate collection of waste materials. As recycling and composting rates increase to meet the new targets the maximum level of non-recyclable waste treatment required by the Councils will continue to fall and should become 30% or less of their total waste arising.

Currently both Councils have a contract in place with Avondale Environmental Ltd which includes landfill disposal and waste treatment. This contract operates until August 2013 for Clackmannanshire. For Falkirk it operates until August 2015, with planned contract extensions utilised. Given the significant risks of investment in this area both Councils propose to continue with this flexible and competitive approach to procuring treatment capacity from external providers, following the completion of the current contract arrangements.

Both Councils retain redundant waste management sites in the form of closed landfills. These historic sites are of an older design than modern landfills and therefore their environmental impact from emissions to air and water, during their use and now in restoration, is higher than current modern landfill standards would allow. With this historical legacy in mind it is appropriate to attempt to minimise any further impacts arising from these sites. This can be addressed through, firstly, preventing the further release of emissions where practical and, secondly, by utilising the sites for new renewable energy opportunities, where feasible, to offset their negative environmental impacts.

The proposed objectives are:

- To minimise the amount of non–recyclable waste requiring treatment in line with the Waste Hierarchy.
- To adopt a policy of zero waste going directly to landfill (i.e. any non–recyclable waste must be treated to extract any remaining value before the residual element is landfilled).
- Continue the policy of a flexible approach to procurement of non-recyclable waste treatment, utilising short to medium term contracts to ensure that the Councils can respond to future changes in regulation and taxation.
- To reduce the environmental impact from the Councils' waste management legacy sites where practical and feasible.

The proposed actions are:

- Examine all Council controlled non-recyclable waste streams to assess the options for maximising the value and opportunities from them.
- Explore the use of further policy options, and procurement mechanisms, to maximise the value and opportunities from non-recyclable waste and prevent direct-to-landfill disposal routes.
- Investigate opportunities for methane gas flaring/capture and the generation of renewable energy on Council waste management legacy sites.

Question 7

Do you agree with a policy of Zero Waste Direct to landfill?

6. The Next Steps

Following receipt of comments upon this Main Issues Paper a Zero Waste Strategy will be developed for each Council. This Main Issues Paper will be issued for public consultation, accompanied by an Environmental Report summarising the outcome of the Strategic Environmental Assessment (SEA) for each proposed strategy.

If you would like to provide comments to help progress the strategies being developed in 2012 please use the relevant contact below and respond by Friday the 29th June 2012. An accompanying response form can be found on each Council's webpage for the consultation.

Clackmannanshire Council
Email: wasteservices@clacks.gov.uk
Telephone: 0500 545 540
By post to: Zero Waste Strategy Consultation, Waste Services, Kilncraigs, Greenside Street, Alloa, FK10 1EB

Falkirk Council
Email to: zerowaste@falkirk.gov.uk
Telephone: 01324 50 44 44
By post to: Zero Waste Strategy Consultation, Waste Strategy, Dalgrain Depot, Earls Road, Grangemouth FK3 8EB

Glossary of common terms

AWP – Area Waste Plan
BMW - Biodegradable Municipal Waste (any municipal waste that is capable of undergoing anaerobic or aerobic decomposition, such as food and garden waste, and paper/card)
BPEO - Best Practicable Environmental Option - The BPEO procedure establishes, for a given set of objectives, the option that provides the most benefit or least damage to the environment as a whole, at acceptable cost, in the long term as well as in the short term (Royal Commission on Environmental Pollution (1988) 12th Report – Best Practicable Environmental Option)
CHP - Combined Heat and Power
DEFRA – the UK Department of the Environment, Food and Rural Affairs
Deposit and Return Schemes – cans, plastics/glass bottles carry a deposit value that is refunded to the purchaser when the containers are returned to the retailer/producer.
EFW or EfW - Energy from Waste
EU – European Union
Forth Valley – the aggregation of Clackmannanshire, Falkirk and Stirling Council areas.
GHG – Green House Gas (one of six commonly recognised gases which trap heat in the earth's atmosphere)
HMRC – Her Majesty's Revenue and Customs
LAS - Landfill Allowance Scheme
MBT - Mechanical Biological Treatment systems
MRF - Materials Recovery Facility (used for sorting and separating recyclates)
MSW - Municipal Solid Waste (waste from households, as well as other waste which, because of its nature or composition, is similar to waste from households)
NWMP – National Waste Management Plan
Non- Recyclable Waste – material that is currently not recyclable or compostable and therefore is sent to landfill or a residual waste treatment process. Note that non recyclable waste may also include recyclable or compostable material that has not been correctly sorted by householders and businesses.
PP - Proximity Principle
PPC - Pollution Prevention and Control Act (1999) (Regulations 2000)
PPP- Public Private Partnership arrangement
Recyclates – the term used for recyclable materials.
RCV - Refuse Collection Vehicle
RDF - Refuse Derived Fuel
Reverse Vending – A reverse vending machine is a device that accepts used (empty) beverage/food containers and returns money to the user.
rWFD – revised Waste Framework Directive
Self Sufficiency Principle - aiming to address waste issues with your own resources
SEA - Strategic Environmental Assessment
SEPA Scottish Environment Protection Agency
SOC - Strategic Outline Case (funding application by the Forth Valley Councils to the then Scottish Executive)
Tpa - Tonnes per annum
WEEE - Waste Electrical and Electronic Equipment Directive (2002/96/EC)
WFD - Waste Framework Directive (75/442/EEC)
WPP – Waste Prevention Plan
WRAP - Waste and Resources Action Programme (government funded programme to reduce waste)
ZW – Zero Waste
ZWP – Scotland's Zero Waste Plan
ZWS - Zero Waste Scotland (WRAP's programme in Scotland)

Appendix 1 – Summary of current services

Falkirk Council

Falkirk Council offers its residents a three bin kerbside collection service, a kerbside box and a textile recycling sack. Falkirk currently operates a fortnightly residual (non-recyclable) waste collection service for the majority of properties using a *Green* 240ltr wheeled bin, although some properties such as flats still receive a weekly collection. Approximately 95% (68,000) of households are provided with a fortnightly kerbside dry recyclate collection service. The dry recyclate service incorporates the following:

• *Blue* 240ltr co-mingled bin (cans, paper, card, mixed plastic, tetra paks)

• *Black* 50ltr box collected separately (colour segregated glass, small electrical items, textiles - within a separate bag, and batteries)

The council also provides a fortnightly kerbside collection service to approximately 64,000 households for green (compostable garden) waste. The green waste is collected in a *Brown* 240ltr wheeled bin.

Residences in multi occupancy buildings are provided with a weekly communal dry recyclate collection (this is currently under review with the anticipation that the majority of these properties will revert to an alternate week collection of residual waste and co-mingled dry recyclate). Residual waste is disposed of in either a *Green* wheeled bin, black bag or communal waste bin.

The council also provides a recycling led commercial service to customers on a variety of frequencies as required. In addition a weekly food waste collection service for households is in the process of being implemented. The current collections, excluding the food waste collection currently being implemented, are summarised below:

Material Stream	Collection Frequency	Container	Materials Collected
Residual (non recyclable)	Fortnightly	240ltr *green* wheeled bin	Residual (non recyclable) waste
Recycling - Co-mingled	Fortnightly	240ltr *blue* wheeled bin	Mixed Paper, Cardboard, Plastic bottles, Food & Drinks cans, Mixed plastics, Tetra pak
Recycling - Pre sorted	Fortnightly	50ltr *black* box	Colour segregated glass, small waste electrical items (WEEE) & batteries
Textiles	Fortnightly	Plastic Sack	Clothing, Shoes, Bags, Belts, Blankets, Quilt covers, Duvets, pillow cases and sheets
Garden	Fortnightly	240ltr *brown* wheeled bin	Flowers and plants, Grass clippings, Hedge trimmings, Weeds, Leaves, Prunings, Twigs and small branches
Special Uplifts	On request	Loose	Bulky Uplifts of household items but no DIY
Commercial Waste	On request	Various containers as requested	As Residual and Recycling – comingled above

Other Services
In addition to the household kerbside collection, the following services and facilities are provided:

- Falkirk has a network of over 90 recycling points where users can recycle, food & drink cans, glass, paper and textiles.
- Falkirk has two Household Waste Recycling Centres (HWRC) one at Kinneil Kerse Recycling Centre, Grangemouth Road, Boness and one at Roughmute Recycling Centre, Bogton Road, Bonnybridge. These offer a variety of waste separation opportunities for householders.
- A Waste Transfer Station, based at Roughmute.
- Waste awareness and waste prevention campaigns and activities in partnership with Zero Waste Scotland (ZWS) and community bodies. These focuses upon waste prevention and niche reuse/recycling activities such as home composting, real nappies and waste prevention activities.

Clackmannanshire Council

Clackmannanshire Council offers its residents a three bin kerbside collection service, and a kerbside box. Clackmannanshire currently operates a fortnightly residual (non-recyclable) waste collection service for the majority of properties using a *Green* 240ltr wheeled bin. The dry recyclate service incorporates the following:

• *Blue* 240ltr co-mingled bin (cans, paper, card, mixed plastics, tetra paks)

• *Blue* 55ltr box collected separately (colour segregated glass, small electrical items, textiles & batteries)

The council provides a seasonal kerbside collection service for green (compostable garden) waste. The green waste is collected in a 240 litre *Brown* wheeled bin during March-November on a 3-weekly collection.

The council also provides a commercial service to customers on request and with a variety of frequencies as required. The current collections are summarised below:

Material Stream	Collection Frequency	Container	Materials Collected
Residual (non recyclable)	Fortnightly	240ltr *green* wheeled bin	Residual (non recyclable) waste
Recycling Co-mingled	Fortnightly	240ltr *blue* wheeled bin	Mixed plastics, Tetra pak, Paper, Cardboard, Plastic bottles, Food & drinks cans
Blue Box	Fortnightly	55ltr *blue* box	colour segregated glass, small waste electrical items (WEEE) & batteries, textiles (Clothing, Shoes, Bags, Belts, Blankets, Quilt covers, Duvets, pillow cases and sheets)
Garden	Fortnightly	240ltr *brown* wheeled bin	Flowers and plants, Grass clippings, Hedge trimmings, Weeds, Leaves, Prunings, Twigs and small branches
Special Uplifts	On request.	Loose	Household items and DIY materials
Commercial Waste	On request	Various containers as requested	As Residual and Recycling – comingled above

Other Services

In addition to the household kerbside collection, the following services and facilities are provided:

- Clackmannanshire has a network of 13 recycling points where users can recycle, food & drink cans, glass, paper and textiles. These are located in main car parks and transport hubs.
- Clackmannanshire has a Household Waste Recycling Centres (HWRC) at Forthbank, Bowhouse Road, Alloa. This offers a variety of waste separation opportunities for householders.
- Waste awareness and waste prevention campaigns and activities in partnership with Zero Waste Scotland (ZWS) and community bodies. These focuses upon waste prevention and niche reuse/recycling activities such as home composting, real nappies and waste prevention activities.