



Perth & Kinross Council Waste Management Plan 2010 - 2025



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We have seen significant changes to our recycling services and facilities since the last Perth & Kinross Council Waste Implementation Plan in 2003. A new Kerbside Recycling Service has been launched, more Recycling Points have been introduced and our Recycling Centres have been redeveloped to make it even easier to recycle. This has led to recycling rates rising from 18% in 2002/03 to 42% in 2009/10, and the amount sent to landfill reducing from 78,890 tonnes in 2002/03 to 54,208 tonnes in 2009/10.

Whilst considerable progress has been made, a new Plan is required if we are to reach the new national targets for waste and recycling as set out in the Zero Waste Plan for Scotland (launched June 2010), including a 70% recycling/composting rate for all waste by 2025.

The Plan remains focused on the waste hierarchy, which identifies waste prevention as the most preferred option, followed by recycling, reuse, and finally treatment and disposal.

Key elements of the Plan include:

- *a commitment to optimise the amount of waste segregated at source through separate kerbside collections of dry mixed recyclates and mixed food and garden waste, and through the development of Recycling Centres and Points;*
- *to procure a short term contract for residual waste disposal commencing 2010/11;*
- *to investigate the options for joint procurement with other local authorities for long-term residual waste treatment and disposal services;*
- *implementation of waste awareness campaigns and initiatives which aim to encourage waste prevention and increase participation in recycling and composting schemes;*
- *a commitment to sign up to the Zero Waste Scotland 'Construction Commitment: Halving Waste to Landfill';*
- *a commitment to promote community sector based waste projects which promote sustainable resource management.*

The Plan prioritises waste prevention, recycling and composting, however it is recognised that a significant amount of residual waste (waste materials that have not been separated out for recycling or composting) will still need to be managed. A key part of the Plan therefore is to secure a solution for the treatment of residual waste. Meeting future targets for landfill diversion, and recycling and composting will be dependent on this in order to recover value from the residual waste stream. However, any future contract for residual waste treatment will form part of the Council's integrated approach to waste management, which prioritises waste prevention, recycling and composting.

Implementation of the actions in this Plan, together with the co-operation of residents, will help us move towards meeting future targets for recycling, composting and diversion of waste away from landfill.

Perth and Kinross Waste Management Plan Summary



The Perth & Kinross Council Waste Management Plan provides clear strategic direction for municipal waste management in Perth and Kinross and takes into account Scotland's Zero Waste Plan. The Plan maps out the way forward for the Council to:

- *achieve national recycling and composting rates at local level;*
- *achieve landfill allowance scheme targets (if re-instated);*
- *implement initiatives to control waste arisings and waste growth;*
- *look at potential partnership arrangements to manage waste effectively;*
- *determine the way forward for the procurement of residual waste treatment;*
- *determine the future financial implications for waste management in Perth and Kinross.*

The Zero Waste Challenge

Scotland's Zero Waste Plan sets the following challenging targets for household waste:

- *50% recycling, composting and preparing for reuse by 2013;*
- *60% recycling, composting and preparing for reuse by 2020;*
- *70% recycling, composting and preparing for reuse by 2025.*

In addition, Scotland's Zero Waste Plan sets the following targets for all waste (household, commercial and industrial) collected in Scotland:

- *70% recycling, composting and preparing for reuse by 2025;*
- *no more than 5% being landfilled by 2025.*

The new Zero Waste Plan also introduces a range of other radical new measures including:

- *landfill bans for specific waste types;*
- *restrictions on the input to all energy from waste facilities;*

- *measuring the carbon impacts of waste to prioritise the recycling of resources which offer the greatest environmental and climate change outcomes.*

To achieve the above targets there will need to be a significant change to the way waste is managed in Perth and Kinross, waste will need to be viewed far more as a resource. The Council faces the challenge of delivering this change within an evolving regulatory framework and reducing budgets, whilst at the same time continuing to provide high quality services across Perth and Kinross.

Meeting the Zero Waste Challenge

Waste Prevention

The Council will monitor waste growth based on kilogrammes of waste produced per household per year. This is a more accurate measure of waste growth (compared to an overall total waste growth figure) as it takes into account factors such as the projected population growth in Perth and Kinross over the coming years.

The Council will support and contribute towards the development and implementation of waste prevention actions included in Scotland's Zero Waste Plan at a local level, subject to the availability of funding.

The Council already supports many local waste prevention projects/initiatives. We will continue to support these projects and encourage the development of new ones. The role of the community sector and social enterprises in developing waste prevention projects is recognised in the Plan.

Other projects the Council will implement, include an internal waste management review to further improve the way waste produced by Council activities is managed; and a business waste minimisation pilot project that will aim to demonstrate the financial and environmental benefits of resource efficiency to local businesses. The Council will also investigate collecting reusable materials at Recycling Centres for resale and redistribution in the local area.

Recycling and Composting

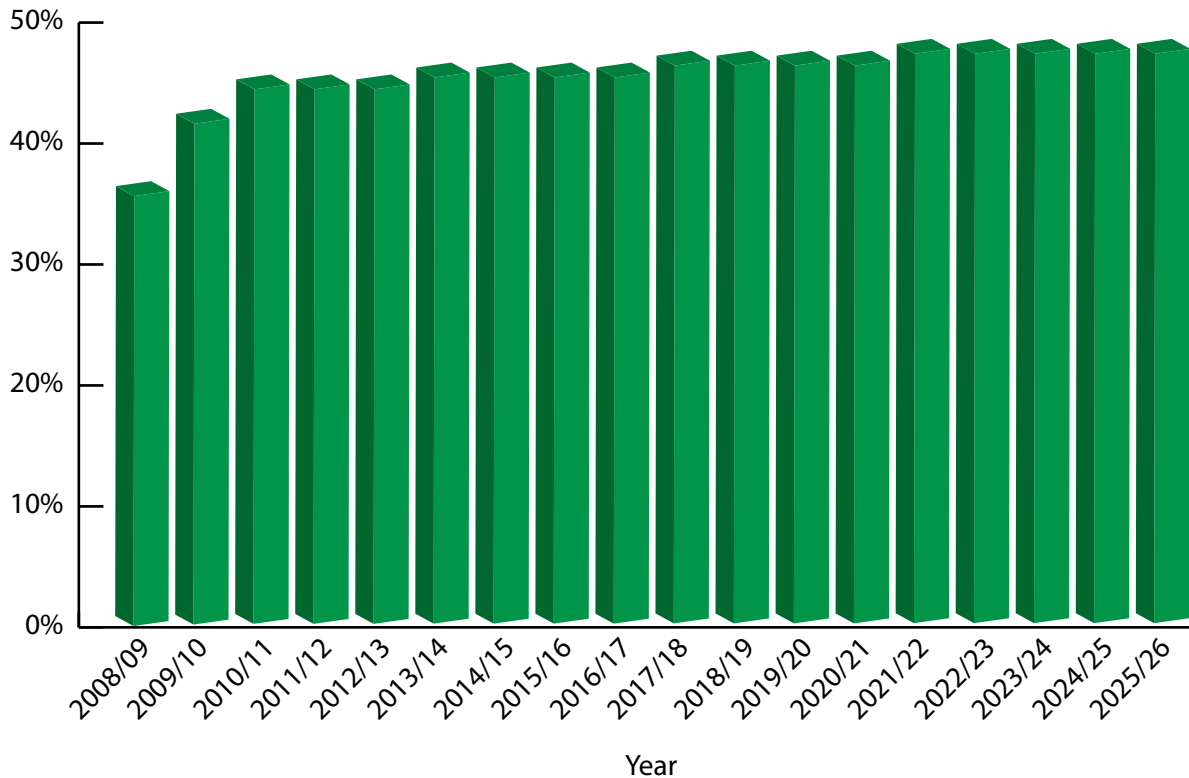
The Council will implement the following key actions to further increase the proportion of municipal waste that it collects for recycling and composting:

- Complete the roll out of the new Kerbside Recycling Service by the end of 2010, which will allow householders to recycle a greater range of materials at the kerbside.
- Continue to explore the opportunities for expanding the range of materials collected for recycling via the Kerbside Recycling Service.
- Monitor the new Kerbside Recycling Service by carrying out waste composition analysis and gather better information to improve participation and capture rates. This will allow officers to carry out more targeted improvement interventions.
- Communication campaigns to target areas of low/poor recycling performance (based on results of ongoing monitoring of Kerbside Recycling Service).
- Complete roll out of Multiple-Occupancy Property Recycling Scheme by March 2011, ie provision of 'near entrance' communal recycling facilities at properties unable to receive the Kerbside Recycling Service, eg flats/high rise properties.
- Continue to provide advice, information and support for businesses in Perth and Kinross on ways to reduce and recycle their waste.
- Complete the redevelopment of existing Recycling Centres to allow a greater range of materials to be segregated and recycled.
- Identify opportunities to increase the range of materials collected at Recycling Centres, taking into account changes in household waste composition.
- Increase the number of Recycling Points in the Perth and Kinross area to 100 by 2013 and 120 by 2020.
- Identify opportunities to change the range of materials collected at Recycling Points to focus more on materials not accepted as part of the Kerbside Recycling Service.
- Where opportunities arise, work with industry in introducing producer responsibility that covers a greater range of materials, which industry would take responsibility for reducing/recycling.
- Secure and maintain long-term contracts for processing/treatment of recyclates and organic wastes collected by the Council.

The Scottish Government proposes to develop a carbon measurement (a 'carbon metric') for recycling performance. The full details of the carbon metric are not yet known, but this Plan allows the Council the flexibility to adapt to the future implications of the metric.

It is projected (based on latest waste data forecasts) that the implementation of the actions outlined above will increase recycling rates as detailed in Figure 1. However, even with these activities, this will fall short of the Scottish Government's recycling and composting target of 70% by 2025. Therefore the treatment of residual waste will have to include some means to extract more recyclable material.

Figure 1: Projected Recycling and Composting Rates (without residual treatment)



Residual Waste Management

The Council is currently procuring a four year (up to 2014/15) residual waste treatment and/or disposal contract. This short-term contract will allow the Council sufficient time to fully determine the implications of Scottish Government policy on waste including subsequent legislative changes, and to investigate the options for joint procurement with other local authorities for long-term residual waste treatment and disposal services.

Based on waste arisings forecasts, it is evident that the Council will only be able to meet long-term targets for landfill diversion and recycling and composting, if necessary infrastructure is secured for diverting waste from landfill, by treating residual waste. However any new contract for residual waste treatment will need to be part of the Council's integrated approach for waste management, which prioritises waste prevention, and recycling and composting. The Council's approach will need to allow for flexibility to respond to changing circumstances, eg changes in legislation, or changes in waste composition and arisings.

Glossary



Glossary

Below are some common acronyms used in the waste management industry. Many of these are referred to in this Plan.

BMW	Biodegradable Municipal Waste
BPEO	Best Practicable Environmental Option <i>(soon to be replaced with BO Best Option)</i>
CHP	Combined Heat and Power
DEFRA	Department of the Environment, Food and Rural Affairs
EFW	Energy from Waste
EIA	Environmental Impact Assessment
EWC	European Waste Catalogue
HHW	Household Hazardous Waste
IPPC	Integrated Pollution Prevention and Control
IVC	In-Vessel Composting
LAS	Landfill Allowance Scheme
MBT	Mechanical Biological Treatment <i>(systems)</i>
MRF	Materials Recovery Facility
MSW	Municipal Solid Waste
NWP	National Waste Plan (Scotland)
PAS (100)	Publicly Available Composting Standard
PFI	Private Finance Initiative
PP	Proximity Principle
PPC	Pollution Prevention and Control Act (1999) (Regulations 2000)
RCV	Refuse Collection Vehicle

RDF	Refuse Derived Fuel
REMADE	Recycled Market Development
ROC	Renewables Obligation Certificate
SEA	Strategic Environmental Assessment
SEPA	Scottish Environment Protection Agency
SOC	Strategic Outline Case <i>(funding application by Councils to the then Scottish Executive)</i>
SWAG	Scottish Waste Awareness Group
SWF	Strategic Waste Fund
SWMR	Strategic Waste Management Review
Tpa	Tonnes per annum
WEEE	Waste Electrical and Electronic Equipment Directive (2002/96/EC) amendments transposed to UK law 13/08/04 Regs to follow
WFD	Waste Framework Directive 75/442/EEC
WID	Waste Incineration Directive (2000/76/EC)
WML	Waste Management Licence
WRAP	Waste and Resources Action Programme
WSA	Waste Strategy Area <i>(eg 11 WSAs in Scotland)</i>
ZWS	Zero Waste Scotland

1

Introduction



1 Introduction

The purpose of the Perth & Kinross Council Waste Management Plan is to provide clear strategic direction for municipal waste management in Perth and Kinross over the next 15 years. Implementation of the Plan will be monitored and annual progress reports produced, which will review the applicability of the Plan. The Plan will be used to guide future decision-making by Perth & Kinross Council.

This Plan highlights current arrangements for waste management within Perth and Kinross and sets out the integrated actions required for the reduction, reuse, recycling, recovery and disposal of municipal waste, which will be required for Perth & Kinross Council to move towards the Scottish Government vision for zero waste.

The Plan aims to map out a way forward for Perth & Kinross Council in terms of:

- *achieving national recycling and composting rates;*
- *achieving landfill allowance scheme targets (if re-instated);*
- *initiatives to control waste arisings and waste growth;*
- *potential partnership arrangements;*
- *determine the way forward for the procurement of residual waste treatment;*
- *determining future resource implications for waste management in Perth and Kinross.*

The Environment Service of Perth & Kinross Council will have overall responsibility for delivery of this Plan, and in particular its Waste Services and Operations teams. However the successful delivery of the Plan will require the involvement and support of Services across the Council, Community Planning Partners, Scottish Government, national delivery bodies, the community sector, businesses and householders.

Implementation of the Plan is linked to, and will contribute to, Perth & Kinross Council's Corporate and Community Plans, and the Single Outcome Agreement. All of these documents contain targets for diversion of waste from landfill. The Plan will ensure services for municipal waste management are developed that will encourage efficient use of resources and minimise the environmental impact of waste, at an acceptable cost.

The focus of the Plan is on municipal waste management (ie waste collected by the Council). This reflects priorities and targets set for local authorities by the Scottish Government. However the Plan also considers the management of non-municipal wastes in Perth and Kinross, to reflect the broader targets set by the Scottish Zero Waste Plan.

Actions to deliver the Waste Management Plan are highlighted throughout the Plan. These actions form an Action Plan which is presented in Appendix 1.

2 Background



2 Background

This Plan replaces the current Perth and Kinross Waste Implementation Plan, which was approved by the Council's Environment Committee on 23 April 2003. The Waste Implementation Plan detailed how the Council intended to meet the actions and targets set out in the Tayside and National Waste Plans, in place at the time. The Plan developed a range of integrated actions for dealing with the area's waste in accordance with the Best Practicable Environmental Option (BPEO) as set out in the Tayside Area Waste Plan (2003). The Council's Implementation Plan also formed a key element of the Council's partially successful bid in 2004 to the (then) Scottish Executive Strategic Waste Fund.

The Implementation Plan also recognised that, despite increased waste minimisation, recycling and composting, a substantial proportion of waste would have to be treated (it was proposed via energy from waste) if the Council was to meet stringent landfill diversion targets. This is the only area of the Implementation Plan which has not been substantively progressed.

The original proposal in the Plan was for the Council to utilise the energy from waste facility in Dundee (operated by Dundee Energy Recycling Limited) for residual waste treatment. This has not been possible in practice, as there was insufficient operational capacity at the plant. A subsequent Strategic Outline Case (SOC) submitted by the three Tayside Councils to the Scottish Executive in 2006 revised the Area Waste Plan's proposals, with a recommendation that Perth & Kinross Council should seek separate residual waste treatment (energy from waste) facilities. This approach was approved by the Council's Environment Committee on 18 January 2006.

The Scottish Executive's response to the SOC submission was to direct the Council to work with the Councils of Fife and Forth Valley (Clackmannanshire, Falkirk and Stirling) with a view to joint procurement of residual waste treatment, on the basis of greater economies through the procurement of a single, shared facility. Although work was underway to progress this, events were overtaken by the 2007 Scottish Parliamentary elections, and the policy changes introduced by the new Scottish Government, particularly the announcement by the Cabinet Secretary for the Environment on the 'Zero Waste' approach, in January 2008.

Based on several significant new developments relating to Scottish Government Policy (as outlined in Section 3), it is no longer appropriate to proceed with the Council's residual waste treatment requirements based on the 2006 SOC. Therefore a new Council Waste Management Plan is needed, to respond to these changing circumstances.

As part of developing a new Council Waste Management Plan, a Strategic Environmental Assessment (SEA) was undertaken in parallel to the Plan. SEA is a process to ensure that significant environmental effects arising from policies, plans and programmes are identified, assessed, mitigated, communicated to decision-makers, monitored and that opportunities for public involvement are provided. As part of the process different strategic options for the Plan were assessed. Developing the SEA is an iterative process. Based on the assessment undertaken it was concluded that the preferred option for Perth & Kinross Council was *"complete implementation of programmed schemes/projects for increasing recycling and composting rates, and secure alternative treatment/disposal of residual waste (to landfill) that will ensure the Council does not exceed the landfill allowance for biodegradable waste and will assist the Council in achieving the Scottish Government's zero waste targets"*.

For further information on the SEA process and to download a copy of the SEA Environment Report on the Perth & Kinross Council Waste Management Plan, please visit www.pkc.gov.uk/wasteplan

3

Strategic Framework and Drivers for Change



**Recycling
centre**

3 Framework

3.1 EU Context

The European Union (EU) has adopted a number of Directives aimed at harmonising waste disposal policies throughout Europe and guaranteeing environmental protection. The following two EU directives have strongly influenced national waste management strategy and have led to the introduction of several new pieces of national legislation.

The Waste Framework Directive (Directive 2006/12/EC on Waste)

The Waste Framework Directive requires Member States of the EU to establish both a network of disposal facilities and competent authorities with responsibility for issuing waste management authorisations and licenses. In December 2008, the revised WFD (Directive 2008/98/EC) came into force, amending some articles of the previous WFD. Member States have until December 2010 for implementing the revised WFD. The revised WFD introduces the first EU wide recycling targets. By 2020 Member States must reuse or recycle 50 per cent of household waste (the UK Government is interpreting this to include composting of organic wastes) and reuse, recycle or recover 70 per cent of non-hazardous construction and demolition waste.

The Landfill Directive (Directive 1999/31/EC on the Landfill of Waste)

This Directive also requires a progressive reduction in the landfilling of biodegradable municipal waste (BMW) and the pre-treatment of wastes before landfilling, 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

Municipal Wastes and Biodegradable Municipal Wastes are defined in the Landfill Directive as follows:

- *'municipal waste' is waste from households, as well as other waste which, because of its nature or composition, is similar to waste from households; and*
- *'biodegradable waste' means any waste that is capable of undergoing anaerobic or aerobic decomposition, such as food and garden waste, and paper and paperboard.*

3.2 National Context

The key national legislation and policies that have influenced the preparation of the Perth & Kinross Council Waste Management Plan are summarised below.

Tayside Area Waste Plan

The Tayside Area Waste Plan (2003) identified the Best Practicable Environmental Option (BPEO) for the area. The BPEO focuses on waste prevention initiatives, recycling and composting, other waste treatment and finally disposal to landfill. The new Scotland Zero Waste Plan replaces the 11 Area Waste Plans (including Tayside's); however the Council's proposed approach to waste management is still aligned with the Tayside Area Waste Plan's BPEO. The Area Waste Plan is no longer a material consideration as part of the planning process.

Scotland's Vision for Zero Waste

In January 2008, the Scottish Cabinet Secretary for the Environment announced a new policy approach to Scotland's waste, based on a concept of 'zero waste'. He announced ambitious new targets for recycling and composting, and set limits on the amount of waste allowed to go to landfill (5% by 2025) and energy from waste (25% by 2025). He also reversed the previous Scottish Executive's preferred approach to large shared centralised energy from waste facilities, branding them as inefficient, and expressed a preference for small, localised residual waste treatment facilities, with combined heat/power provision.

3 Framework

Scotland's Zero Waste Plan

The Cabinet Secretary's changes to Scottish Government policy led to a review of the previous 2003 National Waste Plan. A new Zero Waste Plan for Scotland was published in June 2010 and replaces the 2003 National Waste Plan. The new Zero Waste Plan proposes a new way of looking at the materials Scotland produces as resource rather than waste, and introduces a range of radical new measures including:

- *landfill bans for specific waste types aiming to reduce greenhouse gas emissions and capturing their value. New legislation will be required to bring this into effect;*
- *separate collections of specific waste types, including food (to avoid contaminating other materials);*
- *two new targets that will apply to all waste (in the past only applicable to municipal waste): 70% target recycled and maximum 5% sent to landfill, both by 2025;*
- *restrictions on the input to all energy from waste facilities. Previously the Scottish Government stated this was only applicable to municipal waste. This replaces the 25% energy from waste cap for local authority collected municipal waste with an approach that requires equivalent treatment standards for all waste streams and sectors (household, commercial and industrial waste);*
- *development of a Waste Prevention Programme for all wastes, making prevention and reuse central to actions and policies;*
- *measure the carbon impacts of waste to prioritise the recycling of resources which offer the greatest environmental and climate change outcomes.*

The new Zero Waste Plan is a plan for all of Scotland's waste (household, commercial and industrial waste), not just municipal waste. This holistic approach is welcomed by Perth & Kinross Council.

Further information on Scotland's Zero Waste Plan can be found at

www.zerowastescotland.org.uk

Landfill Allowance Scheme (LAS)

The Landfill Allowance Scheme (Scotland) Regulations 2005 came into force in April 2005. The Scheme introduced allowances for the amount of biodegradable municipal waste local authorities can send to landfill in order to meet the requirements of the Landfill Directive. Where local authorities fail to meet their allocated targets they are liable to a penalty of £150 for each tonne they exceed their targets by. There is a possibility that Councils could 'trade' landfill allowances to offset the cost of penalties (further information on this is available on the SEPA website). The Landfill Allowance Scheme has been suspended by the Scottish Government until 2011, but may then be reinstated.

The approach the UK is taking to calculating the EU Landfill Directive targets to reduce the amount of biodegradable municipal waste sent to landfill is changing. In discussions with the European Commission, DEFRA have come to agree that the UK's existing approach is focused too narrowly on waste collected by local authorities.

Under a new broader definition, municipal waste will include waste that is similar in nature and composition to household waste arising from commercial and industrial waste streams, eg office waste and catering wastes. This change in definition has led to a revision of both the UK and Scottish baselines for calculation of LAS targets. Figures for the new baseline and targets will not be finalised until the Commission has agreed the approach with the UK. However, revised provisional figures indicate that Scotland will not only have met the 2010 Landfill Directive target but, importantly, it will also have met the 2013 target.

3 Framework

Making these changes will require a review of the role of the Landfill Allowance Scheme in Scotland and allocations to individual local authorities, to ensure that local authorities are not disadvantaged.

Climate Change Act

The Climate Change (Scotland) Act 2009 came into force in August 2009. 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.

Chapter 5 includes the following sections:

- 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*
- Section 84** - *Deposit and Return Schemes*
- Section 85, 86, & 87** - *Administration of Deposit and Return Schemes*
- Section 88** - *Charges for Supply of Carrier Bags*

Through the Council's commitment to the Scottish Climate Change Declaration, and the legislative proposals put forward by the Climate Change Act, these issues have the potential to impact upon the Council's waste management proposals.

3.3 Land-Use Planning Context

The revised EU Waste Framework Directive (WFD) lays down a number of requirements for waste management that have implications for the planning system.

The planning system has a crucial role in delivering waste management facilities for all waste to ensure the objectives and targets of Scotland's Zero Waste Plan are met. The Scottish Government, with local planning authorities and SEPA, will need to ensure the land use planning system supports the Zero Waste Plan. To achieve this, the Zero Waste Plan will constitute the National Waste Management Plan along with the following:

- *National Planning Framework 2;*
- *Scottish Planning Policy (SPP);*
- *Planning Advice Note 63 (including revised versions);*
- *SEPA Waste Data Sources: including Waste Data Digests, Local Waste Management Reports, Site Capacity and Infrastructure Reports and Maps;*
- *SEPA Thermal Treatment of Waste Guidelines 2009;*

and will replace the following:

- *the National Waste Plan and 11 Area Waste Plans 2003;*
- *Household Waste Prevention Action Plan (Scotland) 2007;*
- *Business Waste Framework for Scotland 2007.*

Scotland's Zero Waste Plan and SPP make it clear that planning authorities should make a variety of provisions in the new Local Development Plans for all types of waste facility, including site identification, criteria based policies and the identification of sufficient industrial land to allow for some to be used for waste processing (although not all industrial sites will be suitable for such uses).

3 Framework

The Council released its Local Development Plan Main Issues Report in September 2010 and the draft Plan is due the following year and these issues will be addressed. The TAYplan Strategic Development Plan Main Issues Report, published in April 2010, makes reference to Waste and Resource Recovery Infrastructure.

Action 1

Perth & Kinross Council to take into account requirements of Scotland's Zero Waste Plan and current Scottish Planning Policy during development of Local and Strategic Development Plans.

Action 2

As part of the development of the Local Development Plan the Council will devise supplementary planning guidance with regard to Managing Waste in Housing and Commercial Developments.

3.4 Financial Context

Landfill Tax

The landfill tax escalator increases the 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 £20-25 per tonne).

The funding provided by the Scottish Government either through the Revenue Support Grant or the Zero Waste Fund makes no provision for increasing landfill tax costs to local authorities. Therefore this places an increasing expenditure pressure on the Council of approximately £400,000 every year.

Strategic and Zero Waste Funding

The Strategic Waste Fund (SWF) was the previous Scottish Executive's grant funding mechanism to support Councils in meeting EU Landfill diversion targets. It evolved into two elements - 'SWF1' was used to fund kerbside recycling/composting collection activities; 'SWF2' was proposed to give long term financial support to Councils, for additional costs associated with residual waste treatment (such as energy from waste). In 2008, the Scottish Government removed the ring fenced SWF, with the funding for SWF1 being mainstreamed into Council budgets. In addition the Scottish Government announced a 'zero waste fund' of approximately £80m. However the Scottish Government has not expressed any intentions to replace SWF2 in support of long term residual waste requirements.

The ambitious nature of the Scottish Government's recycling targets has a cost implication to Councils. In its report 'Sustainable Waste Management' in September 2007, Audit Scotland estimated the cost of supporting recycling would need to rise from £89m pa (to achieve 25% recycling), to £271m to achieve a 55% recycling rate by 2020. That report preceded the Scottish Government's more challenging target of 70% recycling by 2025.

The 2010 report by SQW Energy on behalf of the Scottish Government assessed the costs associated with new waste management infrastructure in order to meet Scotland's Zero Waste Targets.

The report highlighted that the current level of spending on waste management in Scotland is £5,069 million (Net Present Value). The scenario that gave the most cost effective solution was the proposal to meet all EU and Scottish Government waste management targets, with a 65% source segregation rate. This scenario required the following from 2010 to 2025:

- *NPV Infrastructure Investment = £303 million*
- *Net Present Cost in excess of present spend levels = £1,046 million*

3 Framework

The report identified that although infrastructure investment is significant, by far the most significant factors are collection and processing costs for the waste. The report concluded that regardless of what future waste scenario is considered, the cost of managing Scotland's waste will increase. The option of 'doing nothing with landfill fines' is by far the most costly due to landfill penalties and the environmental impact.

Landfill Allowance Scheme (LAS)

If the landfill allowance scheme was re-introduced this Council would start to face penalties as early as 2012/13, depending on the increases in waste arisings in the area.

Without the Council having access to residual waste treatment, LAS penalties will increase to between £1 million and £3 million per annum by 2020, again dependent on waste growth.

As outlined in Section 3.2, discussions are ongoing between DEFRA and the EU regarding broadening the definition of municipal waste and the Council's current indicative landfill allowance scheme allocations may be amended as a result.

Action 3
To review the Council's approach towards trading of landfill allowance permits if the Landfill Allowance Scheme is reintroduced in Scotland.

Public Sector Finance

These financial challenges have also to be set against the backdrop of unprecedented cuts in public sector funding and the requirement for local authorities to make significant savings over the coming years.

To achieve savings at a time when ambitious waste and recycling targets have been set means that the actions in this plan will have to be prioritised and critical decisions reached on, potentially, which targets to meet as they all may not be achievable with the funding that is available.

In order to achieve a balance between targets for waste and recycling and financial savings, the Council will seek solutions that offer value for money, that are flexible enough to adapt to our changing circumstances and that offer additional social, economic and environmental benefits to the local area.

This Plan will identify the future resource implications for waste management in Perth and Kinross. This is currently being determined by taking account of projected tonnages, gate fees, landfill tax increases and potential landfill allowance scheme penalties.

4

Waste Composition and Arisings



Figures from General Waste bin analysis 2010.

4 Waste Composition

4.1 Current Municipal Waste Arisings

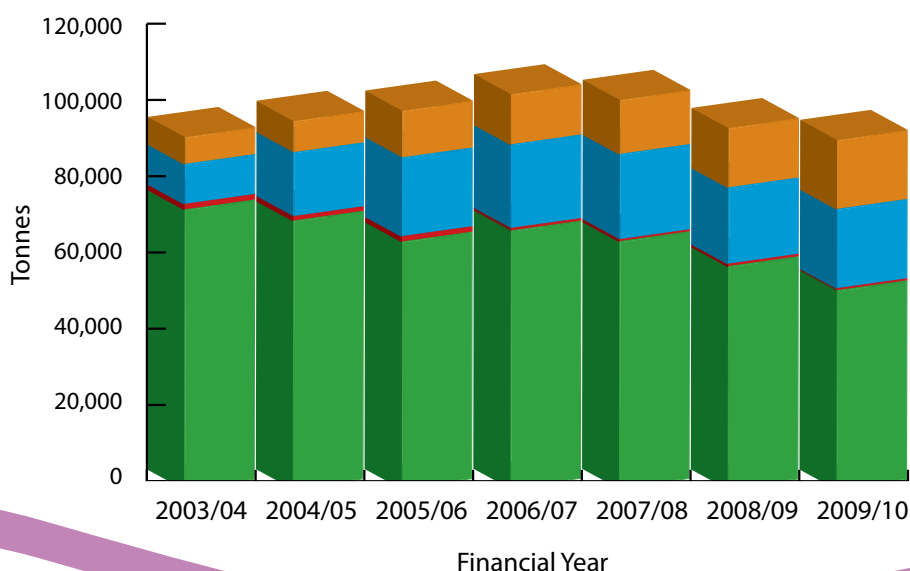
Table 1 and Figure 2 shows municipal waste arising for Perth and Kinross since 2003/04. There was a steady increase in total municipal waste arisings up to 2006/07 (3.9% average annual increase), while waste arisings have significantly reduced since then there is no certainty that this trend will continue.

The current downward trend is accounted for by a combination of robust waste reduction measures applied by the Council, and reduced consumer consumption due to the economic downturn.

Table 1: Municipal Waste Arisings in Perth and Kinross

Financial Year	Municipal Waste Arisings (tonnes, % of total)				Total Municipal Waste Managed
	Landfilled	Energy from Waste	Recycled	Composted	
2003/04	76,216	1,499	10,904	7,357	95,976
	79.4%	1.6%	11.4%	7.7%	
2004/05	73,069	1,214	17,444	8,572	100,299
	72.9%	1.2%	17.4%	8.5%	
2005/06	67,310	1,461	21,505	12,758	103,034
	65.3%	1.4%	20.9%	12.4%	
2006/07	70,211	693	22,834	13,686	107,424
	65.4%	0.6%	21.3%	12.7%	
2007/08	67,292	577	23,273	14,768	105,910
	63.5%	0.5%	22.0%	13.9%	
2008/09	60,625	712	20,838	16,199	98,374
	61.6%	0.7%	21.2%	16.5%	
2009/10	54,208	602	21,559	18,832	95,201
	56.9%	0.6%	22.6%	19.8%	

Figure 2: Municipal Waste Arisings in Perth and Kinross



4 Waste Composition

4.2 Projected Municipal Waste Arisings

A waste data modelling exercise has been carried out to forecast future waste arisings, and progress towards achievement of national targets. This provides a projection for the amount of residual waste that will still require treatment following the completion of all planned waste and recycling projects at the kerbside, as well as at Recycling Centres and Recycling Points.

Accurately forecasting future waste arisings and waste data modelling is problematic as it can be influenced by a number of significant variables, including:

- population growth over time;
- demographic changes, eg changes in household sizes;
- performance of new recycling schemes;
- effectiveness of waste prevention activities;
- economic growth;
- new legislation, eg new producer responsibility regulations.

Appendix 2 shows waste data forecasts up to 2025/26 based on three different scenarios:

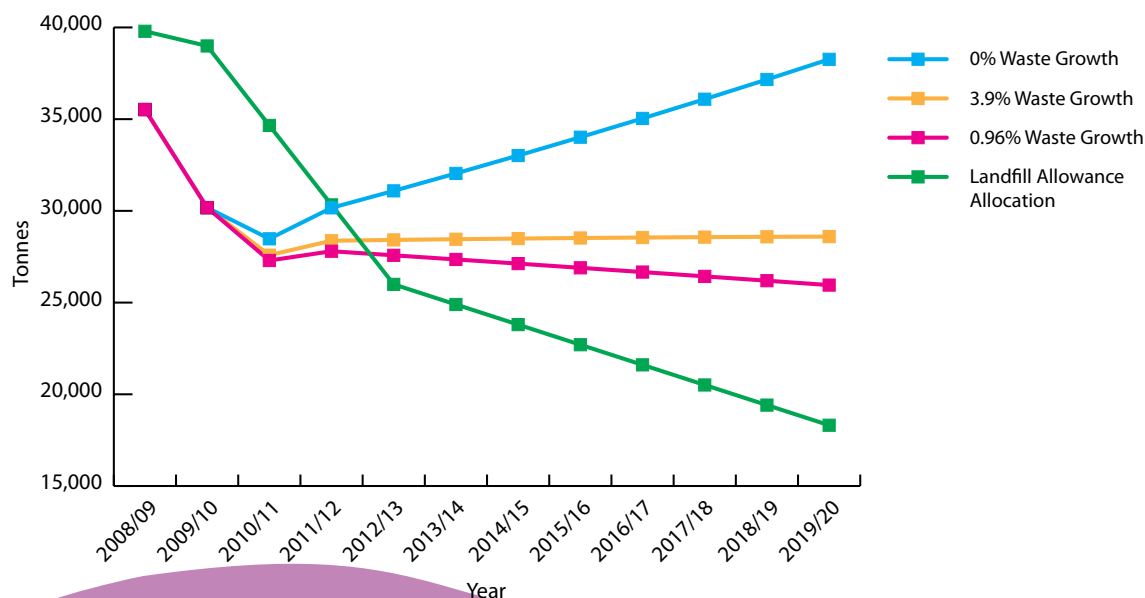
- 0% waste growth (previous Scottish Government target);
- 0.96% waste growth (based on projected household increases in Perth and Kinross);
- 3.9% waste growth (based on average annual waste growth between 2003/04 and 2006/07).

The forecasts take into account projected increases in the amount of waste collected for recycling and composting through the implementation of new schemes and projects. The waste data forecasts shown in Appendix 2 have been subject to an independent verification by technical consultants.

Figure 3 shows projected Biodegradable Municipal Waste (BMW) sent to landfill up to 2020 based on 0% waste growth (dark blue line), 0.96% growth (pink line) and 3.9% annual waste growth (yellow line). This is based on residual waste continuing to go to landfill. For information on landfill allocations and the calculation of BMW, please visit www.sepa.org.uk

Figure 3 highlights that the Council is at risk of exceeding its landfill allowance allocation (green line) if an alternative (to landfill) for residual waste treatment is not available by the end of 2011/12 (assuming the landfill allowance scheme is reinstated).

Figure 3: Projected Biodegradable Municipal Waste to Landfill

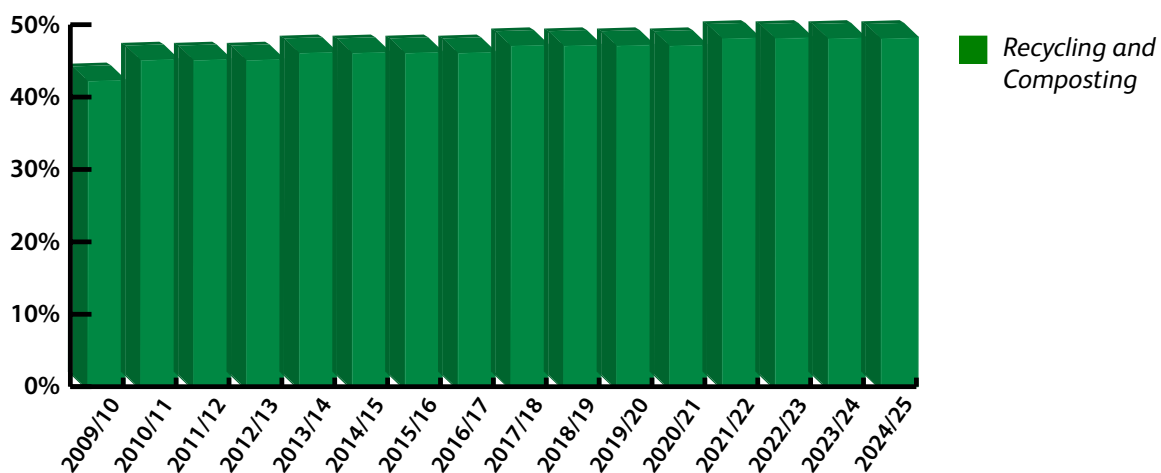


4 Waste Composition

Figure 4 shows that recycling and composting rates are projected to increase to 49% as a result of fully implementing currently approved schemes for the source separation of waste. This highlights that the recovery of additional materials from the residual waste stream will be required if the Scottish Government recycling and composting target for 2020 (60%) is to be achieved.

The impact that variable waste arisings have on planning and delivering effective waste services, means that greater importance has to be placed on monitoring and forecasting the various waste streams that the Council deals with.

Figure 4: Projected Recycling and Composting Rates



Action 4
Waste data forecasts to be continually monitored with updates based on verified tonnages and used to guide decision making on future arrangements for waste treatment and disposal services.

4.3 Waste Composition Analysis

To develop and monitor waste and recycling services for the Perth and Kinross area, it is important to know the composition of the waste stream collected, in addition to the amount generated.

Appendix 3 shows the composition of household waste (from residual kerbside household collections), and the composition of residual waste from Council Recycling Centres. These are based on waste composition studies carried out by Perth & Kinross Council during 2010.

Perth & Kinross Council intend to carry out annual waste composition studies of household waste to identify changes in composition and capture rates of recycling and composting schemes in Perth and Kinross. Appendix 4 highlights the main materials identified through the compositional analysis and the key actions being undertaken by the Council in relation to each material.

Action 5
Perth & Kinross Council to carry out annual waste composition analysis of household waste arisings.

5

Waste Prevention and Resource Efficiency



5 Waste Prevention

5.1 National Context

It is recognised that waste prevention and resource efficiency must play a vital part in the long-term national strategy for municipal waste management. As highlighted in the waste hierarchy (see Figure 5), waste prevention is the most preferable waste management option.

Waste prevention means taking steps to reduce the amount of waste that we create and is the best way of dealing with our waste.

The National Waste Plan (2003) set a Scottish target to stop the growth in municipal waste by 2010. To help achieve this the (then) Scottish Executive produced the Household Waste Prevention Action Plan in February 2007. Scotland's Zero Waste Plan states that it will develop a waste prevention programme for all waste, in line with the European Union Waste Framework Directive, by the end of 2010. The Scottish Government remains committed to waste prevention, however the new Plan does not include a specific target for limiting growth in municipal waste.

A summary of the proposed waste prevention actions to be delivered on a national scale is shown in the following box.

Figure 5: Waste Hierarchy



Summary of National Waste Prevention Actions Proposed by Scottish Government

- Support Eco-design of products to minimise waste, ie production.
- Use of Pollution Prevention and Control (PPC) and other permits to drive waste prevention.
- Support Eco-Schools.
- Set up voluntary agreements with industry (along the lines of existing agreements, such as the Courtauld Commitment with retailers on packing and food waste).
- Encourage the development of Site Waste Management Plans (to be used by construction industry).
- Work on packaging reduction (through voluntary means, but using the provision in the Climate Change (Scotland) Act on packaging reduction targets if required).
- Work on the reduction of food waste.
- Work on preventing unwanted mail.
- Work on home composting, including recognising the value of compost to gardeners.
- Support increased re-use (eg of furniture).

Action 6

Perth & Kinross Council will support and contribute towards the development and implementation of the national waste prevention actions at local level.

5 Waste Prevention

5.2 Local Activities

Figure 2 (in Section 4.1) shows municipal waste arisings for Perth & Kinross Council since 2003/04. Between 2003/04 and 2006/07 there was a steady increase in municipal waste arisings, however since 2006/07 there has been a significant reduction in waste arisings. This reduction can be attributed to the implementation of national and local waste prevention initiatives by the Council, but is also linked to the downturn in the wider economy over the same period. Evidence from other studies has indicated a link between economic growth and increased waste arisings. Decoupling waste generation from economic growth will be a key challenge for the national Waste Prevention Programme and local waste prevention initiatives.

Municipal waste includes some commercial waste and so is not an accurate way of measuring changes in the total of household waste produced. Table 2 shows household waste arisings for Perth and Kinross over the last 6 years. Due to the co-collection of household and commercial waste in refuse collection vehicles, this is an estimated figure.

Table 2: Perth & Kinross Council Household Waste Arisings

Financial Year	Tonnes	Tonnes per Household
2003/04	78,700	1.214
2004/05	82,245	1.258
2005/06	84,488	1.282
2006/07	88,088	1.318
2007/08	86,846	1.285
2008/09	80,667	1.184
2009/10	78,065	1.139

Perth and Kinross continues to be one of the fastest growing areas of Scotland. The 2006 General Register Office for Scotland (GROS) projection for Perth and Kinross suggests a

population increase of 22% by 2031. The 2008 GROS projection was even higher (27% by 2033) but was made before the onset of the current economic climate. A growing and changing population will have a major impact on municipal waste arisings.

To ensure that progress on household waste growth is more accurately measured (ie population changes are taken into account), it is proposed to use kilogrammes of waste produced per household per year as an indicator. The alternative implication (total waste growth in our area) takes no account of increases in house numbers.

Scottish local authorities have a statutory duty under the Landfill Allowance Scheme to report accurate data on collected municipal waste to SEPA. This includes a breakdown of total household waste collected by the Council. This figure (divided by the number of households in Perth and Kinross as reported to Audit Scotland) will be used to calculate the kilogrammes of waste produced per household per year.

Action 7
Perth & Kinross Council to monitor changes in waste growth based on kilogrammes of waste produced per household per year.

Appendix 5 provides a summary of local waste prevention projects/initiatives currently being supported by Perth & Kinross Council. The Council will continue to support these projects and encourage the development of new ones. For example, Perth is Scotland's first 'Cittaslow' city. Cittaslow is a growing international network of over 120 towns in 18 countries across the world that have adopted a set of common goals and principles to enhance their quality of life for residents and visitors.

5 Waste Prevention

Action 8

Produce (and keep updated) A-Z Reduce, Reuse, Recycle Guide. To be promoted to households and other stakeholders.

Action 9

Identify opportunities for implementing waste prevention initiatives in conjunction with Cittaslow Perth.

Social/community enterprises and the not-for-profit sector have a key role in developing waste prevention projects, particularly in taking forward reuse and refurbishment projects. This is recognised in the Plan (see Section 9.3 on 'The Role of the Community Sector').

The Council will also look to provide information and advice to commercial businesses on waste minimisation and resource efficiency, and will support projects that demonstrate locally the financial and environmental benefits of waste minimisation and resource efficiency to local businesses.

The public sector is amongst the largest employers in the area, and through its diverse activities generates large quantities of waste. In 2006 audits were undertaken on the waste produced by Perth & Kinross Council and its Community Planning partners. This provided information on the quantities and types of waste being produced and has led to the introduction of actions, such as proper segregation and recycling of wastes. The Council has developed an internal waste management plan for waste created by its own activities. This will be monitored and reviewed.

The Council, in partnership with charities and reuse projects, has established a network which regularly meets to develop opportunities to promote the activities and benefits of the sector. Projects already completed include the production of a local Charity Shop Map that provides details of the charity shops and reuse projects in the local area.

Action 10

Perth & Kinross Council to undertake internal waste management review to identify opportunities for further improving the way waste is managed within the Council.

Action 11

Perth & Kinross Council to facilitate a Business Waste Minimisation Project (BWMP) that will demonstrate locally the financial and environmental benefits of waste minimisation and resource efficiency to local businesses.

Action 12

Develop further projects in partnership with the Perth and Kinross Network of Charity Shops and Reuse Projects.

6

Recycling and Composting



6 Recycling

6.1 Scottish Government Targets

The Scottish Government, as part of its vision for zero waste, has set local authorities challenging targets in relation to the recycling and composting of municipal waste. Table 3 shows the national targets for recycling and composting that now apply to Perth & Kinross Council.

Table 3: Household Recycling, Composting and Preparing for Re-use Waste Targets

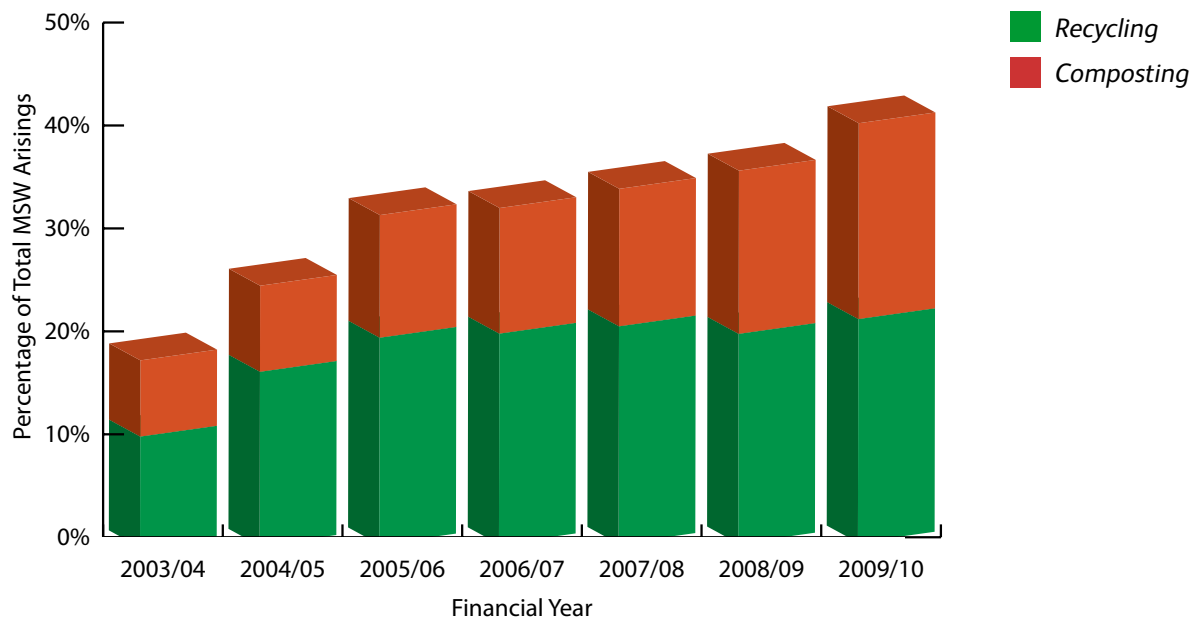
Year	Target
2010	40%
2013	50%
2020	60%
2025	70%

Note: *The Scottish Government has applied this target to 'householders' waste only, not 'municipal waste' (which includes commercial waste collected by Councils)*

In addition the target of 70% recycling/composting and maximum 5% to landfill by 2025 has been set for all of Scotland's waste arisings (municipal, commercial and industrial).

Figure 6 shows that there has been a considerable increase in recycling performance over the last 6 years in Perth and Kinross. The recycling and composting rate has risen from 19% in 2003/04 to 42% in 2009/10.

Figure 6: Perth & Kinross Council Recycling and Composting Rate



6 Recycling

Scotland's Zero Waste Plan intends to introduce a mandatory requirement to collect food waste and materials such as paper/card, metals, plastics, textiles and glass from all sources, including households.

Perth & Kinross Council will aim to maintain household recycling services and facilities for the collection of these materials; however this will be carried out with regard to the best practicable environmental option in terms of methods of collection.

6.2 Carbon Metric

As detailed in the Zero Waste Plan, the Scottish Government proposes to develop a carbon measurement (a 'carbon metric') for Scottish recycling performance. The Scottish Government has proposed that recycling performance will be reported against tonnage (the current unit of measurement) and the carbon metric. It is the intention that the carbon metric will be used to measure recycling performance for all waste streams by 2025, replacing tonnage (weight) as the unit of measurement.

Scottish Government intends to finalise details of the carbon metric and produce guidance on how it will be applied before the end of 2010. The 2013 target of recycling 50% of all waste will be the first target that will be measured on the basis of the carbon metric.

The Council welcomes the introduction of the carbon metric as a more effective way of measuring waste as a resource, however it is recognised that the metric will have significant implications for the Council's future choices of collection and treatment methods. For example, the production of virgin glass leads to more emissions than the production of the same weight of aggregate, therefore the metric will value the 'closed-loop' recycling of glass (ie back into glass products) more highly than the use of mixed glass cutlet as an aggregate replacement in the construction industry.

The full details of the carbon metric (including weighting factors for individual materials) are not yet known, but this Plan allows the Council the flexibility to adapt to the future implications of the metric.

6.3 Household Recycling and Composting

Kerbside Recycling Scheme

Between 2008 and 2010 a new Kerbside Recycling Service was rolled out. The new Kerbside Recycling Service is a continuation of the previous 3 bin system, however more materials are now accepted in the recycling bins, and the general waste (green-lidded) bin is now collected every two weeks. Table 4 details the changes to materials and collection frequencies with the new Kerbside Recycling Service.

Table 4: Changes to Kerbside Recycling Service

Bin Type	Previous Kerbside Scheme (prior to 2008)		New Kerbside Scheme	
	Collection Frequency	Materials Accepted	Collection Frequency	Materials Accepted
Green-lidded Wheeled Bin (<i>residual waste</i>)	Weekly	Mixed Household Waste	Fortnightly	Mixed Household Waste
Blue-lidded Wheeled Bin (<i>dry recyclate</i>)	Monthly	Paper Only	Fortnightly	Paper, Cardboard, Cans, Plastic Bottles
Brown-lidded Wheeled Bin (<i>organic waste</i>)	Fortnightly Collection (monthly during winter)	Garden Waste	Fortnightly Collection (throughout year)	Garden & Food Waste

6 Recycling

The new Kerbside Recycling Service was implemented in phases and has now been fully introduced to approximately 60,000 households. A split compartment refuse collection vehicle that allows recycle and mixed general waste to be collected at the same time is to be utilised to allow a further 2,000 properties in rural areas to be included on the Kerbside Recycling Service during 2011.

As part of the roll-out of the Kerbside Recycling Service, the Council has undertaken a route planning exercise to identify the most efficient ways of utilising vehicles for the collection of waste and recyclates. Following the roll-out of the Kerbside Recycling Service, the Council will continue to monitor vehicle routes to ensure effective use of vehicle resources. This will include an investigation into the use of route optimisation technology and software. A carbon impact assessment of waste and recycling collections will also be undertaken. This will form part of a future review of recycling collection arrangements.

Once the new Kerbside Recycling Service roll out is complete, the Council will continue to monitor participation and capture rates of the service and work with householders to increase participation in areas of low/poor performance. This will be supported by ongoing public education and awareness campaigns. Opportunities for expanding the range of materials collected for recycling at the kerbside will also continue to be monitored.

Multiple Occupancy Property Recycling Scheme

Multiple occupancy properties (typically flatted and tenemental housing types) are regarded as particularly challenging locations to introduce recycling services, primarily due to space constraints for bin storage. Approximately 2,000 households within Perth and Kinross have not been able to receive the standard Kerbside Recycling Service for this reason, however these properties will be assessed and bespoke solutions will be implemented where practicable.

Action 13

Introduce split compartment refuse collection vehicle to allow more properties in rural areas to be included on the new Kerbside Recycling Service - to be implemented by March 2011.

Action 14

Continue to explore the opportunities for expanding the range of materials collected for recycling by the Kerbside Recycling Service.

Action 15

Monitor new kerbside recycling scheme by carrying out waste composition analysis and gathering better information on participation and capture rates.

Action 16

Target future intervention work to increase participation in areas of low/poor performance (based on results of ongoing monitoring of Kerbside Recycling Service).

Action 17

Investigate the use of route optimisation technology and software.

Action 18

Carry out a carbon impact assessment of waste and recycling collections, taking into account the Scottish Government's proposed carbon metric for waste.

6 Recycling

In an effort to provide convenient access to recycling facilities for residents in multiple occupancy properties, these properties (not already included on the Kerbside Recycling Service) are being assessed to identify opportunities for providing near-entrance recycling facilities.

A trial at three separate multiple occupancy property sites was undertaken during 2009 to help determine the most effective type of recycling facilities/services to offer. The introduction of recycling facilities to multiple occupancy properties (excluded from the Kerbside Recycling Service) is projected to be completed by March 2011.

For those multiple occupancy properties where it is not possible to introduce near entrance recycling containers, the feasibility of a clear plastic sack collection for dry recycle will be investigated. This is considered to be the most preferable option for city centre locations where there is limited space for installation of communal recycling containers.

Action 19
Complete implementation of multiple occupancy property recycling scheme by March 2011, ie provision of recycling collection facilities at properties unable to receive kerbside recycling scheme, eg flats/high rise properties.

Action 20
Investigate the use of clear plastic sacks for the collection of dry mixed recycle, in particular from city centre locations.

6.4 Commercial Recycling and Composting

Perth & Kinross Council offers a range of waste management services to commercial organisations in Perth and Kinross. The Council is obliged by the Environmental Protection Act to collect waste from commercial businesses if requested to do so (a charge made by the Council for commercial waste must ensure full cost recovery).

In order to allow the Council to respond effectively to customer requirements, meet statutory responsibilities and meet landfill diversion targets, the Council intends to carry out a best value review of how it delivers its commercial waste services. All future actions relating to commercial waste and recycling services will be dependent on the outcome of the best value review.

Action 21
Carry out best value review of commercial waste collections.

6.5 Recycling Centres

Perth & Kinross Council currently operates 8 Recycling Centres (previously known as Civic Amenity or Skip Sites) in the following locations:

- Aberfeldy
- Auchterarder
- Bankfoot
- Blairgowrie
- Crieff
- Friarton, Perth
- Kinross
- Pitlochry

Recycling Centres are available to Perth and Kinross householders for recycling and disposal of bulky waste and general household rubbish.

6 Recycling

Containers are provided at each site to accept general/mixed waste. However separate containers/collection areas for specific recyclable waste types are also provided at each of the sites.

All Perth & Kinross Council Recycling Centres have attendants on site who are responsible for daily maintenance of the site, and are available as a point of contact for members of the public coming on to the site.

The Council is committed to improving facilities at Recycling Centres to ensure that opportunities for recycling and reuse are maximised. To achieve this, a programme of upgrading existing sites and developing new Recycling Centres was undertaken (beginning in 2008). Table 5 provides an overview of the redevelopment work that has been undertaken.

Table 5: Summary of Recycling Centre Redevelopments

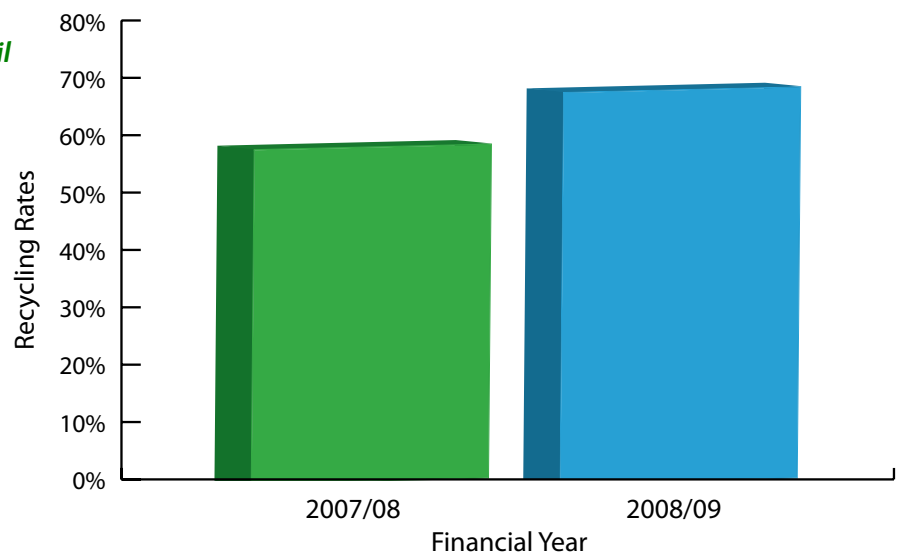
Recycling Centre	Description
Aberfeldy, Auchterarder, Blairgowrie, Friarton and Kinross Recycling Centres	<i>Expansion of site and introduction of separate areas/containers for segregation of materials by public for recycling/composting.</i>
Pitlochry Recycling Centre	<i>Construction of Recycling Centre at new location. Introduction of separate areas/containers for segregation of materials by public.</i>
Crieff Recycling Centre	<i>Planning permission submitted for a new Recycling Centre and waste transfer station at the North Forr site. Construction is projected for early 2011.</i>
Friarton Depot, Perth	<i>Construction of a waste transfer station, lorry park and associated road improvements. Improvements to widen range of materials for recycling have been completed.</i>
North Perth Recycling Centre	<i>Development of a new Recycling Centre to service north Perth and the surrounding area is due to commence in 2011. This will provide a more accessible Centre to residents in that catchment area and also for the proposed new housing developments in the north and west of the city. The provision of this facility will also help alleviate potential congestion and address capacity issues at Friarton Recycling Centre.</i>

Further review of Recycling Centre provision may be undertaken depending on future budget provision.

Figure 7 shows that the redevelopment of Recycling Centres has led to a significant increase in the percentage of waste collected from Recycling Centres that is recycled and composted. A reuse, recycling and composting rate of 80% by 2013 is aimed for. Currently the average recycling and composting rate for Recycling Centres is 68%. This will be achieved through ongoing education and awareness campaigns, targeted assistance by dedicated staff at sites with lower recycling rates, and also the completion of the redevelopment programme for the Recycling Centres.

6 Recycling

Figure 7: Recycling Rates at Perth & Kinross Council Recycling Centres



At present, a trial is being undertaken at Friarton Recycling Centre to assess the feasibility of collecting materials at Recycling Centres for reuse. Materials donated into the 'reuse' container at Friarton Recycling Centre are collected for resale and redistribution in the local area by partner charity organisations.

Action 22

Complete the redevelopment of existing Recycling Centres to allow a greater range of materials to be segregated and recycled.

Action 23

Finalise the development of a new Recycling Centre to service the North of Perth area.

Action 24

Identify opportunities to increase the range of materials collected at Recycling Centres, taking into account changes in household waste composition.

Action 25

Investigate feasibility of collecting reusable materials at Recycling Centres for resale and redistribution in the local area.

Action 26

Set a target of reusing, recycling/ composting 80% of source segregated Recycling Centre waste by 2013.

6.6 Recycling Points

Recycling Points are unattended recycling facilities sited throughout Perth and Kinross which give residents the means to recycle a range of materials locally. The points are positioned in areas which best serve local communities, and offer facilities for collection of any or all of the following:

- *steel and aluminium cans (food, drink, aerosol cans and foil);*
- *glass (clear, green and brown);*
- *paper (newspaper, magazines, office quality paper);*
- *cardboard;*
- *clothes and textiles;*
- *books.*

As of July 2010 the total number of recycling points throughout Perth and Kinross numbered 85. The Council aims to increase the number of Recycling Points in the Perth and Kinross area to 100 by 2013 and 120 by 2020 (as previously stated in the 2003 Waste Implementation Plan). These will be provided in both urban and rural locations throughout the area. The Council will seek to engage with the local community and encourage local residents and Community Councils to help identify suitable local sites/areas that would benefit from additional recycling facilities. Recycling Points can now be more bespoke with a range of options in size and capacity of collection containers available to suit different locations.

Through the Planning process, new developments are identified and officers work with Planning colleagues to ensure recycling facilities are introduced as part of the overall development.

The focus in the short term will be on the introduction of Recycling Points for the collection of colour segregated glass. However in the future, it is anticipated that the range of materials collected at Recycling Points may change to focus more on materials that are

not accepted as part of the Kerbside Recycling Service, eg collection of small electrical and electronic equipment such as light bulbs, or mixed grade plastics. Opportunities and the feasibility for implementing this will be investigated following the full roll-out of the Kerbside Recycling Service and the multi-occupancy property recycling scheme.

The implications of the carbon metric on the materials collected will also be considered.

Action 27
Increase number of Recycling Points in the Perth and Kinross area to 100 by 2013 and 120 by 2020.

Action 28
Identify opportunities to change the range of materials collected at Recycling Points to focus more on materials not accepted as part of the Kerbside Recycling Service.

6.7 Producer Responsibility

Producer responsibility is based on the 'polluter pays' principle, and requires businesses which place products on the market to take responsibility for their products when they reach the end of their life. In essence, producer responsibility places obligations on the producers of the waste (regarded as those putting it on the market in the first place) to collect a proportion of the waste for recycling and recovery.

Concern about certain waste streams and their environmental impact led the EU to introduce Directives to directly address producer responsibility. In response the UK has brought forward producer responsibility legislation relating to the following of materials:

- **Packaging**
For example this has led to the Council working with a food/drinks carton

6 Recycling

manufacturer which funds the collection of cartons from selected Recycling Centres and Points.

- **End of Life Vehicles**

Manufacturers must have in place systems for free take-back of end of life vehicles. This has reduced the number of abandoned vehicles that the Council has had to uplift.

- **Batteries**

The Council has agreed to work with Valpak (a producer compliance scheme) to collect household batteries at Recycling Centres and selected Council buildings. Applicable retailers will also be required to have free take-back systems in store for household batteries.

- **Waste Electrical and Electronic Equipment (WEEE)**

The Council has agreed to work with Valpak to collect household WEEE (items such as TVs, fridges, toasters, etc) at Recycling Centres. The collection is funded by the producers of WEEE.

The UK must meet its national targets for recovery and recycling of these wastes as set under each EU Directive. However this responsibility will rest with producers, and not with the Council.

The Zero Waste Plan contains an action for the Scottish Government to commission a study during 2010 into the implementation of existing producer responsibility directives and initiatives in Scotland. The study will also look at options for extended producer responsibility and 'take-back' schemes in Scotland.

The Scottish Government's Zero Waste Think Tank noted there could be scope to extend producer responsibility to other materials, such as paints, solvents, household furniture and mattresses. Perth & Kinross Council strongly supports the extension of producer responsibility to other materials, and will look to support the set-up of locally based extended producer compliance schemes.

Action 29

Where opportunities arise, work with industry in introducing producer responsibility that covers a greater range of materials.

6.8 Processing of Recyclates

The Council has undertaken a procurement programme to secure fixed-term contracts for the processing of dry mixed recyclates (up to 2014/15), mixed garden and food waste (up to 2012/13), and garden waste only (up to 2012/13).

The Council also procures and maintains agreements and contracts for the processing of other recyclates such as segregated glass, paper, timber and cardboard.

Action 30

The Council will secure long-term contracts or agreements for processing/treatment and sale of recyclates and organic wastes collected by the Council.

The procurement and selection of future treatment methods for recyclates will take into account the implications of the Scottish Government's carbon metric.

7

Residual Waste Management



7.1 Residual Waste Collection

Household Collections

The Environmental Protection Act (EPA) 1990 imposes a general duty on the Council, as a waste collection authority, to arrange for the collection of household waste in its area. The Act also gives the Council the authority to determine the arrangements for collection of household waste, including the size, number and placing of receptacles for collection.

All households on the new Kerbside Recycling Service will have their residual waste collected every two weeks (alternate weekly collection with dry mixed recyclates). The standard size of a wheeled bin is 240 litres. Where individual household bins are not practicable, larger communal wheeled containers are used. For a small minority of homes (such as flats), it is not possible to provide a wheeled bin and they present their waste in pink refuse sacks (provided free of charge by the Council).

Perth & Kinross Council signed up to the UK Waste Collection Commitment in June 2010 to ensure residents receive a waste and recycling collection service which is value for money and meets their needs. The Commitment is based on national research into what people like and feel could be improved about their existing services, and waste and recycling issues that are important to them. These include regular and reliable collections and keeping residents informed about the services they can expect.

Action 31
Target promotion and enforcement of Council policies on presentation of waste and recycling bins in areas identified as requiring action.

Photograph 1: Examples of Bin Presentation



Example of inappropriately presented household bin with excess 'side' waste.



Example of inappropriately presented household bin with 'crocodile lid'.



Example of appropriately presented household bin.

In recent years there has been a rise in the amount of healthcare waste produced within the community due to increased self-medication and home treatment.

In consultation with NHS Tayside, the Council will produce a guidance document for managing healthcare waste from the community setting. This will outline roles and responsibilities and provide practical guidance for householders and businesses in Perth and Kinross.

7 Residual

Action 32

Produce guidance document on healthcare waste management within the community setting. The Guidance is to be distributed to key stakeholders and made publicly available.

Action 34

Investigate options (including the use of a permit system or other systems) to control the types and quantity of trade waste entering Recycling Centres.

Bulky Items Collection

The Council operates a bulky uplift service for household items that cannot fit into the normal wheeled bin. In 2009/10 the charge for a special uplift for the collection of up to 5 bulky household items was £24.40. Special uplift items, due to operational constraints, are uplifted with other general waste collections and are therefore disposed of as mixed municipal waste to landfill. Often bulky items can include materials which may be suitable for reuse or recycling.

Action 33

Carry out review of Council's bulky and special uplift service to identify feasibility of recovering items for reuse/recycling.

Recycling Centres

All 8 Perth & Kinross Council Recycling Centres accept mixed/general household waste. As detailed in section 6.5, householders are encouraged to segregate their waste as much as possible and make use of the recycling facilities at the Recycling Centres.

Commercial enterprises are required to pay a charge for disposal of mixed/general waste at the Recycling Centres. The Council is currently undertaking a review of charging arrangements for commercial enterprises using Recycling Centres for disposal of mixed waste. This should reflect the increasing costs of sending waste to landfill, and act as an incentive for businesses to separate their waste for recycling.

Commercial Waste Collections

The Council currently has around 1,400 business customers that receive a residual waste collection service for which a charge is made. As outlined in section 6.4, the Council also offers recycling collections and provides businesses with advice on recycling and waste minimisation.

A variety of different sized collection containers are available to business customers. To encourage recycling by customers, a general waste skip hire service will only be available to customers where it can be demonstrated that they are segregating their waste, and at least 70% of their waste is being recycled or composted.

A best value review of the Council's commercial waste services is to be carried out during 2011.

7.2 Residual Waste Treatment and Disposal

Short-Term Residual Waste Treatment and Disposal

The current waste disposal contract with SITA UK for disposal of waste to landfill ends March 2011. The Council is currently undertaking a procurement procedure for a four year (up to 2014/15) residual waste treatment and/or disposal contract. At this time there is no necessity for additional treatment of residual waste prior to disposal, however the Council is inviting tender submissions that include pre-treatment of waste.

7 Residual

This four year contract will allow the Council sufficient time to fully determine the implications of Scottish Government policy on waste, and potential future changes in legislation, as well as time to investigate the options for longer-term residual waste treatment and disposal services.

Action 35
Procure short term (up to 2014/15) residual waste treatment and/or disposal contract.

Action 36
Investigate the options for joint procurement with other local authorities for residual waste treatment and disposal services.

Long-term Residual Waste Treatment and Disposal

When the Council embarked on its previous long-term waste disposal contract in 1992/93, it was a comparatively straightforward process, with the vast majority of waste requiring to be sent straight to landfill. This time decisions on procurement of waste treatment services need to take into account Scotland's Zero Waste Plan and legislative change. In summary, the key points requiring consideration are:

- *the Council's allowances for municipal biodegradable waste sent to landfill - the landfill allowance scheme as introduced by the Landfill Allowance Scheme (Scotland) Regulations 2005;*
- *national recycling/composting target of 40% by 2010, 50% by 2013, 60% by 2020 and 70% by 2025 for household waste;*
- *Scottish Government 5% limit on the total amount of waste in Scotland going to landfill by 2025;*

- *restrictions on the input to all energy from waste facilities;*
- *landfill bans for specific waste types.*

Based on waste arisings forecasts, the Council will only be able to meet long term targets for landfill diversion, recycling and composting if necessary infrastructure is secured, for diverting waste from landfill. However any new contract for residual waste treatment will need to be part of the Council's integrated strategy for waste management which prioritises waste reduction, reuse, and recycling and composting; and will need to allow for flexibility to respond to changing circumstances, eg changes in legislation, or changes in waste composition and arisings.

The 2010 report by SQW Energy on behalf of the Scottish Government assessed the costs associated with new Waste Management Infrastructure required in order to meet Scotland's Zero Waste targets. The report concluded that regardless of what future waste scenario is considered, the cost of managing Scotland's waste will significantly increase, and the option of 'doing nothing with landfill fines' is by far the most costly due to landfill penalties and the environmental impact.

Perth & Kinross Council commissioned a study in March 2010 to assess the costs of utilising different residual treatment technology options over a 25-year appraisal period. It was concluded that in the short-to-medium term, landfill could be cheaper than alternative sources of treatment. Given the fact there is no immediate economic imperative for the Council to procure a residual waste treatment facility; the Council is procuring a short term (up to 2014/15) residual waste treatment and/or disposal contract. Further detail on the study undertaken on the Costs of Options for treating the Council's Residual Waste is provided in Appendix 6.

Table 6 outlines the proposed timetable for procuring residual waste treatment/disposal for the Council.

7 Residual

Table 6: Timetable for Residual Waste Treatment/Disposal Procurement

Task	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Carry out tender (restricted procedure) for short-term residual waste treatment/disposal							
Short-term residual waste treatment/disposal contract*							
Investigate feasibility of joint procurement with other Councils for residual waste treatment beyond 2014/15							
If required, set up partnership/collaboration with other LAs Councils for long term residual waste contract							
Carry out procurement for long-term residual waste contract (either in collaboration with other Councils or on own)							
Award and start of next (potentially longer-term) contract for residual waste treatment							

* Short term residual waste contract will have option of two, one year extensions (ie up to 2017). This provides some flexibility for any delays in procurement of next (potentially longer-term) residual waste contract.

Residual Waste Treatment Technology Assessment

The Council's future residual waste treatment and disposal arrangements have a wide variety of processing options. Waste management is a dynamic industry, with a range of innovative technologies for processing residual waste being heralded on a regular basis. There is however a balance between the attractiveness of new technologies, and the robustness of the solution they offer.

Risk management is a strong feature of the Council's approach, and there should be a presumption against technologies which have been developed only to theoretical or 'demonstration' level. Greater reliance should be placed on technologies which have a successful track record of processing municipal waste. It is important for the Council to know what technologies would be acceptable to help inform the procurement process.

7 Residual

A technological review of potential residual waste treatment technologies was undertaken. The following nine technologies were assessed:

- *Anaerobic Digestion*
- *Gasification*
- *Plasma Systems*
- *Energy from Waste*
- *Energy from Waste with Combined Heat and Power*
- *Dirty Materials Recovery Facility*
- *Mechanical Biological Treatment*
- *Mechanical Heat Treatment*
- *Pyrolysis*

The technologies were assessed using a combination of reference plants and a range of research data (for further information on the technology review and assessment please visit www.pkc.gov.uk/wasteplan).

The assessment criteria included:

- *status of technology*
- *regulatory and guidance issues*
- *achievement of targets for:*
 - *recycling & composting*
 - *landfill diversion*
 - *25% cap on Energy from Waste*
- *applicability for Renewable Obligation Certificate (ROCS)*

The assessment was carried out prior to the release of the final Scotland's Zero Waste Plan. It therefore does not take into account revised recycling targets, landfill bans or any future restrictions on the input to all energy from waste facilities, and makes reference to the 25% cap on energy from waste.

The projected population increases for the area will be a significant factor in waste arisings. Depending on different predictive models (0%

or 3.9% per annum), the Council could require anything from approximately 50,000 to 90,000 tonnes per annum residual waste treatment capacity by 2025.

The following conclusions from the assessment undertaken were made:

- *no single technology is capable of meeting all the Council's criteria entirely;*
- *combination of technologies may be required to meet all of Zero Waste targets;*
- *it is not recommended to specify a single preferred technology in any future residual waste procurement specification;*
- *due diligence assessments will need to be carried out on actual technologies proposed by bidders;*
- *all of the residual waste treatment technologies that were assessed produce a form of residue that will require disposal to landfill (either with or without further thermal treatment beforehand).*

Action 37

As part of a longer-term procurement exercise for treatment of residual waste, take into account the capability of different waste treatment options to recover materials for recycling/composting and to meet BMW landfill diversion targets and Scottish Government Zero Waste targets.

Action 38

Carry out an evaluation of possible procurement routes in order to identify the most appropriate procurement route for the Council in terms of residual waste treatment.

Transportation of Waste

The transportation of source collected residual waste or recyclate can involve a number of different waste transfer stages. These are typically:

- *direct delivery of the collected waste or recyclables to reprocessors or final disposal facilities;*
- *waste collection vehicles travelling to waste transfer stations where waste and/or recyclables are bulked for onward transfer;*
- *the onward transfer of residual waste or recyclables from bulking/transfer facility to reprocessors or final disposal facilities;*
- *the transfer of residual waste resulting from treatment processes, ie as resulting from incineration.*

The Council has recognised that the requirement to meet recycling targets for household waste may lead to an increase in the number of vehicles on the road and more local waste transport movements. Therefore, it is important to employ sustainable transport networks wherever possible.

The Council will be exploring opportunities for residual waste treatment and disposal, including its transportation, beyond 2014/15.

Part of this process is to explore alternative transport models, including the use of Perth Harbour and its associated infrastructure.

Action 39
The Council will analyse the viability of alternative transportation modes (including Perth Harbour) to transport Council waste and/or recyclates for further treatment and processing. The study will also assess Perth Harbour's ability to act as a hub to accept waste and recyclates for onward transport.

Site Selection

In many instances when procuring a long-term residual waste treatment facility local authorities acquire the site as this is seen as an opportunity to reduce the overall risk to the project (particularly when a site has planning consent) and provides a level playing field for potential bidders and potentially greater competition.

In order to identify the best approach for Perth & Kinross Council, a workshop was held in July 2010 to assess the alternatives and identify the best option for the Council. The workshop involved colleagues from the Waste, Planning, Estates and Legal Services.

In summary the options open to the Council are to provide a site with or without planning consent as part of its procurement package, identify potential sites through the Local Development Plan or ensure there is sufficient business land available to accommodate such facilities or leave the site selection and gaining planning permission to the potential contractor.

It was concluded that the option providing the greatest flexibility due to the uncertainties, ie the type and scale of facilities required, is to set locational and other criteria in the Local Development Plan and when a contractor comes forward with a proposal, determine its suitability against them.

Action 40
Set criteria for the development of waste treatment and management facilities.

8

Street Sweeping and Litter



8.1 Litter Collection

Litter is a form of waste and the Council collects approximately 4,000 tonnes of litter each year. Litter contains a large proportion of recyclable materials that are currently not recovered. Littering is an unnecessary and unpleasant form of pollution that affects both quality of life and the environment.

Litter clearance provided by Perth & Kinross Council covers over 1,490 miles of roads and 52 car parks. The Council is responsible for ensuring that public land, pavements, roads and grass verges that fall under its control are kept free of litter and refuse. Cleanliness is achieved and maintained both by hand and by mechanical methods and all clearance is in compliance with The Environmental Protection Act 1990 (the Act) which imposes a duty on local authorities and certain other landowners and occupiers to keep specified land clear of litter and refuse so far as is practicable.

Under the Act there is a litter Code of Practice on Litter and Refuse which defines standards of cleanliness which are achievable in different locations and under differing circumstances (for further information on the Litter Code of Practice visit www.littercode.org)

In order to measure how well the Council is dealing with litter, Perth & Kinross Council subscribe to the Local Environmental Audit and Management System (LEAMS). This is a programme managed by Keep Scotland Beautiful aimed at measuring and improving the cleanliness standards throughout Scotland. The LEAMS process is structured so that all authorities carry out exactly the same monitoring programme to allow for full comparison between the results obtained.

Since April 2004, the LEAMS system has been a Statutory Performance Indicator. All 32 local authorities in Scotland are involved in the programme and Statutory Performance Indicators are published via Audit Scotland showing a league table of standards. Table 7 shows Perth & Kinross Council's cleanliness index score (under LEAMS) since 2004/05. Perth & Kinross Council has consistently performed above the national average and in 2007/08 had the joint best cleanliness index score in Scotland. In the current economic climate it is important to ensure resources are maximised to the best effect.

Table 7: Perth & Kinross Council LEAMS Cleanliness Index Score

	LEAMS Index Score				
	2004/05	2005/06	2006/07	2007/08	2008/09
Perth & Kinross Council	71	72	72	79	81
Scotland (average)	70	70	71	73	73

Awaiting verification of 2009/10 figures

Action 41

Undertake a review of street cleaning specification in 2010/11 to ensure that resources are efficiently deployed across Perth and Kinross.

8.2 Fly-Tipping

Fly-tipping is the illegal disposal of waste onto land with no licence to accept waste. Fly-tipping occurs in both urban and rural areas. Hotspots include verges of country lanes, lay-bys and urban gap sites or back alleys.

Fly-tipping can be a significant problem for the following reasons:

- uncontrolled waste disposal can be hazardous to the public who may come in to contact with it, eg chemical wastes, electrical items, syringes;
- environmental damage can result from illegally dumped waste;
- fly-tipping looks unsightly which can have a detrimental affect on the appeal of an area or can harm investment into an area;
- cleaning up fly-tipping costs the Council money.

In February 2003 a Scottish Fly-Tipping Forum was established consisting of the key stakeholders who are affected by fly-tipping and the organisations responsible for the investigation and disposal of many fly-tipping incidents. The Forum also set up the Dumb Dumpers Stop Line (0845 2 30 40 90), a telephone number anyone can call to report someone seen dumping waste illegally. SEPA and the Scottish Government are keen for local areas to develop their own fly-tipping forums.

Action 42

Include community 'clean-ups' as part of the Community Waste Fund so that community groups can apply to the fund in order to clean up local areas blighted by fly-tipping.

Action 43

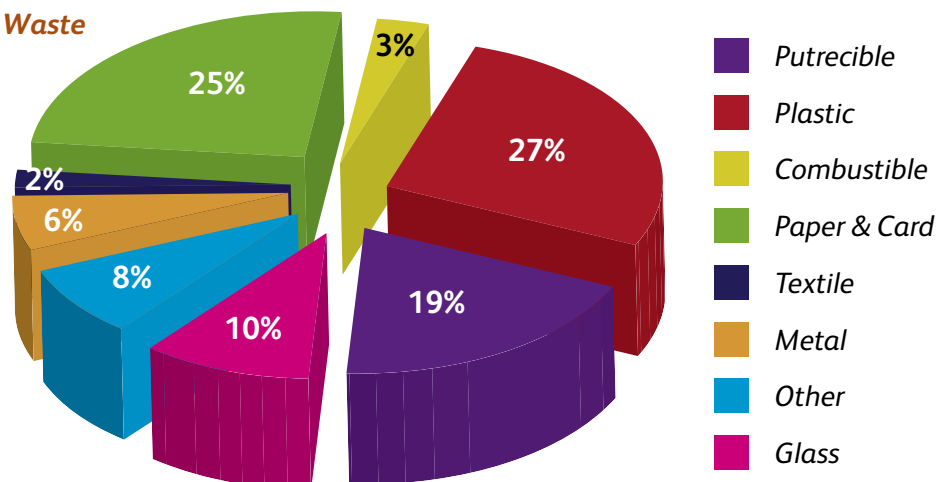
Establish through the Community Planning Environment Partnership a Perth and Kinross Fly-Tipping Forum.

8.3 Disposal and Recovery

Litter, either collected via street sweeping or in litter bins, is currently processed as residual waste. As a result, the vast majority is sent to landfill.

Figure 8 shows the results of a waste composition analysis of a sample selection of litter bins in the Council area (study carried out September 2009). The study confirmed that there is a proportion of easily recyclable materials similar to those collected through the Kerbside Recycling Service (plastic bottles, cans, paper and cardboard) in the litter waste stream.

Figure 8: Composition of Waste from Litter Bins



A trial of segregated litter bins in city centre locations is to be undertaken in 2010. These litter bins will allow source separation of plastic bottles, cans, paper and cardboard. The trial will allow the feasibility of rolling out segregated litter bins throughout the area to be assessed.

Street sweepings material have historically been sent directly to landfill. Street sweepings arise from, in the main, mechanical sweeping of surfaced public paths and roads.

It is possible to divert street sweeping materials from landfill by putting them through a pre-treatment process which allows the material to be reused/recycled, or at the very least disposed of to landfill as inert waste which has a significantly lower cost attached to it.

If the recovered material was available for reuse or recycling, it could increase the Councils recycling and composting rate by 3%.

Action 44

Trial introduction of segregated litter bins for collection of recyclates and assess feasibility of implementing throughout the Council area.

Action 45

Investigate the feasibility of recovering waste from street sweeping for recycling/composting.

9 Waste Awareness



9 Waste Awareness

9.1 National Campaigns

Zero Waste Scotland prepares national waste prevention and recycling communication strategies for local authorities, the private sector and the community recycling sector. Examples of the campaigns include: Love Food Hate Waste, Home Composting and Unwanted Mail.

9.2 Local Campaigns and Initiatives

Perth & Kinross Council has implemented a broad range of waste awareness promotional activities over many years. These include school presentations and competitions, community group meetings and stalls at various local shows/ events.

The Council will continue to implement waste awareness campaigns and initiatives that aim to:

- *encourage waste prevention and encourage participation in waste prevention initiatives;*
- *increase participation in the Kerbside Recycling Service;*
- *reduce contamination of recycling bins;*
- *increase usage of Recycling Centres and Points;*
- *increase public awareness of wider environmental, social and financial issues relating to waste.*

Appendix 7 provides a summary of the national and local communication campaigns and initiatives that are currently being implemented by Perth & Kinross Council and Zero Waste Scotland. The Council will maintain existing communication campaigns.

Action 46

Work with Zero Waste Scotland to assist in the communication of national campaigns and initiatives at a local level.

Action 47

Develop a Waste Awareness Communications Plan following the introduction of the new Kerbside Recycling Service.

9.3 Role of Community Sector

The community sector has the potential to assist the Council in delivering its Waste Management Plan and meeting future recycling and composting targets, whilst providing additional local community benefits.

Perth & Kinross Council currently works in partnership and supports a number of social enterprises which facilitate reuse and recycling of household items (see Appendix 5). The Council will continue to support the development of local projects which effectively promote sustainable waste management in Perth and Kinross.

Action 48

Continue to promote community sector based waste projects that promote sustainable resource management in Perth and Kinross.

10

Non-Municipal Waste



10 Non-Municipal

Non-municipal waste is a broad category that includes commercial and industrial wastes, construction and demolition waste, and waste from agriculture, fishing and forestry. As outlined in section 6, Perth & Kinross Council offers waste and recycling services to businesses in the Council area. However the Council only collects a small proportion (approximately 18%) of the total commercial and industrial waste arising in Perth and Kinross. The majority is collected by private waste management contractors.

Waste produced by commerce and industry is important because it is a large waste stream for which little information exists. Construction and demolition wastes alone account for around half of the controlled waste managed in Scotland.

Data on non-municipal waste is currently unreliable in relation to amounts produced, recycled and its composition, as there is no statutory requirement for businesses to provide data on the wastes they produce. The Scottish Government and SEPA propose to take action to improve data on non-municipal waste. This has been included as an action in Scotland's Zero Waste Plan. Perth & Kinross Council support action to improve data on non-municipal waste.

A Strategic Waste Management Review (SWMR) for Tayside was carried out by SEPA for 2006/07. The study provided information on the types and quantities of waste handled in Tayside, including municipal waste, commercial and industrial waste, and special waste. Table 8 shows the SWMR's summary of waste arisings for Tayside in 2006/07.

Table 8: Summary of Waste Arisings in Tayside (2006/07)

Waste Arisings	Tonnes	%
Household Waste*	227,334	18
Business Waste (commercial and industrial)	555,880	45
Construction and Demolition Waste	450,857	36
Special Waste	11,249	1
Total	1,245,320	100

*This is a subset of municipal waste arisings

Source: WasteDataFlow, SEPA's Scotland Business Waste Survey, statutory licensed/permitted site returns; Waste Data Digest 7; Special Waste Consignment Notes

As highlighted in Table 8, commercial and industrial, and construction and demolition wastes are by far the biggest waste stream in Perth and Kinross. The Council therefore supports greater action and focus on this sector by the Scottish Government and relevant agencies, and will give advice to local projects that encourage better management of non-municipal wastes.

Perth & Kinross Council will continue to signpost companies to Zero Waste Scotland who provide advice and support to the industry on becoming more resource efficient, reducing waste and managing unavoidable waste effectively.

Action 49

Work within the Community Planning Partnership to highlight to local businesses the financial and environmental benefits of waste minimisation and recycling, and sources of further support.

Action 50

Work within the Community Planning Partnership to highlight to local waste businesses the business development opportunities arising from the waste and recycling sector.

10 Non-Municipal

The Perth and Kinross Economic Strategy identifies renewable energy as an industry sector with significant growth potential. It is recognised that there are renewable energy opportunities from the treatment of non-municipal waste (in addition to municipal waste) and the Council will facilitate the development of key projects in the Perth and Kinross area.

The Council, as a client and developer with regard to the creation or refurbishment of buildings and facilities, recognises that it has a significant role to play in minimising the environmental and economic impacts of landfilling construction and demolition materials and improving resource efficiency.

In order to show support for this approach the Council will sign up to the Waste and Resources Action Programme (WRAP) 'Halving Waste to Landfill Commitment'. The Commitment is a UK wide initiative which has been developed by WRAP and is promoted by Zero Waste Scotland throughout the construction sector in Scotland. The Commitment provides the Council with an opportunity to demonstrate leadership to its supply chain, to improve its performance and reduce its carbon footprint. This can be achieved through incorporating waste prevention, minimisation, re-use and recycling requirements through standard contract terms and conditions including performance reporting requirements.

Perth & Kinross Council is also seeking to maximise the cost-effective use of materials recovered from the waste stream - thereby diverting waste from landfill and reducing demand for finite natural resources. To deliver upon this, the Council will establish a minimum target of the total value of materials used in construction projects to be derived from recycled and re-used content in the products and materials selected.

The Scottish Government's Zero Waste Plan supports this commitment and it forms part of the strategy to comply with Article 11(2)(b) of the revised Waste Framework Directive that requires Member States to achieve 70% recycling and recovery by weight of non-hazardous construction and demolition waste excluding naturally occurring material. Scotland's Zero Waste Plan includes a target to recycle and prepare for re-use 70% of construction and demolition waste by 2020.

Perth & Kinross Council will commit to playing our part in halving the amount of construction, demolition and excavation waste going to landfill by 2012. We will work to adopt and implement standards for good practice in reducing waste, recycling more, and increasing the use of recycled and recovered materials in new and refurbishment construction activities. In delivering the commitment we will:

- *set a target for reducing waste to landfill;*
- *embed the target within corporate policy and processes;*
- *set corresponding requirements in project procurement and engage with our supply chain;*
- *measure performance at a project level relative to a corporate baseline; and report annually on overall corporate performance.*

Action 51

Sign up to the Waste and Resources Action Programme (WRAP) 'Halving Waste to Landfill Commitment'.

The above action will be undertaken in accordance with WRAP/Zero Waste Scotland guidance.

Appendices


- Appendix 1: Perth & Kinross Council Waste Management Plan Action Plan**
- Appendix 2: Perth & Kinross Council Waste Data Modelling**
- Appendix 3: Waste Composition Analysis**
- Appendix 4: Key Actions to Reduce Main Materials in Household Waste Bin**
- Appendix 5: Examples of Local Ongoing Waste Prevention Initiatives**
- Appendix 6: Analysis of the Cost Options for Treating the Council's Residual Waste**
- Appendix 7: Summary of Local Waste Awareness Campaigns and Initiatives**

Perth & Kinross Council Waste Management Plan Action Plan


The table below outlines the Action Plan to support the delivery of Perth & Kinross Council's Waste Management Plan. This Action Plan is a list of key activities, but does not include recurring work activities.

In the table below:

- **Short-term** means within a year
- **Medium-term** means within three years
- **Long-term** means more than three years
- **Ongoing** means existing action set to continue


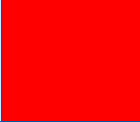


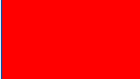

 = low priority

 = medium priority

 = high priority

Priority was scored taking into account landfill diversion, resource implications and statutory requirements.

The implementation of the Action Plan will be monitored and will be provided as an annual summary update to the Perth & Kinross Council Environment Committee.

No.	Action	Timescale	Priority
General			
1	Perth & Kinross Council to take into account requirements of Scotland's Zero Waste Plan and current Scottish Planning Policy during development of Local and Strategic Development Plans.	Ongoing	
2	As part of the development of the local development plan the Council will devise supplementary planning guidance with regard to Managing Waste in Housing and Commercial Developments.	Short-Term	
3	To review the Council's approach towards trading of landfill allowance permits if the Landfill Allowance Scheme is reintroduced in Scotland.	Medium-Term	
Waste Composition and Arisings			
4	Waste data forecasts to be continually monitored (updated based on verified tonnages) and used to guide decision making on future contracts for waste treatment and disposal services.	Ongoing	
5	Perth & Kinross Council to carry out annual waste composition analysis of household waste arisings.	Ongoing	
Waste Prevention and Resource Efficiency			
6	Perth & Kinross Council to support and contribute towards the development and implementation of the national Waste Prevention Action Plan at a local level.	Ongoing	

Appendix 1

No.	Action	Timescale	Priority
Waste Prevention and Resource Efficiency (continued)			
7	Perth & Kinross Council to monitor changes in waste growth based on kilogrammes of waste produced per household per year.	Ongoing	High
8	Produce (and keep updated) A-Z Reduce, Reuse, Recycle Guide. To be promoted to households and other stakeholders.	Ongoing	High
9	Identify opportunities for implementing waste prevention initiatives in conjunction with Cittaslow Perth.	Ongoing	High
10	Perth & Kinross Council to undertake internal waste management review to identify opportunities for further improving the way waste is managed within the Council.	Short-Term	Medium
11	Perth & Kinross Council to facilitate a Business Waste Minimisation Project (BWMP) that will demonstrate locally the financial and environmental benefits of waste minimisation and resource efficiency to companies.	Short-Term	Medium
12	Develop further projects in partnership with the Perth and Kinross Network of Charity Shops and Reuse Projects.	Ongoing	Medium
Recycling and Composting			
13	Introduce split compartment refuse collection vehicle to allow more properties in rural areas to be included on the new Kerbside Recycling Service - to be implemented by March 2011.	Short-Term	High
14	Continue to explore the opportunities for expanding the range of materials collected for recycling by the Kerbside Recycling Service.	Ongoing	Medium
15	Monitor Kerbside Recycling Service by carrying out waste composition analysis and gathering better information on participation and capture rates.	Ongoing	High
16	Target future intervention work to increase participation in areas of low/poor performance (based on results of ongoing monitoring of the Kerbside Recycling Service).	Ongoing	High
17	Investigate the use of route optimisation technology and software.	Medium-Term	Medium
18	Carry out a carbon impact assessment of waste and recycling collections, taking into account the Scottish Government carbon metric for waste.	Medium-Term	High
19	Complete roll out of multiple-occupancy property recycling scheme by March 2011, ie provision of recycling collection facilities at properties unable to receive kerbside recycling scheme, eg flats/high rise properties.	Short-Term	High
20	Investigate the use of clear plastic sacks for the collection of dry mixed recycle, in particular from city centre locations.	Medium-Term	High
21	Carry out best value review of commercial waste collections.	Medium-Term	High
22	Complete the redevelopment of existing Recycling Centres to allow a greater range of materials to be segregated and recycled.	Short-Term	High
23	Finalise the development of a new Recycling Centre to service the North of Perth area.	Short-Term	High

Appendix 1

No.	Action	Timescale	Priority
Recycling and Composting <i>(continued)</i>			
24	Identify opportunities to increase the range of materials collected at Recycling Centres, taking into account changes in household waste composition.	Ongoing	Yellow
25	Investigate feasibility of collecting reusable materials at Recycling Centres for resale and redistribution in the local area.	Short-Term	Yellow
26	Set a target of reusing, recycling/composting 80% of source segregated Recycling Centre waste by 2013.	Medium-Term	Red
27	Increase number of Recycling Points in the Perth and Kinross area to 100 by 2013 and 120 by 2020.	Long-Term	Yellow
28	Identify opportunities to change the range of materials collected at Recycling Points to focus more on materials not accepted as part of the Kerbside Recycling Service.	Medium-Term	Red
29	Where opportunities arise, work with industry in introducing producer responsibility that covers a greater range of materials.	Ongoing	Red
30	The Council will secure long term contracts or agreements for processing/ treatment and sale of recyclates and organic wastes collected by the Council.	Ongoing	Green
Residual Waste Management			
31	Target promotion and enforcement of Council policies on presentation of waste and recycling bins in areas identified as requiring action.	Ongoing	Red
32	Produce guidance document on healthcare waste management within the community setting. The Guidance is to be distributed to key stakeholders and made publicly available.	Short-Term	Red
33	Carry out review of Council's bulky and special uplift service to identify feasibility of recovering items for reuse/recycling.	Medium-Term	Red
34	Investigate options (including the use of a permit system or other systems) to control the types and quantity of trade waste entering Recycling Centres.	Short-Term	Red
35	Procure short term (up to 2014/15) residual waste treatment and/or disposal contract.	Short-Term	Green
36	Perth & Kinross Council to investigate the options for joint procurement with other local authorities for long-term residual waste treatment and disposal services.	Medium-Term	Green
37	As part of a longer term procurement exercise for treatment of residual waste, take into account the capability of different waste treatment options to recover materials for recycling/composting and to meet BMW landfill diversion targets and Scottish Government Zero Waste targets.	Medium-Term	Green
38	Carry out an evaluation of possible procurement routes in order to identify the most appropriate procurement route for the award of a contract for Perth & Kinross Council residual waste treatment.	Short-Term	Yellow

Appendix 1

No.	Action	Timescale	Priority
Residual Waste Management (continued)			
39	The Council will analyse the viability of alternative transportation modes (including Perth Harbour) to transport Council waste and/or recyclates for further treatment and processing. The study will also assess Perth Harbour's ability to act as a hub to accept waste and recyclates for onward transport.	Short-Term	
40	Set criteria for the development of waste treatment and management facilities.	Short-Term	
Street Sweeping and Litter			
41	Undertake a review of street cleaning specification in 2010/11 to ensure that resources are efficiently deployed across Perth and Kinross.	Short-Term	
42	Include community 'clean-ups' as part of the Community Waste Fund so that community groups can apply to the fund in order to clean up local areas blighted by fly-tipping.	Short-Term	
43	Establish through the Community Planning Environment Partnership a Perth and Kinross Fly-Tipping Forum.	Short-Term	
44	Trial introduction of segregated litter bins for collection of recyclates and assess feasibility of implementing throughout the Council area.	Short-Term	
45	Investigate the feasibility of recovering waste from street sweeping for recycling/composting.	Medium-Term	
Waste Awareness			
46	Perth & Kinross Council to continue work with Zero Waste Scotland to assist in the communication of national campaigns and initiatives at a local level.	Ongoing	
47	Develop a Waste Awareness Communications Plan post rollout of the new Kerbside Recycling Service.	Short-Term	
48	Continue to promote community sector based waste projects that promote sustainable resource management in Perth and Kinross.	Ongoing	
Non-Municipal Waste			
49	Work within the Community Planning Partnership to highlight to local businesses the financial and environmental benefits of waste minimisation and recycling, and sources of further support.	Ongoing	
50	Work within the Community Planning Partnership to highlight to local waste businesses the business development opportunities arising from the waste and recycling sector.	Ongoing	
51	Sign up to the Waste and Resources Action Programme (WRAP) 'Halving Waste to Landfill Commitment'.	Short-Term	

Perth & Kinross Council Waste Data Modelling

The tables overleaf show current projections for municipal waste arisings in Perth and Kinross. These projections were carried out using 2009/10 baseline data and are based on the best available data. The projections were reviewed by the consultancy firm, Halcrow.

The projections shown are based on 0% waste growth (previous Scottish Government target), on 0.96% waste growth (based on impact of projected growth in population/household) and on 3.9% annual waste growth (based on average annual waste growth between 2003/04 and 2007/08).

The projections are based on completing the current implementation of recycling schemes and infrastructure detailed in this Plan. They do not take into account any future recovery of materials via the treatment of the residual waste stream. The projections therefore highlight the requirement for future treatment of residual waste to meet future recycling and composting targets.

As outlined in section 4.2, it is very difficult to accurately project future waste trends due to a number of factors. Perth & Kinross Council have robust systems in place to record waste arisings and will continue to update its municipal waste projections based on actual/verified waste tonnages.

Projections Based Zero % Waste Growth

	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26
Total MSW	95,868	95,868	95,868	95,868	95,868	95,868	95,868	95,868	95,868	95,868	95,868	95,868	95,868	95,868	95,868	95,868	95,868
Composted	18,318	19,786	19,973	20,125	20,278	20,433	20,589	20,747	20,907	21,068	21,230	21,395	21,560	21,560	21,560	21,560	21,560
Recycled	23,208	24,779	24,832	24,920	25,010	25,101	25,192	25,285	25,378	25,473	25,568	25,664	25,762	25,762	25,762	25,762	25,762
Residual	54,342	51,303	51,063	50,823	50,580	50,334	50,086	49,836	49,583	49,328	49,070	48,809	48,546	48,546	48,546	48,546	48,546
Recycling & Composting Rate	43%	46%	47%	47%	47%	47%	48%	48%	48%	48%	49%	49%	49%	49%	49%	49%	49%

Projections Based on 0.96% Waste Growth

	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26
Total MSW	95,868	96,788	97,718	98,656	99,603	100,559	101,524	102,499	103,483	104,476	105,479	106,492	107,514	108,546	109,588	110,640	111,703
Composted	18,318	19,976	20,352	20,704	21,061	21,426	21,797	22,175	22,560	22,952	23,351	23,758	24,172	24,404	24,638	24,875	25,113
Recycled	23,208	24,988	25,280	25,614	25,953	26,298	26,647	27,002	27,362	27,727	28,098	28,475	28,857	29,135	29,414	29,697	29,982
Residual	54,342	51,824	52,085	52,338	52,588	52,835	53,080	53,322	53,561	53,797	54,030	54,259	54,485	55,008	55,536	56,069	56,607
Recycling & Composting Rate	43%	46%	46%	47%	47%	47%	48%	48%	48%	48%	49%	49%	49%	49%	49%	49%	49%

Projections Based on 3.9% Waste Growth

	2009/10	2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26
Total MSW	95,868	99,607	103,492	107,528	111,721	116,078	120,605	125,309	130,196	135,274	140,549	146,031	151,726	157,643	163,791	170,179	176,816
Composted	18,318	20,558	21,535	22,544	23,602	24,709	25,869	27,084	28,357	29,689	31,085	32,547	34,079	35,408	36,789	38,224	39,714
Recycled	23,208	25,629	26,679	27,819	29,009	30,250	31,544	32,896	34,305	35,776	37,311	38,913	40,584	42,167	43,812	45,520	47,295
Residual	54,342	53,421	55,278	57,164	59,111	61,120	63,192	65,329	67,534	69,808	72,153	74,571	77,063	80,068	83,191	86,436	89,806
Recycling & Composting Rate	43%	46%	46%	47%	47%	47%	47%	48%	48%	48%	48%	49%	49%	49%	49%	49%	49%

Waste Composition Analysis

The table below shows the composition of residual household waste (waste from green lidded bins) based on a waste composition analysis carried out by the Council in March 2010.

	Materials in Order of Percentage	Percentage
1	Kitchen/Food	13.6 %
2	Film/Carrier Bags	12.6 %
3	Recyclable Paper	12.1 %
4	PP (5)	7.3 %
5	Textiles	6.1 %
6	Fines	5.9 %
7	Cardboard	5.5 %
8	Non-Recyclable Paper	4.8 %
9	Clear Glass	4.5 %
10	Food/Beverage Cans (ferrous metal)	3.4 %
11	Other Recyclable Paper	3.2 %
12	PET (1)	2 %
13	Green Glass	1.9 %
14	Wood/Carpet/Furniture	1.8 %
15	Other Plastic (7)	1.8 %
16	Hazardous - Other	1.6 %
17	PS (6)	1.6 %
18	DIY Rubble/Ceramics	1.6 %
19	Sanitary/Nappies	1.5 %
20	Other/Aluminium Foil	1.2 %
21	Brown Glass	1.2 %
22	Other Ferrous Metal	0.9 %
23	HDPE (2)	0.8 %
24	Tetrapak	0.7 %

	Materials in Order of Percentage	Percentage
25	Food/Beverage Cans (non-ferrous)	0.7 %
26	WEEE	0.6 %
27	Garden	0.6 %
28	PVC (3)	0.4 %
29	Hazardous - Batteries	0.2 %
30	Non-Packaging Glass	0.02 %

The table below shows the composition of residual waste collected at Recycling Centres (collected in general/mixed waste skips) based on a waste composition analysis carried out by the Council in February 2010.

	Materials in Order of Percentage	Percentage
	150mm Down	34 %
	Miscellaneous/Other	24 %
	Mattresses, Carpet & Vinyl	15 %
	Wood MDF Laminates	7 %
	Paper/Cardboard	6 %
	Ferrous Metals	4 %
	Plaster Board	3 %
	Inert Material (Rubble)	3 %
	Hard Mixed Plastics	2 %
	Plastic Film	1 %
	Other	1 %

Key Actions to Reduce Main Materials in Household Waste Bin

Material	Actions
Kitchen/Food	<ul style="list-style-type: none"> • Roll out Kerbside Recycling Service across Perth & Kinross Council area. • Promote the Scottish Waste Awareness Group 'Love Food Hate Waste' campaign when introducing new kerbside recycling services. • Introduction of rural recycling service.
Recyclable Paper	<ul style="list-style-type: none"> • Roll out Kerbside Recycling Service across Perth & Kinross Council area. • Increase number of Recycling Points. • Ongoing waste awareness campaigns. • Introduction of bespoke recycling services for rural and high rise/flatted properties.
Cardboard	<ul style="list-style-type: none"> • Roll out Kerbside Recycling Service across Perth & Kinross Council area. • Increase number of Recycling Points. • Ongoing waste awareness campaigns and support national 'positive packaging' campaign. • Introduction of bespoke recycling services for rural and high rise/flatted properties.
Glass	<ul style="list-style-type: none"> • Increase number of Recycling Points including glass only points in appropriate locations. • Ongoing waste awareness campaigns and support national 'positive packaging' campaign.
Plastics (PET & HDPE)	<ul style="list-style-type: none"> • Roll out Kerbside Recycling Service across Perth & Kinross Council area. • Ongoing waste awareness campaigns and support national 'positive packaging' campaign. • Introduction of bespoke recycling services for rural and high rise/flatted properties. • Investigate the potential to collect mixed grade plastics at the kerbside, Recycling Centres and Points.
Mixed Cans, Aluminium Foil & Tetrapaks	<ul style="list-style-type: none"> • Increase number of Recycling Points. • Ongoing waste awareness campaigns and support national 'positive packaging' campaign.
Plastic Bags	<ul style="list-style-type: none"> • Ongoing waste awareness campaigns, eg 'use me again' campaign. • Support associated national campaigns.
Textiles	<ul style="list-style-type: none"> • Increase number of Recycling Points with textile banks. • Trial introduction of textiles as part of the Kerbside Recycling Service. • Continue to promote charity shop sector.

Examples of Local Ongoing Waste Prevention Initiatives

Initiative/Activity	Description
Perth and Kinross Real Nappy Network	<p>Perth & Kinross Real Nappy Network (PKRNN) is a local group providing information, advice and support about real (washable) nappies. Using real nappies, even for just some of the time, reduces the number of disposable nappies going to landfill.</p> <p>PKRNN was founded in January 2002 by a group of local parents and run by a voluntary management committee. Perth & Kinross Council currently provides funding and other in-kind support for the PKRNN to employ a full time project co-ordinator and carry out a variety of promotional initiatives.</p> <p>Of the circa 1,200 babies born annually in Perth and Kinross, approximately 20% are believed to wear real nappies. Through its ongoing programme of events and initiatives, the PKRNN hopes to convert 30% of babies into real nappy users.</p>
Bike Reuse Project	<p>In December 2008, Perth & Kinross Council began collections of unwanted bicycles, parts and accessories from four of its Recycling Centres (Pitlochry, Aberfeldy, Kinross and Friarton). Bicycles from the Recycling Centres are collected by a partner organisation and are refurbished and sold for reuse at affordable prices. If the bikes cannot be refurbished, reusable parts are salvaged for use in repair of other bikes.</p> <p>The Bike Station opened new premises in Perth, at Mid Friarton Business Park, in November 2010. The Bike Station offers repairs by qualified mechanics, reconditioned second hand parts and refurbished bikes for children and adults for sale. The Bike Station currently holds children's bike sales every Friday and adults' bike sales every Saturday at its premises. The Bike Station, supported by the Council, also hold 'Nearly New' bike sales at different locations throughout Perth and Kinross on a quarterly basis.</p>
Community Repaint	<p>Community RePaint is a UK network of community-based paint reuse projects, diverting reusable paint from landfill so that it becomes a resource. Since November 2004, Community RePaint Perth has been collecting reusable paint at Friarton Recycling Centre in Perth and re-distributing it to schools and colleges, new businesses, householders, community groups and charities across Perth and Kinross.</p> <p>In 2009 Community Repaint Perth was awarded a community waste grant from Perth & Kinross Council to support the development of the project in Perth and Kinross.</p>
Network of Perth and Kinross Charity Shops and Reuse Projects	<p>All charity shops and reuse projects in Perth and Kinross were invited to a seminar in 2008, hosted by the Council and facilitated by Changeworks (organisation with experience and expertise in working with sector). The seminar explored ways in which the sector could further develop in Perth and Kinross and opportunities for joint working between projects and the Council.</p> <p>An outcome of the seminar was the set-up of the 'Network of Perth and Kinross Charity Shops and Reuse Projects'. This network now meets up on a quarterly basis and provides an opportunity for networking, discussion and joint working on specific projects.</p> <p>Examples of projects the network have developed include the production of the Perth and Kinross Charity Map, a networking seminar with local businesses, and the introduction of a reuse container at Friarton Recycling Centre.</p>

Initiative/Activity	Description
Perth & Kinross Council Internal Waste Management Review	<p>Around 3.5% of municipal waste managed by the Council is estimated to be generated by the Council themselves, through its own activities. Most of this is generated through schools, but building services and offices also make a significant contribution.</p> <p>In recognition of this, the Council is currently undertaking an internal waste management review. This has led to the introduction of an internal waste prevention Action Plan and a programme of regular waste audits and reporting on the results of the audits.</p>
Zero Waste Scotland Home Composting Scheme	To encourage householders to make their own compost at home, Perth & Kinross Council together with Zero Waste Scotland, have been providing compost bins at a reduced price to the residents of Perth and Kinross.
Salvation Army 40:20 Project	The Salvation Army 40:20 project is the largest furniture reuse project in Perth and Kinross. The project provides a doorstep collection of unwanted furniture from households in Perth and Kinross. All furniture donated to the project is available for resale to anyone in the community. Prices are kept to a minimum so that everyone in the community can benefit and discounts are offered to people referred to the project by recognised social agencies.
Love Food Hate Waste Campaign	Waste Aware Scotland's Love Food Hate Waste (LFHW) campaign was first launched in November 2007. It aimed to educate members of the public on ways in which they can reduce the amount of food they waste each year - it is estimated that over £1 billion worth of food is wasted by consumers in Scotland each year. The LFHW website is the main resource for the campaign (www.wasteawarelovefood.org.uk).
Unwanted Mail Campaign	The Stop the Drop Unwanted Mail campaign was originally launched by Waste Aware Scotland in October 2007. This is a campaign that encourages members of the public to take action to reduce the amount of unwanted mail that they receive. It raises awareness of the rights that householders have regarding the mail that they receive and provides information on what actions can be taken to reduce unwanted mail. The Stop the Drop website is the main resource for the campaign and all campaign materials include the web address to signpost the public to the site (www.stop-the-drop.org.uk).

Analysis of the Cost Options for Treating the Council's Residual Waste

Perth & Kinross Council commissioned a financial and economic consultancy in March 2010 to carry out a study to assess the costs of landfill and the following range of potential residual waste treatment technologies over a 25-year appraisal period:

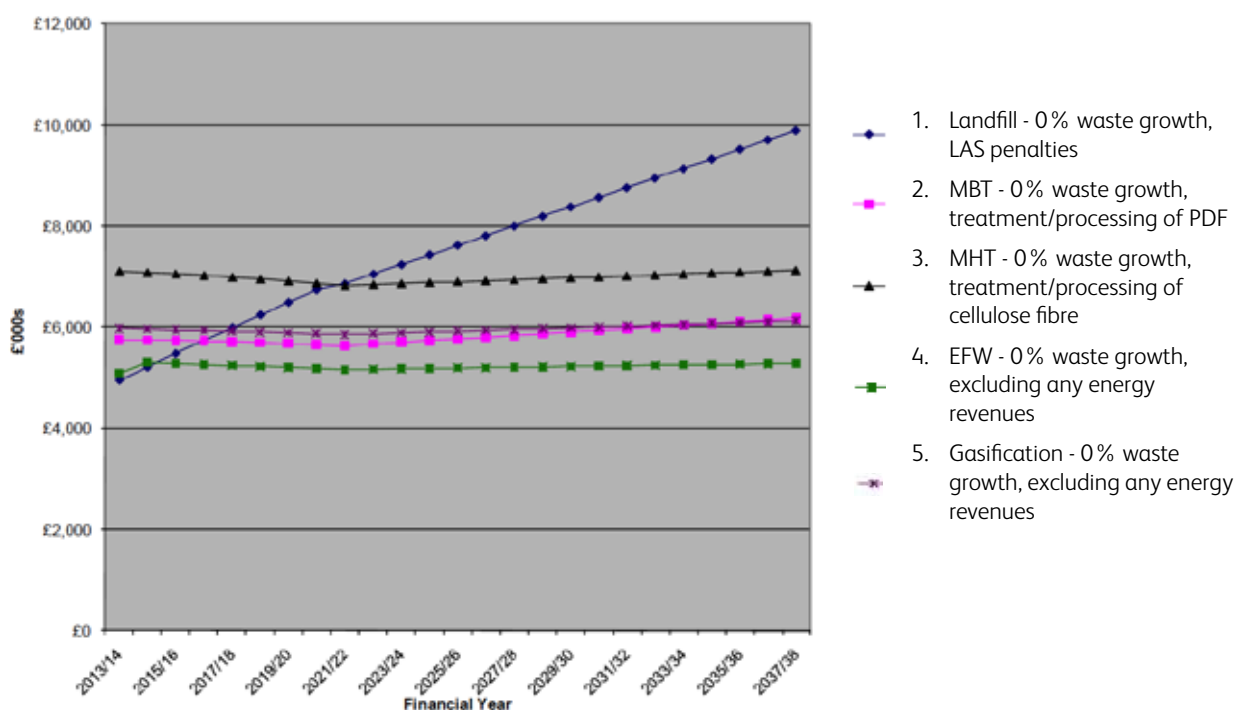
- Mechanical Biological Treatment (MBT)
- Mechanical Heat Treatment (MHT)
- Energy from Waste (EfW)
- Gasification/Pyrolysis

The cost analysis considered the following scenarios:

- 1 The 'Do Nothing' option. Continue with the current roll out programme and projected tonnage estimates, with residual waste continuing to be sent to landfill (no residual waste treatment).
- 2 Continue with the current roll out programme, but utilise the following technologies to meet landfill allowance scheme targets only: MBT, MHT, EfW and Gasification or Pyrolysis: with all residues sent to landfill (single stage residual waste treatment).
- 3 Continue with the current roll out programme, utilising the following treatment technology packages to meet landfill allowance scheme targets and the Scottish Government Zero Waste targets: MBT + EfW or gasification, and MHT + EfW or gasification (two stage residual waste treatment).

Figure I provides a summary of the comparative costs to the Council for the treatment options analysed. This is based on 0% waste growth (from 2009/10 levels) with diversion rates based on projected recycling/composting rates.

Figure I: Comparative Costs of Alternative Residual MSW Treatment Options for Perth & Kinross Council Over a 25-year Period



For each option, the cost model calculated the likely gate fee for the treatment process, plus the cost of treating and disposing of process outputs, including the cost of landfilling residues.

It is important to recognise that the study was based on several key assumptions specific to Perth and Kinross. For example:

- *it was assumed that each option would be procured by Perth & Kinross Council, acting on its own behalf, with a contract for 25 years;*
- *all prices were in 2009/10 constant terms, ie no adjustment was made for inflation. The only price that changes is the landfill tax rate, which was assumed to escalate by £4 pa in real terms after 2013/14;*
- *a contract length of 25 years was assumed for the purposes of the appraisal, commencing in 2013/14;*
- *for the landfill option, the analysis undertaken incorporated potential landfill allowance scheme (LAS) penalties at £150 per tonne for every tonne in excess of the BMW landfill limit.*

In summary, the Consultant's report concluded:

- *in the short-to-medium term (up to 2015/16), landfill could be cheaper than alternative sources of treatment - subject to the continuation of the rate of landfill tax escalation as assumed in the study. However, as landfill taxes increase year on year, alternative treatments are less expensive;*
- *there is a great deal of innovation currently occurring in waste treatment technologies and it would be worthwhile for the Council to visit treatment plants utilising a range of different technologies;*
- *there are also a number of interesting new merchant proposals at planning application stage in central Scotland;*
- *a number of Councils near to Perth and Kinross are currently initiating PPP procurements for the treatment of residual MSW.*

On balance the report recommended the Council to:

- *conduct a fact-finding exercise looking at recently constructed operational treatment plants based on a range of technologies;*
- *conduct a "soft market testing" process with potential contractors;*
- *open negotiations with nearby local authorities to assess the potential for collaborating in a possible joint procurement, and the timescale and resource requirements for such joint working.*

The Report also recommended that these activities could be carried out during the 2010/11 fiscal year, enabling Perth & Kinross Council to avoid potentially costly long-term commitments while watching market developments in the short term. On the basis of the results of these activities, the Council would then assess which option might offer the most competitive residual waste treatment solution - in terms of:

- *the potential treatment technology;*
- *the procurement structure - eg whether jointly with another Council, or alone;*
- *related to this, the scale of the treatment plant*
- *the procurement method - Restricted Procedure or the Competitive Dialogue process.*

Summary of Local Waste Awareness Campaigns and Initiatives

National Campaigns

Below is a summary of national campaigns currently being run locally in Perth and Kinross by Zero Waste Scotland:

- **Love Food Hate Waste (LFHW)**

Campaign first launched November 2007, which aims to educate householders on ways in which they can reduce the amount of food they waste each year (estimated over a third of the food we buy in Scotland is thrown in the bin). The LFHW website is the main resource for the campaign (www.wasteawarelovefood.org.uk).

- **Positive Package**

Campaign aims to provide advice on how to reduce, reuse and recycle packaging, as well as provide information on what is being done by retailers and government at a national level to reduce the amount of packaging that is produced (www.positivepackage.org.uk).

- **Unwanted Mail**

Campaign encourages members of the public to take action to reduce the amount of unwanted mail that they receive. It raises the awareness of the rights that householders have regarding the mail that they receive and provides information on what actions can be taken to reduce unwanted mail. This aims to reduce the amount of unwanted mail delivered to Scottish households by 10 per cent by 2010. The unwanted mail website is the main resource for the campaign and all campaign materials (www.wasteawareunwantedmail.org.uk).

- **Home Composting**

Campaign promoting the sale of subsidised compost bins and provides support through waste reduction advisors. Since its launch in April 2004, the campaign has achieved sales throughout Scotland in excess of 200,000 compost bins, with over 20,000 of these being sold in the Perth and Kinross area.

- **Sort-It Website**

Provides information on reduce, reuse and recycle activities for consumers in their local areas (www.sort-it.org.uk).

Local Campaigns

Below is a summary of local campaigns currently being run by Perth & Kinross Council:

- **'Reduce, Reuse, Recycle' A-Z Guide**

The guide contains useful hints, tips and contact information on the facilities and organisations operating in the local area to help householders and businesses to reduce, reuse and recycle more waste and more often. The guide was updated and re-launched in March 2009. The guide is intended to complement the improvements to local recycling services and facilities. The guide will continue to be regularly updated as facilities change and improve over time.

- **Schools Campaign**

The ongoing campaign aims to back up waste related teaching within schools and nurseries. Council Officers visit schools and nurseries to talk to young people about waste. The Officers are able to provide a range of talks/activities/events to suit different age groups.

Emphasis is now being placed on linking waste education with the Curriculum for Excellence and the Eco-Schools programme. This is being implemented through the development of a Waste Awareness Resource Pack for schools. The pack provides background understanding for teachers, discussion points to be developed and ideas for activities, in a colourful user-friendly format. The pack was officially launched in the Autumn 2009 term.

Opportunities for joint eco initiatives between different Council departments promoting environmental initiatives are also to be investigated.

- **Waste Education Boardwalk (WEBWalk)**

The WEBWalk (opened in 2007) is a unique facility that provides visitors of all ages and abilities with an insight into the issue of waste, the problems we face, and the possible solutions. These issues are explored through interpretation panels, and interactive activities and games. As the facility is based within a busy Recycling Centre, visitors are also able to experience what happens there from a safe vantage point. Guided tours by Council Officers are available to school and community groups, and individuals on request.

- **Recycling Incentive**

This campaign aims to encourage householders to make use of recycling facilities at Recycling Centres. Householders using recycling facilities at Recycling Centres have the opportunity to enter into a monthly draw to win prizes.

- **Waste Aware Business Packs**

The pack provides information on how businesses can reduce, reuse and recycle their waste, making use of local charities, community groups and also the Council's services for recycling paper, cardboard, polythene wrap, glass and green waste. The pack reminds businesses that in addition to environmental benefits, there are often financial benefits to changing the way they manage their waste. The pack was updated and re-launched in July 2009 and is available as a hard copy or to view online.

- **'Use Me Again' Campaign**

The Use Me Again campaign was originally launched in 2007, with the aim of persuading householders to refuse plastic bags in shops and carry cotton reusable bags instead. Cotton shopping bags with a 'Use Me Again' logo were given out at events and residents were encouraged to use them when they went shopping. In 2009 reusable plastic bottles with the same 'Use Me Again' logo were given out at local events. The 'Use Me Again' logo is now well established and may be used in future campaigns to promote waste prevention.

- **Perth & Kinross Council Website**

The Perth & Kinross Council website provides a source of information on all the Council's waste services, campaigns and initiatives. The website www.pkc.gov.uk/recycle is included on all promotional materials. The website is regularly updated to ensure all the information shown is up-to-date and accurate.

- **Refuse Collection Vehicle Side Advertising**

A number of Perth & Kinross Council refuse collection vehicles have been fitted with frame systems that allow billboards to be introduced to the side of the vehicle. Vehicle side advertising is now being used to promote waste awareness messages. These can be changed on a regular basis to allow promotion of ongoing campaigns. By 2011 all refuse collection vehicles will have frame systems installed for vehicle side advertising.

- **Community Information Boards at Recycling Points**

Community Information Boards are installed at Recycling Points throughout Perth and Kinross. The information boards display general information and waste awareness posters. The Community Information Boards are updated every three months to reflect ongoing campaigns.