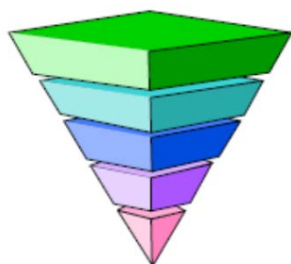




Comhairle nan Eilean Siar



Waste Strategy for the Western Isles 2012



Index

	Page
1 Introduction	3
1.1 Legislative Background	3
1.2 Waste Management and Recycling in the Western Isles	6
2 Drivers for Change	7
2.1 Financial and Legislative Pressures	7
2.2 Leadership and Community Responsibility	8
2.3 Landfill Tax and Capital Costs	8
2.4 Zero Waste Legislation	10
2.5 Summary of New Targets	11
3 Meeting the Targets	12
3.1 Baseline Data	12
3.2 Application of Waste Hierarchy	13
3.3 Other Recycling Opportunities	17
3.4 Options for Non-Recyclable Waste	18
3.5 Local Energy from Waste	20
4 Summary of Actions - Waste Strategy for the Western Isles	21



1 Introduction

In May 2012, the Scottish Government introduced The Waste (Scotland) Regulations 2012. These Regulations have clarified the responsibilities for Local Authorities and businesses with regards waste recycling and treatment. In the light of these new regulations, Local Authority waste strategies will need to be reviewed and amended throughout Scotland to ensure that Councils meets their legal obligations.

The Comhairle's Technical Services Department is has assessed the requirements and implications of developing an updated waste strategy to address the Scottish Government's Zero Waste Plan and the Waste (Scotland) Regulations 2012.

The objectives are to:

- Identify if, and how, targets identified by Scottish Government may be achieved by the Comhairle;
- Identify and appraise potential waste treatment options to allow the Comhairle to make a decision on the way forward on the basis of what is affordable in what is an increasingly challenging financial climate;
- Investigate any possible Energy from Waste (EfW) options provided by the development of any future mainland EfW facilities and investigate the viability of a smaller EfW facility located in the Western Isles should new, affordable and scalable technology become available
- Identify a realistic future solution for waste management for the Comhairle; and
- Produce a Waste Strategy for the Western Isles which addresses The Waste (Scotland) 2012 Regulations.

1.1 Legislative Background

Since 1999, the drive to increase recycling and diversion from landfill has been in response to the EU Landfill Directive. All UK and Scottish Government waste Policy and Legislation since 1999 has taken account of the targets set by this EU Directive.

The EU Landfill Directive, more formally Council Directive 1999/31/EC of 26 April 1999 on the landfill of waste, is a European Union directive issued by the European Union to be implemented by its member states.

The overall objective of this Directive is, "*to prevent or reduce as far as possible negative effects on the environment, in particular the pollution of surface water, groundwater, soil and air, and on the global environment, including the greenhouse effect, as well as any resulting risk to human health, from the landfilling of waste, during the whole life-cycle of the landfill*". This legislation also has important implications for waste handling and waste disposal.



This Directive also establishes national targets and timescales for the diversion of Biodegradable Municipal Waste (BMW) from landfill and imposes environmental and engineering standards for landfills across Europe.

Under the EU Landfill Directive, the United Kingdom is obligated to reduce the amount of BMW sent to landfill based on the amount of this material landfilled in 1995 to 75% by 2010, to 50% by 2013 and to 35% by 2020. The targets for the UK and Scotland, expressed in tonnes, are shown in Table 1 below:

EU Biodegradable Municipal Waste (BMW) limits ('000 tonnes)

	2010	2013	2020
UK	26,766	17,844	12,491
Scotland	2,697	1,798	1,258

Table 1: EU Maximum BMW to Landfill (tonnes)

The Scottish Executive's National Waste Strategy: Scotland (1999) confirmed Government policy to move towards more sustainable waste management systems with increased recycling and composting and less reliance on landfill disposal and established the key principles which needed to be taken into account when establishing a sustainable future for waste management.

In 2003, the National Waste Plan introduced both long and short term targets for Local Authorities.

The short-term targets for waste collected by Local Authorities were:

- to increase recycling and composting to 25% by 2006;
- to reduce the amount of biodegradable waste sent to landfill to 1.5 million tonnes by 2006.

The longer-term targets were:

- to increase recycling and composting to 30% by 2008
- stop the growth in municipal waste by 2010;
- achieve 35% recycling and 20% composting of municipal waste by 2020;
- provide 90% of households with kerbside recycling facilities by 2020;
- recover energy from 14% of municipal waste;
- reduce landfilling to 30%.

The Western Isles Area Waste Plan and subsequent Implementation Plan were developed in 2003 to establish a framework for improved waste management



practices throughout the Western Isles and a successful bid was made to the Scottish Executive's Strategic Waste Fund (SWF).

The Strategic Waste Fund was established to assist local authorities with the additional costs of implementing the National Waste Plan. A number of these influenced the development of the Western Isles Area Waste Plan in 2003.

In particular:

- The Waste Hierarchy
- The proximity principle and self sufficiency
- Best Practicable Environmental Option

This grant from SWF provided funding for the construction of a new Waste Management Facility at Creed Business Park to process household waste. This new facility had the necessary plant and equipment to process Biodegradable Municipal Waste using Anaerobic Digestion, process recycled glass into aggregate and bale plastics and store paper before these materials can be sent to mainland processors.

The SWF Grant also funded the construction of a Waste Transfer Station at Market Stance with small scale processing capacity for dry recyclates arising from Uist and Barra, Bring Sites and local paper collections. The construction of this Waste Transfer Station was essential due to the programmed closure of the Rueval Landfill Site in 2007. The Rueval Landfill Site would not meet the new Pollution Prevention and Control (PPC) Regulations, requiring all Non-Hazardous Landfill Sites to be have a fully engineered, lined cell with leachate treatment and gas collection.

The SWF Grant also provided for a source segregated kerbside collection service for glass, paper, cans and plastics in Stornoway and surrounding areas (this service could only be justified in areas of reasonable population density, within reasonable distance to the processing facility at Creed Park) and the extension of the Bring Site network for plastics, glass and cans in all other areas of the Western Isles.



Figure 1 Rural Recycling Bring Site

1.2 Waste Management and Recycling in the Western Isles

In common with the rest of Scotland, the Western Isles has traditionally relied on landfill as the primary method of waste disposal.



Figure 2 New Landfill Extension at Bennadrove - June 2012

Due to the difficulties and cost of recycling in a sparsely populated island community, recycling rates in the Western Isles have not increased as quickly as in some areas of mainland Scotland. However, a clear indication of the improvements in the recycling of Municipal Waste in the Western Isles is to compare the 59 tonnes of municipal waste recycled in 2001/02 (tonnes) with the total of 4,373 tonnes for 2010/11 (2,123 tonnes reused or recycled plus 2,250 tonnes composted) [Waste Data Digest 12: SEPA].

In addition, a substantial amount of recyclable metals are extracted from the Community Skip sorting area on the Landfill, which is crushed and consigned to mainland processors. Similar sorting and recovery operations take place at the Comhairle's Recycling Centre at Rueval in Benbecula.



Figure 3 Metals Recycling Area, Bennadrove Landfill

Tyres less than 1.5 m diameter have been banned from landfill disposal since 2003, at both Bennadrove Landfill and Rueval Recycling Centre, tyres are separated for baling. These bales are subsequently recycled for use in engineering bund walls and have been used for road foundation structure.



Figure 4 Baled tyres ready for engineering work

Following the closure of Rueval Landfill Site in Benbecula in 2007, the only remaining operational landfill site for Non-hazardous Waste in the Western Isles is Bennadrove Landfill in Marybank. This site is currently being extended by the construction of a new, fully lined landfill cell in compliance with the Pollution Prevention and Control (Scotland) Regulations 2000.

2 Drivers for Change

2.1 Financial and Legislative Pressures

The Comhairle, in common with most local authorities, is facing unprecedented financial pressures as a consequence of reduced revenue support settlement from Scottish Government. At the same time there are increasing legal responsibilities and restrictions being placed on councils in regard to waste management options. There is therefore an inevitable conflict between compliance and affordability which can limit or drive the Comhairle's Waste Strategy.

Given the substantial financial investment which is required to support the Comhairle waste management services and to allow the Comhairle to meet Scottish Government targets, it is imperative that the Comhairle carries out an appraisal of all available options prior to determining its long term strategy, particularly for the treatment of non-recyclable waste.

2.2 Leadership and Community Responsibility

The Comhairle has a successful track record of working in partnership with the community to find solutions to local waste management challenges. For example, the Community Recycling Initiative was set up in 2002 to allow communities to manage their own local recycling banks and provide direct local input to the promotion of recycling from within each community.

To achieve the necessary diversion of waste from landfill, communication and engagement with the community will be vital to the successful implementation of new proposals. The Comhairle will rely on partnerships with both householders and local businesses in order to meet obligations placed on the whole community by the new Waste Regulations.

As part of the Comhairle's response to the Scottish Government's Zero Waste Plan, the focus of recycling campaigns was changed from raising awareness to a more direct approach. The Comhairle's Zero Waste Team have increased the direct engagement with householders and businesses as part of the roll out of new services and renewal of Commercial Bin Contracts and this interaction has had a positive impact on participation rates and reduced contamination levels.

A bin tagging system to give direct feedback has recently been introduced. This practice has been well received by the community as most householders are supportive of the need to recycle. Follow up visits have indicated that householders welcome the advice provided by the Comhairle's Zero Waste Team. This approach has further reduced contamination levels.

Active leadership from the Comhairle in demonstrating commitment to its Waste Strategy will also be a key factor in successful implementation of the changes necessary to Reduce waste production, Reuse more often, Recycle more waste and stop materials becoming non-recyclable waste which can only be sent for Recovery or Disposal.

2.3 Landfill Tax and Capital Costs

Landfill tax was introduced in the UK in 1996 to encourage efforts to minimise the amount of waste generated and to develop more sustainable waste management techniques by making landfill a less economically attractive option. The rate for active waste was set at £7 per tonne.



In 1999 the rate for active waste was raised to £10 per tonne and a landfill tax escalator was introduced, and committed the government to raise the standard rate of tax for active waste by £1 per tonne each year until 2004/5, by which time it would have reached a rate of £15 per tonne. This escalator was increased, initially to plus £3 per year in 2005 and then to plus £8 per year in 2008. As a consequence, landfill tax for active waste has increased from £7 per tonne in 1996 to £64 per tonne in 2012. The Government has indicated that this rate of change will continue until 2014, when landfill tax will reach £80 per tonne for active waste. It has not been confirmed if the escalator will stop when the rate of tax reaches £80 per tonne but the Government has confirmed that there will be a floor under the standard rate, so that this rate will not fall below £80 per tonne.

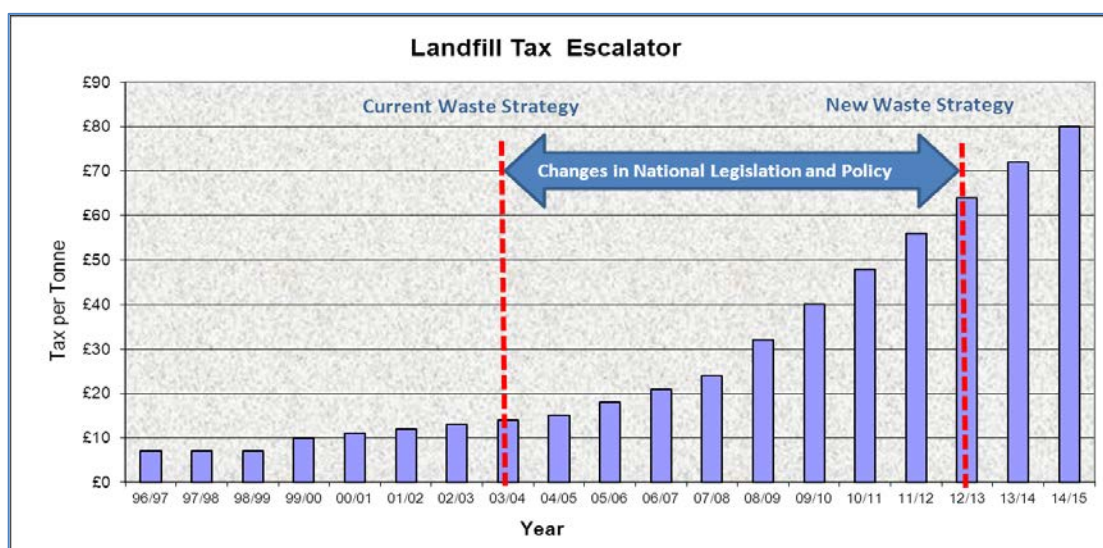


Figure 5 Landfill Tax Escalator

The construction costs for a compliant landfill cell in the Western Isles increased significantly following the introduction of The Pollution Prevention and Control (Scotland) Regulations 2000 which required all landfill cells to be fully lined, with leachate treatment and landfill gas management. The latest extension to Bennadrove Landfill will provide additional capacity of approximately 225,000 tonnes at a construction cost of approximately £2.5M. At current rate of disposal, it is anticipated that this cell will only last until 2019. [Calculation of landfill life for non-hazardous wastes: Environment Agency 2010]

Reducing landfill disposal rates would extend the life of this new cell significantly. A reduction of waste to landfill by only 5% each year as of 2013 would extend the life of this cell by an additional 2 years which will extend the asset life by 26%.



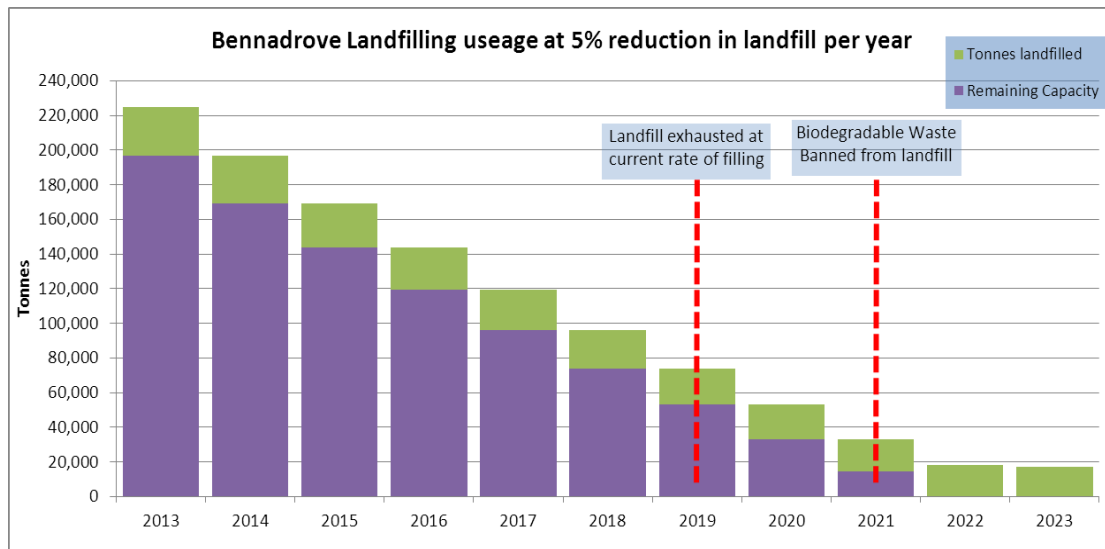


Figure 6 Landfill Capacity

2.4 Zero Waste Legislation

The Scottish Government's Zero Waste Plan, launched in June 2010, provided details of proposed actions to change the way that Scotland treats and manages waste. This Plan was supplemented by the publication of the Zero Waste Policy Statement and Draft Business and Regulatory Impact Assessment in October 2011.

Scottish Government policy recognises that the Waste Hierarchy is a key concept in waste management and driving waste management up the waste hierarchy is central to the development of sustainable waste management in Scotland.

The main Statutory Instrument, The Waste (Scotland) Regulations 2012 which were passed by the Scottish Parliament on 9 May 2012.

These new Regulations are designed to make the most of the fact that, regardless of source, waste is a valuable resource which, when treated appropriately, holds the potential to significantly boost Scotland's economy and create green jobs.

The key points outlined in the new Waste (Scotland) Regulations 2012 are:

- A ban on Biodegradable Municipal Waste (BMW) going to landfill from 2021; the first of its kind in the UK and exceeds the EU requirements
- A ban on material collected for recycling going to landfill or incineration.
- A new requirement to remove key recyclables from residual waste prior to incineration, where practicable
- A requirement for local authorities and businesses to keep dry recyclable waste materials separate from other wastes and present it for collection.
- A requirement for local authorities to provide collection of commercial dry recyclable wastes if requested.

The Waste (Scotland) Regulations 2012 confirm that the obligation to provide households with kerbside collection services for dry recyclable waste and food waste would not apply in the parts of Scotland identified as, "Rural Areas" as identified in

the Scottish Government publication, *“Defining Rural Areas and Non-Rural Areas to support Zero Waste Policies”*. All of the Western Isles will be regarded as being a Remote Rural Area as it meets the following criteria: *“Areas with a population of less than 3,000 people and with a drive time of over 30 minutes to a Settlement of 10,000 or more”*.

As a *“Rural Area”*, there will be no requirement to provide kerbside food waste collections to households and businesses in the Western Isles. However, the landfill ban applied to Biodegradable Municipal Waste will still apply from January 2021.

The introduction of The Waste (Scotland) Regulations 2012 and Scotland's Zero Waste Plan will require all Scottish Local Authorities to review their current waste strategies.

2.5 Summary of New Targets

- From 2012, where practicable, it will not be permitted to send waste materials to EfW as feedstock if non-ferrous metals and hard plastics are present.
- From 2014, no separated materials collected for recycling can be landfilled or recovered using EfW. This will have very little impact on the proposed recycling collection services for the Western Isles as all materials collected are processed locally or sent to the mainland for recycling.
- From 2014, commercial waste producers will have a duty to keep dry recyclates (paper, plastics, glass and cans) separate from other wastes and these waste producers can request that separated dry recyclates are uplifted as part of a kerbside collection. It is anticipated that this requirement can be met by the roll out of the Blue Bin kerbside recycling collection service.
- From 2021, The Waste (Scotland) Regulations 2012 introduce a ban on the disposal of Biodegradable Municipal Waste (BMW) to Landfill. There will no requirement to collect food waste in a Rural Areas, such as the Western Isles. Nevertheless, Municipal Waste materials containing biodegradable wastes will not be permitted for landfill disposal at Bennadrove Landfill from this date.

Zero Waste Scotland have indicated that percentage based recycling targets will become mandatory but are as yet unable to provide clear guidance on any penalties for failure to achieve targets. EU Recycling Targets are applied at a National level, it is not yet clear if all areas of Scotland will be required to meet the same rates.

Guidance on the application of The Waste (Scotland) Regulations 2012 will be provided by Zero Waste Scotland and this will be used to determine if any additional waste processing will be required in the Western Isles.



3 Meeting the Targets

3.1 Baseline Data

The chart below shows only Municipal Waste arisings. The annual landfill requirement, including industrial waste, amounts to approximately 30,000 tonnes.

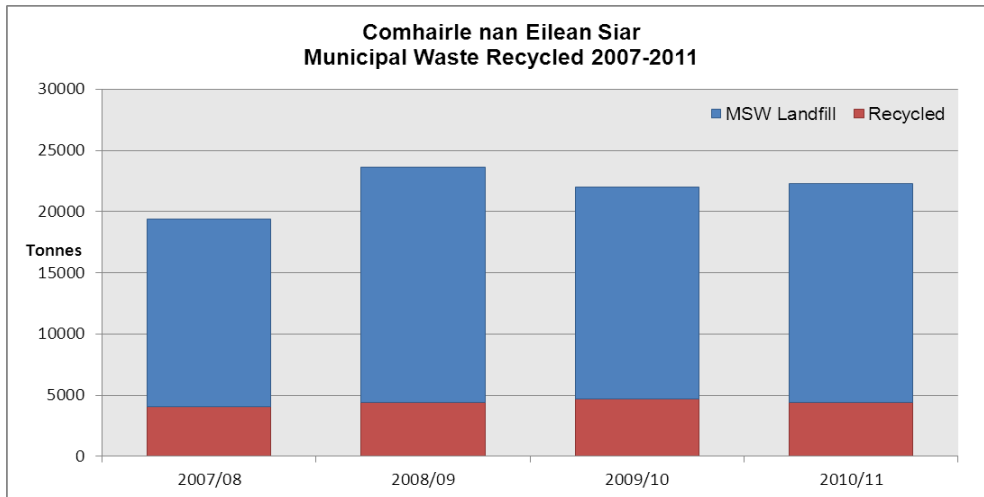


Figure 7 Municipal Waste to Landfill 2007-2011

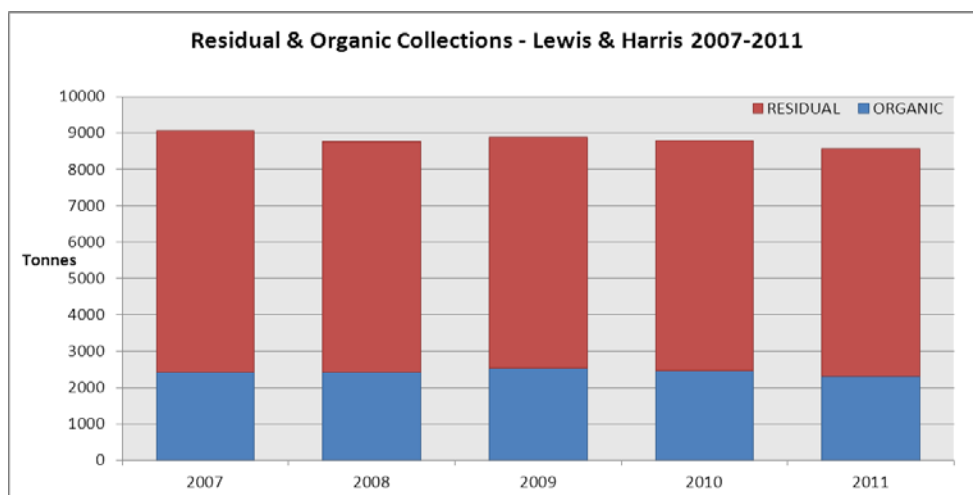


Figure 8 Residual and Organic Waste Collection - Lewis & Harris

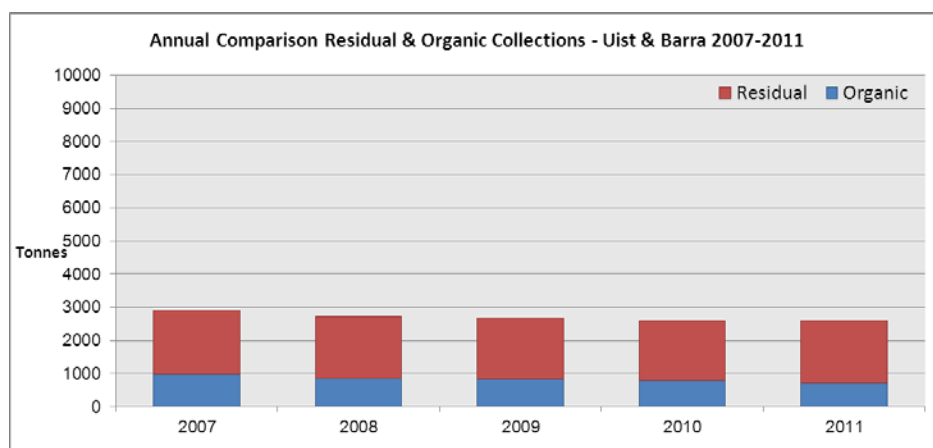


Figure 9 Residual and Organic Collection - Uist & Barra



3.2 Application of Waste Hierarchy

The Waste (Scotland) Regulations 2011 make it the duty of any person who produces, keeps or manages waste, “to take all such measures as reasonable in the circumstances to apply the waste hierarchy”.



Figure10 The Waste Management Hierarchy

The Comhairle's Waste Strategy will need to consider what can be done to further drive waste up the Waste Management Hierarchy. Existing strategies have focused on Recycling and Disposal (increasing diversion from landfill) and current waste management practices have focused on service improvement and efficiencies in these areas.



Prevention: In common with most Local Authorities, the Comhairle has very limited influence on Waste Prevention and Waste Minimisation. Retail marketing strategies such as “Buy One Get One Free” (*BOGOF*) and “3 for 2” promotions together with excessive use of packaging materials, arguably encourage wastefulness. **It is proposed that the Comhairle continues to support lobbying for greater producer responsibility in terms of packaging minimisation and the curbing of retail marketing strategies which encourage over-buying. (e.g. sell at half price, rather than “BOGOF” or “3 for 2”)**

As a purchaser of goods, services, and works (and a generator of considerable amount of printed material); the Comhairle has the opportunity to consider selective Procurement which has a greater emphasis on Waste Prevention and Minimisation. **It is proposed that the Comhairle take account of the need for waste prevention in the development of its own Procurement and IT Policies.**



Prepare for Reuse: Traditional Social Enterprise re-use projects have relied on the ability to recover value from the goods and materials recovered for re-use. There is limited and unrecorded re-use within the community, particularly of children's clothes and toys. There is also a good network of local charity shops and more recently the Comhairle has been working in partnership with local Social Enterprise Companies such as Hebrides Alpha, Cothrom and Bethesda, who collect textiles for recycling. The opportunity to set aside more goods and materials at managed household waste recycling centres is currently being investigated but its effectiveness is limited by local demand and costs of delivery to mainland outlets.

It is proposed that the Comhairle work in partnership with local Social Enterprise Companies and registered charities, where practicable, to develop re-use capacity at managed Household Waste Recycling Centres.



Recycle: The Comhairle's greatest emphasises to date has been on recycling. Every household in the Western Isles was provided with an organic waste bin in 2006 to allow all householders to divert all of the organic waste produced by their household. Also in 2006 a kerbside collection service for paper cans, plastics and glass was set up in and around Stornoway covering an area containing 4200 households on an opt-in basis (with an uptake of approximately 70%). In addition, the network of recycling banks was extended to 54 locations throughout the Western Isles. Although the good level of initial recycling has generally been maintained, it has been disappointing that there has not been a demonstrable improvement since 2009. This is despite regular awareness campaigns and publicity.

As part of the review of the kerbside recycling collection service and in response to perceived participation barriers, the Comhairle agreed to trial the collection of mixed dry recyclates (paper cans and plastics) in a single bin along with a separate bin for glass. The result of two rural pilots was evaluated and reported to the Comhairle in 2010. In response to the success of the pilots, insofar as the amount of dry recyclates collected increased substantially (up to a 500% increase in comparison to recycling banks within the same area), the Comhairle agreed to the roll out of the mixed dry recyclate collections (Co-mingled Blue bin Recycling). The transition to Co-mingled Blue Bin Collections, in former kerbside areas in and around Stornoway, was completed in December 2011.



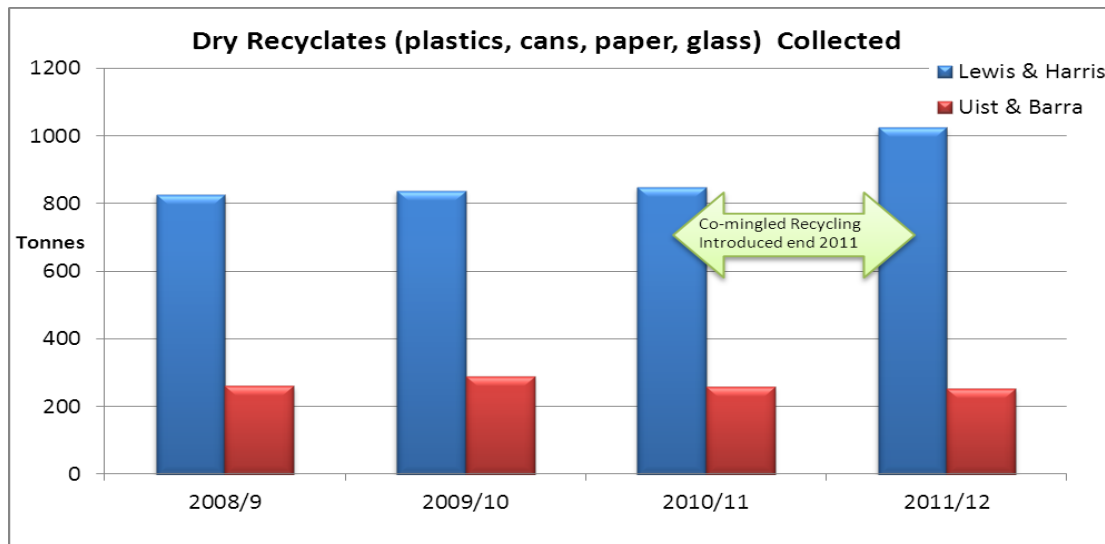


Figure 11 Western Isles Dry Recyclate Collection Performance

Although the Comhairle’s current Waste Strategy is based on the 2003 Western Isles Area Waste Plan, a number of improvements to the recyclate collection systems have been trialled and are currently in the process of being rolled out in the Western Isles. These improvements remain consistent with the Government’s Zero Waste Policy and include the proposed roll out of the blue (co-mingled) and green (glass) recycling bins to many areas of Lewis and Harris and the change from Organic Collections to Dry Recyclate collections in Uist and Barra.

The proposed extension of the Lewis and Harris rural kerbside recycling collections is possible within current Budgetary resources by utilising the capacity generated by the conversion of the previous fortnightly (source segregated) kerbside collection service to the four weekly collection service for co-mingled paper, cans and plastics and glass. The glass is kept separate to allow local processing to SiarGlass aggregate substitute.

It is proposed that the blue bin co-mingled collection service be extended as a means of promoting increased diversion from landfill.

The proposed Uist and Barra dry recyclate kerbside collection service would be a replacement for the current fortnightly Organic Waste collection service. Due to the high percentage of paper in the Organic Collections in Uist and Barra, some of the available food waste is absorbed by the higher volume of paper and as a result it is often rejected as part of the pre-treatment process.

Therefore, as a consequence of the comparatively low food waste ratio in the in Uist and Barra Organic collections and in view of the Government confirming that separate food waste collections will not now be mandatory in rural areas, a more cost effective option for Uist and Barra is possible.

A change to the collection of Paper and Cardboard, and Plastic Bottles and Cans, would result in a collection service where all of the materials collected can be baled at the Market Stance Waste Transfer Station for direct consignment to mainland processors for recycling.

It is therefore proposed that the waste collection service in Uist and Barra cease to collect organic waste and the service be reconfigured to provide a dry recyclate collection service to all households and businesses in this area.

It is further proposed that the feasibility of developing small scale community composting facilities be explored in Uist and Barra, where there support for a community composting scheme to be set up by a local voluntary group.

For areas of Lewis and Harris, where a kerbside collection service may not be affordable and sustainable, a more saturated deployment of local Recycling Banks for paper, plastics, cans and glass could be considered so that access to a local Recycling Point for all dry recyclates is made as easy and as accessible as possible.

It is proposed that recycling banks for dry recyclates be relocated to areas that are not included in the kerbside Blue Bin recycling collection service.



Recover: Recovery normally involves some form of thermal treatment or Energy from Waste. The Anaerobic Digester at Creed Park Waste Management facility is currently used to process source-separated, municipal organic waste from households and catering businesses. Although this process generates electricity and recovered heat, it is considered to be Recycling rather than Recovery and is therefore further up the Waste Hierarchy. Recent analysis carried out by Scottish Futures Trust (SFT), has confirmed that there is currently a significant capacity shortfall through Scotland to meet the expect demand for Residual Waste treatment if the diversion from landfill objective is to be achieved. At present there are only three sites in Scotland that accept Municipal Waste and these are located in Dundee, Shetland and Dumfries.

If the Comhairle is to achieve the diversion from landfill target set out in Scottish Government Waste Targets, it will require the development of a sustainable route to divert non-recyclable waste to an appropriate form of Recovery either at a local or mainland facility. As a consequence of the tonnages of waste falling into this category (Residual/ non-recyclable waste), the Comhairle will require to undertake a detailed option appraisal to determine the most appropriate route. This will be

impacted upon by the rate at which mainland EfW capacity is developed and becomes available. Further options for Recovery are discussed in Section 3.4.



Disposal: Landfill disposal at Bennadrove Landfill remains the final disposal option for non-hazardous waste where no alternatives are available. The Comhairle has a duty to collect and dispose of Household and Commercial waste. The Comhairle does not have a duty to collect or dispose of Industrial Waste, including wastes arising from Construction and Demolition.

As a means of encouraging greater separation of potential recyclable materials at source and to maximise the asset life of costly landfill cells:

It is proposed that the Comhairle reviews the unrestricted access to landfill disposal for mixed loads of Industrial or Construction Waste.

Following an audit by the Health and Safety Executive, the Community Skip service based on open skips has been withdrawn. Options to provide a replacement for this service are being trialled and it is likely that the proposal to replace open skips with lockable, closed skips with managed access will prove to be the most sustainable solution.

Although the Community Skip service was an efficient way of collecting bulky waste materials it was extremely difficult to extract valuable materials for recycling from the mix of waste collected. There were also issues with Community Skips being used to deposit non-household waste. Such concerns were highlighted in a number of the comments received under the Waste Strategy consultation process.

In addition to addressing the Health and Safety issues posed by the use of unmanned open skips, the move to the use of properly managed lockable skips will provide an opportunity to target specific material types for recycling. This should also promote an increase in the diversion of waste from landfill.

It is proposed that the development of a redesigned Community Skip service will operate in a more regulated manner, to minimise risk to health and safety, prevent the service from being used for non-household waste and increase the potential for greater diversion from landfill.

3.3 Other Recycling Opportunities

The Comhairle has set up a number of Household Waste Recycling Centres to try to increase the recycling of bulky household wastes. It was originally intended to roll out a network of Household Waste Recycling Centres to replace the Community Skip



Service, but the costs of manning a large number of Licensed Sites has proved prohibitive and the revenue stream from the sale of recycled materials has been limited due to the lack of local markets.

It is therefore unlikely that the current network of Household Waste Recycling Centres will be extended in the prevailing financial climate.

A recent scheme to provide a skip for fence wire, only where the posts have been removed, has proved successful as the separated wire can be easily recycled. It is also intended to target other materials which can be segregated at source which allows a sustainable and affordable recycling route such as metals and waste electrical equipment (WEEE).

It is proposed that the Comhairle develops capacity to collect segregated materials for recycling where a sustainable and affordable recycling route can be identified.

The Comhairle has less opportunity to share resources and to work in close collaboration with other local authorities due to the disadvantages of geographic isolation. However, as the costs of landfill disposal increase and mandatory recycling targets and landfill bans are implemented, there may be necessity to consider such options should they become available.

It is proposed that the Comhairle continue to explore collaborative opportunities with other local authorities in order to develop sustainable and affordable recycling, recovery and disposal options. This should include any opportunities to collaborate on the transport and processing of recyclable and non-recyclable waste.

3.4 Options for Non-Recyclable Waste

The only current option for non-recyclable waste arisings in the Western Isles is landfill disposal at Bennadrove Landfill. Increasing Landfill Tax charges, high Capital development costs for Landfill Cell construction, Government Legislation and the threat of mandatory target, mean that the current rate of waste disposal to landfill is unsustainable and will not be an option in the future.

Scottish Future Trust recently reviewed the residual waste treatment infrastructure in Scotland. This included Anaerobic Digestion (AD), Mechanical Biological Treatment (MBT) and Energy from Waste (EfW). The review compared operational facilities, facilities under construction, facilities in the Planning process and facilities in development with the estimated waste treatment requirements for Scotland's waste



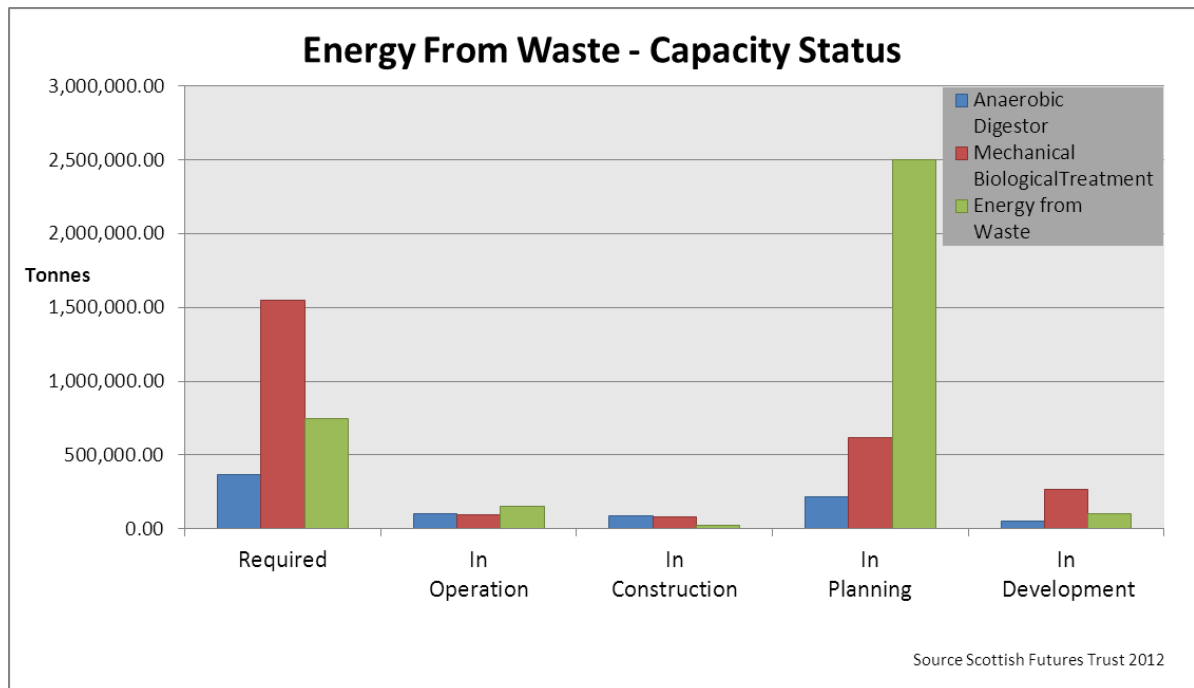


Figure 12 Residual Waste Treatment Capacity in Scotland

It is clear that there is a considerable gap between the capacity required and the facilities either in construction or under development.

For example, if it proved practicable, and financially viable, to ship residual waste from the Western Isles to the mainland for treatment, there is no facility available with current capacity for EfW or MBT treatment.

The Waste (Scotland) Regulations 2012 have indicated that EfW facilities which obtained a Permit before December 2004, such as the Shetland EfW plant, will continue to be permitted to accept waste containing potentially recyclable materials. There could be an opportunity for Shetland to increase their EfW capacity if they, and Orkney, were to increase their waste diversion to recycling. However, this capacity would likely be taken up by Highland Council; increasing the amount of waste currently sent to Shetland from Caithness and Sutherland waste arisings.

For any new EfW facility, the removal of non-ferrous metals and hard plastics prior to Recovery will be mandatory.

In order to fully explore and evaluate any opportunities to send non-recyclable waste from the Western Isles to a mainland EfW facility it will be essential to seek expert professional advice to undertake a feasibility study and option appraisal.

It is proposed that the Comhairle continue to monitor the national capacity for EfW and procure expert Consultancy advice to carry out an options appraisal on the use of EfW as a means of increasing diversion of non-recyclable waste from landfill, should EfW capacity become accessible and affordable.

3.5 Local Energy from Waste

With Energy from Waste capacity currently limited across Scotland, a local Energy from Waste facility should be considered. However, the quantities of suitable waste generated in the Western Isles would be limited to only 12,000 to 15,000 tonnes per annum and the experience of operating at this scale of Energy from Waste facility is limited UK. Additionally, in order to obtain approval under the Pollution Prevention and Control (Scotland) Regulations 2000, any EfW plant would have to demonstrate a high level of environmental control on any emissions and a high level of energy recovery and use. There may also be significant Planning issues to overcome.

A typical UK Energy from Waste facility for Municipal Waste will be designed to process between 100,000-250,000 tonnes of waste per annum. EfW capacities are normally regarded as small scale at 150,000 tonnes per annum (tpa) or less. The Shetland EfW facility is linked to a local District Heating service, which itself required substantial investment, distributes hot water to around 1000 premises in Lerwick.

In 2008, as part of a joint Waste Strategy, Highland and Moray Councils considered the development of four small scale EfW facilities, each with a capacity of less than 20,000 tonnes per annum. None of these proposed facilities has been developed and the local authorities are currently undertaking a further review of their respective Waste Strategies.

It is proposed that the Comhairle continue to monitor the establishment of any new EfW technologies which have a proven track record of operational sustainability at a scale appropriate to the tonnages of non-recyclable waste arisings in the Western Isles. In the event that appropriate EfW technology becomes available, the procurement of expert Consultancy advice, to carry out an options appraisal, will be required.



4.0 Summary of Actions - Waste Strategy for the Western Isles

Consultative Draft Question	Waste Strategy Response	Action	
1	Continue to support for greater producer responsibility in terms of packaging minimisation and the curbing of retail marketing strategies which encourage over-buying	This is not seen as something the Comhairle can greatly influence other than to maintain pressure on Government to introduce more packaging control and packaging recovery targets for all manufacturers in every area where their products are sold.	Make representation to Government where possible (e.g. via COSLA and representation to Zero Waste Scotland) to introduce more packaging control.
2	The Comhairle takes account of the need for waste prevention in the development of its own Procurement Policy and IT Strategy.	Projects such as the use of "paperless" Comhairle meetings using iPads and the pursuit of BREEAM for the WISP project are an indication that the Comhairle are moving to develop more sustainable procurement policies.	Continuation of sustainable procurement policies by the Comhairle.
3	Consider the development of diversion for re-use at managed Household Recycling Centres.	The recent waste management survey confirmed support for the proposal to work with local Social Enterprise Companies to separate materials appropriate for re-use at Household Waste Recycling Centres.	Where appropriate, develop partnership working with Western Isles Social Enterprise Companies to set up separation and storage facilities at Household Waste Recycling Centres.
4	Extend blue bin co-mingled collection service be as a means of promoting increased diversion from landfill.	Blue bin roll out on-going. Next phase of Lewis and Harris roll out will cover Back to Tolsta and Point. From the recent survey, 188 out of 207 responders agreed that the new kerbside service would make it easier to recycle.	Continue the roll out of the Blue Bin kerbside collection service to as many areas of Lewis and Harris as possible, within the limit of available of revenue budgets, collection vehicle and operational staff capacity.
5	Cease to separately collect organic waste in Uist and Barra reconfigure the service to provide a dry recyclate collection service to all households and businesses in this area.	The proposed changes to the recycling kerbside collection services in Uist and Barra have been agreed and this will result in the former Organic bins being relabelled for the collection of paper and cardboard as routes are converted to the new service.	The roll out of the new service commenced in October 2012 and will be rolled out to all households and businesses in the Uists and Barra.
6	Explore the feasibility of developing small scale composting facilities in the Uists and Barra.	The recent survey suggested that there would be some support for small scale community composting. 51 out of 151 responders (35.2%) considered that there would be sufficient local support for a community composting project.	When the changes to the kerbside collection services have been rolled out, follow up community consultations will be carried out to investigate support for community composting in the Uists and Barra.
7	Consider the provision of recycling banks for all dry recyclates in any areas which are not included in the kerbside Blue Bin recycling collections.	195 out of 205 responders suggested that additional banks should be provided for dry recyclates in areas where Blue Bin kerbside collections are not available.	It has been agreed that Recycling Banks will be re-located after the kerbside collection service has been rolled out.



8	The Comhairle reviews the unrestricted access for landfill disposal to mixed loads of Industrial or Construction Waste	There has been a requirement to dispose of asbestos in a separate cell from other wastes since 2003 and contractors have successfully managed to adapt their procedures to cope with this. Recent changes to legislation will also require the separation of Gypsum (plasterboard) before it can be accepted at Bennadrove Landfill.	Review of waste definitions and waste acceptance arrangements at Bennadrove Landfill, Market Stance Waste Transfer Station and all Household Waste Recycling Centres is to be carried out.
9	The Community Skip Service be the subject of a further review to consider how the operation of this service can be developed in a more regulated manner to increase the potential for greater diversion from landfill and prevent the service from being used for non-household waste.	Following an audit by the Health and Safety Executive, the Community Skip Service based on open skips has been withdrawn. Options to provide a replacement for this service are being trialled. Although there was a high level of support for the Community Skip Service, from the survey, there was also considerable support from the community to better regulate the way the skips were operated.	From discussions with Community Councils and other community groups, the proposal to use closed, lockable skips has received the greatest level of support. 1 If successful, it is intended to procure additional closed skips in response to the clear community demand for the continuation of this service.
10	The Comhairle continue to explore collaborative opportunities with other local authorities in order to develop sustainable and affordable recycling, recovery and disposal options. This should include any opportunities to collaborate on the transport of recyclable and non-recyclable waste.	Only 2.1% of responders to the survey disagreed with the Comhairle working in collaboration with other Local Authorities to develop sustainable recycling options. .	The Comhairle will continue to work with other Island and Highland Authorities to identify areas of beneficial co-operation in all aspects of waste management.
11	The Comhairle procure expert consultancy advice and options appraisal on developing or procuring EfW capacity, as a means of treating the required diversion of non-recyclable waste from landfill.	There is no spare Energy from Waste capacity in Scotland, or within the UK, and therefore, the potential to develop a sustainable route for the disposal of waste to EfW is not available at the present time. As yet there is no proven, affordable technology which would allow the sustainable operation of an EfW Plant in the Western Isles.	Continue to monitor and review the availability of options to access EfW facilities and report back to the Comhairle should a viable and sustainable EfW alternative to landfill arise.

