



SHAPING THE FUTURE OF WASTE MANAGEMENT IN THE WESTERN ISLES

PUBLIC CONSULTATION ON THE WASTE MANAGEMENT OPTIONS

National Waste Strategy:
Scotland

Western Isles Waste Strategy Area

Waste Options Paper

November 2001

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Foreword

The National Waste Strategy: Scotland was published by the Scottish Environment Protection Agency (SEPA) and endorsed by the Scottish Executive Ministers in December 1999.

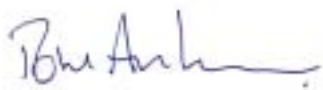
The Strategy is a framework document, which facilitates strategic decisions from key waste management players through the setting up of Area Waste Groups and the development of Area Waste Plans. Eleven waste planning areas, one of which is the Western Isles, are defined in the strategy.

An Area Waste Group was set up in July 2000 to develop a plan for the Western Isles. The group consists of a number of stakeholders from the local, private and voluntary sectors and includes representation from the community.

The Area Waste Plan will seek to address the main issues affecting waste management in the Western Isles and propose solutions. It is recognised that the final plan will have to be continually reviewed and developed as local circumstances change, new technology is developed and new legislation is introduced.

This paper introduces the process and the issues as well as presenting possible solutions for an integrated waste management strategy for the Western Isles over the next 20 years. Its purpose is to stimulate interest and discussion among the public. Your views will be taken into consideration as the plan develops.

We would urge you to take this opportunity to have your say and complete the questionnaire included with this document.



Tom Anderson
Area Waste Group Chair



Angus Nicolson
Councillor

The Western Isles Area Waste Group includes representatives from:

- Chamber of Commerce
- Comhairle nan Eilean Siar
- Crofters Union
- Denis Autos
- Highlands and Islands Enterprise
- Lews Castle College, UHI
- North of Scotland Water Authority (NoSWA)
- Scottish Environment Protection Agency (SEPA)
- Scottish Natural Heritage
- Stornoway Amenity Group
- Stornoway Trust
- Uist 2000
- Western Isles Aquaculture Working Group
- Western Isles Enterprise and other LECs
- Western Isles Fishermen Association
- Western Isles Health Board
- Western Isles Seafood Company

1 Introduction

Area Waste Plans are the mechanism identified in the National Waste Strategy: Scotland to ensure that the objectives and policies of the Strategy are achieved and that both local and regional issues can be accounted for in the development of an integrated waste strategy for Scotland.

The objective of each plan is to provide a local framework document that will facilitate strategic planning of the integrated network of facilities needed to manage waste in the future. There are four key steps in this process:

- determining the baseline: This process involves gathering information on what happens to Western Isles waste at present and determining what changes in waste production and composition are likely over the next 20 years
- considering options for the future: The Area Waste Group has determined five possible options for Western Isles waste by 2020. We are now consulting the public for their views
- identification of the Best Practicable Environmental Option (BPEO): This takes public comment into consideration and, after further analysis, the options are narrowed down
- Area Waste Plan preparation: The Area Waste Plan is produced with further public consultation.

There are a number of key issues that will shape the future of how waste will be managed in the Western Isles. The Area Waste Group has drawn up a shortlist of options for waste management in the area. An important part of the process is to ensure that these issues are discussed and considered by a wider audience and therefore this consultation document seeks your views.

2 Reason for Change: New Legislation

There is an increasing amount of legislation governing waste management, with an emphasis on improving environmental standards and pushing waste management towards more sustainable methods of treatment.

The impact of European Directives is increasingly influencing the way in which waste management is approached. The most significant of the new Directives is the Landfill Directive which seeks to impose minimum environmental standards for landfills across Europe.

The Directive is particularly important in that it requires a progressive reduction in the landfilling of Biodegradable Municipal Waste (BMW), such as food, paper and wood which when landfilled decompose and produce pollutants.

The Directive sets stringent standards so that the amount of BMW going to landfill must decrease by 25% by 2010, 50% by 2013 and 65% by 2020. This is compared to 1995 values which act as the baseline.

The Directive will also affect the type of materials that can be routinely accepted at landfills. For example, bans on liquid waste and tyres going to landfill sites will come into effect sometime between 2002 and 2007.

3 Baseline Data

The baseline data tells us:

- the current situation regarding waste production and management
- the probable future situation regarding waste production
- what changes will have to be made to ensure that the Landfill Directive requirements for BMW disposal are met.

3.1 Area Background

The first part of the development of an Area Waste Plan is to establish the current position in terms of waste disposal and estimate probable future requirements.

The population of the Western Isles was estimated by Highlands and Islands Enterprise as 28,000 in 1997, compared with 29,500 in 1991. This decrease is projected to continue over the next ten years.

The main industry is fishing (sea fishing, fish farming and fish processing) although education and transport-related activities are also relatively important. In contrast, general manufacturing activity, agriculture and food and drink processing are all less important than in Scotland as a whole.

As the Western Isles are self-contained in relation to waste disposal, the level of consumption relates directly to population and economic activity within the islands. The Area Waste Group has therefore assessed that there will be only a small increase in waste production over the next 20 years.

3.2 Waste Data

The Western Isles disposes around 28,000 tonnes of household, commercial and industrial waste to landfill each year. Approximately 80% of this is collected at Bennadrove landfill site near Stornoway. In addition, up to 1,000 tonnes of other wastes, such as scrap metal, clinical waste and other special wastes are collected annually and shipped to the mainland for reprocessing or safe disposal.

Collection and transportation costs in some parts of the islands are greater than virtually anywhere else in the UK. For example, it costs in the region of £50,000 each year to transport 1,000 tonnes of household and commercial waste produced in Barra to the nearest disposal and treatment facility in Benbecula. Other than relatively localised private skip hire companies there is a lack of private sector involvement in waste collection.

Information on the production and disposal of inert construction and demolition waste is less well known. During the year 2000, 1,200 tonnes of inert waste were deposited at private landfill sites and it is estimated that a similar quantity was re-used for roads, building foundations etc. Total annual production is therefore in the range of 2,500 tonnes.

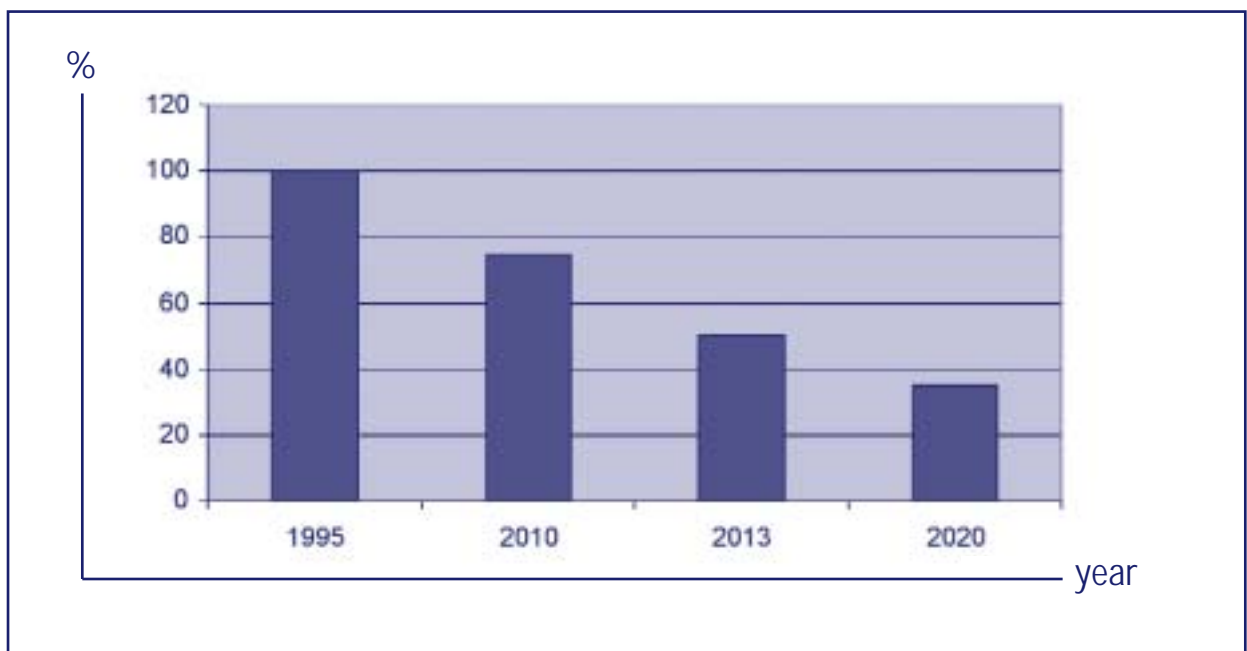
Although the amount of waste per household is increasing, the decline in population in the Western Isles should result in no significant increase in waste arising per year in the foreseeable future. All options presented in this document are therefore based on a total waste production by the islands of 30,000 tonnes per year by 2020.

3.3 Changes Required to Achieve the Landfill Directive

Like all other Waste Strategy Areas the Western Isles must decrease the amount of biodegradable municipal waste (BMW) going to landfill.

This will mean that the Western Isles will only be able to landfill approximately 7,500 tonnes of BMW in 2010, 5,000 in 2013 and 3,500 in 2020. This compares with approximately 10,000 tonnes of BMW which was landfilled in 1995.

Figure 1: Tonnes of biological municipal waste that can be landfilled of under the Landfill Directive



4 Waste Management Options Background

This section provides information on how the options presented in this paper were assessed by the Area Waste Group.

4.1 Best Practicable Environmental Option (BPEO)

The Best Practicable Environmental Option (BPEO) is the option that provides the most benefits, or least damage, to the environment as a whole at acceptable cost, in the long term as well as in the short term. The local Area Waste Group will apply this philosophy to the drafting of the Area Waste Plan for the Western Isles. All the options were appraised by the group on the following criteria:

- **Environmental** What are the environmental implications for the Western Isles? (e.g. effects on air, land, water, natural and cultural heritage, global warming, local amenity, non-renewable resource use, accidental risks).
- **Economic** What are the economic implications in the Western Isles? Does the option bring money into the Western Isles by new markets and commercial opportunities. This will include savings from recycling and resource re-use and recycling. (e.g. cost, affordability, impact on local economy, employment opportunities).
- **Social** Implications for the population of the Western Isles in terms of jobs and the provision of opportunities to develop local skills and opportunities for future development. Will the option and its implementation achieve the aspirations of the local communities? (e.g. employment, public acceptability, skills, making people responsible for the wastes they produce).
- **Practicability** Would the option work in the Western Isles? (e.g. technical feasibility, making use of existing facilities, flexibility).
- **Compliance with other policies** Does the proposed option fall in line with national and European legislation and local policies? (e.g. Landfill Directive, renewable energy policy).

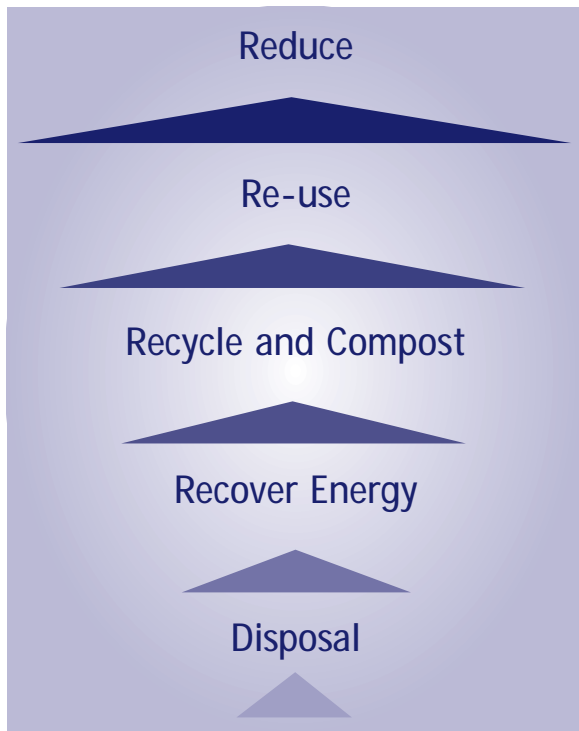
SEPA has provided guidance to all Area Waste Groups on how the BPEO should apply to developing an Area Waste Plan. This guidance was adopted in the Western Isles to develop the issues and options to be considered for the future. However a more intuitive approach was applied to the process when the standard model did not provide accurate information due to the relatively small volumes of waste being produced.

4.2 The Waste Hierarchy

The waste hierarchy provides a framework within which the most desirable waste management options are set out.

The simple premise of the hierarchy is the promotion of effective management of the resource currently regarded as waste by reducing the waste produced in the first place. Re-use involves items being used again for the same or a different purpose. Value should be gained from the waste through recycling, composting or energy recovery through incineration or other technologies. The end option is the disposal of materials no longer of value or useful purpose.

Figure 2: The Waste Hierarchy



This framework has also been used by the group to help appraise the options for waste management in the Western Isles. A number of other key concepts are summarised in the Annex.

5 What are the Options?

The Area Waste Group has determined five options for the structure of waste management in the Western Isles for 2020.

Table 1: Options for Western Isles Waste by 2020.

OPTION 1 Minimisation and Landfill	OPTION 2 Minimisation and new Energy from Waste Plant	OPTION 3 Minimisation and centralised In-Vessel Composting	OPTION 4 Minimisation and centralised In-Vessel Anaerobic Digestion	OPTION 5 Minimisation and Export
Waste Minimisation	Waste Minimisation	Waste Minimisation	Waste Minimisation	Waste Minimisation
Encourage local initiatives	Encourage local initiatives	Encourage local initiatives	Encourage local initiatives	Encourage local initiatives
Recycling and Reprocessing	Recycling and Reprocessing	Recycling and Reprocessing	Recycling and Reprocessing	Recycling and Reprocessing
Increased recycling of glass, paper, plastics and metals.	Increased recycling of glass, paper, plastics and metals.	In-vessel composting of all biodegradable waste at central facility in Stornoway. Increased recycling of glass, paper, plastics and metals.	Anaerobic digestion of all biodegradable waste at central facility in Stornoway. Increased recycling of glass, paper, plastics and metals.	Increased recycling of glass, paper, plastics and metals
Recovery	Recovery	Recovery	Recovery	Recovery
None	Energy produced	Soil improver	Energy produced Liquid fertiliser Soil improver	None
Disposal	Disposal	Disposal	Disposal	Disposal
Existing waste quantities to landfill	Reduced quantities to landfill (ash)	Significantly less waste to landfill	Significantly less waste to landfill	No disposal in Strategy Area
Capital Costs	Capital Costs	Capital Costs	Capital Costs	Capital Costs
£4 - 6 million* Council Funded	£7 - 10 million* Likely to be grant assisted	£4 - 6 million* Likely to be grant assisted	£4 - 6 million* Likely to be grant assisted	£2 - 3 million* Council Funded
Disposal Cost	Disposal Cost	Disposal Cost	Disposal Cost	Disposal Cost
per tonne £70 - £80	per tonne £50 - £80	per tonne £30 - £40	per tonne £30 - £40	per tonne £100 - £120

* Costing are estimates only and are currently being investigated.

All options take into consideration the high transportation costs in the islands (this can be in the order of £65 to £85 per tonnes, compared with an average in the UK of between £20 to £40 per tonne). Transportation of waste in the islands is such a major factor in the waste strategy that all efforts will be made to reduce the environmental dis-benefit that it inevitably will lead to.

It is the Area Waste Group's opinion that serious consideration must be given to the development of sea transportation as an alternative to road transportation. Such a development should lead to lower costs, both inter-island and mainland, and consequently benefit the viability of local business.

When looking at future solutions for dealing with waste, the most sustainable projects may be those that involve working in partnership with other areas and groups. There is scope within the Western Isles Area Waste Plan to consider working closely with the Highland Area to process waste arisings from the Isle of Skye and potentially from other areas on the north west coast of Scotland. This could assist both Waste Strategy Areas to arrive at a waste solution which is globally more beneficial to the environment and offers higher diversion rates from landfill than would otherwise be possible.

5.1 Waste Minimisation (included in all options)

The best way to deal with the consequences of waste is simply to reduce its production in the first place. The group therefore believes that waste minimisation is a fundamental part of all future options for the Western Isles. Its importance has been recognised in the National Waste Strategy: Scotland which states:

“Reduction in the generation of waste and use of natural resources is often the most effective environmental option”.

Although there are no formal waste minimisation schemes in the Western Isles the communities have traditionally been able to prolong the use of resources.

Education and organised activities would raise awareness of the opportunities and innovations in waste management to potentially decrease the amount of wastes landfilled and make economic and environmental savings. The commercial and industrial sector in particular have good economic reasons for encouraging waste minimisation as it can:

- reduce consumption of energy and raw materials
- reduce disposal needs
- lead to potential job opportunities.

Waste minimisation initiatives could be funded through the Waste Awareness Scotland (WAS) programme aimed at promoting waste minimisation in Scottish communities. In addition, the Local Enterprise Network also has funding for the promotion of waste minimisation initiatives and Best Practice in business and industry.

One of the options open to the Western Isles is to employ a waste minimisation and recycling officer to assist communities and industry with minimisation issues.

5.2 Recycling and Re-use Initiatives (included in all options)

There are many re-use and recycling initiatives already in the Western Isles. All waste options will include the promotion of current initiatives and stimulation of ideas and business opportunities. Specific attention will be paid to wastes which can easily be processed and re-used locally.

Local Authority

Recycling has been revived recently as a result of the Local Authority implementing several recycling and reprocessing schemes. These schemes are at an early stage of development and concentrate in the Stornoway area, with a planned expansion in the service programmed over the next one to two years. The following types of waste are currently recycled:

- drinks cans - aluminium and steel cans are collected, baled and sent to the Scottish mainland for reprocessing when economically viable volumes have accumulated
- plastic bottles - collected bottles are also crushed, baled and sent to the Scottish mainland for reprocessing when economically viable volumes have accumulated
- paper - newsprint is collected at Bennadrove. It is shredded and baled locally and used as animal bedding
- glass - non-segregated glass is collected and crushed locally for use as an aggregate replacement in drainage projects and other similar applications
- scrap cars - these are collected under contract, baled and exported for re-processing
- reclaimed wood - unwanted furniture and wood is collected at Bennadrove for re-use locally
- oil - transported to Bennadrove landfill site for de-watering, bulking into economically viable loads and export for re-processing
- tyres - a recent visit by a tyre baler to Benbecula has proved very successful. The bales will be used locally in landfill construction work.



Community Initiatives

Voluntary and community re-use and recycle initiatives divert a substantial amount of unwanted goods from other disposal routes. Community councils are particularly active with such initiatives. Other community groups and organisations such as Voluntary Action Barra, Proiseact Uibhist 2000, Iomairt aig an Oir, the Stornoway Amenity Trust and local common grazings committees could also become involved in this area. Many of these initiatives receive assistance from the Council.

Examples of such activities include:

- local events such as jumble and car boot sales, and the Western Isles Beach Clean
- demolition stone - a number of projects have re-used local demolition stone in community buildings and walls
- textiles - these are collected by Blythswood who use any useful items and transport rags to the mainland for reprocessing.



The group believes that the promotion of all economically viable recycling and re-use initiatives should be included in all waste options for the Western Isles.

5.3 Option 1: Landfill (No change)

Apart from waste minimisation and recycling initiatives the Western Isles would continue to rely on landfill to dispose of all its wastes. Refuse collection vehicles (RCVs) would transport all wastes to Bennadrove for landfilling.

An extension to the main landfill site at Bennadrove would be required in approximately 8 to 10 years. This would cost in the region of £4 to 6 million to construct due to the new legislative requirements. It is unlikely that any external grant funding would be available to contribute to the cost.

BPEO Considerations

- **Environmental** Poor use of re-usable and recyclable materials. No energy recovery. Difficult to control emissions to both air and water. New cells would be engineered to a higher environmental standard under the Landfill Directive. All emissions would require to be controlled.
- **Economic** The current landfill tax levy of £2 per tonne for inert material and £12 per tonne for non-inert materials result in a total estimated annual bill of £340,000. Landfill tax rises in the future could potentially increase this to £750,000 annually. In addition, landfill permits would have to be bought from 2010 onwards to ensure that the Landfill Directive was met. These are estimated to cost £60 per tonnes, however, market demands may result in significant higher prices.
- **Social** This system is already in operation and therefore there are unlikely to be further employment or skill opportunities. Very little personal responsibility for your own waste.
- **Practicability** All infrastructure is already in place. Once Rueval is full waste transfer stations will need to be constructed to bulk up waste for transportation and disposal at Bennadrove.
- **Compliance with other Policies** Very poor. Although waste minimisation and local recycling initiatives will reduce the amount of organic wastes being landfilled it is estimated that this will not be enough to reach the Landfill Directive targets for BMW. Landfill permits must be purchased from other waste areas to allow levels of landfilling to continue.

What about Rueval?

Rueval landfill site is estimated to meet full capacity by 2006 and all wastes will need to be transported to the Bennadrove landfill site for disposal from then on.

What's a landfill permit?

Any Waste Area that surpasses its Landfill Directive targets for BMW can sell on its 'credit to other Waste Areas who have not managed to decrease their waste to the same extent.

The costs of these credits, called landfill permits, is decided on by market demand and is currently estimated as £60 per tonne. However, if in demand prices could be much higher.

5.4 Option 2: Incineration

In addition to waste minimisation initiatives a new Energy from Waste plant would be built near Stornoway. Non-segregated wastes would be collected from all islands and transported to Stornoway for disposal.

A partnership with the Highland Area whereby waste from Skye and the north west fringes of mainland Scotland were imported to the incinerator would ensure that sufficient waste is gathered to run the system successfully.

The energy produced would be used either to generate electricity or for a district heating system.

Bottom ash would be disposed of at Bennadrove and fly ash would be transported to mainland Scotland for safe disposal.

BPEO Considerations

- **Environmental** Possible reduction in transportation costs and amount of material going to landfill. All emissions would be controlled. Some energy recovery, therefore, lowering the requirement for other energy sources.
- **Economic** Substantial start up cost. Unit costs are relatively high in comparison to landfill, however this difference will reduce as the cost for landfill rises. Potential to sell landfill permits to other waste areas. Income from accepting wastes from other areas.
- **Social** Would result in significant employment. New skills required. Producers not responsible for their own waste. Would have to be located to ensure odour, traffic, litter and noise do not cause a public nuisance. May adversely affect local house prices.
- **Practicability** High planning risk as option is not flexible to changing circumstances. Volumes and types of waste would have to be consistent. Would rely heavily on wastes from outwith waste strategy area to ensure viability. Waste transport may be affected by weather.
- **Compliance with other Policies** The plant would require an Integrated Pollution Control (IPC) Authorisation. All Landfill Directive targets would be met.

5.5 Option 3: Centralised In-Vessel Composting

In addition to waste minimisation initiatives the recycling of the organic fraction of waste (such as vegetable peelings and garden wastes) will be increased. This option relies on a large centralised composting plant in Stornoway taking biodegradable waste from all the islands. All areas would be required to segregate their vegetable and garden wastes and either deliver them to a local bring site or present them for collection by a split RCV. Recyclable materials such as glass, paper, plastics and metals would also be collected at these bring sites. All other wastes would be collected and transported to Bennadrove landfill site for disposal.

A soil conditioner material would be produced and used, if possible, for land improvement schemes. If not it would be transported to Bennadrove to be used for landscaping.

As in option 2 waste would also be imported from Skye and the western fringes of the mainland. These and other segregated wastes that could be used in the Western Isles would be transported by sea. This form of transportation could also be used to transfer waste from the southern isles to Stornoway.

BPEO Considerations

- **Environmental** All emissions from the composting vessel would be controlled. No energy recovery. Additional transportation from Skye and Scottish mainland would be involved.
- **Economic** Split RCVs would need to be bought. Income could be generated from accepting wastes from other waste areas. Potential to sell landfill permits to other waste areas.
- **Social** Some personal responsibility for your own waste. Some new skills required. Recycling access improved in some islands. Potential additional employment in plant and relating to shipping.
- **Practicability** Technology well proven. Waste transport may be affected by weather.
- **Compliance with other Policies** Fit Good participation would result in Landfill Targets being met.

What's a split RVC?

This is a bin lorry with separate compartments to take different segregated wastes such as cans, glass and vegetable and garden waste

What is composting?

Composting is the biological process in which micro-organisms convert degradable organic matter into carbon dioxide and water vapour using oxygen in the air and leaving a stabilised residue known as compost.

And in-vessel composting?

With in-vessel composting the process happens inside a sealed container and computerised controls optimise levels of moisture, air temperature and mixing. Emissions are controlled and the time required for composting is less than with traditional pit style systems. The end product is also usually of a higher quality and is therefore more useful.

5.6 Option 4: Centralised Anaerobic Digestion

This option is an extension to Option 3. An anaerobic digestion plant in Stornoway would use the organic fraction of the waste to produce methane that would then generate electricity. As with option 3 all areas would either have a weekly collection by a split RCV or access to a bring site. Recyclable materials such as glass, paper, plastics and metals will once again be collected separately with all other non-biodegradable wastes being transported for landfilling at Bennadrove.

If some form of pasteurisation system could be added to the plant aquaculture wastes could also be processed.

BPEO Considerations

- **Environmental** All emissions are controlled. Energy recovery. Potential for long-term land improvement scheme. Some additional transportation required.
- **Economic** Split RCVs would need to be purchased. Additional income from accepting aquaculture waste from throughout Scotland and from accepting some wastes from western mainland. Potential to sell landfill permits. Saving in energy costs due to electricity production.
- **Social** Producers held responsible for their waste. New skills required. Recycling improved in some islands. Definite potential for employment in plant and shipping.
- **Practicability** Technology not proven for municipal waste in the UK although well proven on the Continent. Flexible to changing circumstances.
- **Compliance with other Policies** All biodegradable municipal waste disposed of in this manner, therefore all landfill targets met.

What is anaerobic digestion?

Anaerobic digestion is a biological process in which micro-organisms convert degraded organic matter into carbon dioxide, methane, water, heat in the absence of oxygen, and leaves a residue known as digestate which can be used as a soil conditioner. Liquid fertiliser is also produced. The methane is collected and used as a fuel and there is the potential for local heat use.

5.7 Option 5: Export

Non-segregated wastes would be collected and transported from the Western Isles by ship to mainland Scotland for disposal.

BPEO Considerations

- **Environmental** Does not fit with the Proximity Principle which suggests that wastes should be treated or disposed of as close to where they arise as possible to reduce transportation. Higher risk of accident due to greater transportation. No energy recovery.
- **Economic** Potentially very expensive as there is no real control over final disposal cost. Very much at the mercy of market forces. Additional transfer facility required to bulk wastes before shipment.
- **Social** Unlikely to be additional skills or employment within the Western Isles. Any additional employment is likely to be elsewhere.
- **Practicability** Low planning risk. Collection may be affected by weather. Current waste management facilities not used.
- **Compliance with other Policies** Does not help to reduce disposal of biodegradable municipal waste nationally.

6 Next Stage

Comments are welcomed on any aspect of waste management in the Western Isles. The Area Waste Group is, however, particularly keen to seek views on the options presented. A questionnaire sheet has been produced to help you with this process.

The consultation process runs until 21 December 2001. Feedback from the consultation will be used to come to a final decision on the options for the Western Isles and will shape the production of the draft and final plans. Everybody will have the opportunity to comment on the draft plan early next year.

Responses should be returned to:

Scottish Environment Protection Agency
FREEPOST IV342
Graesser House
Fodderty Way
Dingwall
IV15 9BR

email: westernisleswaste@sepa.org.uk
telephone: 01349 860367

Annex

Key Waste Management Principles

The Proximity Principle and Self Sufficiency

The proximity principle means that waste should be treated or disposed of as near as possible to the point where it arises. Communities should understand that the waste they produce is a problem with which they must deal. Local Authorities (as planning authorities) and businesses should consider the proximity principle when they consider the requirements for, and location of, waste management facilities. The principle aims to avoid the adverse environmental impact of unnecessary transport.

However, the environmental impact of transporting wastes depends on the mode of transport adopted. For example, a longer journey by river or rail may be environmentally preferable to a shorter road journey.

The application to the principle will therefore vary according to the waste concerned, the volume and the potential environmental impact of the method of waste disposal and mode of transport. There also has to be a balance between the proximity principle and economies of scale. In some cases, economies of scale may mean that some specialist recovery or disposal operations may be located far from the point where the waste arises.

The overall aim of the proximity principle is to move as far as possible towards self-sufficiency in waste management by the UK as a Member State within Europe, by Scotland within the UK and by local areas within Scotland.

The Precautionary Principle

The precautionary principle was defined by the UN Conference on Environment and Development, in the Rio Declaration as “where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation”. The principle involves taking precautions now to avoid possible environmental damage or harm to human health in the future, even although the scientific basis for taking the precautions may be inconclusive.

A Useful Guide to Waste

Anaerobic digestion	Biological degradation of organic waste in the absence of oxygen in a sealed vessel at temperatures of 30-60°C, to give methane gas (used as a fuel) and digestate (which can be composted and used as a soil conditioner).
Biodegradable Municipal Wastes (BMW)	That portion of municipal waste which biodegrades - eg kitchen scraps, paper and garden wastes. Approximately 60% of all municipal waste.
Bottom ash	Ash which falls through the grate. Generally classed as inert and landfilled or in some places used in construction. Typically 30% of waste input.
Bring sites	Local sites with large banks for you to bring your recyclable waste to.
Centralised composting	Composting at a large scale, where waste from a wide area is brought to one place.
Civic amenity sites	Local sites accepting waste which cannot be taken by RCVs. Most have recycling banks.
Commercial wastes	Wastes from non-domestic and non-industrial premises (offices, shops, restaurants etc).
Community composting	Waste from a village / street is composted together - usually a voluntary initiative.
Composting	Biological degradation of organic waste in the presence of oxygen, to a point where it is stabilised. Anything which once was alive can be composted.