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Foreword from Minister for Infrastructure, Hon. David Cretney, MHK

Waste affects us all. We create waste and have a responsibility to ensure it is managed in a way that does not negatively impact on our environment.

Government cannot act alone and we must work in partnership with Local Government, industry, households and other community and interest groups. I am therefore pleased that a number of key sectors and stakeholders have fully engaged with the Department and contributed to the Island’s revised Waste Policy and Strategy 2022.

This document contains commitments not only of Government but other key sectors which together set a clear direction towards a Zero Waste Island. Working together we can ensure the Isle of Man continues to manage its waste responsibly, sustainably and cost effectively and that our targets for 2022 are delivered.

Can I place on record my thanks for the work of my political colleague on the Department of Infrastructure Graham Cregeen MHK and all others involved in this important work.

David Cretney

Hon. David Cretney MHK,
Minister for Department of Infrastructure
Introduction

Introduction from Member for Operations, Graham Cregeen MHK

Waste has attracted much interest in recent years. Gases emitted from landfill disposal sites are recognised as a significant contributor to the greenhouse effect and today there is more recognition of the benefits to the environment of a low carbon waste management approach. All Governments have been set the challenge to prepare and implement a range of policies and legislation that will direct waste management treatment and disposal as well as the management of specific streams towards this target of better long-term protection of our environment.

Over the past 10 years significant progress has been made in how the Island manages its waste. As with its previous Waste Policy and Strategy, the Island must continue to apply an approach that is focused on reducing the level of waste disposed via landfill, adopting sustainable practices that treat waste as a resource and, reduce harmful emissions to the environment. Where possible value or energy is recovered from waste and those who generate waste take responsibility for the cost of dealing with it.

The process of updating our waste policy and strategy has been hugely assisted by the formation of a Waste Policy Review Group. The review group contained political membership, representatives from the main waste producing sectors, DEFA Waste Regulation, Zero Waste Man, Friends of the Earth and Local Authorities via the Municipal Association. An all-Island public consultation has also been carried out which generated over 400 responses both online and written. Collaborating in this way has enabled the Department to identify the main waste issues facing the Island and the measures that should be considered in its future approach. The result of this work has been the creation of a shared vision supported by an updated set of waste policies and strategy for the Island that provides a clear focus and direction for how waste should be managed for the next 10 years.

Graham Cregeen, MHK Member for Operations Division, Department of Infrastructure
Approach towards revising the Island’s Waste Policy

In presenting this revised waste policy the Waste Policy Group has created a 3-stage process whereby a vision is now established and supported by a set of policies that are underpinned by an implementation strategy as illustrated in figure 1.

The creation of a clear vision will provide a focus on what needs to be achieved and clarifies the general direction for change. Adopting this approach will enable all stakeholders and the policy group to focus their energies in a common direction, simplify decision-making, particularly relating to how we manage our wastes going forward.

Translating our vision this way enables easy communication of our policy and strategy to all stakeholders.

**Figure 1**

**Vision**
Where do we want to go?

**Policies**
What do we want to achieve - Outcomes?

**Strategy**
How we are going to do it?
Vision for Waste Management 2022

The Department’s ambition for waste management in the Isle of Man can be defined as:

‘Towards Zero Waste’

Towards Zero Waste sets a vision for a zero waste Island. This vision describes a position were waste is seen as a valuable resource. We will promote an environment to minimise its creation. Where it has been created we will exploit its uses to the advantage of the Manx community.

Our vision for waste is underpinned by four key policies that will ensure the Island has a framework to:

- Provide the necessary waste infrastructure
- Continue to be guided by the appropriate principles
- Apply proportionate legislation, and
- Increase the efficiency and effectiveness of our waste resources taking into consideration the financial constraints facing the Island

Success and the delivery of this approach will be measured by two high level performance targets. The first target is to recycle 70% of the Island’s waste across all sectors and the second is a commitment to reduce waste to landfill to 5%. These indicators have a target date of 2022.

Figure 2 illustrates the 2022 Towards Zero Waste targets. Our focus to achieve this will ensure we continue to promote waste prevention and reuse through a variety of communication and education mechanisms and themes. Waste treatment levels at the EFW Plant will remain static, however we will explore the option to utilise spare capacity with biomass waste. A reduction in landfill will be delivered in steps, in particular through an increase in reuse and recycling of construction and demolition type wastes.

![Figure 2 - Zero Waste Vision 2022 Target](image)

It is our intention to translate the implementation strategy into a 5-year Action Plan. Implementation of this plan will be progressed through the appropriate Government and Departmental approval processes.
Vision and Policy 2012-2022
Towards Zero Waste

Waste is a valuable resource, we will promote an environment to minimise its creation. Where it has been created we will exploit its uses to the advantage of the Manx community (2012 to 2022)

Policy 1 Legislation and Structure
We will ensure that the Island has in place appropriate codes and guidance to improve waste management standards. We will promote proportionate waste legislation that is “fit for purpose” in an Island environment, providing clarity towards areas of responsibility

Policy 2 Waste Hierarchy
We will continue to use the waste hierarchy as a guiding principle to determine how we prioritise our efforts and resources in managing the Island’s waste

Policy 3 Economics of Waste
We will seek to discourage waste generation through cost reflective tariffs following the “user pays principle”. We will promote increased collaboration in the delivery of waste services to ensure the optimised use of resources

Policy 4 Waste Infrastructure
We will ensure the Island has access to an adequate network of waste storage, processing, treatment and disposal facilities developed in accordance with the principles of self-sufficiency, proximity and cost, whilst complying with the appropriate legislation
**Waste Management 5-Year Implementation Strategy**

**Policy 1 Legislation and Structure**

We will ensure that the Island has in place appropriate codes and guidance with proportionate waste legislation that is “fit for purpose” in an Island environment, providing clarity towards areas of responsibility.

**Outcome 1**

- Improved standards of waste management and environmental performance
- Strengthen waste legislation in a proportionate way
- Proportionate and targeted policies
- Robust and streamlined systems for the collection of waste data
- Eliminate outdated or unnecessary legislative provision where possible
- Confirm responsibility with respect to street cleansing
- Minimise financial burden on companies wherever possible
- Clearly define statutory duties for waste management
- Raised awareness of waste legislation and responsibilities

**Strategy – Key Proposals**

- Work with DEFA to review legislation relating to waste, eliminate outdated or unnecessary provisions, amend to reflect changes that have taken place – develop Waste Bill
- Review statutory responsibilities towards waste and clearly define including possible legislative provisions
- Encourage a risk-based approach towards waste management and identify low risk activities where legislative exemptions could be applied
- Develop new online waste data reporting system
- Revise responsibility towards street cleansing and litter-based activities to remove duplication, ambiguity and poor deployment
- Work with all partners to ensure resources deployed to street-based “waste” activities are optimised
- Identify mechanisms for the dissemination of best practice and guidance relating to waste management including HSE guidance
- Work with Planning to provide clear standards to Local Authorities and developers relating to the size, space requirements and other constraints for waste and recycling containment and handling systems.
Policy 2 Waste Hierarchy

We will continue to use the waste hierarchy as a guiding principle to determine how we prioritise our efforts and resources in managing the Island’s waste.

Outcome 2

- 70% Recycling / <5% Landfill 2022
- Zero Waste Growth
- Recycling Targets
  - Household 30%
  - Construction and Demolition 90%
  - Commercial and Industrial 50%
- Resources targeted to those materials with highest environmental benefit
- Increased recovery and recycling of Hazardous Waste for optimum environmental protection
- Contribute towards 2015 renewable Energy Target, utilising biomass
- Targeted education on waste prevention and resource management

Strategy – Key Proposals

- Develop a consistent and comparable modelling approach for measuring the lifecycle greenhouse gas performance associated with the Island’s waste management
- Increase recycling rates for priority materials – Plastics, Textiles, and Non Ferrous Metals
- Promote and support Local Authorities with the expansion of kerbside household waste recycling collections beyond Douglas and Braddan
- Develop new management routes for air pollution control residues
- Optimise renewable energy generation at EfW Plant via the use of biomass
- Expand WEEE recycling collections to incorporate small waste electrical items, trial collections to commence 2012/13
- Implement construction site waste management plans for large scale Government capital projects by 2013/14
- Identify opportunities to improve the recycling of commercial waste
- Work with Estates Division to develop policy for sustainable waste management within Government Estate
- Develop opportunities to remove smaller household hazardous waste from general waste streams 2016/17
- Develop Waste Prevention Plan focusing on priority materials
- Develop Waste Communication and Education Plan
  - Households
  - Media
  - Schools / Education
  - Other partners / Department
- Trial the use of Processed Incinerator Bottom Ash as construction materials
- Promote business resource efficiency – provide access to case studies and best practice
- Review and maintain commercial waste recycling subsidy scheme
- Identify new sites for “recycle on the go”
- Develop environmental education website with DEC
- Develop C/D Waste Partnerships
Policy 3 Economics of Waste

We will seek to discourage waste generation through cost-reflective tariffs following the “user pays principle”. We will promote increased collaboration in the delivery of waste services to ensure the optimised use of resources.

Outcome 3

• Operational costs to Government for waste treatment and disposal facilities matched by income
• Savings to taxpayer
• Lower waste treatment cost to industry through on-Island treatment of wastes
• Reduce CO² emissions by 20% through optimised waste collection regimes
• Subsidies offered for recycling of priority materials
• Behaviours modified positively by cost drivers

Strategy – Key Proposals

• Develop proposals to ensure costs for waste activities are neutral to central Government
• Standardise operational, economic and governance model for the Island’s Civic Amenity Sites
• Promote greater regionalisation for household waste collection regimes to ensure resources are optimised
• Work with Local Authorities to reduce the number of refuse collection vehicles travelling to EfW plant at less than 90% Gross Vehicle Weight
• Demonstrate benefits to Local Authorities in the use of vehicle route and round optimisation software
• Establish “Island” financial and operational performance standards for the household waste collection
• Increase where appropriate the level of waste treated on-Island to reduce waste costs to industry
• Undertake review of recycling subsidy scheme and rates reflecting materials of high priority and economic climate
• Identify joint procurement opportunities for the Island’s Civic Amenity Sites
• Promote the use of framework contracts and partnering arrangements for the Island - Waste Containment / Refuse Collections Vehicles
• Investigate opportunities for the use of biomass for large scale electricity production
Policy 4 Waste Infrastructure

We will ensure the Island has access to an adequate network of waste storage, processing, treatment and disposal facilities developed in accordance with the principles of self-sufficiency, proximity and cost, whilst complying with the appropriate legislation.

Outcome 4

• Long-term treatment and disposal capacity identified and planned
• Continuing export arrangements
• Appropriate facilities for hazardous waste
• Optimised use of the Island’s waste facilities
• Compliance with Strategic and Local Area Plans

Strategy – Key Proposals

• Develop long-term landfill solution for specific wastes beyond the current lifespan of Wrights Pit North
• Develop hazardous waste storage facility
• Progress change to Planning Scheme Order for EfW Plant to amend planning inconsistencies with waste disposal licence
• Undertake minor plant modifications to treat certain hazardous wastes to ensure the compliance of the secondary line with Waste Incineration Directive 2013/14
• Explore options for the pre-treatment of sewage sludge at AWPP/EfW by 2012
• Liaise with Planning Department in development of Local Area plans to ensure future waste facilities are identified and accommodated
• Redevelop Southern Civic Amenity Site including expansion of the reuse area in partnership with Southern CA Board
• Inform minerals plan for secondary and recycled aggregate levels and landfill requirements
In 2010/11 the Island produced approximately 222,000 tonnes of controlled waste. This is pro rata a similar rate of generation to much of the UK and other industrialised countries. There is an element of waste managed through unmonitored routes and it is estimated that this could be up to 10% of total waste arising and is one of the reasons why the Island has slightly lower quantities of certain wastes. Over the past 3 years waste production levels have been relatively consistent and our waste data collection coverage is improving year on year.

Construction and Demolition Waste accounts for approximately 50% of total waste with 122,000 tonnes generated through this sector. Whilst the Island does not have a definitive breakdown towards the composition of construction and demolition wastes, materials typically consist of concrete, bricks, asphalt and tar, asbestos, metals, soil and rubble, wood and plasterboard.

23% of the Island’s waste is classified as Household Waste. This includes household refuse, bring bank and kerbside recycling, street litter and waste collected from the Island’s Civic Amenity Sites.

The remaining 22% of waste is produced as a result of the Island’s commercial and industrial activities. This figure does not include waste shipped to the UK for recycling outside of the Department’s subsidy scheme. Also excluded from the commercial and industrial figure are some packaging wastes from the Island’s major retail stores as well as liquid whey waste produced by the Island’s Creamery, which is currently discharged to sea.

The Island’s waste generation by sector for 2010/11 is illustrated in figure 3.
**Current performance**

The Island continues to be guided by the Waste Hierarchy as a framework for managing its waste. Since adopting the Waste Hierarchy as a policy in 2000 the Island has moved away from landfill as its principle method of waste management and now adopts a more integrated approach that covers all aspects of the hierarchy of options, including prevention and reuse, delivered by both the public and private sector.

During 2010/11 the Island recycled 50% of its waste, treated and recovered electricity from 25%, with 25% disposed of via landfill. The Island’s current performance against the Waste Hierarchy is illustrated in figure 4. Waste management performance of this level compares favourably with other industrialised countries.

**Figure 4 - Waste management by route 2010/11**

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**Waste Heirarchy**

- Prevention
- Reuse
- Recycling
- Recovery
- Disposal

**Preferred Option**

**Current Performance 2010/11**

- Recycling 50%
- EFW Recovery 25%
- Landfill 25%
Primary Treatment and Disposal

The past 10 years has seen the public and private sectors invest considerable amounts of time, money and effort into changing the way we think about and manage our waste. As a result the Island is well served by a waste management infrastructure network covering a range of collection, sorting, treatment and disposal processes.

Despite this investment it remains a public misconception that the majority of the Island’s waste heads straight to the “incinerator”. Figure 5 illustrates the Island’s waste flows and shows that only 16% of the Island’s waste is delivered directly to the Energy from Waste Plant, with 80% of waste delivered to one of the Island’s transfer stations or recycling facilities for some level of sorting and separation to recover materials for recycling. These types of facilities will continue to play an integral role; enabling the Island to increase its recycling levels beyond the 50% rate it currently achieves.

Isle of Man Waste Flows - 220,000 tonnes

Figure 5 - Island Waste Flow
Our decision about how we manage our waste on-Island is based on the principles of proximity, self-sufficiency, cost and the application of the waste hierarchy. Self-sufficiency means that each region should provide facilities with sufficient capacity to manage its waste.

As an Island we must have an appropriate level of waste infrastructure with which we can treat or dispose of our own waste. This is a requirement under the Basle Convention and Transfrontier Shipment (TFS) of Waste Regulations.

Certain wastes can be shipped to the UK for recycling or for disposal where the UK agrees that it is not viable for the Island to process them. For the Isle of Man, this includes hazardous waste and recyclable material for reprocessing.

Implementing its waste policies to date has enabled the Island to manage its wastes within the capacity levels of its primary treatment and disposal routes.

Figure 6 identifies the capacity levels and treatment rates for the Energy from Waste Plant for the next 10 years. Taking into consideration the potential for waste growth and the implementation of our waste policies and strategic approach the Island is not at risk of having insufficient treatment capacity at the Energy from Waste Plant.

### Figure 6 - EfW Plant Residual Waste Levels to 2022

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Waste EfW</th>
<th>EfW Licensed Primary Capacity</th>
<th>Space Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>2005/2006</td>
<td>40000</td>
<td>50000</td>
<td>60000</td>
</tr>
<tr>
<td>2021/2022</td>
<td>50000</td>
<td>50000</td>
<td>60000</td>
</tr>
</tbody>
</table>
Figure 7 illustrates current inert waste landfill capacity and landfill rates based on achievement of a 5% landfill rate. Landfilling of waste on-Island is primarily for inert wastes. Long-term capacity for this waste is predominantly provided by the Turkeylands Inert Landfill site which has over 600,000 m³ of void space. Based on current inert waste landfilling rates this facility alone will provide sufficient inert waste landfill space for the next 20 years.

We anticipate that overall waste levels will be relatively static. It is also anticipated that throughput at the EfW plant will be stable with any spare capacity utilised by processing biomass. There is likely to be an on-going reduction in the amount of inert waste landfilled and this is to be achieved through increasing our waste reuse and recycling routes. Waste Prevention activities will target waste materials that have a high potential for significant negative environmental impact.

The primary focus for the development of the Island’s waste infrastructure over the immediate future will be to create a long-term disposal site for the Island’s problematic wastes such as contaminated soil, plasterboard and asbestos contaminated with non-inert waste, and further investment to improve how the Island manages hazardous waste.

“Our decision towards how we manage our waste on-Island relates to the principles of proximity, self sufficiency, cost and the application of the waste hierarchy.”