



Helpu Cymru i leihau
ei Hôl Troed Carbon
Help Wales reduce
its Carbon Footprint



Llywodraeth Cynulliad Cymru
Welsh Assembly Government

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Towards Zero Waste

One Wales: One Planet



Textiles



Paper



Plastics



Metals



Electrical



Paint



Household
Organics



Brown
Glass



Blue Glass



Wood



The Summary of the Overarching Waste
Strategy Document for Wales
June 2010



ISBN 978 0 7504 5581 7
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CMK-22-01-203
E5730910



Part 1: Setting the scene

The purpose of Towards Zero Waste

Towards Zero Waste sets out, at a high level, how the Welsh Assembly Government will build on the successes achieved through Wise About Waste - The National Waste Strategy for Wales (2002). It describes a long term framework for resource efficiency and waste management between now and 2050. Towards Zero Waste is our overarching waste strategy document; it is not a detailed action plan. Delivery actions will be developed in sector plans that will follow.

The challenges we are facing

Towards Zero Waste has been developed to help us, in Wales, meet a number of existing and new challenges, the main ones being:

Sustainability - We want to develop sustainably by enhancing the economic, social and environmental wellbeing of people and communities. The Assembly Government is committed to using sustainable development as our central organising principle to achieve a better quality of life for our own and future generations.

Ecological footprint - Ecological footprinting measures the impact of how we consume things and compares it to the ability of the planet to (a) provide the resources needed and (b) cope with the impact of the way we live our lives. If everyone in the world lived the way that we do in Wales, nearly three planets would be required to provide the necessary resources. In order for us to use only our fair share, we need to reduce our resource use in Wales to the equivalent of one planet's worth. The management of our waste is vitally important to achieving this aim as it is responsible for approximately 15 % of Wales' ecological footprint.

Climate Change - We need to reduce the greenhouse gas emissions produced from waste. Direct emissions come mainly from the release of gases (principally methane) produced by the decomposition of biodegradable waste in landfill sites. Waste contributes around 4.7 % of direct greenhouse gas emissions in Wales¹.

Security of resources - We need to ensure we have enough resources, at an affordable price, to sustain our economy and way of life. By using resources more efficiently through waste prevention and high reuse and recycling rates, material security is improved and dependence on primary resources from outside the UK is reduced.

¹ Waste emissions in Wales for 2007 were 1,309 ktCO₂e. This includes emissions from landfill, sewage sludge decomposition and the incineration of chemical waste, clinical waste and sewage sludge. As a percentage of the total emissions covered by the Assembly Government's 3 % reduction target definition (27,745 ktCO₂e), waste emissions were 4.72 % of Welsh emissions in 2007.



Part 2: Overview and implementation

There are a number of documents that form a key part of our new waste strategy for Wales:

Towards Zero Waste - is a long term framework for Wales that describes the social, economic and environmental outcomes that resource efficiency and waste management will achieve and how they will contribute to a sustainable future. It details our high level principles, policies, and targets.

Sector plans - are implementation plans that will form part of the overall waste strategy for Wales. When completed, they will describe the role of the sector, the Welsh Assembly Government and others in delivering the outcomes, targets and policies in Towards Zero Waste.

Progress report - provides information on the types and quantities of wastes currently produced in Wales and how they are managed. It includes progress against targets and actions set in Wise About Waste. The Waste Strategy Progress Report 2002-2008 is published at the same time as Towards Zero Waste.

What it means for you

Towards Zero Waste is ambitious and challenging, but achievable. How we deal with waste in Wales can have huge benefits, not only for the environment but also for our economy and well-being. Businesses, communities, the waste management sector, the Welsh Assembly Government, public sector, local authorities, third sector community organisations, regulators and other governments all have a role to play. We need a society focussed on preventing waste at every opportunity and a truly comprehensive recycling society, where everyone recycles wherever they are - at home, at leisure or at work.

Part 3: Towards Zero Waste outcomes - building a sustainable future

Building a sustainable future is fundamental to our approach. The results that we are aiming to achieve are:

A sustainable environment

We will reduce the impact of waste in Wales to within our environmental limits² by focussing on reducing the ecological footprint of waste to 'one planet' levels by 2050. This will reduce the impact on climate change from waste activities, achieve sustainable consumption and production, sustain our economy, and help manage and conserve the planet's resources.

² Environmental Limits - 'Our Vision of a Sustainable Wales is one where Wales: lives within its environmental limits, using only its fair share of the earth's resources so that our ecological footprint is reduced to the global average availability of resources, and we are resilient to the impacts of climate change' (Source: One Wales: One Planet: A new sustainable development scheme for Wales)



To do this:

- We need to focus on waste prevention and adopt more sustainable ways of consuming and producing
- Where waste is produced, we need to focus on very high levels of recycling and make sure that, as far as possible, it is the right type of recycling - that is “closed loop” recycling whereby materials are re-used for their original purpose. This usually achieves better environmental and economic outcomes.

These principles are in accordance with the so-called “waste hierarchy” which requires greatest emphasis to be applied to waste prevention and reuse, followed by recycling, then energy recovery and finally disposal to landfill which is given the lowest priority.

A prosperous society

Our actions on resource efficiency and waste management will support the development of a prosperous society that:

- Provides more ‘green’ jobs within the waste and resource management industry across a range of skill levels in Wales and increases the number of highly skilled green jobs
- Is resilient against future competing demands including rising costs and the security of supply of global material resources. This will save money and maintain, or even increase, profit through more efficient resource management.

A fair and just society

The sector plans will implement the targets, actions and policies in Towards Zero Waste in a manner in which citizens can, through waste prevention, reuse and recycling:

- Achieve their full human potential
- Enrich their communities
- Contribute towards the wellbeing of Wales
- Improve their local environment
- Actively improve the quality of their life.

The people of Wales will be able to contribute to waste prevention, reuse and recycling irrespective of where they live, their quality of health, their ability, mobility or personal circumstances.



Part 4: Implementing the outcomes - our milestones, targets and priorities

To implement our outcomes, we are working towards two key milestones of 2025 and 2050.

2025 Towards Zero Waste

By 2025, there will be a significant reduction in waste (of around 27 % of 2007 levels) and any waste that is produced will be managed in a way that makes the most of our valuable resources. This means maximising closed loop recycling and minimising the amount of residual (non-recyclable) waste produced, thereby achieving as close to zero landfill as possible.

This is an intermediate step on the way to our 2050 target to achieve zero waste and live within our environmental limits. Reducing the impact of waste in Wales to 'one planet' levels will require big changes in the way that products and services are designed, and the actions of consumers and businesses.

The key steps that will need to be taken towards the 2025 milestone are:

Waste prevention - We need to reduce our waste by around 1.5 % (of the 2007 baseline) each year across all sectors in order to achieve our one planet goal for 2050³.

A strong economy in resource management - This means that recyclates will be collected and managed with supply to Welsh manufacturing in mind. We will need:

- High levels of clean, high quality, source-separated recyclates to drive the market. All sectors in Wales will be recycling at least 70 % of their waste by 2025 - this includes businesses, households and the public sector. The Assembly Government proposes to set statutory recycling targets for municipal waste collected by local authorities⁴. The construction sector will be expected to reuse and recycle 90 % of its wastes by 2025.
- The right kind of recycling - all recycling operations should, as far as possible, be 'closed loop' to achieve the best environmental benefits.
- Food waste collected separately and managed in anaerobic digestion facilities to generate valuable renewable energy and fertiliser.
- Strong markets for recyclates and the fertiliser produced from the anaerobic digestion of food waste.

³ In our sector plans we will consult on annual waste prevention targets of -1.2 % for household waste, -1.2 % for commercial waste, -1.4 % for construction and demolition waste, and around -1.4 % for industrial waste (in each case this will be a percentage of the 2007 baseline).

⁴ Proposed Waste (Wales) Measure 2010.



Minimising residual waste - residual waste is the fraction of waste that has not been separated for reuse, recycling, composting or anaerobic digestion and which is usually put out for treatment and/or disposal in black bags, wheelie bins or skips. As recycling rates for all main waste streams (household, commercial and industrial) increase towards a minimum of 70 % by 2025, residual waste will be the material that cannot be recycled feasibly, and it will decrease to a maximum of 30 % by 2025. This residual waste will be phased out of landfill sites and sent instead to high efficiency 'energy from waste' plants in accordance with the waste hierarchy and in order to deliver the best sustainable outcomes for this waste fraction.

Landfill will be eliminated as far as possible - to reduce Wales' greenhouse gas emissions and make the most of our valuable resources, we need to eliminate waste from landfill (especially food waste) and manage the emissions from existing landfill sites.

Legacy wastes will be tackled - these are wastes that are problematic to recycle and/or dispose of, especially in relation to construction and demolition activities. Ways of avoiding or treating legacy wastes will be found. In addition, efforts will be made to ensure that products are redesigned so that they do not become problematic legacy wastes in the future.

2050 - Achieving zero waste

By 2050, we will have reduced the impact of waste in Wales to within our environmental limits. This means that the ecological footprint of waste in Wales will be at 'one planet' levels (a reduction of roughly 65 % in waste compared to current levels). 'Zero waste' will be achieved by eliminating residual waste and reusing or recycling all the waste that is produced. It will be achieved by continuing and enhancing efforts on:

Achieving one planet levels of waste - Greater effort will be made to combat waste at all stages of its production. All products will use as little material as possible, with the majority of it sourced from recycle and renewable sources, and as few virgin resources used as possible. Resources will be highly valued to the point that none will be wasted.

Achieving 'zero waste' - Any waste that is produced will be reused, recycled, composted (for green waste) or anaerobically digested (for food waste). All products and packaging will be designed for disassembly and ease of reuse or recycling. The collection services and facilities needed to reuse or recycle all the material will be in place. All recycling operations will be 'closed loop', or employ 'up-cycling'⁵. As far as possible, recycle will be used directly in Welsh manufacturing processes. This means there will be far less need for residual waste treatment facilities such as 'energy from waste' plants with the number and/or capacity required progressively reducing from 2025 to 2050.

⁵ "Up-cycling" - up-cycling happens where high embedded energy raw materials are substituted by lower embedded energy secondary raw materials that can subsequently be closed loop recycled.

Part 5: Delivery

Waste prevention

Sector plans - The sector plans will consider and evaluate the following ways of achieving and implementing waste prevention:

- Eco-design techniques
- Resource efficient production processes
- Green procurement
- Dealing with legacy wastes and designing out hazardous waste
- Encouraging source separation
- Encouraging sustainable construction practices
- Changing lifestyles and behaviour.

These can be achieved through:

- Education and awareness raising campaigns
- Advice and support for businesses
- Evaluating the role of waste prevention in the provision of household waste collection services by local authorities
- Sector commitments and targets
- Promoting zero waste strategies
- Consideration of appropriate levers and instruments.

Our sector plans will take into account the varying needs of different areas of Wales, especially in relation to rural, urban and valley areas. Particular attention will be paid to the needs of small businesses.

Within the Assembly Government - We will work to ensure that all public sector bodies and services funded by the Assembly Government adopt sustainable waste management practices, with waste prevention and reuse given priority

Working with UK and EU Governments - Some of the tools needed to achieve waste prevention at the levels required are not currently within the scope of the Assembly Government. We will work closely with the UK and EU Governments to ensure producers take more responsibility for their products and product design.

Reuse, recycling and landfill reduction

Sector plans - The sector plans will consider the following ways of achieving and implementing landfill reduction and high levels of reuse and recycling

Developing the right kind of waste collection systems through:

- Enhancing household recycling services
- Ensuring greater consistency in the types and range of recyclable materials collected from households and businesses
- Identifying more clearly where recyclate collected by local authorities ends up and how it is utilised
- Developing more efficient and effective recyclate services provided by local authorities
- Developing an efficient and effective collection mechanism for clean, source-separated recyclates which achieves the most sustainable outcomes for the mixed element of commercial and industrial waste

Establishing and developing the required infrastructure and markets for recyclate through:

- Identifying and developing markets
- Identifying the supply of high quality recyclate as a raw material for manufacturing companies
- Assessing the infrastructure requirements and providing mechanisms for implementing them
- Developing mechanisms for promoting closed loop recycling facilities
- Developing mechanisms for promoting recycling facilities that accept recyclates based on material regardless of source
- Ensure the waste infrastructure in Wales is as sustainable as possible and that facilities are seen as valuable, desirable assets by the communities that surround them.

Reducing the impact of landfill facilities - Landfill sites contribute to greenhouse gas emissions. In the sector plans, we will develop a programme of work to reduce the greenhouse gas emissions from operational and closed landfill sites. We will also work with our partners to find out if these can be reduced even more.

Working with UK and EU Governments - We will continue to work within the Assembly and with the UK and European Governments on supporting strategies, legislation and other policy instruments (such as producer responsibility and the landfill tax).



Activity already being undertaken

Activity already being undertaken in support of the delivery of the policies, targets and outcomes in this strategy are detailed in the Waste Strategy Progress Report 2002-2008.