



## **Bridgend County Borough Council**

### **Draft Municipal Waste Strategy**

September 2011

Version: Rev 2

This page is deliberately left blank

## CONTENTS

1.0	INTRODUCTION.....	4
1.1	Purpose of the Strategy .....	5
1.2	Structure of this Headline Waste Management Strategy Document.....	6
2.0	PROFILE OF BRIDGEND COUNTY BOROUGH.....	6
3.0	WASTE ARISING, LEGISLATIVE & POLICY OVERVIEW .....	8
3.1	Baseline Waste Data.....	8
3.2	Legislative Overview .....	8
4.0	OVERVIEW OF CURRENT WASTE MANAGEMENT SERVICES .....	9
4.1	Waste Minimisation .....	10
4.2	Waste Collection and Recycling in Bridgend .....	11
4.3	(Residual) Waste Treatment.....	13
4.4	Other Service Elements.....	14
4.5	Performance.....	14
5.0	LOOKING TO THE FUTURE .....	15
5.1	Performance Targets to 2024/25.....	16
5.2	Waste Treatment Options.....	19
5.3	Technology Summary .....	20
5.4	Future Funding Issues .....	21
6.0	SUMMARY IMPLEMENTATION OVERVIEW.....	23
6.1	Outline Action Plan.....	23
6.2	Kerbside Recycling Collections (Dry) .....	23
6.3	Organic (food and garden waste) Collection and Treatment.....	24
6.4	Residual Treatment .....	25
6.5	Household Waste Amenity Sites .....	25
6.6	Landfill.....	26
6.7	Summary .....	27

## FIGURES

Figure 2-1:	Bridgend County Borough Location .....	7
Figure 3-1:	Municipal Waste Arisings 2000-2011.....	8
Figure 4-1:	Location of Household Waste Recycling Centres.....	12
Figure 4-2:	Recycling, Composting, Treatment and Landfill Performance (tonnes).....	8
Figure 4-3:	Tonnage of Household Waste Separated for Recycling/ Composting.....	16
Figure 5-1:	Bridgend MSW Waste Forecast Scenarios .....	17
Figure 5-2:	Estimated Tonnages for Option 3 to achieve headline WG target.....	18
Figure 5-3:	Waste Treatment Procurement Consortia Configuration.....	19
Figure 5-4:	Sustainable Municipal Waste Grant Expenditure Cost Plan.....	19
Figure A-1:	Bridgend LAS Performance.....	30
Figure A-2:	Planning Framework for Decision Making.....	34

## TABLES

Table 4-1:	Waste Management Performance Indicators.....	15
Table 5-1:	Summary of WG Municipal Management Targets .....	16
Table 5-2:	Typical Percentage Tonnages for Recycling, Composting and Recovering in Bridgend (Option 3) to achieve headline target.....	18
Table 6-1:	Summary of Actions with Costs for Increasing Recycling Rates (2011-2025).....	19
Table A-1:	Bridgend LAS Allowances .....	30
Table A-2:	Summary of Waste Infrastructure Requirements from Bridgend's UBP.....	34

## APPENDICES

Appendix A;	Waste Framework Directive .....	29
Appendix B	Participation Monitoring Survey 2011 Report.....	36

## GLOSSARY

AD	Anaerobic Digestion
BCBC	Bridgend County Borough Council
BMW	Biodegradable Municipal Waste
EA	Environment Agency
HWRC	Household Waste Recycling Centres (HWRCs)
LA	Local Authority
LARAC	Local Authority Recycling Advisory Committee
LAS	Landfill Allowance Scheme
LDP	Local Development Plan
MREC	Materials Recovery and Energy Centre
MRF	Materials Recovery Facility
MSW	Municipal Solid Waste
MWMS	Municipal Waste Management Strategy
SWWRWP	South West Wales Regional Waste Plan
UDP	Unitary Development Plan
WG	Welsh Government
WAW	Waste Awareness Wales
WEEE	Waste Electrical & Electronic Equipment
WLGA	Welsh Local Government Association
WPP	Waste Procurement Programme
WRAP	Waste Resources Action Programme

## Introduction

The purpose of this strategy is to provide a route map of the type of decisions and actions the Council needs to take over the next 14 years in order to achieve the statutory recycling and landfill diversion targets set by the Welsh Government (WG).

The Council has embraced the challenges posed by new and emerging national policies and legislation and over the last four years has carried out a “root and branch” review of its waste management arrangements. The resultant changes to services, to date, have been a success, assuring Bridgend will achieve its statutory targets up to 2013. However, the targets set for 2015/16, 2019/20, and 2024/25 present a new set of challenges which have to be addressed.

The strategy includes an overview of waste arisings, legislation and policies. It reviews the Council’s current waste management services and then it looks to the future and sets out what actions need to be taken.

It has been necessary to work back from the final target date in 2025, identifying when and what has to be done to achieve the desired outcomes i.e. statutory recycling and landfill diversion targets.

The majority of the strategy provides context as to why actions have to be taken. The detail of what needs to be done and when is crystallised on Table 6-1

Essentially what the Council needs to do is provide an environment for householders which makes it easier for them to recycle than it is for them not to do so. The creation of the right “environment” will involve the introduction of new initiatives and services which are referred to in Section 6 and include.

- develop further localised householder engagement
- introduction of a trade waste recycling service;
- limiting residual waste per household to a maximum of two bags per collection ;
- introduction of a green waste collection service;
- stricter recycling controls at Household Waste Recycling Centres
- develop a new upgraded Household Waste Recycling Centre

The Council will be faced with making some challenging decisions, as the proposed “environment” will not be popular with those households that have been slow to develop a commitment towards recycling.

**Louise Fradd**  
**Corporate Director Communities**

**Councillor Philip White**  
**Cabinet Member Communities**

## 1.0 INTRODUCTION

Managing municipal waste more sustainably presents a significant challenge for all local authorities in Wales. In order to succeed in this challenge, and achieve the targets for waste reduction and avoidance of landfill set down by the Welsh Government (WG), Bridgend County Borough Council (BCBC or 'the Council') will initiate measures and engage with the public to emphasise the need to reduce waste arisings, maximise reuse and recycling opportunities wherever possible, and consider alternative methods for waste treatment to minimise reliance on landfill. This draft headline strategy document sets out the framework for the future to both meet legislative requirements and manage waste more sustainably.

There have been for some time pressures for a fundamental change in the way we manage our wastes in Wales. These pressures have meant that there is a strong desire to accelerate the process of sustainable change. These pressures include:

- **Landfill Tax:** In April 2010 the Chancellor announced that the landfill tax will be £56 in 2011, £64 in 2012, £72 in 2013, and £80 in 2014. The purpose of the tax is to serve as an economic tool to encourage investment in alternative waste collection arrangements, waste treatment technology and to reduce reliance on landfill by increasing the price per tonne of waste sent to landfill;
- **Greenhouse Gas Reduction:** The increasing volumes of waste and the way these wastes are managed can cause significant harm to the environment. For example, landfill produces up to 25% of UK emissions of the global warming gas, methane. Methane is a powerful greenhouse gas (21 times more powerful than carbon dioxide) that is produced when biodegradable wastes decompose in landfills;
- **Avoiding Fines:** The EU Landfill Directive required the UK to reduce the volume of biodegradable municipal waste sent to landfill by 2010, with further reductions in 2013 and 2020. Failure to meet these targets could result in fines of up to £180 million per year for the UK, which translates to £200 per tonne for underperforming Welsh Authorities. It is expected that Wales will meet the immediate targets but 2013 and beyond targets will be far more challenging. In addition the Waste (Wales) Measures 2010 introduces fines for councils that fail to achieve statutory recycling targets
- **Better Resource Use:** Waste often contains valuable materials that could be re-used, recycled or used as an energy source. Disposing of them to landfill is wasteful and increases demands for extraction of non-renewable resources that could otherwise be partly satisfied if materials were recovered rather than landfilled.
- **Local Regeneration Opportunities:** Alternatives to landfill frequently create additional employment opportunities and economic benefits, particularly recycling which creates jobs in businesses set up to collect and process recycled raw materials.

In June 2002, in recognition of the growing desire for change the WG published the National Waste Strategy entitled "Wise about Waste". That strategy set out a vision of waste management in Wales in which a high priority was attached to minimising waste production and diverting waste away from landfill, and where practicable, recovering value from waste through recycling, composting and energy from waste.

Significant progress has been made throughout Wales under 'Wise about Waste'. However, in recognition of the advancements in waste management and the need to ensure that positive progress continues to be made into the future, WG published a new national strategy document entitled 'Towards Zero Waste' in June 2010. Towards Zero Waste sets out further challenging targets for Wales to become more sustainable through better waste

and resource management. The Council has focused on these targets in developing this Municipal Solid Waste headline strategy document.

In 2003/04 then Welsh Assembly Government asked each council to produce a Municipal Waste Management Strategy setting out what the authority intended to do, what targets it was aiming to set, and how it would deliver its plans. The aim of the strategy was to help local authorities meet the various targets, and to ensure that, where appropriate, they work together in partnership with other authorities, the community sector and business.

It is likely that this strategy will require further periodic review every 2 to 3 years to ensure that it reflects the changing needs of both Bridgend and Wales

## **1.1 Purpose of the Strategy**

This Headline Municipal Waste Management Strategy (MWMS) document outlines how the Council plans to manage collection, treatment and disposal of Municipal Waste arisings into the future. The fundamental aims of the Council will be to continue to provide a 'value for money' service, through improved environmental performance, reductions in the carbon footprint of all waste management operations, minimising waste arisings and maximising opportunities for the reuse of waste, to meet statutory performance targets.

This document is intended to provide a future headline strategy for the Council to the year 2025. It builds on the 2004 consultation working draft and updates the strategy to take into account recent service developments, including the commencement of a new integrated waste services contract in June 2010. It also considers the publication of the 'Towards Zero Waste' overarching waste strategy document for Wales which was published in June 2010.

The application of a clearly defined strategy will be essential in the Council's drive towards greater sustainability, meeting national waste management targets, and thereby avoiding potentially significant financial penalties which would otherwise be incurred.

## 1.2 Structure of this Headline Waste Management Strategy Document

The following sections of this Waste Management Strategy document cover:

<b>Section 2</b>	<b>Profile of Bridgend County Borough</b>	provides the contextual location and profile of the County Borough
<b>Section 3</b>	<b>Waste Arisings and Legislative &amp; Policy Overview</b>	An overview of the county borough, waste arisings within the area, and description of key strategic documents that influence the future development of waste management services
<b>Section 4</b>	<b>Overview of Current Waste Management Services</b>	An overview of the range of waste management services currently provided by The Council and a summary of performance levels achieved to date
<b>Section 5</b>	<b>Looking to the Future</b>	Consideration of measures to be taken in the future, looking in particular at measures for waste re-use, recycling, composting, treatment and disposal.
<b>Section 6</b>	<b>Implementation Overview</b>	A high level assessment of how future service improvements can be implemented by Bridgend CBC, working closely with it's constituents and neighbouring authorities to deliver value for money and high levels of environmental performance

## 2.0 PROFILE OF BRIDGEND COUNTY BOROUGH

In order to understand and provide the strategic direction that the waste agenda is to take within Bridgend, the contextual location and profile of the County Borough needs to be considered.

The county borough of Bridgend is located equidistant between Swansea and Cardiff on the coastal plain of South Wales (see Figure 3-1 below). It enjoys a variety of landscape and topography including coastal dunes, common, farmland, woodland and deep incised valleys in the north where the land rises into the coalfield plateau. It covers an area of 246 square kilometres and stretches roughly 20km west to east, taking in the Llynfi, Garw and Ogmore valleys.





**Figure 2-1: Bridgend County Borough Location**

The population of the county borough is approximately 132,000. The main areas of population are the towns of Bridgend (~37,000), Maesteg (~12,000) and Porthcawl (~16,000). These towns are physically divorced and well spaced, whereas the valley communities are found in linear settlements determined by the topography. These three largest settlements accounting for just under 50% of the total population of the County Borough.

The land use of the county borough of Bridgend can be sub-divided into roughly four distinct areas which have different characteristics; the coastal plain, a fertile farming belt, a highly urbanised central area and the valleys which has scattered farmland and small pockets of woodland with strong field patterns.

Most industry is concentrated in the central urbanised area of the county borough, although there are several industrial estates within the valley areas including former coal mining sites, which contributed to the South Wales deep mine industry. The local economy has undergone significant structural changes in recent decades with a noticeable shift since the 1970s from primary and manufacturing jobs to service sector employment. Bridgend now has a high reliance on the public sector, particularly the local authority, Police and hospital services. While manufacturing now employs around 9,000 people, public administration, education and health employs over 19,000.

Employment in the county borough is concentrated in five wards in the south east of the area three of which account for over half the employment in the area. Large multinational employers include Sony, Ford Motor Company, Georgia Pacific, Harman Becker, Airborne Systems, and Logica.

The neighbouring Authorities are Neath and Port Talbot to the west, Rhondda Cynon Taff to the north and north east and Vale of Glamorgan to the east

### 3.0 WASTE ARISING, LEGISLATIVE & POLICY OVERVIEW

#### 3.1 Baseline Waste Data

“Municipal Waste” is defined in the Waste Emissions Trading Act 2003 as;

- (a) waste from households and
- (b) other waste that because of its nature or composition is similar to waste from households.

Only wastes defined as “collected municipal wastes” are to be reported for the purpose of the Landfill Allowances Scheme (LAS) and encompasses all waste under the control of a local authority.

Figure 3-1 below illustrates the quantity of municipal waste arisings and recycling for the County Borough from 2000 to 2011.

The quantity of waste arisings grew from 67,766 tonnes in 2000/01 to 85,936 tonnes in 2008/09, before falling to 68,800 tonnes in 2010/11.

Between 2000/01 and 2010/11 the Council’s recycling performance increased from 6% to 46%

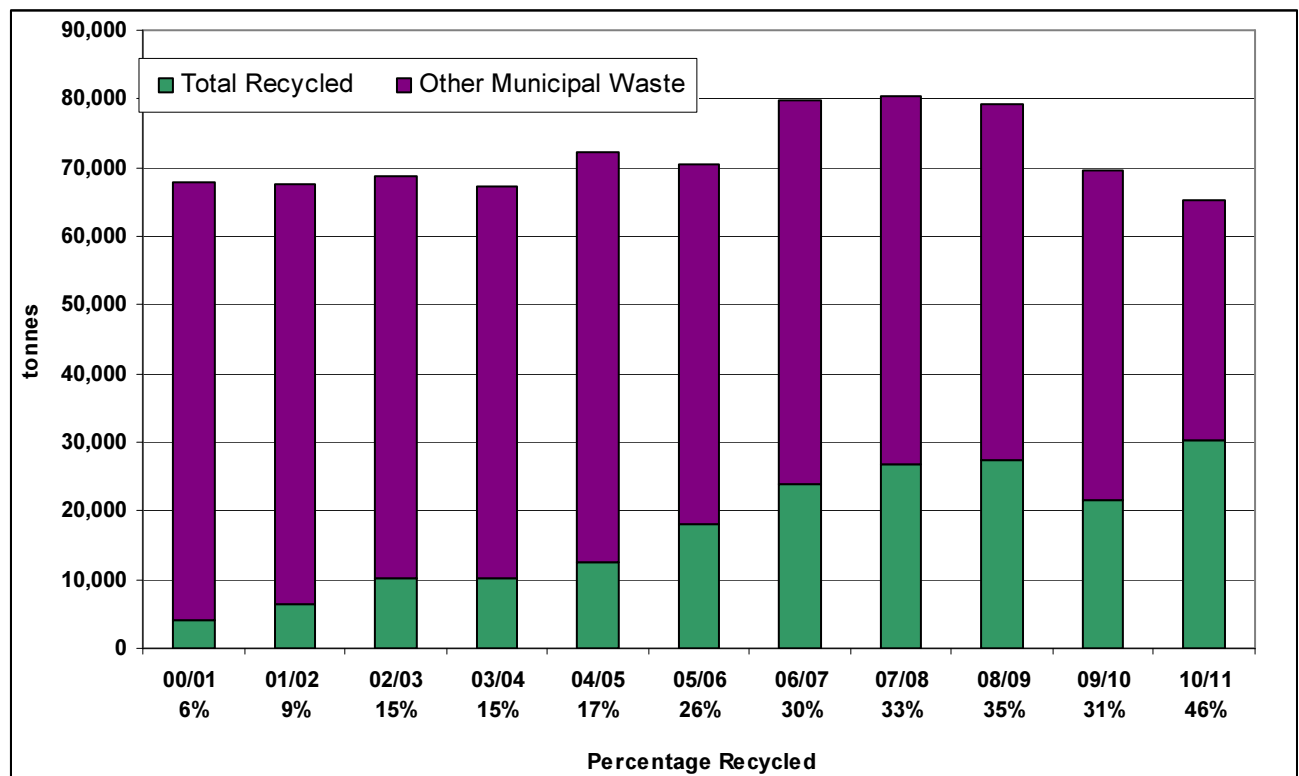


Figure 3-1: Municipal Waste Arisings 2000-2011

#### 3.2 Legislative Overview

Measures to achieve targets for improved management of waste are generally implemented at local authority level but primarily arise through the requirements of national and European legislation. Fuller details of the existing and emerging waste legislative framework are included at Appendix A and the key drivers are listed below:-

- Waste Framework Directive
- The Landfill Directive
- The Waste and Emissions Trading Act
- Landfill Tax
- Waste Strategy for Wales – In June 2010, WG published ‘Towards Zero Waste National targets detailed in ‘Towards Zero Waste’ are:
  - (i) 70% recycling/composting of all wastes by 2025;
  - (ii) 90% reuse/recycling of construction wastes by 2025; and
  - (iii) a maximum 30% residual waste (that which cannot be recycled or composted) by 2025.
- Waste (Wales) measure 2010 – providing **Welsh Ministers with the powers to set targets** for the percentage of waste that local authorities recycle. The Measure will allow the imposition of fines on local authorities failing to meet those targets
- Sector Plans – Sector Plans are the documents which will define in detail how the requirements of ‘Towards Zero Waste’ will be implemented..
- Waste Planning Framework – Key Development Documents

#### 4.0 OVERVIEW OF CURRENT WASTE MANAGEMENT SERVICES

The current range of waste management services provided by the Council is almost unrecognisable from that which existed just ten years ago. During this period, a number of significant developments affecting recycling, treatment and disposal of the Council’s waste have been introduced, these are outlined below:

- Externalisation of refuse collection in 2003
- In December 2003 Bridgend commenced delivery of residual waste to the Materials Recovery and Energy Centre (MREC) to which Bridgend has currently contracted its residual waste
- Commissioning in June 2004 of three new household waste amenity sites (Civic Amenity Sites) bringing the total within the county borough to four
- Introduction, in September 2005, of a county borough wide kerbside collection service for glass bottles, paper and textiles
- Introduction, in April 2007, of a pilot kerbside collection service for kitchen waste to approximately 9,000 households and the extension of this service to 11,000 households in October 2008
- In 2008, provision of a new waste management depot/transfer station at Tondu
- The letting of an innovative integrated waste management contract in 2010 of the Council’s waste collection service

The Council is committed to making the county borough a cleaner and greener place where people want to live, work and visit. Bridgend is proud of its reputation as one of Wales’s most

progressive councils when it comes to 'green' issues and is passionate about improving the environment for the residents of today and tomorrow.

The Council's record of minimising the amount of waste that is sent to landfill continues to be amongst the best in Wales. Bridgend is also one of only two Welsh authorities making significant use of waste to recover heat and power.

In 2006, it became apparent that in order to ensure that the Council could meet the challenging European and emerging WG waste management targets, it would be necessary to radically restructure the manner in which waste services were provided. Bridgend is part way through this service transformation. This strategy document sets the context for completing the remaining changes needed over the next 14 years and beyond.

#### **4.1 Waste Minimisation**

The reduction of waste arisings and optimisation of opportunities for reuse and recycling are fundamental to the achievement of statutory targets for waste management by local authorities. The Council has previously employed a range of waste awareness initiatives to increase public engagement and participation. It will be necessary to continue with such initiatives if targets are to be achieved.

To this end the Council employs a recycling officer and a sustainable waste officer, who are responsible for:

- monitoring performance of minimisation, re-use and recycling services and initiatives;
- liaising with partners and the public on recycling issues;
- monitoring and updating waste data;
- producing a waste guide, that is updated every two years and distributed to all households;
- visiting local schools and organising activity programmes and talks; and
- arranging ongoing media campaigns.

The Council also initiates and supports numerous education schemes throughout the county borough.

##### **4.1.1 Working in Partnership**

The Council recognises the importance of working in partnership with local organisations and wider waste management campaigns in order to maximise the improvements which can be achieved in the management of waste throughout the community. The key organisations and campaigns are listed below and further details of each are provided on the Council's website [www.bridgend.gov.uk](http://www.bridgend.gov.uk):

- Love Food, Hate Waste – minimising food wastage
- Bridge FM – the local radio station
- Bridgend Environmental Education and Sustainability (BEES) – delivering environmental education to local schools
- Eco Schools – working in association with Keep Wales Tidy
- Clean Beaches – working group to address the problems of marine litter
- Tidy Towns – identifying and developing environmental community projects
- Go Green Media Wales – producing waste articles for local newspapers
- Gregory Brothers – theatre group promoting waste issues to schools
- Groundwork – promoting energy and waste reduction in schools

- Kenfig National Nature Reserve – delivering educational programmes for school children
- Waste Guide – delivered to every household in the County Borough every 2 years
- Office Paper Recycling Scheme – in association with the National Probation Service of England and Wales

## 4.2 Waste Collection and Recycling in Bridgend

In November 2009, the Council appointed May Gurney as its waste management contractor, initially for seven years but with an option to extend for a further seven, to work in partnership with the Council to deliver the WG's waste diversion and recycling targets.

May Gurney took over from the previous contractor on 1 April 2010. The contract includes waste and recycling collections from around 60,000 households<sup>1</sup>, operation of a central depot/transfer station and running the Council's four Household Waste Recycling Centres (HWRCs).

### 4.2.1 Kerbside Collections

The service solution developed for Bridgend focuses on delivering higher recycling rates and sending less waste to landfill. The new services include recycling of a much wider range of materials than the previous service offered. The new contract service provides a full kerbside sort operation in line with the WG preferred methodology.

In June 2010, the enhanced recycling service was introduced in which paper, cardboard, plastics, glass, tins, cans, textiles and food waste (including meat, fish and bones) are collected at the kerbside on a weekly basis. In total, 99.5% of materials which are collected are recycled.

A comprehensive **Communications Plan** was developed and implemented in the run up to the start of the contract.

Early in 2011, the Council commissioned consultants (Waste Watch) to monitor household participation rates in kerbside recycling services across all collection rounds in order to determine participation rates generally. The results of this survey were generally encouraging and showed that nearly 80% of households were participating at some level. It did, however, identify certain areas of the county borough where participation levels were as low as 56%. For the Council to achieve the medium to longer term targets it is crucial that participation levels in the lower participating areas improve significantly. A copy of the detailed report can be seen in Appendix B to this document.

### 4.2.2 Household Waste Recycling Centres (HWRCs)

The Council has a statutory duty under Section 51(1)(b) of the Environmental Protection Act 1990 to provide household waste amenity facilities within the Borough at which members of the public may deposit household waste. This service is provided free of charge to local householders. The Council has four HWRCs which are strategically located across the county borough and located at:

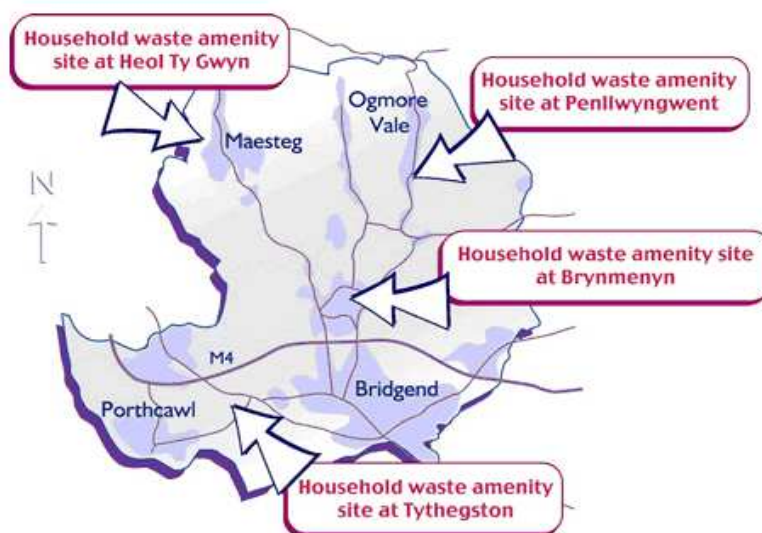
- Tythegston, near Porthcawl
- Heol Ty Gwyn Industrial Estate

---

<sup>1</sup> Coverage extends to the whole County Borough area, except for some multi-occupancy dwellings where alternative recycling services are now provided

- Maesteg
- Brynmenyn Industrial Estate,
- Penllwyngwent Industrial Estate,
- Ogmore Vale

The locations of the four sites are presented in Figure 4-1 below.



**Figure 4-1: Location of Household Waste Recycling Centres**

All sites take general mixed household waste. There are also separate containers for the following materials to be recycled or composted:

- 
- |                                       |                                         |
|---------------------------------------|-----------------------------------------|
| • Cans (aluminium and steel)          | • Paper                                 |
| • Car batteries                       | • Small amounts of rubble               |
| • Cardboard                           | • Household batteries                   |
| • Fluorescent tubes                   | • Hard plastics                         |
| • Fridges and freezers                | • Scrap metal                           |
| • Gas cylinders                       | • Textiles                              |
| • Glass bottles and jars              | • Waste electrical and electronic items |
| • Green waste (inc. all garden waste) | • Wood and furniture                    |
| • Motor oil                           | • Tetra paks (drinks cartons)           |
| • Cooking oil                         | • Plasterboard                          |
- 

The Council will seek to tighten control of trade waste entering HWRC. This is necessary to prevent waste abuse and minimises costs payable in terms of landfill disposal charges which are ultimately borne by the tax payer.

Residual waste arisings from the HWRCs are currently disposed of at the Pwllfa Watkin Landfill Site located approximately 10 miles north of Swansea and within Neath Port Talbot County Borough

### **4.2.3 Additional Collection Services**

#### *Schools*

The Council offers all local schools a free office paper recycling service. This scheme is a working partnership with the South West Wales Probation Service, which runs the collection service. The scheme has expanded to include cardboard, plastics, tetra packs and ink cartridges. All the paper, cardboard, plastics and tetra packs are recycled by a local company and the ink cartridges are taken to local charity.

#### *Bulky Waste*

Bulky waste collections are available to residents on request, and are typically carried out within 5 working days of the request being received. All items collected must be sorted into the following categories – residual, reusable, recyclable and Waste Electronic and Electrical Equipment (WEEE). Non-compaction collection vehicles are used, to maximise reuse and recycling opportunities for the items collected.

#### *Clinical Waste*

As part of the new integrated waste contract, a clinical waste collection service is available to residents. This service complements and strengthens the suite of services provided. Clinical waste collections are carried out using specialist sacks and containers on a weekly, fortnightly or monthly basis as required.

#### *Trade Waste*

The Council also offers a chargeable trade waste service. Currently the Council does not offer a recycling service for trade waste and the material collected is treated as part of the total residual waste.

## **4.3 (Residual) Waste Treatment**

The Council has a partnership agreement with Neath Port Talbot County Borough Council to process residual waste at a purpose built waste treatment plant, known as the Materials Recovery and Energy Centre (MREC).

The MREC, located at Crymlyn Burrows near Swansea assists Bridgend and Neath Port Talbot Councils in diverting a large percentage of waste that would otherwise be destined for landfill.

All of the residual 'black bag' waste collected from the kerbside in Bridgend is taken to the MREC, where metals are removed mechanically for recycling. The remaining waste is processed to produce a refuse derived fuel (RDF) some of which is used to generate energy for use at the facility. The majority of the RDF produced at the plant, however, is used in cement kilns as a substitute for non-renewable natural resources such as fossil fuels (coal, oil and natural gas). As a result of this waste treatment process, the amount of Bridgend's waste going to landfill is significantly reduced.

## 4.4 Other Service Elements

### 4.4.1 Council Buildings

Within the Council itself, green issues are high on the agenda. The Council as a whole has reached Level 5 of the Green Dragon Environmental Management Standard making it the top council in Wales for this standard,

Certain offices have facilities to recycle different types of materials including, paper and plastics. The opportunity should be taken to introduce further office recycling initiatives in order to set recycling standards for other organisations within the county borough.

## 4.5 Performance

The fundamental changes made by the Council in the way that waste is managed in the County Borough, have resulted in performance levels that are amongst the best in the country.

Performance figures indicate that Bridgend is one of the best Councils for landfill diversion in Wales. In 2010/11 the amount of LAS allowances used was 37.4% which is considerably better than the national average of 72.5%<sup>2</sup>.

A summary of Bridgend's performance against key waste management indicators between 2006 and 2011 is presented in Table 4-1 and Figure 4-2 below.

**Table 4-1: Waste Management Performance Indicators**

PI Reference	2006/07	2007/08	2008/09	2009/10	2009/10 Target	2010/11	2010/11 Target	2011/12 Target
WMT-009	Percentage of municipal waste prepared for re-use, recycled, composted or treated biologically							
	33.1%	33.0%	34.6%	30.6%	40.0%	46.3%	43.0%	48%
WMT-002	Percentage of biodegradable municipal waste sent to landfill							
	48.4%	42.9%	39.4%	36.6%	40.0%	PI deleted		
WMT-004	Percentage of municipal waste sent to landfill							
	48.5%	44.3%	43.7%	40.1%	43.0%	26.5%	36.0%	26%
WMT-005	Percentage of municipal waste used to recover heat & power							
	9.1%	16.9%	17.9%	26.8%	18.0%	23.5%	20.0%	24%
WMT-007	Percentage of municipal waste received at a household waste amenity site that is reused, recycled or composted							
	57.6%	59.3%	62.6%	64.6%	62.0%	55.0%	66.0%	66%

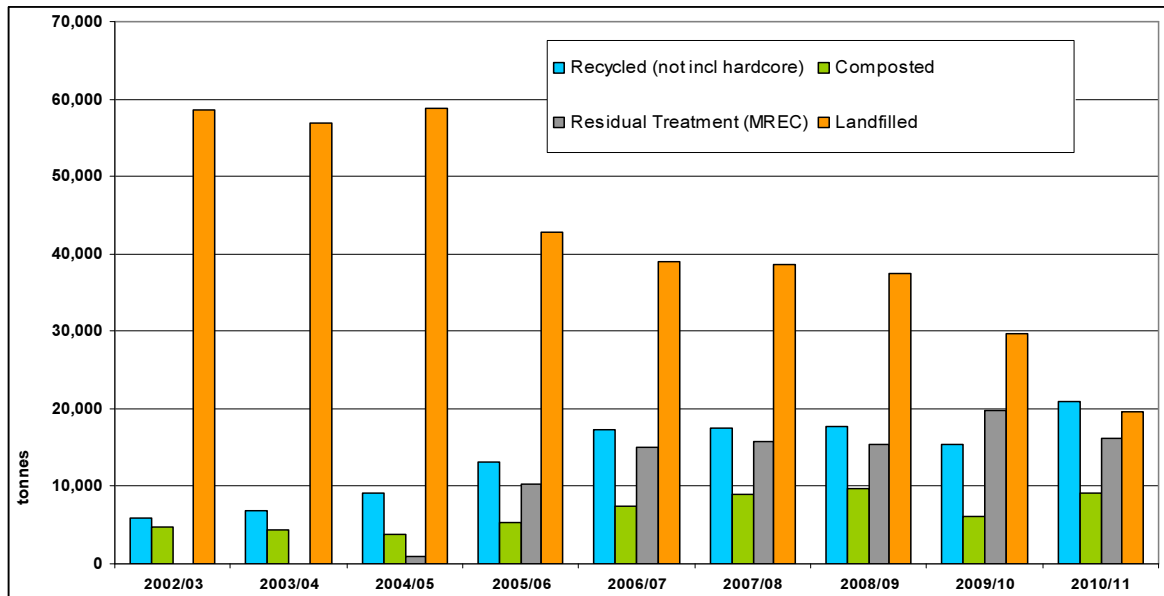
The table and figure demonstrate that, in the five year period from 2006 to 2011:

- recycling rates have improved as new initiatives have been implemented and public participation has expanded;
- the relative quantity of municipal waste and biodegradable municipal waste sent to landfill has reduced year on year; and

<sup>2</sup> [http://www.environment-agency.gov.uk/static/documents/Business/LAS\\_Report\\_2008\\_09\\_FINAL\(1\).pdf](http://www.environment-agency.gov.uk/static/documents/Business/LAS_Report_2008_09_FINAL(1).pdf)



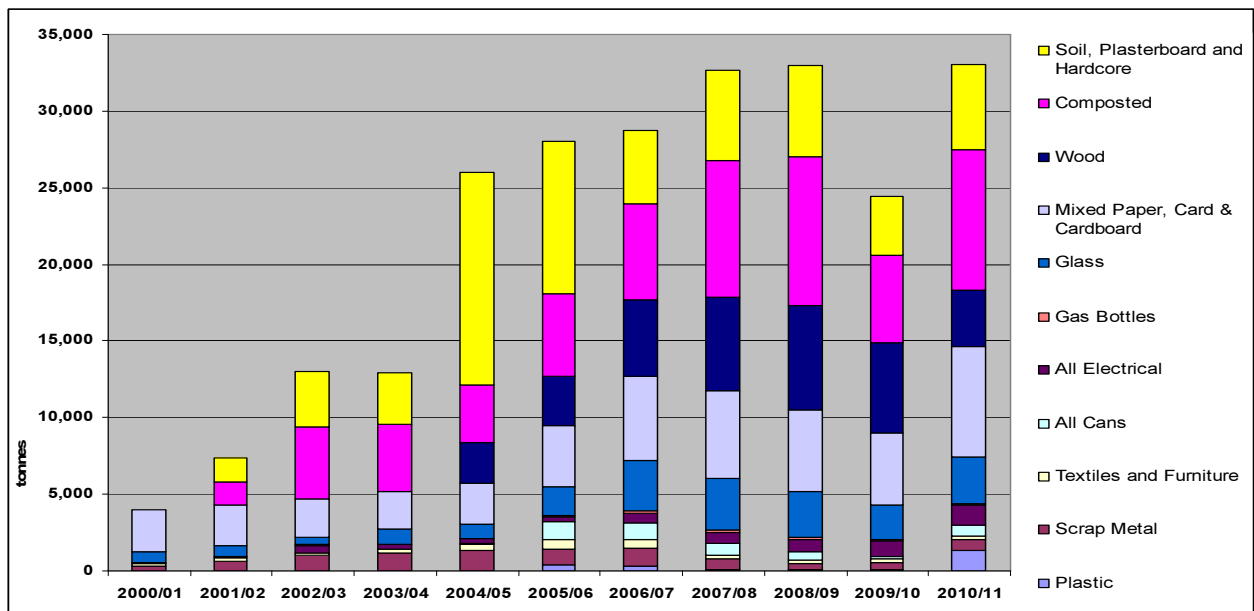
- the proportion of municipal waste used to generate heat and power has increased.



**Figure 4-2: Recycling, Composting, Treatment and Landfill Performance (tonnes)**

In 2009/10, the percentage of recycled and composted waste fell to approximately 31%, falling short of WG’s 40% target. However, following the introduction of the new recycling collection service in June 2010, the whole year performance for 2010/11 rose to approximately 46%. The fourth quarter for 2010/11 was even higher at 51%.

The quantity of household waste which is recycled, together with a breakdown of the recycled waste by type, is summarised in Figure 4-3 below.



**Figure 4-3: Tonnage of Household Waste Separated for Recycling / Composting**

## 5.0 LOOKING TO THE FUTURE

The Council will continue to seek to lead the way on waste management, delivering high performance and value for money for residents throughout its operations. The key

considerations in the ongoing development of waste management infrastructure are described in more detail below.

## 5.1 Performance Targets to 2024/25

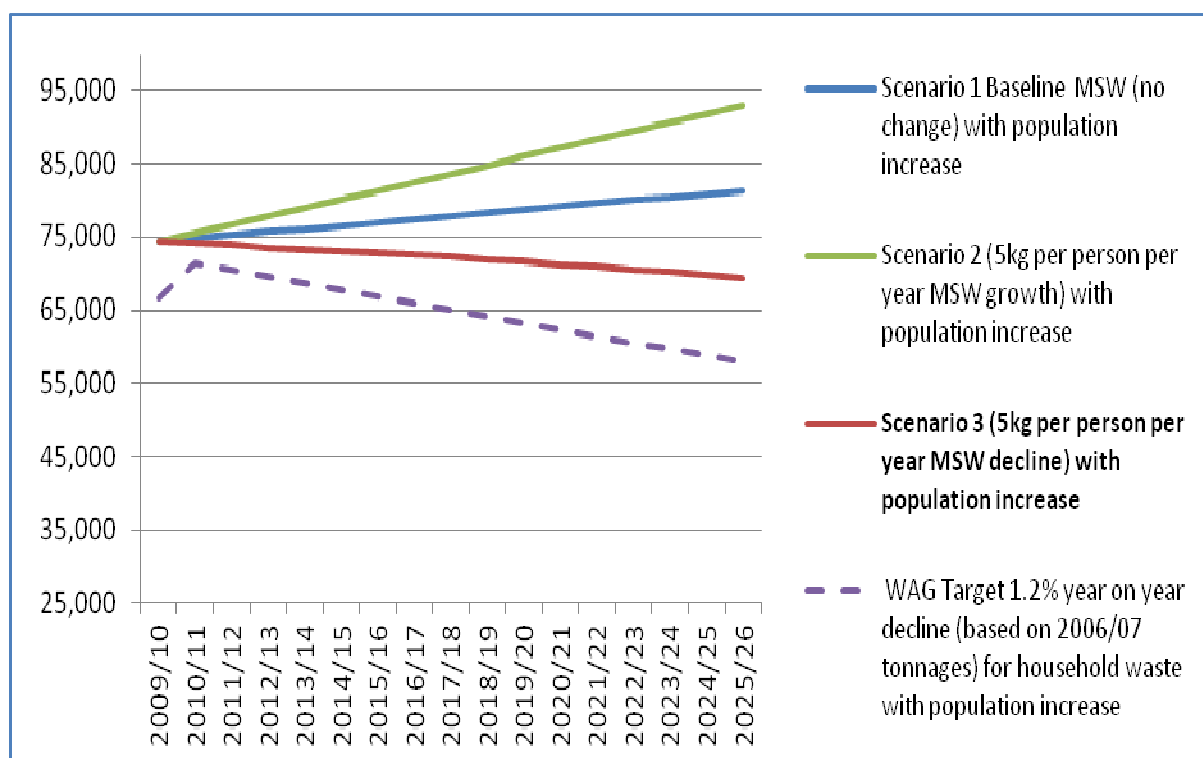
Future targets for waste management in Wales are now clearly defined for the period to 2025, as summarised in Table 5-1. The ultimate 'Towards Zero Waste' aspiration to the year 2050 is also set out in general terms. BCBC will need to continue to enhance and develop its services to ensure that all WG targets are met by the key years identified in the strategy.

**Table 5-1: Summary of WG Municipal Waste Targets**

Target for Each Individual Local Authority:	Target Year				
	2009-10	2012-13	2015-16	2019-20	2024-25
Minimum levels of recycling, preparing for reuse and composting (including AD)	40%	52%	58%	64%	70%
Maximum level of energy from waste (net)	-	-	42%	36%	30%
Maximum level of landfill	-	-	-	10%	5%

The recently published waste strategy for Wales also includes a waste reduction target of approximately 1.5% year on year across all sectors (including commercial and industrial) until 2050. This target has been transposed into a household waste reduction profile of 1.2% year on year until 2050 based on 2006/07 waste arisings and is shown as the broken purple line in Figure 5-1 below.

A range of growth profiles have been modelled using a combination of historic average waste growth trends and forecasted population increases for Bridgend. These are shown in Figure 5.1. Scenario 3 models a 5kg per person per year decrease in MSW (including population increase) resulting in a 2025/26 total waste MSW arisings of 69,000 tonnes, and has been taken forward as the most realistic minimisation scenario for Bridgend. As a comparison scenarios 1 and 2 present the baseline MSW waste arisings (assuming no per capita change in MSW – Scenario 1) and a 5kg increase in MSW per person year on year (Scenario 2).



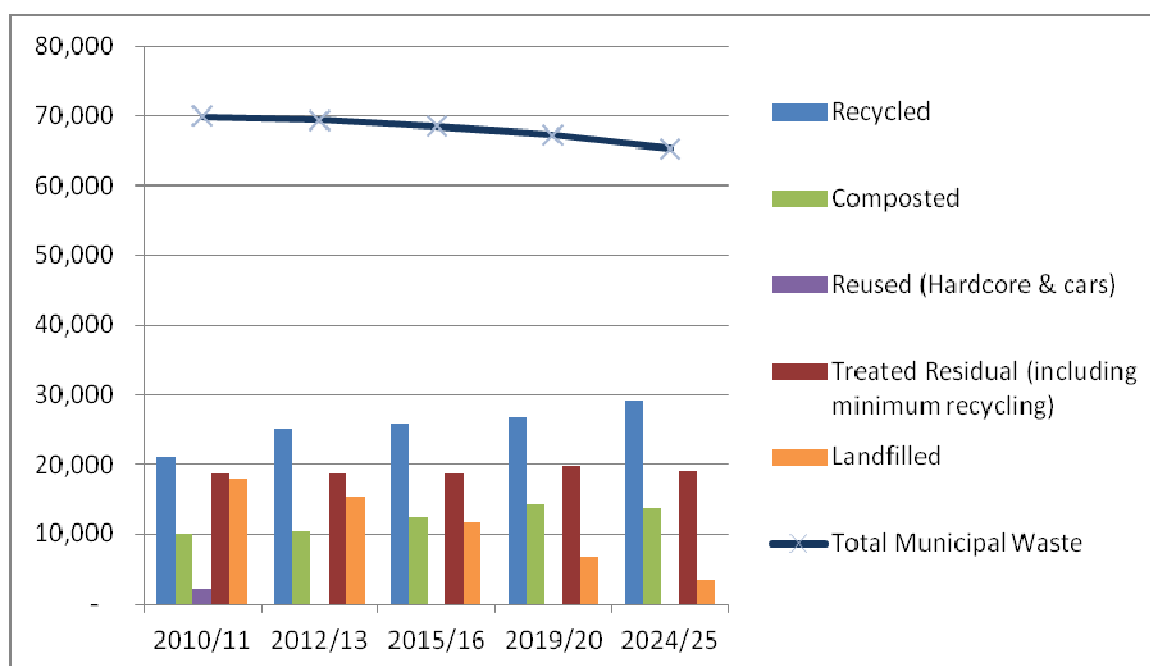
**Figure 5-1: Bridgend MSW Waste Forecast Scenarios**

In developing its long term waste management strategy the Council has modelled a number of recycling and composting scenarios based on the guidance set by WG (detailed in Table 5-1 ). Three options aimed at maximising source segregated recycling and composting have been modelled and are made up of the following targets;

- **Option 1:** Achieve 70% recycling by 2025 with a minimum 80% from source segregated recycling and composting;
- **Option 2:** Achieve 70% recycling by 2025 with a minimum 90% from source segregated recycling and composting (of which a minimum of 16% is from composting); and
- **Option 3:** Achieve 70% recycling by 2025 with a minimum of 90% from source segregated recycling and composting (of which a minimum of 20% is from composting)

The preferred strategic option chosen for Bridgend is Option 3 and represents the same profile as that adopted by the South West Wales Regional Hub for the procurement of anaerobic digestion and residual waste treatment facilities.

The anticipated tonnages for each of the waste streams for Option 3 are presented graphically below in Figure 5.2.



**Figure 5-2: Estimated Tonnages for Option 3 to achieve headline WG target**

The preferred strategy for Bridgend as depicted in Figure 5-2 shows an increase in recycling and composting with a proportional decrease over 15 years of waste to landfill. The strategy will also look to divert the maximum amount of residual tonnage from landfill through additional treatment. Table 5-2 below presents a typical percentage tonnage required to meet the Option 3 targets and includes the percentage of recycling required from the preferred residual treatment option. Table 5-1 is an indicative framework and relative percentage contributions may vary according actual management schemes as they are progressively rolled out.

**Table 5-2: Typical Percentage Tonnages for Recycling, Composting and Recovering in Bridgend (Option 3) to achieve headline WG target<sup>3</sup>**

	2009-10 <sup>4</sup>	2012-13	2015-16	2019-20	2024-25
Recycled	21%	36%	38%	40%	45%
Composted	8%	15%	18%	21%	21%
Reused (Hardcore & Cars) <sup>1</sup>	4%	-	-	-	-
Treated (including % minimum recycling)	27%	27%	27%	29%	29%
Landfill	40%	22%	17%	10%	5%
<b>Total Municipal Waste</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>
Typical Minimum Recycling from Residual Treatment	n/a	1%	2%	3%	4%

1. From 2012 'Reused (hardcore and cars)' tonnage is included within Recycled in accordance with WG 'Towards Zero Waste' Guidance

<sup>3</sup> Figures are indicative of how Bridgend envisages achieving the WG 70% recycling target by 2025

<sup>4</sup> Actual tonnages

## 5.2 Waste Treatment Options

The Council already has contracts in place to provide treatment of food waste and residual waste in the short to medium term. However, in order to ensure delivery of the longer term targets for waste management specified by WG, each council in Wales will need to ensure that similar contracts are in place. The need to develop a network of treatment facilities across the country has been recognised by WG, and measures have been taken to facilitate and streamline this process, as described below.

### 5.2.1 Waste Procurement Programme

The Waste Procurement Programme (WPP) is an investment programme to deliver waste treatment capacity across Wales to meet landfill diversion targets specified by the:

- EU Landfill Directive (1999); and
- Landfill Allowance Scheme Regulations (Wales) 2004.

WG is working in partnership with local authorities to ensure that future waste treatment facilities meet policy objectives (primarily to deliver 70% recycling) and are deliverable, sustainable and good value for money.

The Waste Procurement Programme Office (WPPO) manages two sub-programmes, namely:

- the food and organic waste treatment programme (designed to support achievement of the 2012/13 target; and
- the residual waste treatment programme (designed to support the achievement of the 2019/20 target).

In each programme, individual councils have joined together as procurement consortia, commonly referred to as 'hubs'. Bridgend is part of the South West Wales waste treatment regional hub, working in partnership with Pembrokeshire, Carmarthenshire, Swansea and Neath Port Talbot Councils, as presented in Fig 5-3 below.



Figure 5-3 Waste Treatment Procurement Consortia Configuration

### 5.3 Technology summary

There are numerous potential options now available for the treatment of waste, and local authorities need to consider a range of key factors when reaching a decision on which is the most appropriate for them, including the:

- amount of waste requiring treatment;
- type of waste requiring treatment;
- availability of suitable sites on which facilities can be developed; and
- financial cost and benefits of the various options.

As described above, WG has decided that in order to achieve the medium and long term targets for waste management in Wales in the most efficient manner, the formation of regional groups of local authorities is needed to deliver treatment facilities for food waste and residual ('black bag') waste.

#### 5.3.1 Food Waste Treatment

The separate collection and treatment of food waste has been driven forward by WG and all Welsh councils are now in the process of considering how best to provide collection and treatment infrastructure to meet the targets of the national waste strategy.

WG has put forward Anaerobic Digestion (AD) as its preferred technology for food waste treatment. AD is a process which takes place in a fully enclosed environment, minimising potential emissions and also produces renewable energy and heat which, potentially, can be exported into local supply networks to the benefit of the local community.

May Gurney currently provide in-vessel composting treatment at a facility in Gloucestershire, pending the development of suitable facilities more local to Bridgend. This is a short term contract, currently for a period of 3 years<sup>5</sup>.

The Council, as part of the South West Wales regional procurement hub, is currently in the process of procuring a contract for longer term treatment of food waste. The procurement process is currently scheduled to be completed in June 2012, and it is anticipated that treatment facilities will be operational by April 2014.

#### 5.3.2 Residual Waste Treatment

Bridgend currently continues to treat its residual waste collected at the kerbside at the MREC facility. This provides significant diversion of biodegradable waste from landfill and has helped Bridgend to become one of the leading Welsh councils in this regard.

However, it is recognised that there are now numerous technology options available for the treatment of residual waste, including:

- Mechanical Biological Treatment (MBT);
- Mechanical Heat Treatment (MHT – autoclave);
- Energy from Waste (EfW);
- Advanced Thermal Treatment (ATT);
  - Gasification; and
  - Pyrolysis.

The Council, in collaboration with Neath Port Talbot County Borough Council, will carefully consider the options available for the treatment of residual waste in the longer term and will

---

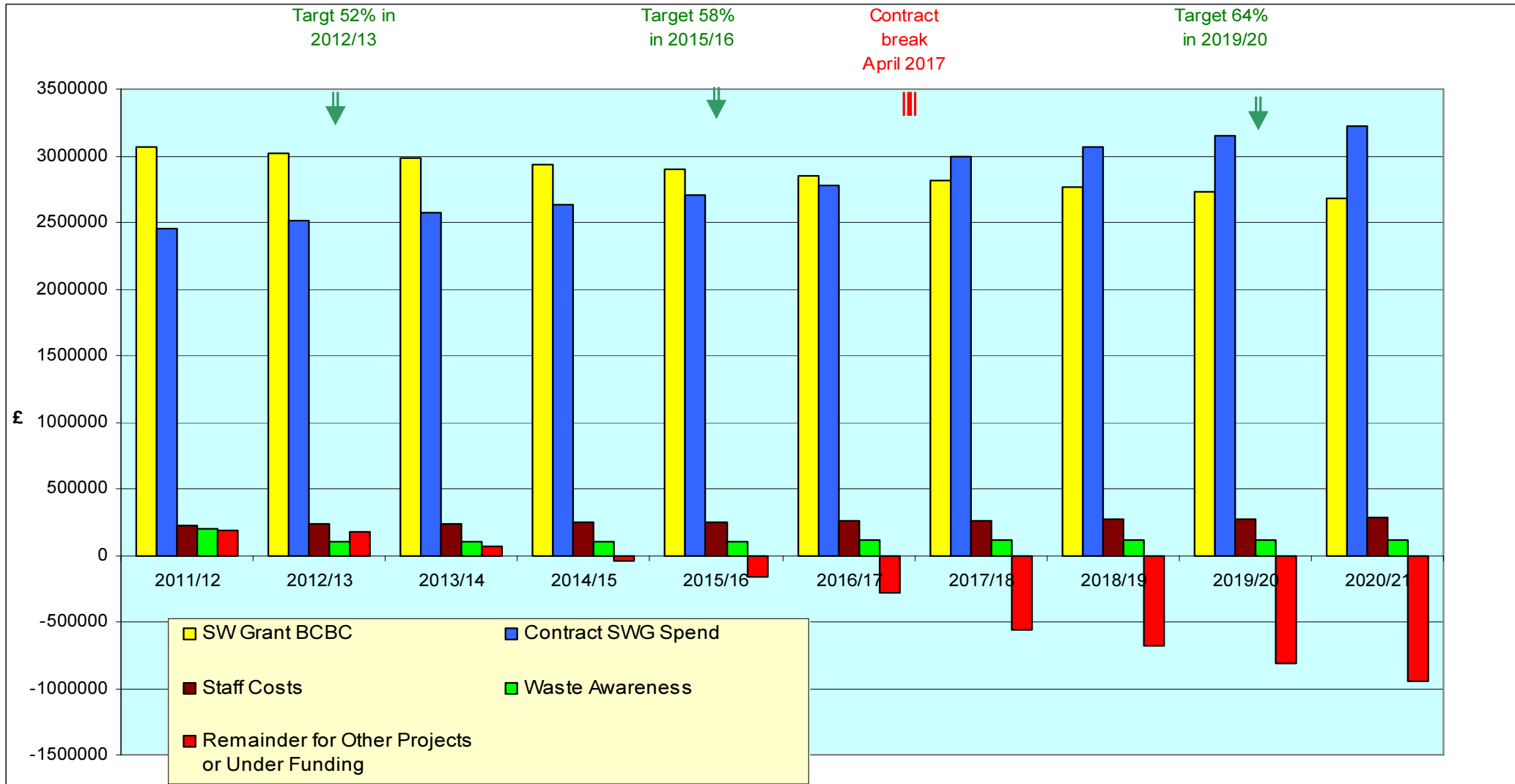
<sup>5</sup> Contract extendable by 6 months if required

ultimately develop a solution that offers maximum environmental benefit whilst continuing to provide value for money for the residents of Bridgend. Consideration of residual treatment option will be made with reference to the activities of the South West Wales procurement hub as it also looks to secure a suitable long term treatment facility.

#### **5.4 Future Funding Issues**

Many of the initiatives so far introduced, which have allowed the Council to meet its recycling targets, to date, have been funded from the WG's Sustainable Waste Management Grant. However WG have announced that over the next 10 years this grant will be reduced in real terms year on year. The funding issue is further exacerbated due to the increasing contract costs caused by inflation. The cost plan in Fig 5.4 below identifies what additional funding will be required to maintain existing service levels.

**Fig 5.4 Sustainable Municipal Waste Grant Expenditure Cost Plan**





## 6.0 SUMMARY IMPLEMENTATION OVERVIEW

### 6.1 Outline Action Plan

The Council will continue to work closely with the new waste management contractor, May Gurney to develop and distribute information and education campaigns to allow the residents of the county borough to fully play their part in achieving the targets set out by national government.

The Council and May Gurney have established a partnership board that meet on a regular basis to discuss the performance of the service, and ensure that any opportunities for further improvements in future years are identified and implemented wherever possible. The board will play a pivotal role in implementing the proposed additional initiatives required to achieve future targets as outlined in table 5-1. Any subsequent service changes will be managed so as to avoid disruption to residents and secure optimisation of service delivery.

Increasing awareness of the importance of minimisation, re-use, recycling and reducing the waste sent to landfill will ensure that the Council is making its contribution to looking after the environment for future generations. Reducing waste and measures to maximise recycling in the community will continue to be promoted via the local papers, radio and promotional leaflets. The Council is also committed to providing waste education in schools.

A summary outline Action Plan has been developed to show how the Council can work towards meeting future key strategic targets. This Action Plan is summarised in Figure 6-1 and is based on Option 3 described earlier in Section 5.1 of this document which comprises:

- **Option 3:** Achieve 70% recycling by 2025 with a minimum of 90% from source segregated recycling and composting (of which a minimum of 21% is from composting)

By 2025, whilst Option 3 assumes 66% of the 70% total recycling figure (i.e., 94% of the 70% = 66% recycling) is to be derived from source segregated activities (i.e., kerbside collection and HWRCs) a further 4% minimum additional recycling will need to be derived from residual treatment to achieve the overall 70% total recycling level set by the WG and summarised in Table 5.1.

It should be noted that the figures referred to in the Action Plan are indicative only and will depend on a number of factors including actual future waste growth, political decisions, HWRC diversion achieved, kerbside recycling (and organics) performance and final residual treatment technology adopted. A summary of the strategic aspirations identified in the Action Plan for each of the key service elements are summarised below and cover

- **Collection & Recycling**
- **Organic Treatment (Food & Green)**
- **Residual Treatment**
- **HWRC**
- **Landfill**

### 6.2 Kerbside Recycling Collections (Dry)

During 2010, May Gurney introduced a new fleet of 20 specifically designed recycling trucks to streamline collections and revamped the existing transfer station at Tondy to make the processing of materials more efficient. Collections are now zoned on a daily basis to improve

efficiency and management.

A recent comprehensive survey (referred to in 4.2.1) identified that there are some significant variations in participation levels across the county borough. For example the average participation rate for blue sacks was 79.1% but this varied between 55.9% and 92.0% in different communities. For other materials collected in the black boxes participation levels were generally lower but followed the same pattern of lower and higher participation areas. In general participation levels were better south of the M4 motorway. Details of the survey results can be found in Appendix B.

A programme of engagement, along with an ongoing monitoring strategy, will be implemented with those local communities where low participation levels have been identified. However, as well as improving engagement amongst householders further initiatives will be required in order to achieve the higher level recycling targets. Two initiatives identified in the Summary of Actions Plan on table 6-1 are as follows

- 1 As achievement of recycling targets become more challenging consideration should be given to restricting the amount of residual “black bag”, waste that individual householders are allowed to “put out” for collection; this could be achieved via a “no side waste” policy. It is, however, recognised that concessions may have to be made for householders with special needs. Any adverse reaction to the introduction of such a policy will mainly be from those householders that have chosen not to make use of the new recycling services. However, such a reaction is likely to be limited as the majority of householders have embraced the new service. Depending on the success or otherwise of other initiatives it may be possible to capture a further 7% of recyclable materials. It is anticipated that this would be a cost neutral initiative.
- 2 Trade collections, by the Council, represent approx 4% of its total MSW. Although this material is treated at the MREC and diverted from landfill it does not contribute to the Council’s recycling figures. It is estimated that the introduction of a trade waste recycling service could increase recycling rates by about 1%. As trade waste customers would be charged for this service it would be cost neutral to the Council.

### **6.3 Organic (food and garden waste) Collection and Treatment**

May Gurney has arranged, as an interim measure, for a period of 3 years from June 2010, for food waste to be treated at a facility in Gloucester while garden waste from HWRC is currently taken to Swansea. It is intended that the food waste will ultimately be processed at a facility to be provided as part of the South West Wales AD procurement process and the Council will continue to participate in the procurement of such facilities.

The South West Wales food waste treatment regional hub, is a working partnership between Bridgend, Pembrokeshire, Carmarthenshire, Swansea and Neath Port Talbot councils.

Through the implementation of the proposed service configurations it is considered that the food waste collection service could be capable of diverting up to 12% of Municipal Solid Waste.

Householder education and a high quality service will be important to maintain participation and capture rates for food waste. Engagement with householders to encourage the recycling of food waste and the monitoring of participation forms part of the initiatives to maximise kerbside recycling rates.

Currently garden waste, for composting, is only collected at HWRCs. It is essential that if Bridgend is to meet the medium to long term WG targets and achieve the collection rates shown in table 5-1, that the Council considers introducing a kerbside collection service of garden waste. A paper on the options available to the Council will be produced for discussion.

## 6.4 Residual Treatment

The recycling of more material through the new waste services contract has not impacted on the quality of the refuse derived fuel produced at the MREC. However, the higher recycling level has resulted in a shortfall in the minimum tonnage Bridgend is required to send to the MREC. The potential for this outcome had been anticipated and discussions are being held between the MREC and third parties to deliver other waste in order to meet the shortfall.

The Council, in collaboration with Neath Port Talbot County Borough Council, will carefully consider the options available for the treatment of residual waste in the medium and longer term. It is proposed to develop a solution that offers maximum environmental benefit whilst continuing to provide value for money for the residents of Bridgend. Consideration of residual treatment option will be made with reference to the activities of the South West Wales procurement hub as it also looks to secure a suitable long term treatment facility.

For the treatment of residual waste, the South West Wales regional procurement hub is due to develop its Outline Business Case (OBC) in 2011. The OBC will include a detailed assessment and evaluation of the residual treatment options available, and identify the structure of the 'reference project' upon which the procurement process will be based.

The estimated performance targets for residual treatment in key target years are:

- In 2009/10 – current residual treatment is 27% of total MSW
- In 2012/13 – 27% of total MSW
  - With a minimum 1% level of the output stream contributing to total MSW recycling
- In 2015/16 – 27% of total MSW
  - With a minimum 2% level of the output stream contributing to total MSW recycling
- In 2019/20 – 29% of total MSW
  - With a minimum 3% level of the output stream contributing to total MSW recycling
- In 2024/25 - 29% of total MSW
  - With a minimum 4% level of the output stream contributing to total MSW recycling

The above estimates assume the strategic recycling targets for kerbside recycling, kerbside organics, HWRCs are also achieved for the forecasted MSW per capita generation rates.

## 6.5 Household Waste Recycling Centres

Under the new contract there is a fundamentally different approach to the operation and management of HWRCs from that which existed previously. In addition to improving customer care and waste diversion performance, staff are being retrained to focus and proactively engage with customers. Staff are tasked with providing helpful advice to customers on how to segregate their waste to divert it from landfill. They also offer to assist customers with unloading and will provide this assistance where requested to do so.

A recent investigation carried out of the composition in the residual waste skips at two of the Councils HWRCs (i.e. the container provided for householders to dispose of material they consider cannot be recycled) identified that a significant quantity of domestic black refuse sacks are being deposited by householders with little or no effort being made to segregate recyclable material for collection at the kerbside. It would appear, therefore, that some householders are choosing not to use the new recycling collection service. The affect of such behaviour has two negative impacts for the Council;

1. recycling performance is reduced making it more difficult to achieve statutory targets; and
2. it costs the Council more to dispose material via a residual HWRC waste skip, due to landfill charges and tax, than it would if it had been recycled.

It is believed that through effective management and control of how waste is accepted at the sites, the residual waste arisings from the HWRC network can be significantly reduced, which in turn will increase recycling performance

The Council will work in partnership with May Gurney to help develop the HWRC network and undertake to:

- assess the suitability of acceptance criteria at HWRCs to achieve 70% diversion of waste into reuse, recycling or composting initiatives;
- review arrangements with May Gurney to ensure optimum usage and promotion of waste diversion, including through application of incentives for site operatives; and
- review the location of sites and assess whether rationalisation of sites is possible without adverse impact on the diversion of waste from landfill.

In March 2011 the WG published the municipal Sector Plan (Part 1) in which they state that all Local Authorities in Wales should have at least one HWRC that can take all identified recyclable municipal waste streams that householders are likely to produce and that they should also be able to receive and safely store bulky items for reuse. Not one of the Councils current HWRC is suitable for upgrading to meet this aspiration.

Of the current four HWRC operated by the Council one site is not in the Council's ownership and when the current leasing agreement comes to an end in 2017 it is not guaranteed that the lease will be renewed. The Council will therefore have to review the options in terms of replacement which will also meet the WG aspirations.

## 6.6 Landfill

Residual waste arisings from the HWRCs are disposed of at the Pwllfawtkin Landfill Site in the County Borough of Neath Port Talbot

The Council currently treats its residual waste collected at the kerbside at the MREC facility. This provides significant diversion of biodegradable waste from landfill

The amount of landfill required in future years will be dependent on the success of each of the key service elements described above, as well as the final choice of long term residual treatment technology adopted.

The estimated performance targets for landfill in key target years are:

- In 2009/10 – 40% of total MSW (Actual)
- In 2012/13 – 22% of total MSW
- In 2015/16 – 17% of total MSW
- In 2019/20 – 10% of total MSW

- In 2024/25 – 5% of total MSW

The above estimates assume the strategic recycling targets for kerbside recycling, kerbside organics, HWRC's and additional minimum recycling levels from residual treatment are also achieved for the forecasted MSW per capita generation rates.

## 6.7 Summary

The Council has successfully implemented a range of waste management services which has resulted in the Bridgend becoming one of the leading councils in Wales in terms of waste management.

The Council will continue to drive forward improvements, placing quality of service and value for money at the forefront of all its activities. **If the Council is to achieve its statutory targets it will need to introduce new services and initiatives of the type outlined in this document. A suggested timeline and estimate of costs for these changes is summarised in Table 6-1**

**Table 6 - 1 - Summary of Actions, with Costs, for Increasing Recycling Rates (2011 – 2025)**

Action	Estimated Costs	Estimate of total increase in overall recycling rate	Initial 7 year contract period							Possible 7 year contract extension							New Contract
			Year of proposed introduction														
			2010/11	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	
LPA survey	£42,000	na															
Localised engagement	£30,000 Pilot project broadly cost neutral	3% (1% per annum)															
Trade Recycling Service	Cost neutral	1%															
No Side Waste Policy	Cost neutral	7%															
Green Waste Service)	<u>Option 1</u> Free Service £750,000 /annum	12%*															
	<u>Option 2</u> Chargeable Service (One off RCAF Grant payment of) £265,000	4%															
Stricter control at HWAS	Cost neutral	4%															
New upgraded HWAS	£1.4 m to £1.7 m	2%															
<b>WG Targets</b>					<b>52%</b>				<b>58%</b>					<b>64%</b>			<b>70%</b>
<b>Anticipated % Recycling Total</b>			<b>50%</b> (March 2011)	<b>51%</b>	<b>56%</b>	<b>61%</b>	<b>62%</b>	<b>62%</b>	<b>62%</b>	<b>62%</b>	<b>69%</b>	<b>71%</b>	<b>71%</b>	<b>71%</b>	<b>71%</b>	<b>71%</b>	<b>71%</b>
* not carried to % Recycling Totals																	

## **APPENDIX A**

### ***Waste Framework Directive***

The EU Waste Framework Directive (2008/98/EC) specifies measures to protect the environment and human health by preventing or reducing adverse impacts associated with the generation and management of waste, and improving the efficiency of resource use. The Directive was revised in December 2008, requiring full implementation by December 2010.

The main requirement underpinning the directive is the obligation for member states to apply the waste hierarchy in waste management legislation and policy. The waste hierarchy is defined, in order of priority,

- prevention
- preparing for reuse
- recycling
- other recovery, e.g. energy recovery;
- disposal.



The directive also requires member states to promote recycling and implement enhanced collection systems, establish a network of recovery and disposal installations, establish waste management plans and establish waste prevention programmes.

#### ***A.1 The Landfill Directive***

It is now internationally recognised that the landfilling of Municipal Waste is the least desirable management option, although it is historically an approach that has been heavily relied upon by Wales and the United Kingdom.

The key requirements of the directive are:

- to substantially reduce the amount of biodegradable municipal waste (BMW) sent to landfill: and
- the treatment of all wastes prior to landfill.

The amount of Biodegradable Municipal Waste (BMW) which is sent to landfill must be reduced to 75%, 50% and 35% of the amount landfilled in 1995 by 2010, 2013 and 2020 respectively. These targets have been passed down to local authorities in Wales through the Waste and Emissions trading Act 2003, as summarised below.

#### ***A.2 The Waste and Emissions Trading Act 2003***

Under the requirements of the Act, and the Landfill Allowances Scheme (Wales) Regulations 2004 which supplement the Act, each local authority is given an allowance for the amount of BMW which can be landfilled each year. In Wales this system is referred to as the Landfill Allowance Scheme (LAS). Should this allowance be exceeded, WG can impose financial penalties for each tonne of waste landfilled. These penalties could be as much as £200 per tonne.

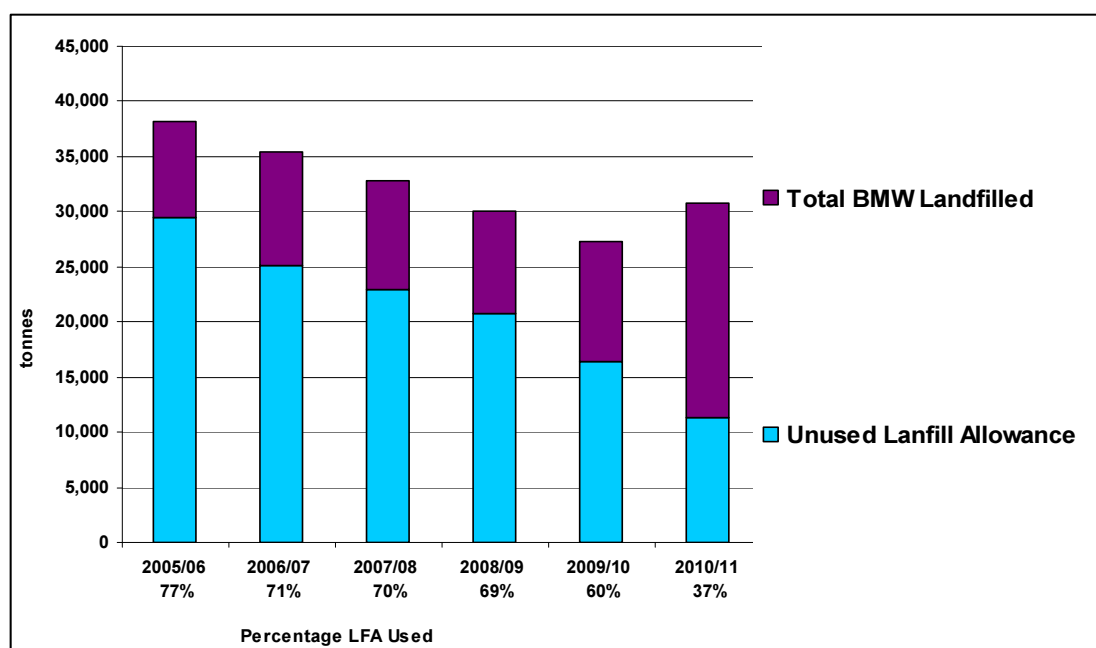
In accordance with the Waste and Emissions Trading Act, Bridgend CBC must comply with limits on the amount of Biodegradable Municipal Waste (BMW) that it sends to landfill, in

order to avoid potentially substantial financial penalties. Specific year on year tonnage targets for diversion of biodegradable municipal waste is given in Table A-1 of this document.

**Table A-1: Bridgend CBC LAS Allowance**

LAS Allowances (tonnes)			
<b>2010-11</b>	30,732 <sup>6</sup>	<b>2015-16</b>	20,000
<b>2011-12</b>	26,830	<b>2016-17</b>	19,025
<b>2012-13</b>	22,927	<b>2017-18</b>	18,049
<b>2013-14</b>	21,952	<b>2018-19</b>	17,073
<b>2014-15</b>	20,976	<b>2019-20</b>	16,098

Based on data published nationally by the Environment Agency, the Council sent 11498 tonnes of BMW to landfill in 2010/11, approximately 37% (as shown in Figure A-1 below) of its LAS limit for that year this tonnage already exceeds the 2020 target (see table A-1 above), making Bridgend the third best performing local authority in Wales in this regard. This has been achieved primarily through use of the MREC facility in Neath Port Talbot which sorts and treats residual waste rather than simply landfilling.



**Figure A-1: Bridgend LAS Performance**

The Council is currently considering the most appropriate means of diverting BMW from landfill in the longer term through composting / anaerobic digestion (AD) and residual treatment. Details of the current and proposed waste management infrastructure for the county borough are presented in the following sections of this document.

<sup>6</sup> In 2010 the Landfill Allowances for Local Authorities in Wales were re-calculated resulting in the 2010/11 allocation being greater than the 2009/10 allowance.



### A.3 Landfill Tax

Landfill tax is a tax paid by local authorities for each tonne of waste that is sent to landfill, rather than other options i.e.

- being recycled / composted;
- being sent for incineration / 'energy from waste' plant;
- being sent to a pre-treatment facility which can either reduce the weight and volume of the waste or biostabilise it, or both, before it is recovered through thermal treatment or is sent to landfill

The government introduced landfill tax in 1996 to encourage local authorities and businesses to switch to more environmentally friendly and sustainable methods of waste disposal. Local authorities bear the cost of landfill tax relating to household waste, while businesses pay the tax in relation to the waste that they send to landfill.

In April 2010 the Chancellor announced that the landfill tax will be £56 in 2011, £64 in 2012, £72 in 2013, and £80 in 2014. The intention is to act as a driver to encourage investment in alternative residual technology and to reduce reliance on landfill by increasing the price per tonne of waste sent to landfill;

Over the next few years the impact of increases in Landfill Tax will be to make most alternative waste treatment technologies cost competitive. This legislation provides a welcome additional driver in relation to the diversion of MSW from landfill and it is also of significance for the future management of Industrial and Commercial (I & C) waste.

### A.4 Waste Strategy for Wales

In June 2010, WG published 'Towards Zero Waste, One Wales: One Planet', the new overarching waste strategy document for Wales. This document replaces the previous national strategy document 'Wise About Waste' which was published in 2002.

The main challenges identified by 'Towards Zero Waste' are:

- **Sustainability** – using sustainable development to achieve a better quality of life for current and future generations;
- **Ecological footprint** – measuring the impact of resource consumption and the ability of the planet to provide the resources needed;
- **Climate change** – reducing greenhouse gas emissions from waste; and
- **Security of resources** – using resources more efficiently by preventing waste production, improving reuse and recycling in order to reduce the dependency on primary resources from outside of the UK.

Over and above the LAS targets for reducing biodegradable wastes sent to landfill, 'Towards Zero Waste' sets out a series of strategic targets for waste management across Wales, with the ultimate aim of phasing out residual waste (materials which cannot be reused or recycled) by 2050, and interim targets to be achieved by 2025.

It describes a long term framework for resource efficiency and waste management from 2010-2050. National targets detailed in 'Towards Zero Waste' are:

- 70% recycling/composing of all wastes by 2025;
- 90% reuse/recycling of construction wastes by 2025; and
- a maximum 30% residual waste (that which cannot be recycled or composted) by 2025.

'Towards Zero Waste' also sets aspirational waste reduction targets of:

- 1.5% per year across all sectors until 2050 (based on 2006/7 baseline); and
- 27% reduction in wastes by 2025 (based on 2006/7 baseline).

A summary of the key municipal waste targets set out in 'Towards Zero Waste' is presented in Table 5-1 repeated below.

**Table 5-1: Summary of WG Municipal Waste Targets**

Target for Each Individual Local Authority:	Target Year				
	2009-10	2012-13	2015-16	2019-20	2024-25
Minimum levels of recycling, preparing for reuse and composting (including AD)	40%	52%	58%	64%	70%
Maximum level of energy from waste (net)	-	-	42%	36%	30%
Maximum level of landfill	-	-	-	10%	5%

The typical Welsh household currently wastes around £50<sup>7</sup> per month buying food that ends up in the bin, while 90% of everything bought becomes waste within 6 months. By tackling these issues 'Towards Zero Waste' will help Welsh householders see the financial and environmental benefits which can be achieved by changing the way the people of Bridgend think about waste.

#### **A.5 Waste (Wales) Measure 2010**

The proposed (Wales) Waste Measure was passed by the then National Assembly on 2 November 2010. The Measure makes provision for the following four main areas:

- supporting the work of WG to introduce a **mandatory charge for carrier bags**. This measure was approved on November 30<sup>th</sup> 2010 and will make retailers legally obliged to charge for every single-use carrier bag from October 2011. The Single Use Carrier Bag Charge (Wales) has set the levy at five pence;
- providing **Welsh Ministers with the powers to set targets** for the percentage of waste that local authorities recycle, prepare for reuse or compost, reflecting the requirements of 'Towards Zero Waste'. The Measure will allow imposition of fines on local authorities failing to meet those targets;
- enabling WG to **ban or restrict certain wastes from landfill** in Wales; and
- allowing WG to **introduce fees and charging schemes** for Site Waste Management Plans for the Construction and Demolition sector.

To implement the targets set out in the Measure, WG is developing detailed legislation with respect to recycling, preparing for reuse and composting targets which is due to be enacted in 2011. The Welsh Local Government Association (WLGA) report<sup>8</sup> that the regulations set out the penalties that will apply to authorities failing to meet targets in a target year, and in each subsequent financial year. Significantly, the penalties will apply not only to meeting recycling/composting targets but also to compliance with WG's reporting requirements. Moreover, the penalties relating to the latter are not covered by the Penalties protocol.

<sup>7</sup> <http://wales.gov.uk/newsroom/environmentandcountryside/2010/100621tzw/?lang=en>

<sup>8</sup> WLGA Briefing Note (February 2010)

The proposed penalty for not meeting a recycling target will be set at £200 a tonne for every tonne an authority is out of compliance. The Penalties Protocol is an extension and updating of an existing protocol that covers the Landfill Allowance Scheme. The £200 a tonne penalty figure is consistent with the existing penalty under the Landfill Allowance Scheme; local authorities could be subject to both penalties.

The penalty in relation to a failure to comply with reporting requirements is proposed to be £1,000, with interest to be added to late payments, all recoverable as a civil debt. This would apply if a return/information request is not supplied or if it is inaccurate.

At the time of writing draft versions of the legislation are currently out for consultation, and feedback provided by local authorities will be considered prior to formal implementation.

## **A.6 Sector Plans**

Sector Plans are the documents which will define in detail how the requirements of 'Towards Zero Waste' will be implemented. Specific plans will be developed initially for:

- Municipal waste collected by local authorities;
- Collection, infrastructure and markets;
- Construction and demolition waste; and
- Retail, wholesale, food manufacturers and hospitality.

Part 1, the Municipal Waste Sector Plan, was issued in draft form for consultation in June 2010. In March 2011 the Municipal Waste Sector Plan that incorporated a "Collection Blueprint" was issued in its final form. The Blueprint describes the WG's recommended service profile for collections of waste from households.

The approach being followed for Part 1 of the Municipal Sector Plan is to take forward the following four key areas:

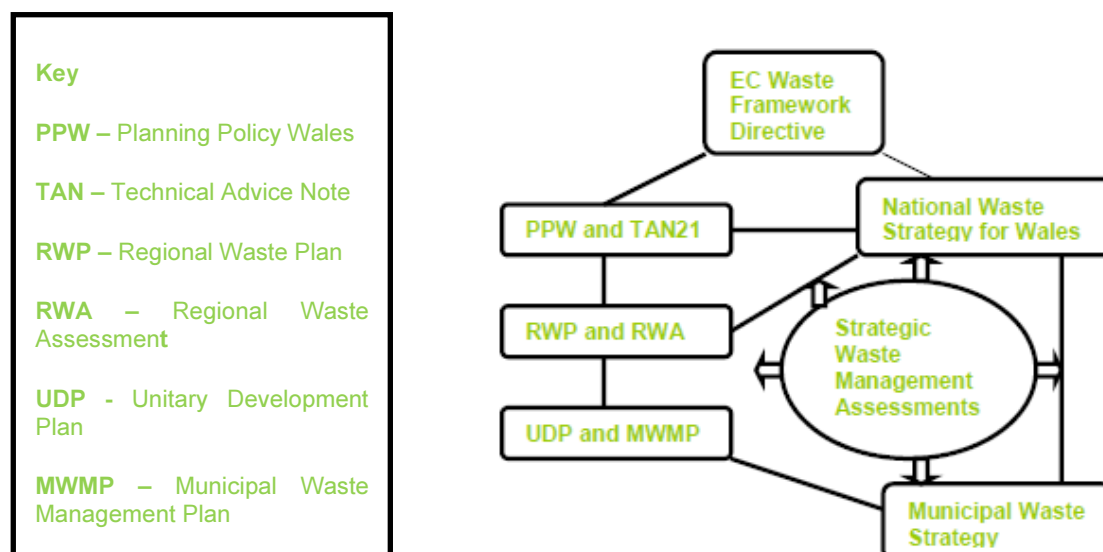
- **Waste prevention** – to reinforce the important role of local authorities engaging with householders and communities to reduce the amount of waste put out for collection. This will help meet environmental outcomes, increase opportunities for enhancing social wellbeing through waste reuse and reduce the costs of waste collection and management.
- **Preparing for reuse** – to ensure that more waste collected by local authorities is "prepared for reuse". This will help meet environmental outcomes and increase opportunities for enhancing social wellbeing.
- **Recycling collection service delivery improvements** – to deliver sustainable development outcomes in a cost effective way.
- **Sustainable treatment and disposal** – to deliver sustainable treatment and disposal of municipal waste in a cost effective way.

The remaining sector plans will be issued for consultation prior to implementation.

## **A.7 Waste Planning Framework - Key Development Documents**

Plans and policies at the regional and local level are a central component of delivering the stringent targets set out in EU and national legislation. They explain the detail of how these targets will be met and ensure an integrated planning framework for waste management.

Figure 2-3 below indicates the relationship between the European overall planning and development framework and the detailed local level planning and strategy documents. Transparency is maintained throughout, from the European to the local levels ensuring a consistent approach to the waste planning decision-making process.



Source: Waste Awareness Wales

**Figure A-2: Planning Framework for Decision Making**

A brief description of the key planning documents are presented below, a more detailed review is presented in the Technical annex, to this Headline Strategy Document;

**Regional Waste Plans** – in response to the WG Technical Advice Note 21 (TAN 21), Regional Waste Plans (RWP) are a joint arrangement between local authorities, ensuring local authorities are able to take a strategic overview of their waste management commitments at a regional level. It provides a strategic framework for Local Planning Authorities to implement elements of the RWP at the local level and to determine actual locations of facilities and make provisions in their development plans. The first regional waste plans in Wales were produced in 2003 and subsequently reviewed in 2008, details of which can be found on <http://www.walesregionalwasteplans.gov.uk/index.html>

**Unitary Development Plans** - makes provision for an adequate network of waste management facilities while taking into account environmental considerations and having due regard for the RWP for the area.

Given the recommendations in the RWP, the Bridgend UDP identifies the type and number of facilities required to deal with the estimated waste tonnages for 2013. These waste infrastructure requirements are summarised in Table A-2 below:

**Table A-2: Summary of Waste Infrastructure Requirements from Bridgend's UDP**

Type of Facility	Number of Facilities for 2013
Primary source & treatment / MRF's	6
Compost / Open windrow	1
Compost / Municipal Solid Waste	2
Compost / In Vessel	2
MBT	2
Thermal plant	1
Inert / re-use processing	10
Landfill	1
Transfer / Civic Amenity	1
Transfer Stations	2
<b>Total</b>	<b>28</b>

The Unitary Development Plan was adopted in May 2005, details of which can be found on <http://www.bridgend.gov.uk/BCBCUDP/english/text/text12.htm>.

**Local Development Plans** - A change in Government legislation means that the UDP will eventually be superseded by a Local Development Plan (LDP) for the area. The Plan will set out the land-use planning policies of the County Borough to be used in the determination of planning applications and criteria for assessing individual proposals. Details of the emerging development plan process are given on [http://www.bridgend.gov.uk/web/groups/public/documents/press\\_release/019263.hcsp](http://www.bridgend.gov.uk/web/groups/public/documents/press_release/019263.hcsp).

**APPENDIX B**

***Participation Monitoring Survey 2011 Report***