

Waste - Draft Topic Paper 6

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Carmarthenshire Local Development Plan

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Executive Summary

This Topic Paper sets out current legislation/guidance (European, national, & regional) in respect of the management of wastes and explores how this influences Carmarthenshire at the local level in respect of preparation of the emerging Local Development Plan (LDP).

As a Member of the European Union (EU), the UK has an obligation to implement the provisions of European Directives within its own legislative framework. There are a number of directives relevant to waste planning, the most important of these being the *Waste Framework Directive*, which places a requirement on member states to establish an adequate network of waste facilities, and the *Landfill Directive* which has banned certain types of waste from being landfilled.

At the national level, the Welsh Assembly Government (WAG) consulted on a new draft Wales Waste Strategy in 2009. Recently published (June 2010), the Strategy reinforces the WAG's commitment to meeting the targets set out in the EU Directives. National Planning Guidance in respect of Waste is set out in 'Planning Policy Wales Edition 2' (June 2010) and supplemented by 'Technical Advice Note (TAN) 21: Waste' (November 2001).

TAN 21 sets out the requirement for a regional waste planning process to assist local authorities in preparing their development plans and to plan for future waste management facilities. Regional Waste Plans (RWPs) have subsequently been produced which apportion the required capacity for each waste management/resource facility type to each local authority area with the purpose that provision is made for meeting those capacity requirements in Development Plans.

At the local level, the planning policies in respect of waste management in Carmarthenshire are set out in the Carmarthenshire Unitary Development Plan (UDP). The UDP was adopted in 2006, and the policies and proposals contained within this recent Plan will contribute towards providing a useful base from which to develop the issues, policies and proposals as part of the preparatory work for the Deposit LDP.

In its capacity as municipal waste authority, Carmarthenshire County Council has responsibility for managing waste from householders and businesses within the County, and in meeting its obligations to achieve statutory targets. In 2008/09, Carmarthenshire made the highest amount of improvement in its recycling tonnages compared to the previous year of all Welsh authorities. In addition, in terms of diverting biodegradable municipal waste (BMW) away from landfill, Carmarthenshire is already achieving targets well below the maximum permitted quota set out in the Landfill Allowance Scheme for Carmarthenshire.

However, whilst the Authority is making progress in meeting recycling targets – in 2008/09 33.86% of its municipal solid waste (MSW) was re-used or recycled – more will have to be achieved in the future to accord with revised targets set out in the new draft Waste Strategy for Wales.

In its role as waste planning authority, the County Council is required to provide a planning framework which enables adequate and sufficient land provision to be made to facilitate the establishment of the required network of waste facilities. The RWP for South West

Wales estimates that the total land area required for new waste facilities in Carmarthenshire by 2013 is 13.2 hectares. Land suitable for accommodating this new capacity will have to be identified within the LDP.

Issues to be addressed during preparation of the Deposit LDP

Identification of Sites

Whilst the Authority currently has an adequate supply of employment land – of the type that could accommodate many types of new waste facilities – the suitability of this land will need to be assessed before it can be identified within the LDP as appropriate for a waste use. In addition, the Authority will also have to identify locations that would be suitable for waste operations that could not be accommodated on employment land – notably, landfill sites and open-air composting facilities.

Formulation of LDP Policies

Through its role in providing land for waste management facilities, the LDP will contain policies that will both protect land currently used for waste management purposes and provide new opportunities through the identification of land in appropriate locations.

The existing Carmarthenshire UDP Waste Policies will be reviewed as part of the preparatory work for the Deposit LDP.

Inter-Authority Working

Due to the importance of waste management as a regional issue, it is necessary for the LDP to account for this fact. An essential component of this process is the need to provide evidence of joint-working with neighbouring local planning authorities (and municipal waste authorities). Discussions are currently underway to find a regional solution for the management of residual waste. More recently, Carmarthenshire has been part of a procurement hub comprising several local authorities looking into Anaerobic Digestion; the current waste management site at Nantycaws has been suggested as a potential location for such a facility.

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1.0 Background

- 1.1 Discussion Papers focussing upon a number of topic areas, including waste, were published for public consultation during June and July 2008. The Discussion Papers sought to set the context for the preparation of the LDP through individual topic areas, developing on, and identifying some of the potential issues, options and objectives for the area. They represented an important first step in the development of a robust evidence base and of a preferred strategy.
- 1.2 The Papers were not exhaustive in content, rather they were produced to illustrate the scope of the Plan by setting out some of the key strategic land use policy issues within the County. It was intended that they be informative and would facilitate a response.
- 1.3 As a follow up to the Discussion Papers, and as a development from them, it has been necessary to focus on a number of specific subject areas and produce more detailed topic papers that will provide essential background information and evidence that will be used in the production of the Deposit Plan. The need to produce a topic paper on waste is reflected by its importance both at the European, national, regional and local level.
- 1.4 This Topic Paper sets out current legislation/guidance (European, national, & regional) in respect of the management of wastes and explores how this influences Carmarthenshire at the local level in respect of preparation the emerging Local Development Plan (LDP).
- 1.5 The system of waste management and waste planning is undergoing a rapid transition. The over reliance on landfill as the preferred method of dealing with waste is now viewed as unsustainable. New legislation introduced by the European Union sets targets for waste minimisation and recycling and will require new methods of managing waste, together with a significant increase in the number of facilities to enable these methods to be implemented and targets to be met.
- 1.6 The Topic Paper is meant to provide evidence for the Deposit Local Development Plan, and in so doing will remain an evolving document, subject to update and revision as and when new data becomes available.

2.0 The Current Legislative Position

2.1 European Directives

As a Member of the European Union (EU), the UK has an obligation to implement the provisions of European Directives within its own legislative framework. There are a number of directives relevant to waste planning, the most important of these being the *Waste Framework Directive* and the *Landfill Directive*.

2.1.1 The Waste Framework Directive

The Waste framework Directive is the principal piece of legislation controlling waste management throughout the EU. It seeks to end the over-reliance on the landfilling of waste through the introduction of the sustainable waste hierarchy principle which stipulates that Member States shall take appropriate measures to encourage: Firstly, the prevention or reduction of waste production; Secondly, the recovery of waste by means of recycling or reuse; Thirdly, the use of waste as a source of energy. The waste hierarchy principle views landfill as a last resort. The Directive also requires Member States to produce waste management plans, setting out their capacity to manage their own waste, using an adequate network of waste facilities.

A new Framework Directive for Waste Management in the EU was adopted in 2008. This revises EU legislation on waste and replaces the existing Waste Framework Directive, the Hazardous Waste Directive and the Waste Oil Directive. It applies a new waste hierarchy, expands the 'polluter pays' principle by emphasising producer responsibility and applies more stringent waste reduction and waste management targets for Member States. Member States have until 12 December 2010 to transpose the requirements of the Directive into national law in order to comply.

2.1.2 The Landfill Directive

The Landfill Directive introduced licence applications and technical requirements for the design and operation of landfills. It also banned certain types of waste from landfill and introduced a staged reduction in the amount of biodegradable municipal waste sent to landfill, and applies penalties if the targets are not met. The changes introduced by this Directive have direct relevance for local planning authorities when preparing their local development plans. In particular, adequate provision should be made for facilities to accommodate waste prohibited from landfills and for pre-treatment facilities.

2.1.3 Other 'Daughter' Directives of the Waste Framework Directive include:

- **Hazardous Waste Directive:** seeks to define hazardous waste and provides additional controls on its tracking, movement and management;
- **Waste Incineration Directive:** seeks to minimise the impact of negative environmental effects on the environment and human health resulting from emissions to air, soil, surface and ground water from the incineration and co-incineration of waste.
- **Packaging and Packaging Waste Directive:** aims to provide a high level of environmental protection in respect of the management of this waste stream, and also establishes measures to reduce and reuse packaging;
- **End of Life Vehicles (ELV) Directive:** aims to prevent waste from end-of-life vehicles and promote the collection, re-use and recycling of their components to protect the environment;
- **Waste Electrical and Electronic Equipment (WEEE) Directive:** seeks to prevent waste from this waste stream and to promote collection, reuse and recycling. It also

aims to improve the environmental performance of all operators involved in the life cycle of WEEE.

- **Integrated Pollution, Prevention and Control Directive:** seeks to prevent, reduce and eliminate pollution by prioritising efforts on the most significant industrial and agricultural activities. It also focuses on the prudent use of natural resources.
- **The European Directive [2006/21/EC] on the management of waste from the Extractive Industries (Mining Waste Directive):** provides for measures, procedures and guidance to prevent or reduce as far as possible any adverse effects on the environment, and any resultant risks to human health, brought about as a result of the management of waste from the extractive industries.

2.2 National Context (UK)

There is a requirement for Member States of the EU to transpose the European Directives into their own legislative frameworks. The most relevant of these to Wales are as follows:

- **The Landfill (England and Wales) Regulations 2002** – banned the practice of co-disposing of hazardous and non-hazardous wastes in the same landfill;
- **The Hazardous Waste (England and Wales) Regulations 2005** and the **List of Wastes (Wales) Regulations 2005** – increased the number of wastes classified as ‘hazardous’ to include items such as waste televisions, computer monitors, fluorescent tubes and pesticides;
- **The Waste Management (England and Wales) Regulations 2006** – ‘**The Agricultural Waste Regulations**’ – prohibits unregulated burying and burning of agricultural waste on farms. Farmers now have to dispose of such wastes at licensed sites or apply to the EA for a licence (or register a licensing exemption) to continue on-farm disposal;
- **Pollution Prevention & Control (England and Wales) Regulations 2000** – covers the disposal of waste by landfill, and waste treatment and storage facilities.

2.3 National Context (Wales)

National Planning Guidance in respect of Waste Management is set out in ‘Planning Policy Wales Edition 2’ (June 2010) and supplemented by ‘Technical Advice Note (TAN) 21: Waste’ (November 2001) and relevant Circulars. These documents adhere to the principles set out in the Welsh Assembly Government’s (WAG’s) National Waste Strategy for Wales ‘Wise about Waste’ published in June 2002, which in turn accords with the requirements of European legislation, most notably the Waste Framework Directive and the Landfill Directive.

The national agenda in respect of waste management is evolving rapidly. Consultation was sought in 2009 on a new draft Wales Waste Strategy 2009-2050. The consultation document proposed a new strategy, completely revising *Wise About Waste* and reinforcing the WAG’s commitment to meeting the targets set out in the relevant EU Directives. The Strategy entitled *Towards Zero Waste* has now been published (June 2010) – refer to section 2.3.2, below.

2.3.1 Wise about Waste: The National Waste Strategy for Wales 2002

In adherence with the EU Waste Framework Directive, this strategy required that waste be managed in accordance with the 'waste hierarchy'. The Strategy specified various targets for the management of wastes and contained information relevant to the process for producing Regional Waste Plans. The Strategy also required Local Planning Authorities to ensure, through land-use policies, that sufficient land was available for the necessary infrastructure to deal with waste at the local level, and also to meet the strategic requirements of the region for any Regional facilities that may be required.

2.3.2 Towards Zero Waste – The Overarching Waste Strategy Document for Wales, June 2010

This Strategy builds upon the success of Wise About Waste by setting out a long term framework for waste management and resource efficiency, from now till 2050. There is a commitment to reduce Wales' ecological footprint to 'One Wales: One Planet' (see below, section 2.3.10) levels within a generation and proposals on how to reduce our impact on climate change. The zero waste approach aims to produce no waste in the long term by designing products and services that reduce or reuse waste as far as possible and the development of a local and highly skilled economy for waste management and resource efficiency.

Implementation of the new strategy will be carried out through individual sector plans. Each plan will describe the role of the sector, the Assembly Government and others in delivering the outcomes, targets and policies in *Towards Zero Waste*. Consultation has opened on the Municipal Sector Plan, the first of sector plans setting out the measures needed to deliver the new strategy. The Municipal Sector Plan encourages local authorities to offer food waste collections to more households and investigate ways of rewarding householders for reducing their waste.

2.3.3 Planning Policy Wales (PPW) Edition 2, June 2010

In accordance with its commitment to the relevant EU Directives, PPW establishes requirements for local authorities in respect of how waste is dealt with. It reinforces the obligation of establishing an integrated and adequate network of waste management facilities and the need for authorities to engage in joint working arrangements to produce regional waste plans. PPW emphasises that key to achieving a sustainable approach to waste management is adherence to the waste hierarchy of reduction, re-use and material recovery (including recycling and composting), energy recovery with effective use of waste heat, and safe disposal. The document highlights the importance of techniques such as Best Practicable Environmental Option (BPEO) and assessment of the most sustainable waste management option (SWMO), as well as principles such as the proximity principle and regional self-sufficiency, in guiding waste management options and determining the most appropriate network of waste management installations. The document

also sets out requirements in respect of ensuring that waste is dealt with appropriately so that no harm is caused to the environment or human health.

2.3.4 Planning Policy Wales Technical Advice Note 21 Waste, 2001 (TAN 21)

In accordance with the requirement in the EU Waste Framework Directive to establish an integrated and adequate network of waste facilities, TAN 21 establishes the methodology for how this can be achieved in Wales. It sets out guidance for regional arrangements within Wales in terms of how waste is managed and details the process for producing and reviewing Regional Waste Plans (RWPs). The TAN identifies three regions for the purposes of producing the RWPs – South West Wales, South East Wales and North Wales. Carmarthenshire falls within the South West Wales Region along with the unitary authorities of Bridgend, Swansea, Neath Port Talbot, Ceredigion, Pembrokeshire, the Pembrokeshire Coast National Park and Brecon Beacons National Park. TAN 21 emphasises that each local authority should reflect the contents of the RWP in its own respective development plan and Municipal Waste Strategy.

2.3.5 Circular Letter 04-04 – Waste Policies Hazardous Waste Planning Applications (WAG Policy Clarification Note, May 2004)

This document reinforces TAN 21 by making it a requirement for local planning authorities to take account of the RWP when drawing up their development plan policies.

The Circular Letter sets out that until further agreement is reached about the location of regional or national scale waste management facilities, it is considered that the most suitable locations for new waste facilities are on general industrial areas. Therefore, provided that there is enough capacity within existing or future industrial sites to accommodate the waste management facilities required to accord with the RWP, all development plans should include the following policy and suggested supporting text that sets out the minimum guidance to future waste management development.

Policy

PROPOSALS FOR WASTE MANAGEMENT FACILITIES, INCLUDING DISPOSAL AND TREATMENT, WILL BE PERMITTED WITHIN SITES LISTED FOR B2 EMPLOYMENT USE IN POLICIES EMP XX (cross-reference to relevant employment policies)

Sites on general industrial sites would be suitable for many of the future waste facilities including waste processing and treatment facilities, transfer stations and possibly mechanical biological treatment, in vessel composting and anaerobic digestion. Industrial sites are not likely to be suitable for landfill or windrow composting, the latter are more suitable on farms as part of farm diversification.

Other relevant Welsh legislation, policy and initiatives include:

2.3.6 The Landfill Allowances Scheme (Wales) Regulations 2004 – transposed the Landfill Directive requirement to limit the amount of Biodegradable Municipal Waste

(BMW) sent to landfill by setting each Waste Disposal Authority (WDA) in Wales decreasing annual BMW landfill allowances in order that Wales meets the Landfill Directive. The Regulations allows the Welsh Assembly Government (WAG) to impose financial penalties on any WDA that exceeds their landfill allowance or fails to comply with reporting requirements.

2.3.7 Animal By-Products (Wales) Regulations 2006 – specifies how animal by products must be used or disposed of.

2.3.8 People, Places, Futures: The Wales Spatial Plan (2008 Update)

The Wales Spatial Plan (WSP) is in effect a text book on sustainable development issues on a strategic scale, including waste management. It provides an overarching policy context for spatial planning and development in Wales by setting out cross cutting national priorities. First published in 2004 and then updated in 2008, the WSP sets out to ensure that proposals throughout Wales are integrated and sustainable with individual actions being supportive of each other and in compliance with the shared vision for the area. The WSP is a material consideration in the preparation of the LDP.

In the WSP update 2008, waste is dealt with in the section 'Valuing our Environment' in respect of taking actions to tackle climate change and to promote a healthy and enjoyable environment to live in. These actions include:

- Managing waste, water and soils more sustainably, with Spatial Plan partners; and
- Enabling the development of enhanced provision for the re-use and recycling of waste.

2.3.9 Environment Strategy for Wales 2006

The Environment Strategy for Wales sets out a series of 39 outcomes that the Strategy seeks to achieve together with an Action Plan to address the outcomes. Of specific relevance to waste, and one that links in with the National Waste Strategy for Wales and Planning Policy Wales, is Outcome 11 – appropriate waste management facilities are in place to minimise the amount of waste going to landfill by 2013.

2.3.10 One Wales: One Planet - The Sustainable Development Scheme of the Welsh Assembly Government 2009

The scheme sets out a vision of a sustainable Wales and what a sustainable Wales would look like. It confirms that sustainable development (SD) will be the central organising principle of the Welsh Assembly Government and sets out the action that needs to be taken to mainstream SD into everything the Assembly do.

2.4 Regional Context

2.4.1 The South West Wales Regional Waste Plan (RWP), 2003

The need for a regional waste planning process to assist local authorities in Wales to plan for future waste management facilities and to assist in preparing development plans is set out in TAN 21 Waste.

The first RWP for the South West Wales Region was published in 2003 and allocated the required capacity for each waste management/resource facility type to each local authority area with the purpose that provision is made for meeting those capacity requirements in Development Plans. The RWP also provided a guide to the locational requirements of each facility type to assist LPA's with site selection. What is important to note is that the RWP does not only cover municipal solid waste but also all the following principal 'controlled' waste streams:

- Commercial Waste
- Industrial Waste
- Construction & Demolition Waste
- Agricultural Waste
- Hazardous Waste

2.4.2 The South West Wales Regional Waste Plan Annual Monitoring Report (RWP AMR)

Regional Waste Plans have to be reviewed every five years. Central to the process of preparing the revised RWP is the collection and analysis of information regarding the waste situation within the region and the implementation of the RWP. This information is published in each of the three Annual Monitoring Reports (AMR's).

The principle role of the Annual Monitoring Report (AMR) is to collate and present all available data to enable the effective monitoring of both the region's waste arisings and waste management facilities to assess the region's performance against the waste strategy targets. AMRs have been produced for 2005, 2006 and 2007.

The third and most recent AMR (2007) assessed available data for the South West Wales region on:

- All waste arisings in order to monitor performance against the objectives of the RWP
- The development of waste policies in development plans
- The location and capacities of existing waste management / resource recovery facilities

The AMR also identified data gaps that existed. The issue of data/information gaps is discussed below in Section 6.4

2.4.3 The South West Wales Regional Waste Plan 1st Review August 2008 (RWP 1st Review)

The RWP 1st Review serves a key role in assisting the region in developing an integrated and adequate network of waste management facilities by providing

strategic information on the types of waste facilities required and the types of locations likely to be acceptable. It forms a strategic framework for the preparation of LDPs and is a material consideration in the development control process. The document is made up of two distinct elements:

- The **RWP Technology Strategy** – providing strategic information and data on the types of waste management facilities required in South West Wales; and
- The **RWP Spatial Strategy** – providing strategic information on the types of locations likely to be acceptable.

The two Strategies have been developed separately and the RWP 1st Review does not bring the two elements together in order to identify which technologies should be located at particular locations. The process of matching the two elements will become the responsibility of local planning authorities during preparation of their LDPs.

RWP Technology Strategy

In order to provide adequate flexibility and choice, the RWP Technology Strategy sets out eight 'Preferred Options that will form the framework for the sustainable management and recovery of resources in South West Wales. All eight Preferred Options go beyond the requirements of European targets on waste reduction and management.

The RWP 1st Review also presents the apportionment of infrastructure to the individual Unitary Authorities in order to deliver the Preferred Options. It sets out:

- The total required waste infrastructure for each of the Preferred Options
- The indicative new capacity required for each option
- The indicative number of new in-building facilities required

This is further explored in section 4.0, below.

RWP Spatial Strategy

This element of the RWP 1st Review:

- Estimates the total land area required in each Unitary Authority for new in-building facilities;
- Identifies a list of sites suitable in principle for in-building facilities with the capacity to serve more than one Unitary Authority area;
- Analyses the potential available land area on the identified sites; and
- Generates areas of search for use in identifying new sites for both in-building and open-air facilities.

In terms of the areas of search, these are presented in the RWP 1st Review as two hardcopy maps, one depicting in potential areas for in-building and the other setting out search areas for open-air facilities. Each map comprises 1st, 2nd, 3rd and 4th areas of search, the 1st areas of search being identified as the most appropriate for waste management development. A fifth category – Exclusion Zones – have been included on

the maps as areas where waste management development should be excluded. The areas of search maps are discussed further in section 6.2 below.

2.5 Local Policy Context

2.5.1 The Carmarthenshire Unitary Development Plan (2001-2016)

The planning policies in respect of waste management in Carmarthenshire are set out in the Carmarthenshire Unitary Development Plan (UDP). The UDP was adopted in 2006, and therefore the policies and proposals contained within this recent Plan will contribute towards providing a useful base from which to develop the issues, policies and proposals as part of the preparatory work for the Deposit LDP. The policies contained within the UDP are as follows:

MWM23	WASTE DISPOSAL AND MANAGEMENT
MWM24	NANTYCAWS LANDFILL SITE
MWM25	WASTE MANAGEMENT FACILITIES ON EMPLOYMENT LAND
MWM26	WASTE MANAGEMENT FACILITIES
MWM27	WASTE MANAGEMENT FACILITIES WITHIN NEW MAJOR DEVELOPMENTS
MWM28	LANDFILL SITES WITHOUT ASSOCIATED ENERGY RECOVERY
MWM29	COMPOSTING
MWM30	ENERGY RECOVERY FROM WASTE
MWM31	SPECIAL / HAZARDOUS WASTE
MWM32	WASTES PROHIBITED FROM LANDFILL
MWM33	RE-USE AND RECYCLING OF DEMOLITION WASTE
MWM34	THE INFILLING OF VOIDS
MWM35	THE CONSTRUCTION OF AGRICULTURAL OR FORESTRY ROADS, OR HARDSTANDINGS ON FARM HOLDINGS
MWM36	IMPROVEMENT OF AGRICULTURAL LAND

2.5.2 The Carmarthenshire Local Development Plan Pre-Deposit Preferred Strategy (November 2009)

The Pre-Deposit Preferred Strategy sets out one strategic policy in respect of waste; this will be supplemented by the detailed policies and proposals to be formulated as part of the Deposit LDP. This will allow for the further assimilation of up-to-date information and evidence as the plan making process progresses.

The following policy has been included in the Pre-Deposit Preferred Strategy:

SP12 Waste Management

The LDP will ensure that:

- Adequate land is allocated to provide for an integrated network of waste management facilities. Waste management operations (not including landfill or open-windrow composting) will be permitted on B2 employment sites, subject to there being no adverse effects on the environment or local amenity

- A hierarchy of waste prevention, followed by: waste minimisation, waste re-use, recovery of materials, recovery of energy, and finally safe disposal (including landfill) is adopted
- Waste is managed or disposed of close to where it has been generated, in accordance with the proximity principle.

2.5.3 Municipal Waste Management Strategy Development, 2004

This Strategy Document sets out the waste management strategy of Carmarthenshire County Council in respect of how it intends to deal with its municipal waste. The focus is on the change to more sustainable forms of waste management in accordance with the National Waste Strategy for Wales, 2002. The Strategy focuses on the principle of the Waste Hierarchy as well as taking into account the Proximity Principle and Regional Self-Sufficiency Principle. The Strategy Document is now six years old and there is no requirement for local authorities to prepare updated versions. However, details of the strategy, including up-to-date information and data in respect of the management of municipal in the Authority is set out below under Waste Management within Carmarthenshire – the local position.

2.5.4 Carmarthenshire Community Strategy: Thinking Together, Planning Together, Doing Together (2004-2020)

The Community Strategy for Carmarthenshire sets out 5 Strategic Pillars that convey the sort of place that the Council wants the County to become. These pillars are therefore central to the Council's corporate planning structure and have significant influence in programming priorities and policy interventions. The 5 pillars have been used to group the principal social, economic and environmental issues that the LDP will seek to address. The Community Strategy is currently being reviewed and this will be monitored accordingly as part of the LDP preparatory process.

The 5 pillars, each with its own partnership to plan strategies for the future, includes:

- A Better Place - Environment
- Feeling Fine – health and Well Being
- Opening Doors – Lifelong Learning
- Investment and Innovation – Regeneration
- Feeling Secure – Safer communities

The Strategy recognises the role of waste minimisation and recycling as a way of securing a good quality, sustainable environment in Carmarthenshire, and it recognises the need to reduce the amount of household waste sent to landfill.

3.0 Waste Management within Carmarthenshire – the local position

3.1 Waste Streams

As Waste Planning Authority, Carmarthenshire County Council is responsible for matters relating to land use planning pertaining to the following types of controlled wastes:

- Municipal Solid Waste (MSW);
- Industrial & Commercial Waste (I&C);
- Construction & Demolition Waste (C&D);
- Agricultural Waste; and
- Hazardous Waste.

The regulation and monitoring of waste management procedures and sites is shared between the Environment Agency and Carmarthenshire County Council as Waste Planning Authority. The Agency has responsibility for standards of operation at sites, and their potential to cause pollution of the environment. The Waste Planning Authority is responsible for regulating matters such as land use, loss of amenity, traffic movements, time limits for operations, final ground profiles, restoration, after-care and after-use of sites etc, through both its planning policy and development control functions.

Through the evolving Local Development Plan, the Waste Planning Authority, is required to develop a sustainable approach to the management of waste, including the identification of land appropriate to facilitate an integrated and sustainable network of waste facilities, in accordance with national and European commitments. These issues are developed further below, in Section 6.0 *Issues to be addressed during preparation of the Deposit LDP*.

3.1.1 Municipal Solid Waste (MSW)

MSW consists mainly of household waste and other wastes collected by the Waste Collection Authority (Carmarthenshire County Council) including municipal parks and gardens waste, beach cleansing waste, some commercial and industrial waste and waste resulting from fly-tipping. Household waste includes waste from household collections (including hazardous household waste and garden waste), waste from civic amenity sites and from bring and kerbside recycling schemes, street sweepings, bulky waste collection and litter collection.

As Municipal Waste Authority, Carmarthenshire County Council is responsible for managing safely all MSW within the County and also for meeting the targets for waste reduction and recycling set out in the National Waste Strategy for Wales.

MSW within Carmarthenshire is covered in greater detail in section 3.2, below.

3.1.2 Industrial and Commercial (I & C) waste

Industrial waste is waste from any factory or industrial process (excluding mines and quarries). Commercial waste is waste arising from premises used wholly or mainly for trade, business, sport, recreation or entertainment, excluding MSW and Industrial Waste.

Most industry in Carmarthenshire is located in the south east of the County with the major waste producer being Corus in Llanelli. However, there is limited data covering this waste stream. Data supplied by the Environment Agency (I & C Arisings for Wales for 1998/99) show that Industrial waste arisings in Carmarthenshire in 1998/99 stood at 83,500 tonnes; additional data from the EA (I & C Waste Survey 2003) show that in 2002/2003 they stood at 92,610 tonnes. Commercial waste arisings for 1998/99 were 50,700 and for 2002/2003 stood at 54,200 tonnes.

In terms of management and disposal of this waste stream, in 1998/9 Carmarthenshire landfilled 77,300 tonnes of I & C waste and in 2002/3 landfilled 34,300 tonnes. The 2002/3 figure achieved is well below that of the 2005 and 2010 target figures of 65,705 and 61,840 tonnes. This means that the targets were met and exceeded in 2002/3.

3.1.3 Construction and Demolition Waste (C&D)

C&D Waste is waste arising from the construction, repair, maintenance and demolition of buildings and structures, including roads. It consists mostly of brick, concrete, hardcore, subsoil and topsoil, but it can also contain quantities of timber, metal and plastics.

There are no reliable figures for Carmarthenshire and it is difficult to estimate tonnages. Carmarthenshire has a large urban area around Llanelli and the Amman valley where many construction projects do take place. As part of the Council's own operations, mobile crushers and screens are used frequently in the Glanamman depot in order to reuse kerbstone material on footpaths and other activities that do not require high specification road material. Small quantities of C & D waste is taken from householders at all of the Council's Household Waste Recycling centres, whilst large quantities of household and trade C & D are accepted at several transfer stations.

3.1.4 Agricultural Waste

Agricultural Waste is waste produced at agricultural premises as a result of an agricultural activity. New agricultural waste regulations came into force in 2006 (see section 2.2, above). All agricultural waste with the exception of manure and slurry (when used as a fertiliser) is covered by this regulation.

Carmarthenshire has a very large rural hinterland around its urban centres, however there is a lack of data on agricultural waste. A figure is only available for the year 1998/99 i.e. 1,401,882 tonnes (SWMA EA Wales, October 2000).

3.1.5 Hazardous Waste

Hazardous Waste encompasses a wide range of waste materials that present different levels of risk to human health and the environment. In July 2004 the Landfill (England and Wales) Regulations banned the practice of co-disposing of hazardous and non-hazardous wastes in the same landfill and introduced a requirement to pre-treat hazardous waste prior to landfill. In 2005 the Hazardous

Waste (England and Wales) Regulations and the List of Wastes (Wales) Regulations set out an increased number of wastes classified as 'hazardous', including computer monitors, televisions and some other waste electrical and electronic equipment, fluorescent tubes, and pesticides.

Table 1 below sets out the volumes of hazardous waste arisings in Carmarthenshire between 1999 and 2005.

Table 1. Hazardous waste arisings in Carmarthenshire

	1999	2000	2001	2002	2003	2004	2005
Hazardous Waste (Tonnes)	19,801	17,129	13,018	14,873	21,978	20,136	DNA

Source: South West Wales RWP AMR 2007

3.2 MSW arisings and management in Carmarthenshire – the current position

Table 2 sets out the total MSW arisings for Carmarthenshire 1998-2006, and shows what percentage of these arisings were recycled and composted.

Table 2. MSW and household waste arisings in Carmarthenshire and percentages recycled and composted 1998 - 2006

	98/99	99/00	00/01	01/02	02/03	03/04	04/05	05/06
Total MSW arisings (Tonnes)	82,000	76,122	86,287	88,837	94,369	98,796	100,805	100,950
% MSW Recycled & Composted	3.6	5.2	10.1	11.2	13.6	13.6	20.4	22.7

Source: South West Wales RWP AMR 2007

A local authority waste disposal company (LAWDC) was set up to act as an arm's length delivery arm for the recycling, treatment and disposal of municipal waste. In addition, a private company is used to run the Household Waste Recycling Facility at Llangadog. The majority of residual waste that is collected within Carmarthenshire is disposed of at Nantycaws Landfill Site, Nr Carmarthen.

3.2.1 Household Waste Recycling Centres (Civic Amenity Sites)

The Council currently has five Household Waste Recycling Centres (Whitland, Trostre, Nantycaws, Wernddu and Llangadog). These are centralised collection sites where the public have the opportunity of bringing a range of items including recyclables, green waste, bulky household waste, hazardous waste, waste electrical items, fluorescent lights, mineral and vegetable oils, and residual waste.

3.2.2 Recycling

Carmarthenshire has been recycling since 2002 using a variety of kerbside recycling schemes. An initial comingled collection used a pink survival bag in the north of the County with the co-collection of this bag with the black residual,

followed by sorting at a dirty Material Recovery Facility (MRF). This collection was changed to a blue bag with sorting at a clean MRF just outside Carmarthen. In conjunction a kerbside sort scheme operated in some of the urban areas utilising a blue box.

Since 2008, a new alternate weekly residual/recyclate with weekly food waste collection has been phased across the County. This scheme now covers 75,000 households within the County.

3.2.3 'Bring' Sites

'Bring' sites operate on the same principle as Civic Amenity Sites, only they are smaller in size and are unmanned. There are approximately 118 bring sites within the County, situated in localities such as supermarket car parks, municipal car parks, and schools. Typically, bring sites utilise banks to deposit items such as glass, paper, cans, and textiles.

3.2.4 Adopt a site scheme

In order to target some of the problematic bring sites where littering, flytipping and vandalism are a problem, the adopt a site scheme was introduced. For each tonne of materials collected at these sites, the Council makes a payment to the community group who have adopted the site. The group not only are responsible for maintaining the upkeep of the site, but in promoting the site to their community.

In November 2003 all Carmarthenshire County Council offices were offered free recycling of paper, cans and plastic and this was extended to all the County schools in April 2004

3.2.5 Green Waste

The Council promotes home composting for dealing with kitchen and garden waste and provides composting units to the public at a reduced cost. The Council also has a chargeable kerbside collection scheme for garden waste whereby rolls of biodegradable bags can be purchased at a cost of £3.50 for a roll of 20 bags. In addition, the Council allows green waste to be deposited free of charge by the public at any of the five Household Waste Sites. Windrow and in vessel composting takes place at the Carmarthenshire Environmental Resources Trust facility at Nantycaws landfill, Nr. Carmarthen.

3.2.6 Waste Minimisation

The Council is involved in numerous initiatives to raise public awareness. These include Junk mail elimination, 'Real Nappy' campaign, and education in schools via the Ecoschools programme. In addition, the Council itself is signed up to the public sector waste minimisation campaign and to the local service board agreement to reduce its in-house waste arisings.. .

In 2005 several of the offices in the Council participated in the Environment Champions Programme from Global Action Plan. This helped to identify those waste streams which could potentially be minimised and recycled. As a result of

this, the Council signed up to the “Public Sector Waste Minimisation Campaign” in 2006. The Council is committed to improving recycling and minimising waste throughout the Authority by the provision of recycling bins and by setting printers to default duplex as well as conducting a printer rationalisation exercise.

3.2.7 Educational Awareness Initiatives

The County Council is very proactive in terms of awareness raising with the general public and numerous media are used to implement this. These include local radio, roadshows, doorstepping, community news (community information magazine), y Gair (staff information sheet), the Council website and local newspapers.

3.2.8 Existing Waste Management Sites

Table 3 below sets out the existing waste management sites within Carmarthenshire used by the Local Authority for the management of municipal solid waste (MSW).

Table 3. Existing sites within Carmarthenshire used by the Local Authority for the management of MSW

Name / Location	Description
Whitland Household Waste Recycling Centre (HWRC)	A small, single level HWRC on the outskirts of the village of St Clears. Operated by the council's LAWDC – Cwm Environmental
Nantycaws HWRC, Llandarrog Road, Nantycaws, Carmarthen SA32 8BG	A large dual level HWRC located a few miles outside of Carmarthen town and operated by the councils LAWDC
Nantycaws IVC and windrow composting plant Llandarrog Road, Nantycaws, Carmarthen SA32 8BG	Separately sited IVC and wind row composting unit adjacent to the HWRC.
Nantycaws non-hazardous landfill Llandarrog Road, Nantycaws, Carmarthen SA32 8BG	Operated by the Council's LAWDC – landfill can take all non hazardous waste from the local authority and private contractors.
Wernddu HWRC Trapp Road, Wernddu, Ammanford SA18 9RY	A small, single level HWRC in an isolated location operated by the councils LAWDC.
Wernddu Transfer Station Trapp Road, Wernddu, Ammanford SA18 9RY	A household, commercial & industrial waste transfer station on the outskirts of Ammanford and operated by the council's LAWDC. The site is used for the processing and storage of waste and recyclables collected within the Ammanford & Glanamman areas.
Trostre HWRC Trostre Industrial Estate, Llanelli SA14 9UU	A single level HWRC attached to the adjacent Transfer Station operated by the councils LAWDC
Trostre Transfer Station Trostre Industrial Estate,	A Household, Commercial &

Llanelli, SA14 9UU	Industrial waste transfer station on the outskirts of Llanelli and operated by the council's LAWDC. The site is used for the processing and storage of waste and recyclables collected within the Llanelli area.
Llangadog HWRC ,The Sawmills Llangadog, SA19 9LS	A small HWRC attached operated by a private contractor and attached to his Transfer Station.
Glanaman depot	A transport operating centre and council depot owned and operated by the Council located in Glanaman.
Cillefwr depot	A transport operating centre and council depot owned and operated by the Council located on the outskirts of Carmarthen.
Trostre Highways Depot (2 separate sites)	A transport operating centre and council depot owned and operated by the Council located at two locations on the outskirts of Llanelli.

Source: Carmarthenshire County Council, Highways & Technical Services Dept.

3.3 The Future of Municipal Solid Waste Management (MSW) in Carmarthenshire

- 3.3.1 In 2008/09, Carmarthenshire made the highest amount of improvement in its recycling tonnages compared to the previous year of all Welsh authorities.
- 3.3.2 The breakdown of the main materials recovered for recycling and composting in 2008/09 are shown below in Table 4.

Table 4. Categories of materials recycled/ composted or re-used in Carmarthenshire in 2008/09.

Category	Weight (tonnes)	Method
Mixed Glass	2971.89	Recycled
Paper	2583.19	Recycled
Card	1023.24	Recycled
Books	11.43	Recycled
Mixed paper and card	9.14	Recycled
Mixed cans	168.79	Recycled
Plastics	621.31	Recycled
Textiles and footwear	171.62	Reuse & Recycled
Co mingled materials	7424.32	Recycled
Wood	3250.7	Recycled
Furniture	1.82	Recycled
Other scrap metal	1175.73	Recycled
Automotive batteries	70.17	Recycled
Post consumer non automotive batteries	0.31	Recycled
Vegetable oil	5.81	Recycled
Mineral oil	26.52	Recycled
Paint	129.89	Recycled (some gone for heat treatment)

Green waste	6420.20	Compost
Other compostable waste	2918.72	Compost
Fridges & Freezers	343.33	Recycled
Other electrical goods	1396.60	Recycled
Fluorescent tubes	5.34	Recycled
Other materials	62.33	Recycled

Source: Waste DataFlow

- 3.3.3 In terms of diverting biodegradable municipal waste (BMW) away from landfill, Carmarthenshire is already achieving targets well below the maximum permitted quota set out in the Landfill Allowance Scheme for Carmarthenshire – see Table 5 below.

Table 5. Landfill allowances for Carmarthenshire 2004 to 2009 compared with actual tonnages of biodegradable municipal waste sent to landfill

	2004/05 (6 mths.)	2005/06	2006/07	2007/08	2008/09
Landfill Allowance Maximum (Tonnes)	27,308	51,061	47,506	43,952	40,398
Actual BMW to landfill (Tonnes)	23,602	46,493	42,772	41,164	29,625

Source: EAW Landfill Allowance Reports

- 3.3.4 Whilst the Authority was on target in respect of meeting the combined recycling and composting targets set out in the former national waste strategy *Wise About Waste*, the new strategy *Towards Zero Waste* sets out more ambitious targets in respect of recycling and composting.
- 3.3.5 In terms of municipal solid waste, Table 6 below shows a sample of the recycling and other waste management targets set out in *Towards Zero Waste* alongside the target percentages for each year. The current position for Carmarthenshire has been included for comparison and shows that the Authority has a challenge ahead in terms of further reducing the amount of waste going to landfill and conversely increasing its reuse, recycling and composting of MSW to meet the new targets.

Table 6. *Towards Zero Waste* targets for the management of municipal waste and the position within Carmarthenshire (2008/09)

TARGET	2012/13	2015/16	2019/20	2024/25	Carms. Position (2008/09)
Minimum levels of preparing for reuse & recycling / composting (or AD)	52%	58%	64%	70%	33.86%
Minimum proportion of preparing for reuse/recycling/composting from source separation	80%	80%	80%	80%	N/A
Max. level of landfill	-	-	10%	5%	65.1%
Max. level of energy from waste	-	42%	36%	30%	1.6%
Minimum levels of preparing for reuse (excluding WEEE)	0.4%	0.6%	0.8%	1.0%	N/A

Source: *Towards Zero Waste: The Overarching Waste Strategy Document for Wales*, June 2010. Carms. data provided by Carmarthenshire County Council Technical Services Dept.

4.0 Carmarthenshire County Council's role as Waste Planning Authority

- 4.1 TAN 21 places particular emphasis on the requirement for Development Plans to contain policies regarding suitable locations for waste management facilities. Authorities across the South West Wales region have developed a mixture of criteria based and site specific policies. In particular, and in line with the Policy Clarification Note issued by the WAG on 28th May 2004, there is a common approach in relation to the permitting of certain types of waste management facility within sites listed for B2 employment use.
- 4.2 Whilst it is the responsibility of individual local authorities to determine the actual locations of facilities and make provisions in their LDPs, it is the Regional Waste Plan through its Spatial Strategy that specifies the approximate location or type of location of new facilities. In addition, in order to deliver the Preferred Options of the RWP Technology Strategy, the RWP also presents the apportionment of infrastructure to individual authorities.
- 4.3 Appendix F of the South West Wales RWP 1st Review sets out the indicative new capacity / number of new in-building facilities & estimated total land area required in 2013 for the eight preferred options for each constituent unitary authority. The following three tables set out these categories specifically in relation to Carmarthenshire. Appendix F of the RWP 1st Review also provides an explanation as to how the figures in the tables were calculated.

Table 7. Indicative New In-Building Capacity required in Carmarthenshire by 2013 by Sub Option (tonnes).

	Clean MRF & Transfer Station	In-Vessel Composting	Pyrolysis	Dirty MRF	Gasification	Incinerator	MBT	Autoclave	Total Indicative New Capacity
2A Pyrolysis	12,695	30,082	98,447	N/A	N/A	N/A	N/A	N/A	150,224
2C Incineration with energy recovery	12,695	30,082	N/A	N/A	N/A	98,447	N/A	N/A	150,224
3A MBT followed by pyrolysis	12,695	30,082	55,373	N/A	N/A	N/A	61,222	N/A	168,372
3B MBT followed by gasification	12,695	30,082	N/A	N/A	55,373	N/A	61,222	N/A	168,372
3C MBT followed by incineration with energy recovery	12,695	30,082	N/A	N/A	N/A	48,016	61,222	N/A	161,015
3D MBT followed by fuel to off-site energy use	12,695	30,082	N/A	N/A	N/A	N/A	61,222	N/A	112,999
4C Autoclave followed by incineration with energy recovery	12,695	30,082	N/A	N/A	N/A	7,541	N/A	98,447	157,765
4D Autoclave followed by fuel to off-site energy use	12,695	30,082	N/A	N/A	N/A	N/A	N/A	98,447	150,224

Source: South West Wales RWP 1st Review 2008

Table 8. Indicative Number of New In-Building Facilities required in Carmarthenshire by 2013 by Sub-Option.

	Clean MRF & Transfer Station	In-Vessel Composting	Pyrolysis	Dirty MRF	Gasification	Incinerator	MBT	Autoclave	Total Indicative New Capacity
2A Pyrolysis	0.2	3.0	3.3	N/A	N/A	N/A	N/A	N/A	6.5
2C Incineration with energy recovery	0.2	3.0	N/A	N/A	N/A	1.8	N/A	N/A	5.0
3A MBT followed by pyrolysis	0.2	3.0	1.8	N/A	N/A	N/A	0.8	N/A	5.8
3B MBT followed by gasification	0.2	3.0	N/A	N/A	1.4	N/A	0.8	N/A	5.4
3C MBT followed by incineration with energy recovery	0.2	3.0	N/A	N/A	N/A	0.9	1.1	N/A	5.2
3D MBT followed by fuel to off-site energy use	0.2	3.0	N/A	N/A	N/A	N/A	0.8	N/A	4.0
4C Autoclave followed by incineration with energy recovery	0.2	3.0	N/A	N/A	N/A	0.1	N/A	1.0	4.3
4D Autoclave followed by fuel to off-site energy use	0.2	3.0	N/A	N/A	N/A	N/A	N/A	1.0	4.2

Source: South West Wales RWP 1st Review 2008

Table 9. Estimated Total Land Area required in Carmarthenshire by 2013 by Sub-Option (hectares).

	Clean MRF & Transfer Station	In-Vessel Composting	Pyrolysis	Dirty MRF	Gasification	Incinerator	MBT	Autoclave	Total Indicative New Capacity
2A Pyrolysis	0.4	2.4	3.3	N/A	N/A	N/A	N/A	N/A	6.1
2C Incineration with energy recovery	0.4	2.4	N/A	N/A	N/A	7.9	N/A	N/A	10.7
3A MBT followed by pyrolysis	0.4	2.4	1.9	N/A	N/A	N/A	4.6	N/A	9.2
3B MBT followed by gasification	0.4	2.4	N/A	N/A	3.2	N/A	4.6	N/A	10.6
3C MBT followed by incineration with energy recovery	0.4	2.4	N/A	N/A	N/A	3.9	6.6	N/A	13.2
3D MBT followed by fuel to off-site energy use	0.4	2.4	N/A	N/A	N/A	N/A	4.6	N/A	7.4
4C Autoclave followed by	0.4	2.4	N/A	N/A	N/A	0.6	N/A	3.0	6.4

incineration with energy recovery									
4D Autoclave followed by fuel to off-site energy use	0.4	2.4	N/A	N/A	N/A	N/A	N/A	3.0	5.8

Source: South West Wales RWP 1st Review 2008

- 4.4 The RWP makes distinctions between those facilities considered to be ‘in-building’ and those considered to be ‘open-air’. Figure 1 below shows the type of facilities identified in the RWP and indicates whether they are most likely to be ‘in-building’ or ‘open-air’ facilities:

Figure 1. Typical ‘In-Building’ and ‘Open-air’ facilities

In-Building	Open-Air
Transfer Station	Civic Amenity
In-Vessel Composting	Open-Windrow Composting
Pyrolysis	C&D Exemption
Dirty MRF	C&D Recycling
Gasification	Non-Hazardous Waste Landfill
Incinerator	Hazardous Waste Landfill
MBT	Inert Waste Landfill
Autoclave	

Source: RWP 1st Review, 2008

- 4.5 Whilst Tables 7 - 9 above do not feature landfill capacities (landfills are dealt with at the regional level), this form of ‘open-air’ waste facility will be required in varying degrees for residual waste from all eight Preferred Options. For example, the RWP states that the capacity requirement for inert waste landfill for all eight Preferred Options in 2013 is 106,591 tonnes / annum. The RWP highlights that South West Wales does not currently have any licenced or permitted inert waste landfills and therefore is in need of new inert waste landfill capacity. There is a similar need for hazardous waste landfill capacity.
- 4.6 An over-provision of 50% for all in-building facility types with potential to serve more than one local authority area has been factored into the figures in Tables 7-9 to provide the waste industry with choice and flexibility regarding the number and size of sites, and to facilitate adequate minimum site sizes. The RWP does not make this calculation for open-air facility types because it is considered that in practice for many open-air facilities the size of the site available is likely to determine the size of the facility, rather than vice versa.

4.7 Satisfying the requirements of the RWP

- 4.7.1 The RWP 1st Review estimated that the total land required in South West Wales for new in-building facilities for the eight Preferred Options ranged from between 60 hectares to 85.2 hectares. An analysis of the potentially available land area on existing and allocated B2 or major industry sites identified that in each Unitary Authority for which data is available there is a clear surplus of land area available at the time of publication (2008) to accommodate the highest estimate of the total area required for new waste management facilities.

- 4.7.2 In respect of Carmarthenshire, in order to meet the requirements of the apportionment set out in the RWP 1st Review, the Authority would have to identify a total of 13.2 hectares of land. By referring to Table 9 above, 13.2 hectares is the highest estimate of the total land area required for new waste facilities of all the options, in this case Option 3C – (Mechanical Biological Treatment (MBT)).
- 4.7.3 In terms of existing (E) or allocated (A) B2 employment land, Carmarthenshire has over 462 hectares of land set out in its Unitary Development Plan. Appendix G of the RWP 1st Review lists these as follows:

Table 10. Employment Land (existing & allocated) in Carmarthenshire (UDP, 2006)

Site	Allocated (A) / Existing (E)	Total Land Area (Ha)
Cillefwr, Carmarthen	A	6.35
Pibwrlwyd, Carmarthen	A	27.40
Dafen, Llanelli	A	76
Berwick / Bynea, Llanelli	A	64.34
Cross Hands West	A	38.35
Parc Menter, Cross Hands	A	6.70
Cross Hands Business Park	A	8.16
Median Farm, Penygroes	A	6
Parc Hendre, Ammanford	A	30.41
Burry Port East, Burry Port	A	13
Cillefwr Industrial Estate, Carmarthen	E	9.24
Trostre Works, Llanelli	E	72.65
Dafen, Llanelli	E	41.24
Berwick / Bynea, Llanelli	E	15.74
Trosserch Road, Llangennech	E	21.87
Capel Hendre Industrial Estate, Ammanford	E	15
Cross Hands Business Park, Cross Hands	E	10.36
Total		462.81

Source: RWP 1st Review, 2008

- 4.7.4 It is important to note that at the time of writing the exact proportion of the total figure in Table 10 that is potentially available is unknown. By utilising the recently completed Employment Land Study for Carmarthenshire (2010), it will be possible to identify specific sites that would be appropriate for accommodating the required in-building waste management facilities set out in the RWP 1st Review. This issue is discussed further in section 6.2, below.

5.0 Key Influences in Waste Management

5.1 Sustainable Waste Management

- 5.1.1 Achieving sustainable development has become an integral part of the Welsh Assembly Government's policies. In terms of planning for waste, the new National Waste Strategy for Wales *Towards Zero Waste* emphasises the need to ensure that Wales leads the way in sustainable waste management. To this end the new Strategy "is a long term framework which describes the social, economic and environmental outcomes that we will aim to achieve and our contribution towards a sustainable future."

5.1.2 The following key principles are considered to be fundamental to any framework for sustainable waste management:

- The Waste Hierarchy;
- The Proximity Principle;
- The Self-sufficiency Principle

5.1.3 The waste hierarchy has become the cornerstone of sustainable waste management. The principle prioritises waste management options in the order of their effect on the environment, with waste reduction being the most acceptable, followed by re-use, and then recovery of materials, followed by recovery of energy, and finally safe disposal. The proximity principle states that waste should be treated and/or disposed of as close as possible to its source of origin in order to reduce the environmental impact of transporting it. Lastly, the self-sufficiency principle sets out that as far as practically possible, waste should be treated and / or disposed of within a sensibly defined from region where it is produced.

5.2 Climate Change

5.2.1 Climate change is the number one priority for action for the Welsh Assembly Government. As well as taking steps now to adapt to its likely impacts – such as potential increased risks from flooding – there is a need to act now to reduce Wales' contribution to greenhouse gas emissions.

5.2.2 Tackling waste is one important area that could have very positive benefits for combating climate change. The relationship between waste disposal and climate change has raised serious concerns globally. Sites where solid waste is landfilled produces methane, one of the most dangerous greenhouse gases. A DEFRA Report (2006) found that in 2003, waste sector emissions of greenhouse gases accounted for approximately 2% of all UK emissions of greenhouse gases.

5.2.3 Reducing and recycling waste has positive impacts on climate change. Not only does the reduction in landfilling waste reduce the amount of methane produced, waste reduction and recycling also has benefits for climate change through carbon sequestration in forests due to decreased demand for virgin paper and also decreased carbon emissions from long-distance transport of waste. Progress has been made already by local authorities – with recycling rates in Wales on average now over 25%; in Carmarthenshire in 2008/09 it stood at 33.86%. However, there is much more to do to meet future targets and reduce significantly the waste that needs to be landfilled.

5.3 Environmental Protection

5.3.1 Work on environment protection and quality is divided between local authorities, who have responsibility for local environmental quality issues, the Environment Agency, responsible for environmental regulation and the Welsh Assembly

Government, who provide the funding, policy and legislative basis for improvements.

- 5.3.2 Local environmental quality is a cause for concern as a result of issues such as fly-tipping and littering. Local authorities are in the front line of this work and the Environment Agency supports this through regulation and enforcement action. In Carmarthenshire, the Council removes fly-tipped waste and where evidence points to ownership either the Council's Enforcement Officers and/or the Environment Agency Wales will seek to prosecute the offenders.

5.4 Reconciling conflict, consultation and sustainable design

- 5.4.1 Waste by its very nature is a contentious issue. Proposals for new waste facilities invariably meet with opposition, particularly when located in close proximity to residential areas. In 1998 the Chartered Institution of Wastes Management published a technical document entitled 'Communicating with the Public, no time to waste' in which a more open approach to managing waste was called for. In the past it was argued that both the waste industry and policy makers had often been too secretive when dealing with waste, not informing the public of the full facts.
- 5.4.2 The Planning System, perhaps more than any other agency involved in the management of waste, brings practitioners in direct contact with the public through both the development plan consultation periods and at the planning application stage. This fact is more relevant now with the LDP process and its emphasis on greater community involvement and the need to identify sites where waste facilities would be acceptable.
- 5.4.3 When preparing the LDP, the Local Planning Authority could utilise the greater emphasis on community involvement to stress that the waste industry is amongst the most tightly regulated in the country and that modern 'enclosed' waste facilities can be architecturally pleasing and can fit in comfortably alongside other employment activities at B2 employment sites.

5.5 Links with other LDP Topic Areas

- 5.5.1 This Paper should be read in conjunction with all other related Topic Papers and information contained within the LDP's evolving evidence base. Of particular relevance is:
- 5.5.2 *LDP Minerals Topic Paper* – in particular the use of alternative or recycled materials which enables primary resources to be conserved; the requirement for specialised facilities to deal with the recycling of secondary aggregates will need to be considered when preparing the Deposit LDP;
- 5.5.3 *LDP Climate Change Topic Paper* – the links between waste management and climate change were discussed above in section 5.2. How the LDP can influence climate change on a more general level is discussed in the Climate Change Topic Paper.

6.0 Issues to be addressed during preparation of the Deposit LDP

6.1 Meeting European and National Targets

- 6.1.1 At the local level, the Carmarthenshire LDP will need to contribute towards meeting the requirements of the Waste Framework Directive (establish an integrated and adequate network of waste facilities) and the Landfill Directive (which sets targets for diversion of biodegradable waste from landfill sites) which have been transposed into *Towards Zero Waste* (2010).
- 6.1.2 The Deposit LDP will need to show how, from a land use planning perspective, it will facilitate meeting the UK and the Wales specific targets set out in *Towards Zero Waste*.
- 6.1.3 In its role as municipal waste authority, Carmarthenshire has already significantly increased its recycling and composting rate since 2008 with the introduction of its alternate weekly residual/dry recycle and weekly food waste collections. For the first two quarters of 2009/10, the percentage recycling/composting rates stands at 42.42%

6.2 Identification of Sites (to meet RWP requirements)

- 6.2.1 In order to satisfy the WAG's commitment to the EU Framework Directive for Waste (in respect of making provision for establishing an integrated and adequate network of waste disposal installations), LDPs should identify sites for local and regional waste facilities or areas where such facilities may be suitable. Paragraph 16.2 of the RWP 1st Review (2008) which states that:

"Each LPA should include in its Development Plan elements of the RWP that are germane to its area and individual LPA's should determine actual locations of facilities and make provisions in their development plans."

- 6.2.3 In respect of In-Building facilities, as part of preparation for the Deposit LDP for Carmarthenshire, the identification of a choice of locations and sites for waste facilities will be undertaken. The recently published Carmarthenshire Employment Land Study (2010), will provide evidence to assist in this process, together with the guidance set out in Appendix L of the South West Wales Regional Waste Plan 1st Review (2008).
- 6.2.4 Carmarthenshire has a large supply of existing and allocated B2 use employment land with the potential to accommodate in-building waste management facilities. The most suitable will be identified during the assessment exercise outlined in section 6.2.3, above. However, in the event that an inadequate supply of employment land is found to be appropriate to cater for Carmarthenshire's apportionment of facilities set out in the RWP 1st Review, then alternative sites will need to be found. The 'areas of search' maps contained within the RWP Spatial Strategy would be used to assist in this process.

- 6.2.5 It must be noted that whilst the LDP can identify, through the land use planning system, the locations that it feels would be appropriate for waste facilities, it would be the municipal waste authority or the waste management industry that would ultimately come forward with proposals on these sites. The process is therefore largely market led. In addition to the sites that will be allocated in the Deposit LDP, the waste industry might in the future come forward with alternative suggestions on sites that have not been allocated, or sites that might not fall within an area of search. In these instances, the appropriateness of such sites will be assessed on their individual merits and in relation to all relevant policies contained within the LDP.
- 6.2.6 It is also a requirement of the RWP for authorities to identify locations that would be suitable for open air facilities. The ‘areas of search’ maps would be utilised to assist in this exercise, and maps (for both in-building and open-air facilities) will be reproduced to a larger scale and will show the Council’s interpretation of the search areas for its own administrative area.

6.3 The need for the provision of a landfill site

- 6.3.1 Although the activities of the Council in diverting waste away from landfill through waste reduction, re-use and recycling will continue to improve, the need for landfill to cater for residual waste will remain. However, other methods of residual waste treatment are currently being explored – see sections 6.3.9 & 6.7.3, below.
- 6.3.2 Carmarthenshire County Council has one active landfill site operated by its LAWDC, Cwm Environmental. This is classed as a non-hazardous landfill. There are in fact no facilities for the disposal of hazardous waste to landfill in Wales; hazardous waste from Wales currently has to be taken by road to hazardous waste landfill sites or other forms of hazardous waste disposal facilities in England.
- 6.3.3 The current importance of Nantycaws as a site for multiple waste management operations is reflected in the Carmarthenshire UDP which contains the following policy:

MWM24 - NANTYCAWS LANDFILL SITE

IT IS THE POLICY OF CARMARTHENSHIRE COUNTY COUNCIL TO CONTINUE TO USE THE NANTYCAWS SITE FOR THE PURPOSE OF LANDFILLING WASTE, AND AS THE LOCATION FOR THE FOLLOWING RANGE OF WASTE PROCESSING AND PRE-TREATMENT FACILITIES:

- **A COMPOSTING FACILITY;**
 - **AN ENERGY FROM WASTE FACILITY;**
 - **A MATERIALS RECOVERY FACILITY (MRF);**
 - **AN UPGRADED CIVIC AMENITY FACILITY.**
- In order to facilitate the efficient management of waste.

Note: A Development Brief will be prepared for the Nantycaws site during the Plan period (Policy E16). Whilst the Welsh Assembly Government stresses the need to move towards more sustainable forms of waste management, the use of the Nantycaws site for continued landfilling activity will remain an important option over the next few years as part of the Council’s Integrated Waste Management Strategy.

- 6.3.4 It should also be noted that during the invitation for the submission of candidate sites in 2008, as part of the LDP process, Nantycaws was the only site put forward in respect of waste management use.
- 6.3.5 The Deposit LDP is required to be based upon sound evidence. Therefore Nantycaws will have to be assessed like all other potential sites as part of the preparation of the Deposit Plan. This poses questions in respect of the site such as:
- Is there sound evidence to support the assumption that the present landfill site has sufficient capacity for the Plan period (- 2021)?
 - Would the failure of the Plan to allocate the Nantycaws site as a waste facility undermine the soundness of the Plan?
- 6.3.6 Estimates suggest that Nantycaws has the potential landfill capacity for 25 years. However, it might be necessary to undertake a feasibility study to test this assumption and to provide answers to the above questions. In terms of finding out the site's deliverability, other important factors will need to be investigated such as highway safety implications to expanding activities in this area, particularly in terms of the current situation in respect of the A48.

Nantycaws – the current position

- 6.3.7 Current operations at the site include:
- Windrow Composting,
 - In Vessel Composting (IVC),
 - Civic Amenity Site,
 - Landfill Site (Non Hazardous),
 - Landfill Gas Burner (3/4 megawatts sold to the grid),
- 6.3.8 In terms of Biodegradable Municipal Waste (BMW), the IVC plant requires 60% green waste and 40% food waste. Future options are to either to remain with this or go with an alternative, Anaerobic Digestion facility – which does not require green waste.
- 6.3.9 Future Options for residual treatment of waste at Nantycaws:
- Dirty MRF (Materials Reclamation Facility) – recycle as much as possible of the waste collected;
- MBT (Mechanical Biological Treatment), including possible heat treatment + MRF

6.4 Data / Information Gaps

6.4.1 The RWP AMR 2007 (P. 51/52) reported that whilst accurate data existed on specific waste types, such as WEEE, ELV, Waste Tyre and Packaging arisings, it also listed the following forms of data that were either incomplete or not available:

MSW Stream:

- Incomplete data on household waste arisings by local authority 1997/98.

Industrial and Commercial (I&C) Waste Stream:

- Currently only 2 years of data available: 1998/99 and 2002/03;

Construction & Demolition (C&D) Waste Stream:

- Currently only 3 years of data available: 1999, 2001 and 2003;

Agricultural Waste Stream:

- Currently only 2 years of incompatible data available (1998/99 and 2003); and Data on the management of arisings in the region.

Hazardous Waste Stream:

- 2005 arisings data.

6.4.2 The AMR 2007 states that ideally, with a new year's worth of data on both current arisings and management on each waste stream, subsequent AMRs should be able to be updated. This would enable a robust picture of trends over a period of time and would enable a better analysis of the region's performance against the various targets.

6.4.3 In practice this is not the case at present. There have been no further AMRs following publication of the 2007 version, although the RWP 1st Review 2008 did bridge this gap to a certain extent. The future provision of updated information and data is unclear at the present time. This is a cause of some concern particularly in light of the requirement for LDPs to be informed by a robust evidence base. WAG, however, do have funding in place to enable future work to be undertaken on all three Welsh Regional Waste Plans. It is likely that progress will be made on this once the Sector Plans (set out *Towards Zero Waste*) are published. The Sector Plans will detail the actions for businesses, communities and the public sector to deliver the policies and principles in the new Strategy. The Plans will describe the role of each sector in delivering the strategy, lay out specific targets and policies, and will set out who will do what.

6.5 Formulation of LDP Policies

6.5.1 Through its role in providing land for waste management facilities, the LDP will contain policies that will both protect land currently used for waste management purposes and provide new opportunities through the identification of land in appropriate locations.

6.5.2 The existing Carmarthenshire UDP Waste Policies will be reviewed as part of the preparatory work for the Deposit LDP.

6.5.3 Regard will be made to the RWP 1st Review which provides guidance on the drafting of LDP Policies and supporting text.

6.6 Cross - border Working

6.6.1 Due to the importance of waste management as a regional issue, it is necessary for the LDP to account for this fact. An essential component of this process is the need to provide evidence of joint-working with neighbouring local planning authorities (and municipal waste authorities).

6.6.2 The LDP's waste policies, and the identification of sites, should show evidence of synergy with the approach of neighbouring authorities. The following questions would therefore need to be addressed during the preparatory work for the Deposit LDP:

- What is the inter-relationship between neighbouring authorities in terms of the present provision of waste facilities?
- What is the latest position with regard to the use of waste facilities within neighbouring authorities
- Are there any other facilities outside the County that are currently used, or are expected to be used, to manage or dispose of the County's waste?

6.6.3 In terms of the current position regarding cross-border working, Carmarthenshire is working collaboratively with Swansea, Pembrokeshire, Neath Port Talbot & Bridgend to design and plan waste services to meet legislative requirements and government targets. Initial work was financed largely through the Making the Connections Fund, but more recently finance has been provided through the Regional Capital Access Fund (RCAF). Work to date has focussed on research into the suitability of a regional anaerobic digestion plant for dealing with food waste and other compostables. An outline business case has been submitted to WAG showing a 2 facility solution. The group is now in the early stages of looking at residual waste options.

6.6.4 Carmarthenshire and Swansea have worked collaboratively to attract RCAF Capital Funding for the purchase of vehicles and equipment to begin food waste collection. Both authorities have rolled out food waste collections to a large number of their residents. In addition, the in-vessel composting facility at Nantycaws has been taking all of Carmarthenshire's food waste for the last several months whilst it has undergone tests to achieve full ABPR compliance.

6.6.5 Although only featuring in the RWP 1st Review as a method of dealing with residual waste, Anaerobic Digestion (AD) is now firmly favoured by the Welsh Assembly Government as a method of treatment for separately collected food waste. Funding is available for a potential of five AD Plants in Wales, through WAG's Food Waste Treatment Programme. Carmarthenshire has been part of a procurement hub looking into AD, and Nantycaws has been suggested as a potential location for such a facility, along with the former industrial site at Felindre in the City and County of Swansea.

6.6.6 Regular meetings at the sub-regional level have been taking place for nearly two years between the Planning and Waste Divisions from Carmarthenshire, Pembrokeshire, Pembrokeshire Coast National Park and Ceredigion to discuss issues of mutual concern in respect of the evolving LDPs and municipal waste management. A record of the minutes of the meetings has been kept as part of the evidence base for the Carmarthenshire LDP.

6.7 Due regard to the Carmarthenshire Municipal Waste Strategy

6.7.1 In drawing up the LDP, the Local Planning Authority should have due regard to the requirements of the County's Municipal Waste Strategy. The LDP should in effect serve as a spatial delivery tool for the latter strategy.

6.7.2 Carmarthenshire's Municipal Waste Management Strategy (2004) is now somewhat dated. The LDP will need to ensure that it makes provision for any new requirements, and for this a close dialogue will be maintained with the municipal waste officers during preparation of the Deposit LDP. For example, the LDP will need to make adequate provision for facilities which encourage the movement of waste up the waste hierarchy and therefore should be sufficiently supportive of bring sites, civic amenity facilities, waste transfer stations and MRFs. The lack of a CA Site serving the north of the County has already been raised and discussions are currently underway regarding appropriate locations.

Residual Waste

6.7.3 In terms of meeting recycling targets, including biodegradable municipal waste (BMW), Carmarthenshire is on track in respect of its municipal solid waste (MSW). However, solutions will still need to be found for residual waste (i.e. waste remaining after reuse and recovery of materials and energy). Options include inter-authority working, and discussions are currently underway to find a regional solution for the management of residual waste.

6.8 Addressing capacity needs after 2013

6.8.1 The RWP 1st Review concentrates on the period up to 2013 (in terms of indicative capacity and indicative number of facilities required / and estimated land area required), however, the LDP is required to provide a robust strategy for dealing with waste over the **whole** of the Plan period (-2021). The Deposit LDP will therefore need to address this issue and determine what the approach will be with regard to the remainder of the Plan period.

6.8.2 With the current limitations in respect of up to date information and data (the AMR 2007, and the RWP 1st Review 2008 are already out of date) this poses difficulties. Until the future of the RWP process becomes clear, local authorities will have to decide which approach they feel is appropriate. Making an over-provision in terms of the land it feels would be suitable for waste facilities is one option. With many

LDPs due to be adopted by 2013, if an updated regional framework is not in place by this time, then the issue of capacity needs will have to be addressed as part of an LDP's monitoring and review.

6.9 Involvement of the Waste Management Industry

- 6.9.1 It must be emphasised that LDPs cannot deliver the required network of waste facilities, but can provide a planning framework which enables adequate and sufficient land provision to be made to facilitate the establishment of the required network. The waste management industry is largely market led and it will be private companies (as well as local authority LAWDC's) that ultimately establish and run waste operations.
- 6.9.2 With this in mind, the RWP 1st Review actions individual waste management companies and industry bodies to proactively engage with LPA's during the LDP preparation process in order to communicate their needs and interests. This would assist individual LPA's in identifying appropriate sites while taking account of local circumstances.
- 6.9.3 The private sector also plays an important part in contributing towards moving waste further up the waste hierarchy through its activities in waste reduction, reuse and recycling. Whilst the packaging waste regulations and WEEE regulations should see a reduction in the amounts of waste produced in the future, Carmarthenshire recognises the good work that private sector organisations can provide in the reuse of furniture. It has a partnership in place with Foothold, based in Llanelli, for the reuse of furniture from its Household Waste Recycling Centres. The towns of Carmarthen, Llanelli and Ammanford also have a number of charity shops which provide a valuable service in the reuse of goods.
- 6.9.4 In terms of recycling, Carmarthenshire has only one private sector operator running the Household Waste Recycling Centre at Llangadog. All other sites are run by the Council's LAWDC. In addition, some shoe and textile banks at the Council's Household Waste Recycling Centres are serviced by a private company called Regenerate who send the majority of items for reuse in countries within Africa.

7.0 Next Steps

Copies of this Topic Paper are available for inspection at the Authority's Customer Service Centres and Planning Offices. It can also be viewed and downloaded at the Authority's Corporate Website (www.carmarthenshire.gov.uk). Interested parties will have the opportunity to make comments during the period specified. All comments received will be taken into consideration as part of preparation of the Deposit LDP.

APPENDIX 1 – Waste Facilities in Carmarthenshire

Location	Type of Facility	Grid Ref
Wernddu, Ammanford	Civic amenity site (CA Site) & materials recycling facility (MRF)	SN 647152
Trostre, Llanelli	CA site, MRF, & waste transfer station (WTS)	SS 523994
Nantycaws, Carmarthen	Landfill site, CA Site, composting facility	SN 473175
Llangadog	CA site, MRF, WTS & Timber Yard (opposite)	SN 701286
Whitland	CA site	SN 193167
Cillefwr, Carmarthen (CWM Environmental)	WTS & MRF	SN 395191
Cillefwr Industrial Estate, Carmarthen (CRES)	WTS	SN 389189
Amexpark, Johnstown (Mekatek)	WTS & treatment of wastes (inc Hazardous) & WEEE Recycling	SN 401192
Rock and Fountain, Cynwyl Elfed – Railway Sleepers	WTS	SN 390257
J & A Metals, Tyllwyd, Cwmgwili	WTS	SN 575113
Taybrite, Heol Y Bwlch, Bynea	WTS	SS 551984
Foundry Road, Ammanford	WTS	SN 634122
New Lodge near Pont Abraham, Cwmgwili	Landfill Site & separate WTS	SN 572098
Cymru Metals, Gorslas	Scrap yard	SN 566136
EJ Autos, Ammanford	Scrap yard	SN 621117
Pencoed Works, Bynea	WTS	SS 544992
Rees Metals, Bynea (adj. Pencoed Works)	Scrap yard	
Shands Rd, Ammanford	Scrap yard	SN 622130
Lindsay Colliery, Capel Hendre	Organic waste recycling – composting & production of	SN 590107 (not implemented)

	sawdust bricketts. (E/15722 Full Planning 27/09/07)	
Plot 31A Heol Stanllyd, Cross Hands Industrial Park	Recycling of construction & demolition wastes. (S/12271 Full Planning 04/05/06)	SN 570123 (not implemented)
Former Carway Fawr Colliery, Five Roads. PDB43 Cynheidre Colliery	WTS and processing of wastes. (S/15578 Full Planning 20/07/07)	SN 495080 (not implemented)
Penpistyll, Bancyffordd SA44 4RY	Landfill Site. (W/10390 Full Planning 07/02/06)	SN 416382 (CCC Highways Dept construction waste) Full, profiling to be carried out.
Former Glyncywarch Colliery, Ammanford	Inert Waste Recycling. (E/17037 Full Planning 04/03/08)	
Former Dura Cables, Bynea	MRF – (S/20310 Full Planning 28/04/09)	SS 556985 (not implemented)