



Background Paper for Local Development Plan 2:

Waste

Pembrokeshire County Council

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Glossary of terms

AD	Anaerobic Digester
AMR	Annual Monitoring Report (for the LDP)
BMW	Biodegradable Municipal Waste
LACW	Local Authority Collected Waste
LDP	Local Development Plan (the current plan)
LDP 2	The Replacement Local Development Plan
NRW	Natural Resources Wales
PCC	Pembrokeshire County Council
PCNPA	Pembrokeshire Coast National Park Authority
POSW	Planning Officers' Society for Wales
PPW	Planning Policy Wales
TAN	Welsh Government's series of Technical Advice Notes
TZW	Towards Zero Waste
WFD	Waste Framework Directive
WPMR	Waste Planning Monitoring Report

1 Introduction

- 1.1 The review of the Council's Local Development Plan 'Planning Pembrokeshire's Future' (adopted February 2013) commenced on 5th May 2017. Welsh Government agreed the Delivery Agreement for the Replacement Local Development Plan on 7th June 2018. This background paper has been prepared to help inform the strategy on future waste development for the Replacement Local Development Plan (LDP 2).
- 1.2 The paper identifies the requirements of national legislation and policy relating to waste.
- 1.3 The paper also sets out regional and local evidence, in particular that prepared for the regional Waste Planning Monitoring Reports for south west Wales.
- 1.4 The paper should be read in conjunction with Welsh Government's planning policy on waste. This is set out in Planning Policy Wales edition 10 (December 2018) and in Technical Advice Note (Wales) 21 on Waste (February 2014).

2 Legislative and policy background

European Policy

- 2.1 The Waste Framework Directive suggests that waste should be regarded as a valuable resource rather than as a burden. The emphasis of the Directive is on preventing waste from arising and on encouraging reuse and the preparations needed for reuse. Recycling of waste materials also has a high profile. Facilities should be sufficient to deal with the range and volume of waste arisings in an area. The network will be provided by the private sector, in some cases with assistance from Welsh Government (procurement of capacity for the management of certain waste streams for the municipal waste sector).
- 2.2 The Landfill Directive addresses the situation that will arise where reuse, recycling or recovery of waste is not possible or will cause greater harm to human health and the environment than disposal. Landfilling of waste will take place in such circumstances, but the Directive sets out rigorous requirements for this:
 - Such waste should be separated – into hazardous waste, non-hazardous waste and inert waste;
 - Wastes should be treated prior to landfilling;
 - Certain wastes are banned from being landfilled;
 - Biodegradable municipal waste going to landfill should be reduced; and
 - Landfill locations should be chosen very carefully.

- 2.3 The planning system is expected to complement the Landfill Directive, by diverting waste away from landfill and by assisting in meeting the biodegradable municipal waste targets of the Landfill Directive and the Waste and Emissions Trading Act, 2003.

Welsh Policy

- 2.4 The over-arching waste strategy for Wales is provided by the Welsh Government document 'Towards Zero Waste – One Wales, One Planet'. This document presents a framework for resource efficiency and waste management in Wales to 2050. The aims of the document are reliant on various Sector Plans, which provide further detail on how the outcomes, targets and policies in Towards Zero Waste will be implemented.
- 2.5 From a land use planning perspective, the 'Collections, Infrastructure and Markets Sector Plan' is of particular importance, as it centres on delivery of collection systems, infrastructure and markets for recyclates in Wales. Two key elements of this are to set up conditions for as much waste as possible to be managed in Wales and for as much of the recycled product generated as possible to be used in Wales.
- 2.6 Waste arisings in Wales are sometimes managed within Wales, but not always so. Some waste is exported to other parts of the UK for treatment, recycling, recovery and disposal. Some is also exported overseas. Furthermore, some waste produced elsewhere in the UK is imported into Wales for treatment, recycling, recovery and disposal. The picture on this is both complex and dynamic.
- 2.7 Towards Zero Waste and the related Sector Plans provide a framework within Wales to reduce the amount of waste produced and to promote high levels of recycling.
- 2.8 Planning Policy Wales and Technical Advice Note 21 (TAN 21) provide the framework for delivering sustainable waste management infrastructure through the planning process.
- 2.9 Planning Policy Wales edition 10, paragraph 5.13.4 refers to Welsh Government's policy for waste management, Towards Zero Waste, and the associated Sector Plans. There are specific references to the Collections, Infrastructure and Markets (CIM) Sector Plan in paragraphs 5.13.7, 5.13.8 and 5.13.9. The CIM Sector Plan:

'Describes the waste management framework to provide the best solutions to meet social, economic and environmental needs to 2050. It indicates a move towards the reduction of disposal and recovery options for treating waste in favour of high volume source segregated collection followed by re-processing as well as preparation for reuse and prevention''.

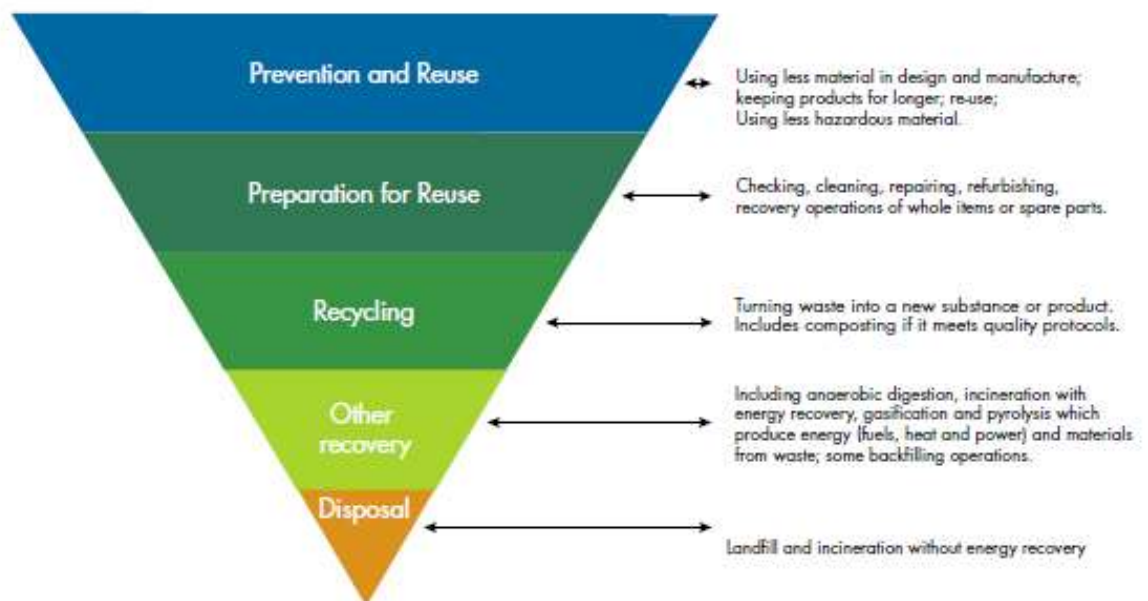
2.10 PPW edition 10, paragraph 5.13.1, explains that:

‘The planning system has an important role to play in facilitating sustainable waste management, by providing a framework for decision making which recognises the social, economic and environmental benefits that can be realised from the management of waste as a resource to meet the needs of society and businesses, whilst at the same time:

- *Minimising adverse environmental impacts and avoiding risks to human health;*
- *Protecting areas of designated landscape and nature conservation from inappropriate development; and*
- *Protecting the amenity of residents, of other land uses and users affected by existing or proposed waste management facilities’.*

2.11 PPW edition 10, paragraph 5.13.4, says that *‘planning authorities should, in principle, be supportive of facilities which fit with the aspirations of (Towards Zero Waste and the associated Sector Plans) and in doing so reflect the priority order of the waste hierarchy as far as possible’.*

The waste hierarchy is illustrated in diagrammatic form in Figure 10 of PPW edition 10 and in Technical Advice Note 21. The TAN 21 illustration is reproduced below:



PPW edition 10, paragraph 5.13.5 explains that the waste hierarchy is the *‘key starting point for all types of waste management proposals’*. However, it adds that *‘consideration of the hierarchy should be set against the wider social, economic, environmental and cultural factors which are relevant in any given case’*.

- 2.12 PPW edition 10, paragraph 5.13.6 focuses on the statutory role of NRW regarding management and regulation of waste and the collection of waste production and management data. Planning authorities are expected to work closely with NRW to ensure that conditions on planning permissions are complementary to those attached to NRW Environmental Permits, avoiding duplication.
- 2.13 Paragraph 5.13.8 of PPW edition 10 says that *‘Development Plans should demonstrate how national waste policy, and in particular the CIM Sector Plan, along with any updated position adopted in the waste planning monitoring reports and any other form of waste management priorities relevant to its local area have been taken into account’*. Paragraph 5.13.9 adds that *‘regional monitoring arrangements are in place to ensure an up-to-date position is available to inform decision making’*. The regional monitoring is presented in Waste Planning Monitoring Reports, which are hosted on the Welsh Government’s TAN 21 website page.

- 2.14 Paragraph 5.13.12 of PPW edition 10 advises that:

‘For all wastes, suitable locations for sustainable waste management development should be identified in development plans as well as criteria by which applications for such developments will be determined, recognising that the most appropriate locations will be those with the least adverse impact on the local population and the environment and with the best potential to contribute to a broad infrastructure framework’.

Welsh Government advocates regional collaboration and joint working on strategic waste management issues. It also suggests involving the waste management industry and local authority waste managers and consortia in discussions.

- 2.15 PPW edition 10, paragraph 5.13.13 anticipates that there will be changes in the nature and type of infrastructure needed to support a transition towards circularity (including recycling and reuse) of materials. PPW describes the circular economy as *‘one which aims to keep materials, products and components in use for as long as possible’*. PPW anticipates a need for facilities that will support high efficiency and high quality reuse and recycling, for instance collection hubs to support the return of materials to their point of manufacture.
- 2.16 In PPW edition 10 paragraph 5.13.14, planning authorities are asked to encourage the recycling and reuse of construction / demolition wastes and mineral / industrial wastes. Planning authorities are expected to make provision for storage and processing of inert materials arising from construction, demolition and maintenance operations by identifying preferred locations for recycling facilities in Development Plans. If suitable sites cannot be identified in Development Plans, Welsh Government asks for criteria to assess planning applications for recycling sites.

- 2.17 There is also a section in PPW edition 10 dedicated to design choices to prevent waste. Planning authorities are asked to consider both design choices and site selection and treatment as part of assessing development proposals and encourage a shift towards embedding circularity in the flow of materials. Measures to reduce waste arising include:
- Reducing the quantity of waste produced;
 - Reuse of products;
 - Extension of the lifespan of products; and
 - Considering how materials within a site can be incorporated into new development.
- 2.18 Construction sites usually involve a degree of cut and fill engineering operations. Paragraph 5.12.3 of PPW edition 10 recommends minimising the level of earthwork cut and fill volumes to protect soils, reduce energy consumption and reduce transport movements to and from a site. This will require an assessment of the cut and fill balance of materials excavated to minimise waste. Where material is temporarily moved prior to reuse on a site, urban quarries can form useful interim repositories. However, avoiding moving material from a site at all is the most desirable way forward from the point of view of minimising transport costs. There may be opportunities to reuse materials in conjunction with construction of Sustainable Drainage Schemes (SuDS) on development sites.
- 2.19 Other matters that PPW edition 10 advises on include:
- Encouraging proposals incorporating design features and materials which enable flexibility and adaptability throughout the design life of the building and which enable reuse when its lifetime is over.
 - Encouraging reuse and recycling of secondary aggregates, construction, demolition and excavation waste, incinerator waste, incinerator bottom ash and other recycled materials.
 - Processing of colliery shale, ash from power stations and slate waste to allow their reuse as aggregates. Lack of recycling facilities and unnecessarily high design specifications for roads have historically restricted reuse.
 - Incorporation of space for the collection, composting and recycling of waste materials into building designs and layouts, alongside waste prevention measures at the design, construction and demolition stages.
- 2.20 Building on the foundation provided by PPW, TAN 21 makes it clear that waste management land use planning should seek to drive waste up the waste hierarchy and facilitate the provision of an adequate network of appropriate facilities. It should also minimise impacts of waste management on the environment and human health by facilitating provision of new facilities (where needed) of appropriate types and in suitable locations. TAN 21 also identifies economic and social benefits from the management of waste as a resource in Wales.

- 2.21 TAN 21 highlights the need to strike a balance between provision of sufficient capacity to deal with waste arisings in the short term (to avoid environmental impacts) and the achievement of longer-term goals after 2024/25. Early delivery of waste treatment infrastructure is needed to allow diversion of material from landfill to preferred management methods.
- 2.22 TAN 21 acknowledges that it is not necessary for Wales to have a full suite of facilities necessary to comply with the requirements of the Waste Framework Directive, or to manage all of its own waste. It also follows from this that the same principles should apply outside Wales, with Welsh facilities providing treatment, recycling, recovery and disposal opportunities for some waste not generated within Wales.
- 2.23 TAN 21 explains that economic considerations relating to demand and viability may affect what management options can be brought forward in an area, that transportation considerations may affect whether a proposed location is suitable and that all proposals must be environmentally acceptable.
- 2.24 The Waste Hierarchy established by PPW sets out a priority order for waste prevention and management. The five levels of the Waste Hierarchy are shown diagrammatically in Diagram 2.7 of TAN 21. They are summarised below:
- Prevention and re-use
 - Preparation for re-use
 - Recycling
 - Other recovery
 - Disposal

TAN 21 provides further details of what is envisaged at each level in the hierarchy. Prevention and re-use is the most desirable outcome, disposal the least desirable.

- 2.25 Section 3 of TAN 21 says that in the short to medium term there will be a continued need to develop more waste treatment and recovery facilities in order to reduce reliance on landfill. A diminishing requirement for landfill disposal capacity will nonetheless remain. The longer-term aim is for an infrastructure network based on higher levels of re-use and recycling. Local planning authorities are expected to provide an enabling framework for the development of all types of waste infrastructure, indicating where possible the locations to which waste management facilities should be directed.

2.26 TAN 21 advises that ‘many modern in-building facilities externally appear similar to any other industrial building and internally contain industrial processes or energy generation that may be no different to other modern industrial activities in terms of their operation or impact’. It adds that ‘many general employment sites and major industrial areas are likely to be suitable locations for waste facilities but this will depend on a variety of local factors, including the nature of existing users and the strategy adopted for particular employment sites’. Local planning authorities are also expected to take specific actions in relation to recovery treatment for mixed municipal waste as part of Local Development Plan preparation, to ascertain whether:

- Support for a local authority procurement programme is necessary (this also applies to food waste);
- Any agreement in the regional Waste Planning Monitoring Report needs to be addressed through a site allocation or criteria-based policies; and
- Any opportunities exist for co-location and the development of heat networks that need to be addressed through site allocation(s) or criteria-based policies.

Regional policy

2.27 For waste planning purposes, the region within which Pembrokeshire is situated is South West Wales. The Local Planning Authorities within the SW Wales regional waste planning area are Pembrokeshire County Council (PCC), the Pembrokeshire Coast National Park Authority (PCNPA), Ceredigion County Council, Carmarthenshire County Council, City and County of Swansea, Neath-Port Talbot County Borough Council, Bridgend County Borough Council and (in part) the Brecon Beacons National Park.

2.28 At a regional level, the expectation of the Waste Framework Directive is that waste disposal and recovery of mixed municipal waste should be undertaken at one of the nearest appropriate installations to the source of the waste arising. However, individual areas are not expected to be self-sufficient in terms of the network, there being an acceptance that waste arising in one area might be better treated and disposed in a neighbouring local authority area or region.

2.29 There is an expectation that all areas should be prepared to accommodate infrastructure to support development of an integrated and adequate waste treatment and disposal network. A corollary of this is a need for collaboration between local planning authorities. The Collections, Infrastructure and Markets Sector Plan provides the strategic foundation for this.

- 2.30 Within the region, a South West Wales Waste Planning Group has been established to enable inter-authority collaboration on waste planning matters. There is also a Planning Officers' Society for Wales (POSW) Minerals and Waste Group, which discusses matters relating to these topics across Wales.
- 2.31 TAN 21 requires the preparation of Waste Planning Monitoring Reports (WPMRs). Carmarthenshire County Council currently leads the preparation of these reports in the SW Wales Region. The Reports, once completed, are hosted on Welsh Government's TAN 21 web-site page. The April 2016 Waste Planning Monitoring Report for SW Wales is the most up-to-date published report for the region – see link below:

<https://gov.wales/waste-planning-monitoring-report-south-west-wales-april-2016>

(Further WPMRs for the SW Wales Region have been drafted but await Welsh Government endorsement and publication).

- 2.32 WPMRs are prepared annually and provide data and analysis on waste arisings and management of waste within regions of Wales, including the SW Wales region, looking back over several years. Over time, successive WPMRs will provide a robust picture of trends and identify areas where data is currently lacking, setting out performance against the various targets.
- 2.33 The key conclusions for the SW Wales region from the Waste Planning Monitoring Report, April 2016 (the most recent published), are set out below:
- Total Local Authority Collected Waste (LACW) arisings generally decreased between 2006/07 and 2012/13 in each local authority area in the region. There was a slight increase in arisings between 2012/13 and 2013/14, and then further decreases between 2013/14 and 2014/15. However, following a long-term trend of decline in Local Authority Collected Waste, the 2018 figure recorded an increase. The previous reliance on overseas Energy-from-Waste facilities seems to be reducing, possibly because the Viridor Energy-from-Waste facility in Cardiff is now taking residual waste from a wider area.
 - The Towards Zero Waste target of reducing Local Authority Collected Waste by 1.5% each year since 2006/07 has been met.
 - Regional targets for recycling and composting are being met. However, recycling rates reduced in 2018 for the first time in about 10 years.
 - All authorities in the region met their landfill allowance targets between 2006 and 2015.

- For Industrial and Commercial waste, the region had met its 2015/16 target by 2012, the date of the last survey of this waste stream. However, landfill remained the second highest management route, meaning that the 2019/20 target of 10% maximum Industrial and Commercial waste being landfilled was some way from being achieved.
- For Construction and Demolition waste, the most recent report (2012) advises that it has not been possible to establish reliably whether the Towards Zero Waste targets in relation to landfill are being met. However, the targets for preparation for re-use, recycling and other recovery (minimum of 70% by 2015/16) were close to being met in 2012 in the SW Wales region (67% achieved).
- The amounts of Hazardous Waste arising in Wales and deposited in Wales decreased substantially between 2003 and 2014 and the 2010 reduction target had thus been met. The trend for reduction of hazardous waste seems to have continued since 2014. Landfilling of hazardous waste had steadily decreased because of more sustainable treatment processes being used instead.
- Wales does not have any dedicated hazardous waste landfill sites. For the small tonnages of such wastes not processed at chemical, physical and physic-chemical treatment plants in Wales, disposal is to hazardous waste landfill sites in England. There is little market incentive to develop new hazardous waste landfill void space in Wales.
- For residual waste, there is insufficient capacity in SW Wales, in terms of recovery facilities, to reach, or get close to, the 2025 goal of achieving zero landfill. Only two facilities for residual waste treatment have been granted planning consent in SW Wales in recent years and only one of these permissions has been implemented.
- There are industry concerns that there is insufficient residual waste product in the SW Wales region to make new residual waste treatment facilities viable. It was recorded that some local authorities in SW Wales were now exporting residual waste to off-loaders outside the UK but within Europe (for use in Energy from Waste facilities), as this has been found to be more cost-effective than sending it to facilities in Wales or England. However, since 2016 some of the overseas off-loading arrangements have now been discontinued, including those relating to Pembrokeshire's residual waste. Licensing and Brexit-related issues may further modify the position on this in the future.

- Some authorities in SW Wales have entered into joint contracts with other authorities within and / or outside the region for regional (or larger than regional) food waste treatment at major processing facilities. Other authorities are handling such waste within their own boundaries at smaller scale facilities.

There have been a number of new applications for Anaerobic Digester (AD) plants of various capacities. These range from single farm proposals to major regional facilities, in particular Agrivert's (now Severn Trent's) Stormy Down AD plant, which is operational. The Stormy Down AD plant has capacity to take food waste from several authorities in the region (and at the time of writing was contracted to take food waste from four of the six local authorities in the SW Wales waste planning area, including Pembrokeshire County Council).

There is some uncertainty over whether there is sufficient food waste generated in the region to make development of more regional facilities commercially viable.

Generally, targets for recycling of biodegradable waste are being met.

- Regarding the remaining landfill capacity in the region (the landfill void), the predicted capacity in the SW Wales region was thought to be 10.7 years in 2016. This is above the threshold set out in TAN 21 (below which a new landfill site would need to be considered for the region). However, this conclusion is underpinned by various assumptions, relating to the circumstances at operational landfill sites, the nature of current contracts, the prospect of new landfill sites coming forward (probably quite low), the possibility of new residual waste treatment facilities becoming available in the medium to long-term and the future quantities of residual waste being produced in the region.

2.34 Local Planning Authorities are required to ensure that sufficient landfill capacity is maintained across the three regions of Wales. This is to ensure that there are disposal facilities available for the element of waste that cannot be treated further up the waste hierarchy. The specific requirements are as follows:

- Ensure sufficient treatment capacity for the recovery of mixed municipal waste across the three regions of Wales is made available;
- Ensure that the spatial pattern of provision is appropriate to meet identified needs; and
- Undertake any further action needed to address unforeseen issues.

2.35 Local Planning Authorities are expected to identify where landfill capacity falls below both a 7-year and a 5-year void in a region. 7 years is considered sufficient for the market to provide a solution to a shortfall, while 5 years is a trigger for pursuing action necessary to facilitate future provision. The most recent published information on the landfill void capacity in the SW Wales region indicates that it is currently above the 7-year and 5-year thresholds.

2.36 The WPMR lists permitted landfills in the SW Wales region at 2014. At that time, the only site listed in Pembrokeshire was the Withyhedge Landfill, Phase 2, which is situated north of Haverfordwest.

2.37 In the SW Wales region (which for waste includes Pembrokeshire, Carmarthenshire, Ceredigion, Swansea, Neath-Port Talbot and Bridgend), the 2016 WPMR for SW Wales indicates that there is about 10.7 years of void capacity left. In addition to Withyhedge, the other main landfill sites in this region are at Nant-y-Caws (Carmarthenshire), Tir John (Swansea) and Pwllfa Watkin (Neath-Port Talbot).

2.38 With regard to those further landfill sites:

- a) The landfill element of the Nant-y-Caws site has void space available, but is currently mothballed;
- b) The Tir John site is almost full and there is no room for a further cell; and
- c) The permission at Pwllfa Watkin expired in September 2018 and the site has only limited additional capacity. There is a possibility of a new cell opening, which could provide capacity to 2023, but no certainty that this will happen at the time of writing.

Hence, there is a heavy regional reliance on Withyhedge to meet landfill demand.

Based on the WPMR for 2016, the 15-year void capacity in SW Wales is comfortably above the minimum regional requirement, but will continue to be actively monitored.

2.39 Information on the different waste streams, set in a SW Wales context, is presented in Appendix 1.

Local policy

2.40 Pembrokeshire County Council's current LDP includes four policies specifically relating to waste, details of which are presented below, largely in the form in which they appear in the Plan:

Strategic policy SP 11 – Waste – Production of waste and its impact on the environment will be minimised and the use of waste as a resource maximised, through re-use, recovery for materials or energy and, where this cannot be achieved, safe disposal, using the best practicable environmental option.

General policy GN.40 – New Waste Management Facilities – The following sites are allocated for the provision of new waste management facilities:

<i>Site Reference</i>		<i>Area (ha)</i>
<i>Extension to the existing Civic Amenity Site</i>		
WST/LDP/040/01	Winsel, near Merlins Bridge	4.95
<i>New in-building handling and treatment of waste</i>		
EMP/040/00004 and 040/00009	Withybush East of Business Park (undeveloped residual)	15.38
EMP/040/00005	Withybush North of Business Par	6.09
EMP/040/00003	Merlins Bridge Creamery and extension site	7.63
EMP/000/00003	Milford Haven Refinery (Murco), Milford Haven*	123.7
EMP/000/00004	Petro Plus / Dragon LNG	177.2
EMP/086/00003	Thornton Industrial Estate	22.07
EMP/146/00001	Waterston Industrial Estate	9.48
EMP/095/00001	Pembroke Power Station site	195.1
EMP/096/00005	Kingswood, Pembroke Dock	8.39
EMP/096/00006	Waterloo, Pembroke Dock	19.67
EMP/000/00002	Valero Refinery, Rhoscrowther	215.3
EMP/034/00006	Celtic Link Business Park, Scleddau	13.47
S/EMP/136/00001	Trecwn	21.11

* Now Puma Energy

General policy GN.41 – Waste Minimisation, Re-use, Recovery, Composting and Treatment – Proposals for the development of waste minimisation, re-use, recovery, composting and treatment facilities, including waste transfer stations and ‘energy from waste’ facilities, will be permitted where:

1. The site is located at an existing waste management site or at a unit / on a site allocated or protected for B2 uses or, if appropriate, at the type of site otherwise indicated by Welsh Government Technical Advice Note 21 (TAN 21), paragraph C36; or
2. The site can be readily accessed from A or B class roads where transport by road is the only available option; and

In all cases:

3. There is an identified national, regional or local need for the facility;
4. All waste arisings from the new facility have been considered and mitigated; and
5. The co-location of new facilities with potential energy users has been considered and incorporated where possible.

In addition, for the development of specialist facilities to process or dispose of hazardous waste:

6. It must be demonstrated that no significant adverse impacts will be caused to the health and safety of the public, the economy or the environment.

General policy GN.42 – Disposal of Waste on Land – Proposals for the deposit of waste on land will be permitted where the following criteria are met:

1. The proposal represents the only practicable solution, having regard to the waste hierarchy, to an identified national, regional or local need;
2. Adequate measures (operational and aftercare) are proposed to deal with any leachate or landfill gas that might arise from the proposal;
3. A post operational landform compatible with the adjoining topography is achievable; and
4. Provision is made for landscaping, progressive restoration, appropriate beneficial after use(s), restoration, and post closure management of the site.

- 2.41 Pembrokehire County Council monitors the implementation of LDP policies and proposals on an annual basis. To date, six LDP Annual Monitoring Reports have been prepared. The monitoring covers many different aspects of LDP implementation, including those relating to waste. The key conclusions in relation to waste from AMRs 1 to 5 are set out in Appendix 2.

- 2.42 Some Local Planning Authorities require Natural Resources Management Plans for certain types of development at planning application stage. These are a means of implementing Circular Economy objectives, to keep resources in use for as long as possible. This, in turn, helps to reduce the amount of waste going to landfill.
- 2.43 Linked to this is provision of urban quarries, which are temporary repositories for material (including topsoil), removed to allow building projects to go ahead. In many cases, this will eventually be reinstated on the site of its origin, although not always so.

3 Local evidence

- 3.1 At a local level, the complexities of waste management make close co-operation between Local Authorities, National Park Authorities, Natural Resources Wales (NRW), the waste management industry, the voluntary sector and the public highly desirable. There are synergies between waste planning and waste licensing that makes close co-operation between Local Authorities and NRW particularly important.
- 3.2 In Pembrokeshire, there are two Waste Planning Authorities – Pembrokeshire County Council for locations in Pembrokeshire outside the National Park and the Pembrokeshire Coast National Park Authority, which covers the National Park area. However, there is only one Waste Collection and Disposal Authority in Pembrokeshire, which is Pembrokeshire County Council. As such, PCC is responsible for the safe collection and disposal of municipal wastes arising throughout the County.

The National Park Authority's updated policy approach, as used by its emerging Replacement LDP, is to permit appropriately scaled and located local waste facilities within the National Park. These will generally be facilities that predominantly serve the National Park area.

- 3.3 The Waste Regulation Authority in Pembrokeshire for the issue and control of environmental permits is Natural Resources Wales. However, where regulated facilities are found in Class B (as defined by the Environmental Permitting (England and Wales) Regulations, 2010, sections 8 and 32) and do not interact with water, the regulatory responsibilities are with Pembrokeshire County Council.
- 3.4 Appropriate locations for waste installations should be considered when preparing Local Development Plans, in accordance with the requirements set out in Welsh Government's TAN 21 document.

- 3.5 Local Development Plans should indicate where suitable sites exist for the provision of all types of waste management facilities, in order to provide certainty for waste operators interested in fulfilling demand in an area. These will usually be general employment sites and major industrial areas, but not all such sites will be appropriate for waste management. There may also be a role for criteria-based waste management policies in Local Development Plans. TAN 21 provides further detail on these matters, including advice on special types of facilities, such as those for windrow composting. There is also general advice in TAN 21 that ‘adequate facilities and space for the collection, composting and recycling of waste materials should be incorporated into the design of any development and that waste reduction efforts at the design, construction and demolition stages should be made by developers’.
- 3.6 In most cases, the best locations for waste management facilities will be those with least adverse impacts on the local population and environment and with the best potential contribution to a broad infrastructure framework. TAN 21 suggests that new sites might be located within or adjacent to:
- Industrial areas;
 - Active or worked out quarries;
 - Degraded / contaminated / derelict land;
 - Existing or redundant sites or buildings;
 - Sites previously or currently occupied by other types of waste management facility;
 - Sites where existing and proposed land uses might facilitate the location of waste management infrastructure (as part of a co-location package); and
 - On farms (where outputs will be used on the farm).

However, not all such sites will be appropriate for such activity, for example, those in flood risk areas and those designated for their nature conservation importance. TAN 21 also gives further advice on aspects such as site infrastructure, transport infrastructure, community-based re-use and recycling initiatives, planning permissions, environmental permits, cumulative effects of waste management activities on sensitive environmental receptors and cumulative effects on community well-being.

- 3.7 Pembrokeshire County Council (PCC) provides waste collection services across the County. PCC's Cabinet agreed review of these arrangements in March 2018. Implementation of the new collection services is taking place during 2019.
- 3.8 Most waste disposal activities are now undertaken by private companies. Various contracts with such companies are in place to facilitate disposal of the waste collected by Pembrokeshire County Council. In some cases, the arrangements for managing waste also include elements of the waste streams of neighbour authorities, with the contracts consequently involving other local authorities. The private companies who undertake the disposal activities may also take waste from non-local authority sources.
- 3.9 The ultimate destination for waste generated in Pembrokeshire is sometimes outside the County and likewise there are instances where waste generated outside the County is imported into Pembrokeshire. Until recently, the element of local authority collected waste that could not be re-used or recycled was exported by sea to an overseas off-loader in Sweden, for use in an energy-from-waste facility. However, this arrangement has now ended, with that element of waste now being sent to the Trident Park energy-from-waste facility in Cardiff. One of the purposes of introducing the new waste collection services in Pembrokeshire is to ensure that as much waste as possible can be re-used or recycled, reducing the amount local authority collected waste that needs to be sent to energy-from-waste facilities.
- 3.10 As well as needing to be acceptable in planning terms, proposals for waste treatment, handling and disposal have to be licensed by NRW.

4 Candidate Sites

- 4.1 One LDP 2 Candidate Site suggesting a waste activity has been submitted to Pembrokeshire County Council. This proposal is for use class B2 and sui generis employment, to allow for waste recycling.
- 4.2 This submission will initially be subject to the standard Site Assessment process. However, because waste developments are uncommon and require specialist knowledge at the assessment stage, additional expert advice will be sought where necessary.
- 4.3 In summary, the Candidate Site proposing the waste activity is as follows:

<i>Candidate Site number</i>	<i>Location</i>	<i>Area (hectares)</i>	<i>Proposal</i>
286	Former Carew Airfield, Sageston	11.85	Employment B2 and Sui Generis, to allow for waste recycling

- 4.4 The map below shows the geographical location and extent of the Candidate Site listed above.

- 4.5 Waste processing operations currently take place in Unit 41, Pembroke Dockyard and this unit will remain available for that purpose in the short and medium term. This building is used for shredding, baling and wrapping of waste and also includes a reception hall. Additionally, consent is now in place for bulking-up operations to take place in Units 29 and 29A, Pembroke Dockyard. The use of Units 29 and 29A for this purpose is time-limited to December 2021, as these buildings will be needed for other purposes after that date. Any proposals to relocate either or both of these operations to other locations / buildings prior to LDP 2 adoption will be considered under the current Plan; any such proposals received after LDP 2 adoption will be evaluated in the context provided by the new Plan.
- 4.6 New requirements for Fire Prevention and Mitigation Plans for all the County's Waste and Recycling Centres will come into force in the near future. Each Centre will be assessed to determine what needs to be done to achieve regulatory compliance. Should any sites require significant modification or re-location to meet the new requirements, the planning aspects of this would be dealt with at application stage, with reference to the appropriate criteria-based waste policies of the LDP and any other material considerations.
- 4.7 The current provision of waste and recycling centres across Pembrokeshire is as follows:
- Winsel, near Haverfordwest
 - Hermon, near Crymych
 - Manorowen, near Fishguard
 - Crane Cross, near Tenby and Saundersfoot
 - St. Davids
 - Waterloo, Pembroke Dock

5 Summary and conclusions

- 5.1 The policy framework for considering waste planning matters in Pembrokeshire includes:
- a) Two EU Directives (the Waste Framework Directive (WFD) and the Landfill Directive).
 - b) Welsh Government's framework for resource efficiency and waste management to 2050 – Towards Zero Waste – One Wales, One Planet' (TZW).
 - c) The Sector Plans linked to TZW, in particular the Collections, Infrastructure and Markets Sector Plan.
 - d) Welsh Government's Planning Policy Wales edition 10 (PPW v10) and Technical Advice Note 21 – Waste (TAN 21) documents.
 - e) The two Local Development Plans adopted in the County.

- 5.2 For waste planning purposes, Pembrokeshire is within the South West Wales region.
- 5.3 Annual Waste Planning Monitoring Reports (WPMRs) are prepared for the SW Wales region and present regional conclusions on key aspects of waste planning.
- 5.4 TAN 21 sets out a waste hierarchy, which is a priority order for waste prevention and management – the most desirable option is prevention and re-use, followed by preparation for re-use, recycling, other recovery and finally (if none of the other options is possible) disposal (to landfill).
- 5.5 Although it is the least desirable outcome, there is an element of waste that can only be landfilled. Sufficient landfill capacity is therefore required to be maintained across each region in Wales. Local Planning Authorities are required to take action if the landfill void falls below certain thresholds. The most recent published figures indicate that the landfill void in the SW Wales region is sufficient to meet the regional need. However, Withy hedge landfill site is one of the few landfill sites that remains operational in the region and hence regional and local landfill capacity (void space) will continue to be closely monitored. The increasing regional reliance on the Withy hedge site is likely to be reducing the landfill void at that site significantly. As well as taking material from within the SW Wales region, it is also thought to be taking materials from elsewhere in Wales and from England.
- 5.6 In terms of individual waste streams, the following points are particularly important:
- a) There is no regional treatment facility for residual waste in SW Wales at present. However, City and County of Swansea Council has recently taken on the role of lead authority for procurement of a long-term contract for the treatment of residual waste in SW Wales. Welsh Government's preference is for this to take the form of an energy-from-waste facility, but there are no decisions yet on where this facility might be located. A consultancy has been appointed to undertake a desk study to identify possible sites for the development of an Energy-from-Waste facility and also to identify any possible off-takers for the heat and energy that could be generated. Pembrokeshire County Council is one of the authorities that has provided information to the consultancy to inform this initial phase of the work. The commissioning group has submitted a Project Scoping Document to Welsh Government. It is understood that the commissioning group will discuss the options within the Project Scoping Document with Welsh Government. After that, it is anticipated that Welsh Government will provide guidance on the future procurement directions it feels able to support.
- It is understood that a licence application has been made for a residual waste facility in Port Talbot Docks. This is for a bulking-up operation, as a precursor to export from the region.

- b) There has previously been a regional over-reliance on overseas off-loaders as a destination for the south-west Wales region's residual waste. However, new arrangements, such as those in Pembrokeshire, are resulting in more of the region's residual waste remaining within Wales. In Pembrokeshire, new local authority waste collection arrangements will seek to increase the amount of collected waste that is re-used or recycled and to reduce the residual element.
- c) Anaerobic digesters to treat food waste are now operational at a recently opened site at Stormy Down, near Bridgend. This now takes food waste from four of the six local authorities in the region, including that from Pembrokeshire.
- d) Further information on other waste streams is set out in the main body of the text.

5.7 Pembrokeshire County Council's current LDP has four policies relating to waste. One of these, SP 11, is a strategic policy on this topic. General policy GN.40 sets out the policy position on new waste management facilities (where there is a strong emphasis on co-location with existing waste sites and with some existing and proposed employment sites). General policy GN.41 discusses waste minimisation, re-use, recovery, composting and treatment. Policy GN.42 relates to disposal of waste on land (landfill, including landraising, the latter being considered to be an aspect of landfill activity). Each policy will need to be re-visited in conjunction with Plan review, but in general terms each remains relevant. Where necessary, LDPs can identify sites and / or preferred locations for new waste management activities. This is a matter that will be considered in conjunction with preparation of the replacement LDP.

5.8 Preparation of the replacement LDP provides an opportunity to consider whether preparation of Natural Resources Management Plans should be made a formal requirement for some types of planning application. The replacement Plan might also consider whether there is a need for Urban Quarries, which can act as temporary repositories for material (including topsoil) removed to allow building projects to go ahead.

5.9 There is a close relationship between Local Planning Authorities in the region in relation to waste planning, with much collaborative work. The Local Planning Authorities work closely with NRW, the latter organisation having responsibility for waste licensing.

- 5.10 Local authorities have responsibility for various aspects of waste management and also collect commercial and domestic waste. The current arrangements for collection of domestic waste in Pembrokeshire are changing during 2019. If, in consequence, any changes to waste management activities within Pembrokeshire are required, the policies and proposals of the current LDP will initially provide a basis for the consideration of their planning implications, with the replacement LDP fulfilling this role once adopted. Pembrokeshire County Council has various contracts with private companies relating to the waste materials that it collects. Some of these arrangements have been made jointly with other local authorities.
- 5.11 One LDP 2 Candidate Site proposes a waste-related development. This relates to part of the former Carew Airfield site and is for a use class B2 and sui generis employment and waste recycling proposal.
- 5.12 A new location for the waste processing operations currently taking place in Unit 41, Pembroke Dockyard, and / or the consented bulking-up operations in Units 29/29A may be needed in the next few years. Depending on timings, these will be considered under the criteria-based policies in either the current LDP or (once adopted) LDP 2.
- 5.13 There may also be planning implications arising from the forthcoming preparation of Fire Prevention and Mitigation Plans for all the County's Waste and Recycling Centres.

Appendix 1 – information on the different waste streams, set in a SW Wales context

A1.1 *Residual waste* – there is no regional treatment facility for such waste in SW Wales at present. However, City and County of Swansea Council has recently taken on the role of lead authority for procurement of a long-term contract for the treatment of residual waste in SW Wales. Welsh Government has indicated that its preferred option is for this to take the form of an energy from waste facility linked to modern energy efficiency technology and enabled to deliver combined heat and power, preferably with an off-loader identified. As noted above, a consultancy has been appointed to undertake a desk study to identify possible sites for the development of an Energy-from-Waste facility and also to identify any possible off-takers for the heat and energy that could be generated. A Project Scoping Document has been submitted to Welsh Government. No decisions have to date been taken on where a regional treatment facility might be located.

The black bag waste that PCC collected to November 2019 is contracted to the Energy from Waste facility at Viridor, Cardiff. From November 2019, the Local Authority collection regime in Pembrokeshire has changed, to allow more items to be re-used and recycled. Residual items now go into grey refuse sacks, collected once every 3 weeks.

Orange bag waste (containing materials that can be recycled) is not part of the residual waste. A contract for the majority of dry mixed recyclate received in orange bags (approximately 80%) is due for renewal soon. About 20% of the orange bags are contracted to be sent to AJ Recycling at Boncath. From November 2019, the new Local Authority collection regime in Pembrokeshire has allowed more items to be re-used and recycled than was previously the case. The orange bag system is now largely replaced by a new source-sorted collection regime, with greater separation of different waste streams. The orange bag system will remain for some residents, where the new arrangements cannot currently be used.

Under the new arrangements, plastic bottles, cans, tetra packs and plastic containers will be collected as mixed product and then moved on to various off-loaders. Paper will be recycled at a facility in north Wales, Cardboard will, in part, be recycled in the UK, although some will be exported for recycling. Glass will go to a recycling facility in Cwmbran.

Bulky residual waste is currently landfilled at Wthyhedge Landfill Site.

- A1.2 *Food waste* – a regional treatment facility (in the form of anaerobic digesters) recently opened at Stormy Down, near Bridgend. Pembrokeshire’s food waste is now sent here under the terms of a contract with Agrivert, which has recently been superseded by Severn Trent. This contract is of a regional nature and also involves food waste from Ceredigion and Powys. The anaerobic digestion facility at Stormy Down now accepts food waste from four of the six local authorities in SW Wales.
- A1.3 *Industrial and commercial waste* – targets are being met, but the amount of such material going to landfill needs to reduce.
- A1.4 *Construction and demolition waste* – the most recent information on this waste stream is from 2012. There is some uncertainty over whether targets relating to landfilling of such material are being met, the aim being to progressively reduce landfill of such material.
- A1.5 *Green / garden waste* – many local authorities in the region, including Pembrokeshire County Council, offer kerbside collection of garden waste for a fee. In Pembrokeshire the take up rates have been good. Collected material from Pembrokeshire is composted at Nant-y-Caws in Carmarthenshire. The contract was subject to a tender exercise in autumn 2019, the outcome of which was awaited at the time of publication of this paper.
- A1.6 *Special wastes* – facilities for treatment and disposal of such waste in SW Wales are very limited. Hence, much of this material is sent to facilities outside the region. For instance, asbestos waste generated in the region currently goes to an asbestos cell near Swindon. Some of the waste products generated at major industrial installations on Milford Haven Waterway are treated on or very close to their sites of origin.
- A1.7 *Hazardous waste* – there are currently no landfill sites for such material in Wales. Therefore, if landfill is the only option, it has to be taken outside the region for disposal. Quantities of such materials have stabilised in recent years, as more sustainable treatment processes have been introduced.
- A1.8 *Agricultural waste* – anaerobic digesters to process waste on individual farms are becoming more common. In a few cases, larger on-farm facilities are being developed which take such waste from more than one farm.
- A1.9 *Wood waste* – the South Wales Wood recycling centre in Bridgend is understood to now be non-operational. South West Wood in Swansea is now the main company handling wood waste across south Wales, the product feeding into a bio-plant at Margam. A further facility at Barry has been proposed.
- A1.10 *Inert waste from civic amenity sites* – this is generally treated and disposed of locally.

- A1.11 *Road waste* – this is also generally treated locally. The end products following treatment are typically recycled secondary aggregate and soil conditioner.
- A1.12 *Bulking operations* – in Pembrokeshire, bulking of Local Authority collected waste of various types (including related shredding, baling and wrapping processes) is currently undertaken at Unit 41 in Pembroke Dockyard. The availability of Unit 41 for this purpose will continue in the short and medium term. Consent is now in place for waste bulking-up operations to also take place in the nearby Units 29 and 29A in Pembroke Dockyard. However, in this case, the use of these units will cease by December 2021, as they are required for other purposes after that date. A new location for the bulking operations currently taking place in both Units 29 / 29A and 41 may be needed in due course.
- A1.13 *Changes being introduced by Pembrokeshire County Council to enable more recycling to take place in Pembrokeshire and to reduce quantities of residual waste* – as noted above, these are being phased in during 2019 and include:
- a) Collection of grey (previously black) bag waste every 3 weeks;
 - b) Collection of absorbent hygiene products every 2 weeks;
 - c) Collection of kerbside sorted recyclables – dry recyclables and food waste – every week.
 - d) Black / grey bag intervention at waste and recycling centres (previously called civic amenity sites).
 - e) Limited continuation of co-mingled orange bag recyclates for a small number of properties who cannot access the new system with regard to kerbside sorted recyclables.
 - f) Bulking of all kerbside sorted materials, residual waste for Energy-from-Waste, food waste and glass, initially at Units 29, 29A and 41, Pembroke Dockyard but possibly at a different site post 2021.

Appendix 2 – key conclusions on waste from LDP Annual Monitoring Reports 1 to 6

Core indicator – Amount of waste management capacity permitted – no target and no trigger

- 3.65 ha new capacity permitted in AMR year 1
- 4.20 ha new capacity permitted in AMR year 2
- 3.32 ha new capacity permitted in AMR year 3
- 1.11 ha new capacity permitted in AMR year 4
- 1.00 ha new capacity permitted in AMR year 5
- 1.20 ha new capacity permitted in AMR year 6

Progress towards finding a new Civic Amenity Site to serve SE Pembrokeshire

The new facility (at Devonshire Drive, near New Hedges) was conditionally approved on 17/07/14 (13/1110/PA) and was operational from Easter 2015.

Provision of an extension to the Civic Amenity Site at Winsel

Planning permission was granted to extend the site by 0.23ha on 08/05/13 (12/1159/PA). This proposed extension of the site, as the location for a materials recovery facility. The extended site is now fully operational.

SA objectives:

12 – Minimise the generation of waste and pollution

13 – Encourage the efficient production, use, re-use and recycling of resources

Potential SA indicators include:

- Total and percentage of municipal waste and municipal waste recycled, composted, used to recover heat, power and other energy sources, and land filled
- Electricity produced from renewable sources
- Access to recycling facilities

Biodegradable Municipal Waste (BMW) landfilled in:

- 2015/2016 – 6,523 tonnes
- 2016/2017 – 5,046 tonnes

(Source: Pembrokeshire County Council, 2018)

Waste re-use / recycling / composting rates:

- 65.3% in 2016/2017
- 57.0% in 2017/2018
- 62.0% in 2018/2019

(Source: Stats Wales, 2019)