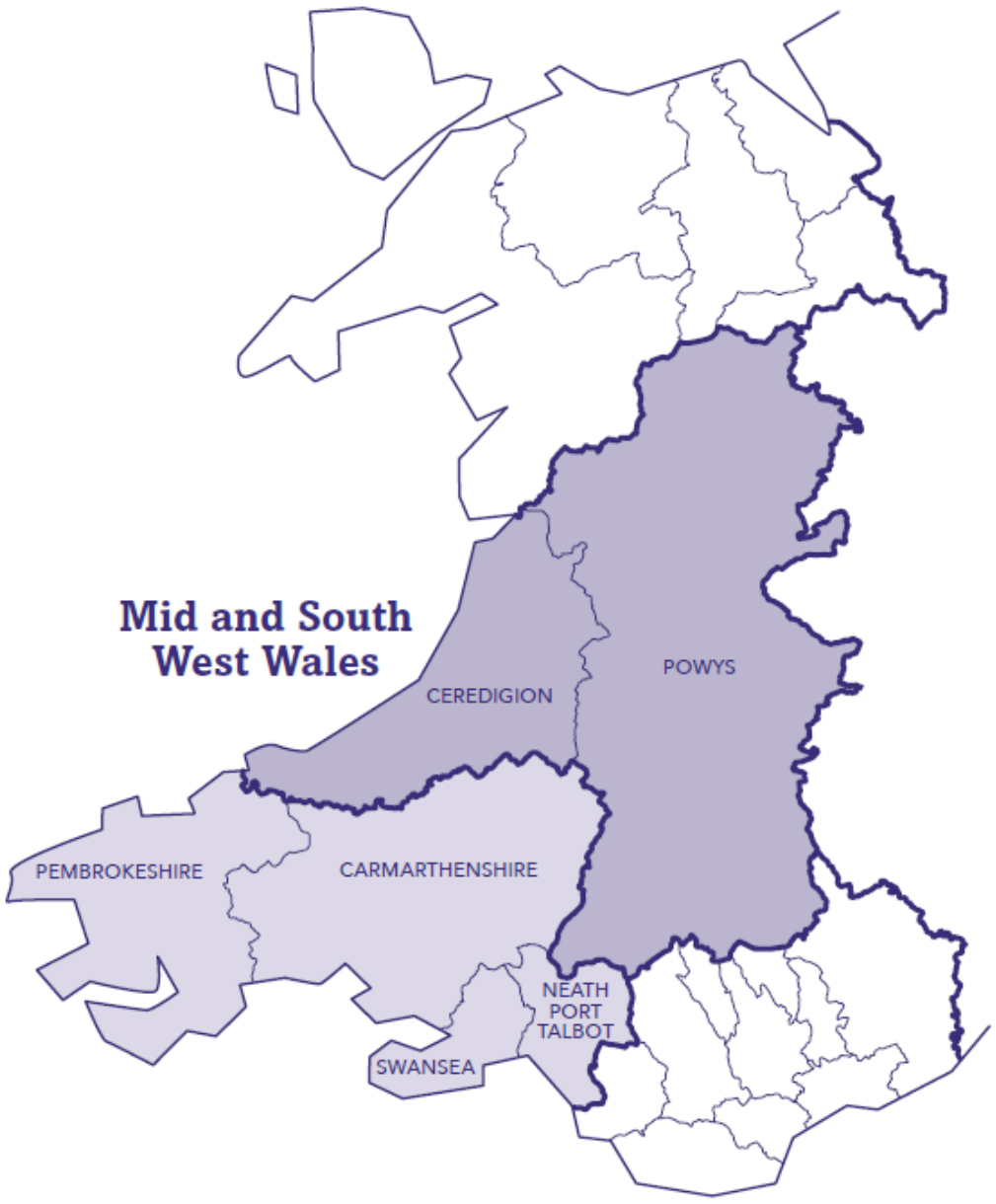


Waste Planning Monitoring Report 2022/23

APPENDICES

Appendix 1 – Hazardous Waste Arisings in Wales 1998 - 2013

Appendix 2 – Permitted and constructed landfills in the Mid & SW Wales region, 2022

Appendix 3 – Number of Permitted Sites by Local Authority, July 2022

Appendix 4 – Capacity of Permitted Sites by Local Authority, July 2022

Appendix 5 – Planning applications/decisions for waste recovery/treatment facilities in the Mid & SW Wales region April 2015 – March 2023

Appendix 6 – Planning applications/decisions for AD facilities in the Mid & SW Wales region April 2015 –March 2023

1. INTRODUCTION

Background

1.1 *Technical Advice Note (TAN) 21: Waste (2014)* established a requirement for each of the three regions in Wales (at the time - North, South East and South West) to prepare a Waste Planning Monitoring Report (WPMR) on an annual basis. Central to the process of preparing the Report is the collection and analysis of information regarding the waste situation within each region.

1.2 Up until 2021 the 3 regions had remained those set out within TAN21, but in 2021 the 3 waste regions were re-organised in line with the 3 economic regions of Wales – North, Mid & South West, and South East. In the action plan *Prosperity for All* the Welsh Government (WG) states that it wants all parts of Wales to benefit from economic growth with wealth and opportunity spreading to all regions. To this end, they have aligned the economic regions to those used for other footprints including Regional Skills Partnerships and those being used for local government collaboration.

1.3 *Prosperity for All* goes on to emphasise that this new, place-based approach to economic development will enable the WG to respond more effectively to discrete challenges and opportunities faced by each of the regions. For example, in Mid and South West Wales, the WG will be able to use the new approach to strengthen and evolve important arrangements for cross border economic development.

1.4 The Management of waste has traditionally relied upon cross border collaboration between authorities, and so this new approach will hopefully have a positive impact upon the future of this important economic activity.

1.5 This document is the Report for the Mid & South West Wales region for the period 2022/23. As a result of the restructuring of the three regions, direct comparisons with previous reports (for the SW Wales region) will not be possible for the region as a whole. However where possible, the data going back several years has been set out to indicate trends (as has been done in previous reports). It is worth pointing out that the re-aligning of the regions has resulted in the addition of only one local authority to the region – Powys, and the movement of Bridgend to the South East Wales region. The other 5 authorities remain the same as with the former SW Wales region, and so much of the data remains relevant.

1.6 Information on the waste situation within each region is required in order to monitor a region's waste arisings, recovery and disposal and in order to make forecasts of future arisings. The challenge of planning for waste management and resource recovery facilities must be undertaken with a sound information base. It is therefore important to have comprehensive, accurate, timely and consistent information.

1.7 Information on the region's waste management / resource recovery facilities is required in order to monitor implementation of ***Towards Zero Waste: One Wales One Planet (TZW, 2010) – The Overarching Waste Strategy Document for Wales*** – both in terms of the facilities that are being planned for in local authority development plans and in terms of the facilities that are currently operating.

Waste Planning Monitoring Report (WPMR)

1.8 The principal role of the WPMR is to collate and present all available data to enable the effective monitoring of both the region's waste arisings and waste management facilities and to assess the region's performance against the targets set out in TZW.

1.9 The information and analysis presented in the reports should provide a basis for local authorities and other organisations to take action on the waste arisings within each local authority area and by implication the region as a whole. The reports should also provide an information base to assist the waste management industry make key investment decisions.

1.10 The aims of the WPMR include the following:

• To collate and assess available data on all waste arisings in the region in order to monitor trends in past arisings and ultimately monitor performance against the targets set out in TZW;

• To collate and assess available data on landfill void with a view to predicting the remaining landfill capacity of the region;

• To collate and assess available data on the arisings and management of residual waste and comment on progress being made towards meeting targets regarding alternatives to landfill;

• To collate and assess information on the development of waste policies in Development Plans to monitor the implementation of the provisions of TAN 21 Waste;

• To collate information on current local authority waste management / resource recovery schemes and future procurement;

• To identify any data gaps that exist;

• To provide recommendations that can be carried forward and utilised in the production of future WPMRs.

Planning Policy Wales (PPW, Ed.11)

1.11 PPW11 was published in 2021 and places an emphasis on making best use of material resources and promoting the circular economy. A circular economy is one which aims to keep materials, products and components in use for as long as possible. The principles of the circular economy represent a move away from the current linear model of make, use and dispose, towards the reuse, repair and recycle of wastes which arise during development. This is discussed further in section 8 below.

1.12 PPW11 was published in March 2021 to coincide with the publication of *Future Wales: The National Plan 2040* (formerly the *National Development Framework NDF*). PPW11 sits alongside *Future Wales* and has been updated to reflect the different measures set out within the national plan, as well as making reference to the Covid-19 pandemic.

Technical Advice Note (TAN) 21: Waste, 2014

1.13 Article 16 of the EU Waste Framework Directive[1] requires member states to establish an integrated and adequate network for the disposal of wastes, and for the recovery of mixed municipal wastes. TAN 21 requires that progress towards this is monitored to identify whether sufficient landfill capacity is being maintained; sufficient treatment capacity is being maintained; whether the spatial pattern of provision is appropriate to fill identified needs, and also whether any further action is needed by local planning authorities to address unforeseen issues. The *Collections, Infrastructure and Markets Sector Plan* (CIMSP, 2012) provides the strategic starting point for the monitoring.

1.14 TAN 21 and the CIMSP both refer to the former regions (North Wales, South West Wales and South East Wales) and so their figures can only be used as a guide in this report. TAN 21 advises that the upper threshold of the capacity ranges identified in the CIMSP (or any subsequent update) is likely to represent the point at which the extent of provision in a region is considered to be sufficient for recovery capacity. In the SW Wales region the capacity threshold is identified in the CIMSP as: 34-327 thousand tonnes per annum. The variation is due to the level of uncertainty regarding volumes of residual waste requiring management.

1.15 TAN 21 advises that the level at which non-hazardous landfill void is sufficient within a region is 7 years. The length of time landfill void lasts will vary considerably as it will depend on a number of different factors such as engineering requirements, daily cover, compaction and rates of settlement and rates of deposition. Planning restrictions can also limit how much of a void is ultimately used as the life of a landfill permission is often limited by the use of conditions. TAN 21 does not prescribe a methodology for determining the life of a landfill, though the CIMSP estimates landfill life based upon a number of different scenarios depending upon residual waste arisings and diversion rates. The CIMSP estimated that under a worst case scenario landfill void in SW Wales would run out in 2020/21, and under a best case scenario void would last indefinitely.

1.16 TAN 21 requires planning applications for disposal, recovery or recycling facilities to be accompanied by a Waste Planning Assessment. The assessment is intended to help inform decisions regarding applications for waste management in light of the requirements of the TAN.

Collections, Infrastructure and Markets Sector Plan (CIMSP, 2012)

1.17 The CIMSP supports TZW, by detailing outcomes, policies and delivery actions for organisations, companies and individuals involved with the collection and management of waste resources, and the use of waste derived products. It forms part of the suite of documents that overall comprise the waste management plan/strategy for Wales in accordance with the plan making requirements enshrined in Wales and EU legislation.

[1] EU legislation which applied directly or indirectly to the UK before 11.00pm on 31 December 2020 has been retained in UK law as a form of domestic legislation known as 'retained EU legislation'.

1.18 The CIMSP was published in 2012 and was based upon data which has since been updated for certain types of waste stream. Data sources varied depending upon the waste stream under consideration. Industrial, commercial and construction and demolition waste data was all collected using surveys whereas data on local authority collected waste (LACW) is provided on a quarterly basis directly by local authorities using the Waste Data Flow database.

1.19 The CIMSP used Industrial and Commercial (I&C) waste data based upon a survey carried out in 2007. Since the publication of the CIMSP a further two surveys have been undertaken which provided data on commercial and industrial waste arisings and their management in 2012 and 2018. The CIMSP used construction and demolition (C&D) waste data based upon a survey carried out in 2005/06. A further two surveys have subsequently been undertaken which looked at C&D wastes arising and managed in 2012 and 2019. Data on LACW for the CIMSP was obtained from the Waste Data Flow database, which compiles data provided by Local Authorities directly. The period to which the CIMSP data refers is 2009. This WPMR incorporates LACW data available up to 2021/22.

Beyond Recycling – A strategy to make the circular economy in Wales a reality (March 2021).

1.20 Following a consultation carried out in 2019/20, this strategy was published in March 2021. The strategy builds on the foundation of successful action over the last 20 years in recycling and sustainable waste practices; taking the next steps towards a more circular economy, eliminating waste and addressing the climate emergency. The aim of the strategy is the move from making and disposing to re-using and recovering products and materials wherever possible. This requires a fundamental shift in how everyone thinks of and acts with the products that are made and used.

1.21 *Beyond Recycling* contains a set of indicators that have been developed to demonstrate the connection between policy and outcome within the circular economy strategy, with indicators to track progress in the desired direction. The indicators have also been designed to link to the national indicators under the *Well-being of Future Generations Act*. The indicators will be set out in the relevant sections of this report, particularly where they align with the TZW indicators and targets.

The Path to Net Zero, and Progress on Reducing Emissions in Wales (December, 2020)

1.22 These two joint reports, required under the Environment (Wales) Act 2016, were produced by the Climate Changes Committee (CCC); they provide ministers with advice on Wales' climate targets between now and 2050, and assess progress on reducing emissions to date. The CCC's advice to the WG is set out in two parts:

- **Advice Report: The path to a Net Zero Wales** provides recommendations on the actions that are needed in Wales, including the legislation of a Net Zero target and package of policies to deliver it.

- **Progress Report: Reducing emissions in Wales** looks back at the progress made in Wales since the 2016 Environment (Wales) Act was passed, and assesses whether Wales is on track to meet its currently legislated emissions reductions targets.

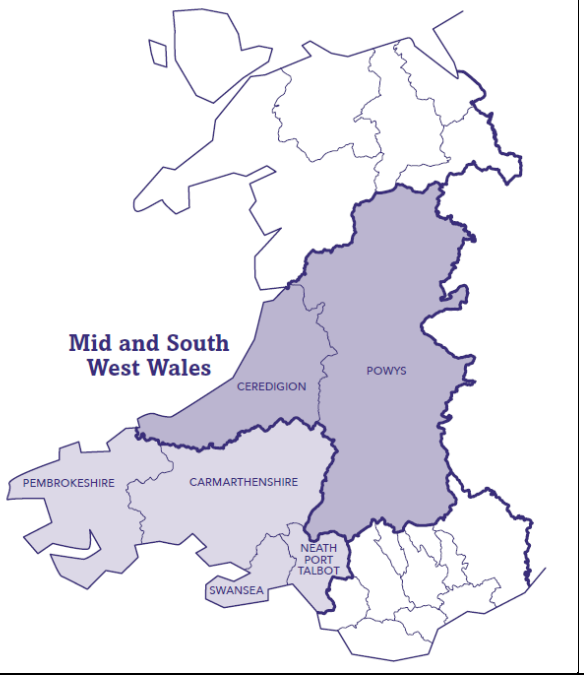
1.23 The Advice Report acknowledges that the WG has made important policy improvements since 2017, setting an example to other parts of the UK. This includes an ambitious waste strategy and one of the world's highest recycling rates. However, the report makes a number of recommendations associated with how carbon can be reduced through waste practices, including:

- Legislate for a ban on landfilling of all biodegradable municipal and non-municipal waste from 2025. Early investment needed to deliver on this, in terms of new composting and AD facilities etc.
- Set out plans for >70% recycling targets after 2025, how this will impact residual volumes, need for incineration and planning policy
- Incinerators start considering retrofit of carbon capture
- Plan for reducing landfill methane from (legacy) sites

The Mid & South West Wales Region

The geographical area covered by the Mid & South West Wales region is shown in Figure 1

Figure 1 – Constituent Local Authorities of the Mid & South West Wales region[2]



Carmarthenshire County Council

Ceredigion County Council

Pembrokeshire County Council

Powys County Council

Neath Port Talbot County Borough Council

City & County of Swansea

Source: *Towards a Regional Economic Framework – Stakeholder Engagement and Participation Document*. Mid & South West Wales Regional Office, 2020.

1.24 In 2020 the Mid & South West Wales region had a resident population of 913,698 which represented 28.8% of the population of Wales (2020 Mid-year estimate, StatsWales). The population has been gradually rising since 2001 when the census had shown it to be 846, 368 (2001 Mid-year estimate, StatsWales).

1.25 The region has a distinct mix of urban and rural areas. The urbanised area is centred on Swansea Bay at the western end of Industrial South Wales, whilst the extensive areas of rural Mid & SW Wales is a mix of service centres, market towns and dispersed rural villages. Such areas present different problems and challenges for the management of waste.

1.26 The Swansea Bay area is restructuring an economy originally based on coal, iron, steel, tinplate and petrochemicals, and has achieved some success in attracting private and public investment. Rural Mid & SW Wales has traditionally attached its economic strengths to the agriculture industry, service sector employment, petrochemicals and tourism.

1.27 Mid & SW Wales is overall, an area of high landscape and ecological value. It has the only primarily coastal National Park in the UK (Pembrokeshire Coast), part of the Brecon

[2] Pembrokeshire Coast and Brecon Beacons National Park Authorities are not identified but are covered in relevant sections of this WPMR.

Beacons National Park and Gower AONB. It also has many national [Sites of Special Scientific Interest (SSSIs) and National Nature Reserves (NNRs)] and international sites within its defined area that have been designated for their important nature conservation value. As well as its designated areas, the environmental quality of its remaining coastline and many parts of its countryside are of a particularly high quality. It is these qualities that have made the region a preferred destination for visitors, with tourism a key employer of increasing significance in the region.

1.28 The commercial ports and freight handling facilities of the Milford Haven Waterway, Fishguard, Port Talbot and Swansea are of particular importance to the area. The ports link with the remainder of the UK via the A40 / A48 / M4 corridor. The rail network in the region comprises the Inter City and West Wales lines, and the Heart of Wales line. The main rail links are however east-west, with no significant rail penetration on a north-south basis.

2. MONITORING THE REGION'S WASTE ARISINGS: Principal Waste Streams

Introduction

2.1 This section of the report discusses the available data for each of the principal waste streams that together make up controlled waste: Local Authority Collected Waste (LACW); Industrial & Commercial Waste (I&C); Construction & Demolition Waste (C&D); Hazardous Waste, and Agricultural Waste.

2.2 For each of these principal waste streams, the report: presents the TZW target (where one exists); reports the current levels of waste arising in Mid & SW Wales (where data is available); and reports on the current management of those wastes.

2.3 Where useful and available, data is presented for a number of years and broken down to local authority level in order to facilitate a comprehensive understanding of the regions' performance over time and over the geographical area.

Local Authority Collected Waste (LACW)

Current Arisings of LACW

Waste Prevention Target – Household Waste

Towards Zero Waste will require:

- a reduction in waste arisings of around 1.5% (of the 2006-07 baseline) each year across all sectors, including household waste

Table 1: Total LACW Arisings, 2013/14 to 2021/22, by Local Authority (Tonnes)

Authority	13/14	14/15	15/16	16/17	17/18	18/19	19/20	20/21	21/22
Carmarthenshire	77,247	77,824	78,540	83,756	86,362	88,922	78,174	77,928	80,118
Ceredigion	33,828	34,103	35,203	38,115	35,995	34,264	33,326	29,272	33,707
Pembrokeshire	67,729	68,074	69,808	69,627	69,534	71,045	66,158	57,727	64,951
Powys	73,528	71,952	68,882	65,675	55,898	57,259	55,086	55,647	64,590
Neath Port Talbot	71,922	69,484	72,367	69,355	71,394	69,990	63,322	67,333	56,746
Swansea	113,627	110,131	118,219	115,363	110,211	109,211	109,448	111,676	113,151
Mid & SW Wales	**437,881**	**431,568**	**443,019**	**441,891**	**429,394**	**430,691**	**405,514**	**399,583**	**413,263**

Source: StatsWales – Annual Management of Waste by Management Method (tonnes).

2.4 There was a change in the definition of municipal waste from 1 April 2012. It is now termed local authority collected waste (LACW) and now includes household and non-household waste that is collected and disposed of by local authorities. LACW is used for reporting recycling targets and now includes Household, as well as Industrial & Commercial, where the latter are of similar composition. It includes regular household collections, specific recycling collections, special collections of bulky items, waste received at civic amenity sites and waste collected from non-household sources.

2.5 Total LACW arisings had, generally, been decreasing over the period 2006/07 to 2012/13 in each of the six Mid & SW Wales authorities. For the region as a whole, the TZW target of reducing LACW by 1.5% each year since the 2006/07 baseline was generally being met until 2012/13. However, the change in definition in 2012 resulted in an overall increase in the total amount of local authority municipal waste generated. However looking at Table 1, following the high point in 2015/16, the subsequent five reporting years to 2020/21 had seen the amounts start to decease again. Whilst the reductions had not consistently dropped by 1.5% year on year, the reporting figure for the 2020/21 period was the lowest for a decade. Whilst these signs are promising, the slight rise in the latest reporting figure (2021/22) means that continued effort will be required to ensure that the future trend meets the TZW targets.

2.6 In terms of residual household waste (i.e. total amount of household waste minus household waste sent for reuse/recycling/composting), this had been lower before the change in the definition of waste highlighted above, however as with the overall LACW arisings, this too saw a slight rise during 2015/16 (as shown in Tables 2 and 3[3] below) before dropping again after 2016/17, at both at the Wales and Mid & SW Wales level. The figures point to a levelling off in terms of reduction over the past 5 reporting years, and so continued monitoring will be necessary to ascertain future trends.

Table 2: Residual Household Waste Arisings per dwelling, 2014/15 to 2020/21, by Local Authority (Kg)

Authority	14/15	15/16	16/17	17/18	18/19	19/20	20/21	21/22
Carmarthenshire	310	315	325	347	371	332	330	331
Ceredigion	434	472	564	495	464	423	347	419
Pembrokeshire	509	506	500	484	472	361	364	402
Powys	409	341	295	274	295	288	312	294
Neath Port Talbot	481	518	462	473	471	393	455	446
Swansea	338	356	321	287	286	297	328	339
Mid & SW Wales	**398**	**402**	**386**	**372**	**375**	**337**	**346**	**363**
Wales	**427**	**436**	**425**	**403**	**395**	**379**	**401**	**392**

Source: StatsWales

Table 3: Residual Household Waste Arisings per person, 2014/15 to 2020/21, by Local Authority (Kg)

Authority	14/15	15/16	16/17	17/18	18/19	19/20	20/21	21/22
Carmarthenshire	145	148	153	163	174	155	154	154
Ceredigion	203	223	270	240	226	208	170	205
Pembrokeshire	253	253	250	242	237	181	161	200
Powys	198	165	144	134	144	141	152	144
Neath Port Talbot	223	240	214	218	216	181	208	204
Swansea	155	163	146	130	130	135	149	154
Mid & SW Wales	**187**	**190**	**182**	**176**	**177**	**159**	**163**	**171**
Wales	**194**	**199**	**194**	**184**	**180**	**173**	**182**	**178**

Source: StatsWales

[3] In December 2016, residual Household waste data from April 2012 onwards were revised due to the implementation of a methodological improvement. Previous year's figures have been revised in light of this change.

Current Management of Local Authority Collected Waste (LACW)

Target – Reuse, Recycling and Composting of LACW

- By 2012/13 achieve at least 52% of preparing for reuse and recycling/composting (or AD)
- By 2015/16 achieve at least 58% of preparing for reuse and recycling/composting (or AD)
- By 2019/20 achieve at least 64% of preparing for reuse and recycling/composting (or AD)
- By 2024/25 achieve at least 70% of preparing for reuse and recycling/composting (or AD)

Table 4: LACW Re-use, Recycling and Composting rates as Percentage of Arisings, 2012/13 to 2020/21, by Local Authority

Authority	13/14	14/15	15/16	16/17	17/18	18/19	19/20	20/21	21/22
Carmarthenshire	55.7	59.6	63.5	66.2	63.6	58.9	64.7	66.3	61.8
Ceredigion	58.4	61.6	68.1	70.1	63.7	60.3	71.6	70.2	69.6
Pembrokeshire	60.3	65.4	64.9	65.3	56.9	62.0	71.7	73.2	73.2
Powys	52.5	52.1	59.1	65.2	60.4	61.4	63.0	66.1	66.8
Neath Port Talbot	54.0	58.1	58.3	62.8	60.5	60.8	61.7	67.6	66.0
Swansea	52.8	56.7	59.5	63.7	63.2	62.9	64.9	64.5	65.1
Mid & SW Wales	**55.1**	**58.4**	**61.5**	**65.1**	**61.5**	**61.2**	**66.7**	**67.2**	**66.5**
Wales	**54.3**	**56.2**	**60.2**	**63.8**	**62.7**	**62.8**	**65.1**	**65.4**	**65.2**

Source: StatsWales (Percentage of Waste Reused/Recycled/Composted (Statutory Target)[5]

2.7 Table 4 indicates the performance against the respective recycling and composting targets of the local authorities of the Mid & SW Wales region over the past 9 years. The data shows that there has been a steady increase in recycling and composting rates over the years, with three of the six authorities meeting the 2012/13 target of 52%, and *all* of the authorities meeting the 2015/16 target of at least 58%. The Mid & SW Wales region has consistently performed better than Wales as a whole for most of the last nine years, and the TZW target of achieving at least 64% recycling by 2019/20 was achieved at both the regional and Wales level. Whilst there was a slight reduction at the regional level in the most recent reporting period (2021/22), the 2024/25 target of 70% (which Pembrokeshire has already met for a third consecutive year) looks achievable, particularly when factoring in individual local authority future plans and procurement (discussed in section 6 of this report).

2.8 A consequence of the increased recycling and composting of waste is the reduction in the amount of waste being landfilled. Tonnages of LACW being landfilled continued to decline up to 2016/17, see Table 5 below. This trend was very positive, and certainly in the right direction to meet the 2025 target set out in *TZW* and *Beyond Recycling* whereby the amount of municipal waste sent to landfill is as close to zero as possible. There was however, a notable rise in the amount of LACW going to landfill in the monitoring period 2017/18. This was probably due to the changes in individual waste contracts in some local authorities in the Mid & SW Wales region. The increase in the use of landfill is concerning, particularly as there is limited life remaining in some of the landfill sites within the region.

[5]Total waste reused/recycled/composted (as defined by the Statutory Local Authority Recovery Target, LART), as a percentage of total municipal waste collected/generated.

Whilst the amount of waste sent to landfill has consistently dropped in the four most recent periods, the situation will need to be monitored closely over the next few years to see whether alternative options for the management of residual LACW are utilised by the local authorities concerned (discussed in Section 4 below), and whether the 2025 target in *TZW* and *Beyond Recycling* will be achieved.

2.9 Notwithstanding the fluctuations in the amounts of waste being landfilled over recent years, the overall reduction since 2015/16 has potential implications in terms of the slower rate at which landfill void within the region is used up. This is emphasised in Table 5 below which shows that the tonnages of LACW landfilled in the last seven years were noticeably lower than the amounts predicted by the CIMSP (shown in red).

Table 5: Local Authority Collected Waste Landfilled

Authority	15/16 (CIMSP)	16/17 (CIMSP)	17/18 (CIMSP)	18/19 (CIMSP)	19/20 (CIMSP)	20/21 (CIMSP)	21/22 (CIMSP)
Carmarthenshire	4,125	3,960	17,523	19,377	8,378	2,421	9,658
Ceredigion	4,126	4,671	9,198	10,661	1,867	1,416	2,075
Pembrokeshire	10,386	8,125	25,926	13,041	5,054	3,667	4,275
Powys	17,766	13,807	15,464	14,797	11,984	11,597	6,249
Neath Port Talbot	10,161	7,537	7,864	5,833	9,766	4,652	4,400
Swansea	44,633	37,111	36,028	37,225	35,869	35,524	31,839
Total	**91,197** **189,000**	**75,211** **186,000**	**112,003** **183,000**	**100,934** **180,000**	**72,918** **177,000**	**59,277** **171,000**	**58,496** **165,000**

Source: StatsWales (waste managed (tonnes) by management method and year) & CIMSP (Welsh Government, 2012).

2.10 N.B. The above CIMSP figures are based on the old SW Wales region and so a direct comparison is not possible with the new Mid & SW Wales region. However due to the small-scale change between the two regions, the statistics are useful as an indication, and what is clear is that the figures are considerably less than predicted in the CIMSP.

Biodegradable Municipal Waste (BMW)

Target – Landfilling of Biodegradable Municipal Waste (BMW)

The amount of BMW that can be landfilled in each target year (tonnes) is set under the Landfill Allowances Scheme Wales and are as follows:

- In 2010 the amount of BMW that can be landfilled in Wales is 710,000;
- In 2013 the amount of BMW that can be landfilled in Wales is 470,000
- In 2020 the amount of BMW that can be landfilled in Wales is 330,000

2.11 The Landfill Allowance Scheme (Wales) Regulations 2004, provides the legislative background for the landfill allowance scheme in Wales. They provide for Natural Resources Wales (NRW) to be the monitoring authority in relation to compliance with the landfill allowances. It also places an obligation on Waste Disposal Authorities (WDAs) in Wales and landfill operators to keep records in relation to Biodegradable Municipal Waste (BMW) in each year of the landfill allowance scheme and to provide returns on a quarterly basis. This instrument also puts in place the possibility for the Welsh Government (WG) to impose

financial penalties on any WDA who fails to meet its landfill allowance target or fails to comply with reporting requirements.

2.12 The Landfill (Scheme Year and Maximum Landfill Amount) Regulations 2004 sets the maximum amount of waste that may be sent to landfill in target years (2010, 2013 and 2020), for the UK as a whole and for each of the devolved administrations. The WG has allocated landfill allowances to the WDAs in Wales for each year. Table 6 shows these allocated allowances by local authority up to 2019/20.

2.13 At an all-Wales level, the annual results show that all twenty-two local authorities achieved their LAS allowance obligations during 2019/20. A total of 73,294 tonnes of BMW from Wales was sent to landfill compared to the total Wales allowance of 330,000 tonnes. This means that local authorities in Wales collectively landfilled 78 per cent (256,706 tonnes) less BMW than the 2019/20 allowance, and that Wales as a whole achieved the 2020 target set out above.

2.14 At the Mid & SW Wales level (see Tables 6-8 below), Ceredigion and Pembrokeshire used less than 25 per cent of their allowance. Powys and Carmarthenshire used less than 50 per cent of their allowance, whilst Neath Port Talbot and Swansea used over 50 per cent of their allowance.

2.15 Reasons for changes in the utilisation of allowances vary between years and by local authorities. Generally, changes can be attributed to:

- changes in waste collection service provision;
- changes in waste management practices and new/alternative technologies – diversion of residual waste to incineration with energy recovery has had a significant effect on local authority performance for LAS in recent years;
- public participation levels in recycling schemes;
- unforeseen circumstances (e.g. extreme weather, contingency planning).

Table 6: Landfill Allowances for BMW, by Local Authority 2012/13 to 2019/20 (Tonnes)

Authority	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20
Carmarthenshire	25,304	24,228	23,151	22,074	20,997	19,920	18,844	17,767
Ceredigion	11,635	11,140	10,645	10,150	9,655	9,160	8,665	8,170
Pembrokeshire	19,497	18,667	17,837	17,008	16,178	15,348	14,519	13,689
Powys	23,237	22,249	21,260	20,271	19,282	18,293	17,304	16,316
Neath Port Talbot	22,789	21,819	20,849	19,880	18,910	17,940	16,971	16,001
Swansea	36,624	35,066	33,507	31,949	30,391	28,832	27,274	25,715
Mid & SW Wales	**139,086**	**133,169**	**127,249**	**121,332**	**115,413**	**109,493**	**103,577**	**97,658**

Source: Report on the Landfill Allowances Scheme (LAS) Wales 2019/20, NRW & Register of the Landfill Allowances Scheme (LAS) in Wales, 2004 onwards, NRW

Table 7: Landfilled BMW, by Local Authority 2012/13 to 2019/20 (Tonnes)

Authority	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20
Carmarthenshire	15,572	17,681	7,175	2,278	2,388	11,263	12,822	5,295
Ceredigion	5,831	6,456	2,919	3,208	4,326	7,671	8,662	1,304
Pembrokeshire	17,786	13,430	6,873	6,487	5,057	16,070	8,078	2,985
Powys	14,069	13,965	13,646	9,730	7,562	8,025	8,128	7,377
Neath Port Talbot	8,196	5,865	4,646	6,067	4,832	5,972	4,872	8,535
Swansea	30,449	29,494	25,442	25,445	21,461	21,714	22,612	21,396
Mid & SW Wales	**91,903**	**86,891**	**60,701**	**53,215**	**45,626**	**70,715**	**65,174**	**46,892**

Source: Report on the Landfill Allowances Scheme (LAS) Wales 2019/20, NRW & Register of the Landfill Allowances Scheme (LAS) in Wales, 2004 onwards, NRW

Table 8: Percent of Landfill Allowances used, by Local Authority 2012/13 to 2019/20

Authority	12/13	13/14	14/15	15/16	16/17	17/18	18/19	19/20
Carmarthenshire	61.5	73.0	31.0	10.3	11.4	56.5	68	29.8
Ceredigion	50.1	57.9	27.4	31.6	44.8	83.7	99.97	15.96
Pembrokeshire	91.2	71.9	38.5	38.1	31.3	104.7	55.6	21.8
Powys	60.5	62.8	64.2	48.0	39.2	43.9	47.0	45.2
Neath Port Talbot	36.0	26.9	22.3	30.5	25.6	33.3	28.7	53.3
Swansea	83.1	84.1	75.9	79.6	70.6	75.3	82.9	83.2
Mid & SW Wales	**66.1**	**65.2**	**47.7**	**43.9**	**39.5**	**64.6**	**62.9**	**48.0**

Source: Report on the Landfill Allowances Scheme (LAS) Wales 2019/20, NRW & Register of the Landfill Allowances Scheme (LAS) in Wales, 2004 onwards, NRW

2.16 2019-20 was the last year in which Local Authorities in Wales are allocated landfill allowances. Local Authorities in Wales have reduced the amount of BMW sent to landfill by 91 per cent (778,195 tonnes) since the first full year of the scheme in 2005/06.

Local Authority Recycling Carbon Index.

2.17 The Local Authority Recycling Carbon Index is produced by Eunomia and gives councils an alternative measure of the environmental performance of their waste and recycling services than a purely weight-based measure. The Index shows which local authorities' recycling activities are delivering the greatest carbon benefits. Reading it alongside the recycling rate and other metrics provides a fuller picture of the benefits achieved by waste and recycling services.

2.18 Local authorities' recycling performance data is taken from WasteDataFlow and multiplied by the same carbon 'factors' used by Zero Waste Scotland to produce the Scottish Carbon Metric. This process converts tonnage data for each recyclable material into carbon dioxide equivalents (CO2 eq.). This shows the total embodied carbon in the material that authorities are diverting from disposal to recycling. Local authorities that collect more of the materials with a higher embodied carbon for recycling will show greater benefits. The emissions impact of source separated and comingled collections is also taken into account.

2.19 Eunomia have calculated the total carbon savings generated from all the recycling reported by each authority, encompassing their kerbside collections, Household Waste Recycling Centre (HWRC) and bring sites. Dividing this figure by the population served yields a carbon saving figure per person, thereby allowing an effective comparison between authorities. The higher the value, the higher carbon savings. Rating authorities in this way demonstrates that a high recycling rate does not necessarily result in the greatest carbon savings.

2.20 The results show that Wales remains by some distance the country in the UK which achieves the greatest carbon saving per capita from local authority recycling. Its Carbon Index showed a small increase (of 0.2 points) in the latest year reported - 2018/19, reaching 93.6 kg CO2eq per capita. Wales consistently reports the highest scores in the Recycling Carbon Index. Since the Recycling Carbon Index began in 2011, there has been an increase in the yearly results from authorities in Wales which improve on average 2.6 points per year.

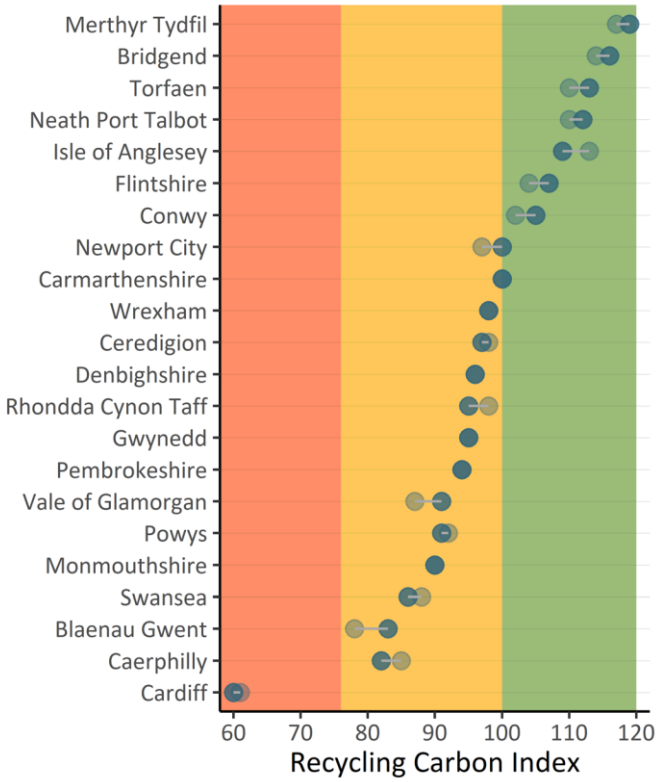
2.21 Each authority is ranked in terms of the CO2 eq saving per head of population. Authorities are then grouped as follows:

- High Flyers – the top 10%
- Good Performers – the next 30%
- Mid Performers – the next 30%, and
- Low Performers – the bottom 30%

2.22 From Figure 2 below, we can see that there are no low performers in Wales. In terms of the of the 6 Mid & SW Wales authorities, from the latest figures 2 are ranked as high flyers (Neath Port Talbot and Carmarthenshire) and the other 4 have been ranked as Good Performers (Powys, Ceredigion, Pembrokeshire and Swansea).

2.23 The Welsh Government has provided guidance to Local authorities on what it considers to be the most sustainable approach to waste collections – the ‘Collections Blueprint’. The majority of Local Authorities in Wales have adopted the blueprint, and this has increased investment in reprocessing and reduced carbon emissions for every local authority. The carbon index, and signing up to the collections blueprint are two indicators set out within *Beyond Recycling* to demonstrate the connection between policy and outcome within the WG’s circular economy strategy.

Figure 2 – Recycling Carbon Index for the 22 Welsh Unitary Authorities



Source: Recycling Carbon Index – England, Wales & Northern Ireland Local Authorities 2018/19 (Eunomia, Winter 2020)

Industrial & Commercial Waste (I&C)

Current Arisings of I&C Waste

2.24 Whilst there is no continued annual data source on Industrial and Commercial (I&C) waste, the Welsh Government (WG) require surveys to be done on a five yearly basis (or thereabouts), which Natural Resources Wales (NRW) have done at the WG's request and funding. The surveys are reliable individually as they can be and considerable effort is made to ensure the statistical basis of the results.

2.25 Previous Waste Planning Monitoring Reports (WPMRs – 2015 to 2020) utilised data from two reports published by NRW, one in 2009 (which was used in the preparation of the CIMSP) and another in 2012. The last two WPMRs (2021 & 2022), and this one, utilise data from the latest NRW Report published in 2020 which provides information on the types, quantities, origins (by industry sector and geographic region), and fate (management method) of I&C wastes generated by businesses and the public sector in 2018. The 2020 Report updates the data from the last survey for the 2012 calendar year.

2.26 In terms of the methodology for the latest survey, data was collected from a representative sample of 1,752 business sites of differing sectors and sizes throughout Wales between April 2019 and October 2019. The data was grossed up using Office for National Statistics (ONS) business site population data to regional and national level in Wales. The ONS data showed that there were 97,999 Industrial and Commercial business sites in Wales in 2018 with 7% in Industrial sectors and 93% in Commercial sectors. Of these business sites, 65% had fewer than five employees and 2% had one hundred or more employees. The methodology used in this survey was mainly comparable with the previous I&C surveys completed in Wales.

2.27 It must be noted that the latest survey uses the Welsh economic regions of North Wales, Mid & South West Wales and South East Wales - a slightly different regional grouping of local authority areas than used for the 2012 and 2009 Studies. This means that regional results cannot be directly compared with the previous surveys. However, it is useful in respect of the new regional grouping for waste set out within this WPMR, being based upon the Welsh economic regions.

Table 9 Comparison of Industrial & Commercial waste generated in Wales in 2012 & 2018

Sector	Quantity of waste generated per region in 2012 & 2018 (1000s tonnes per annum)							
	South East Wales		Mid & South West Wales		North Wales		All Wales	
	2012	2018	2012	2018	2012	2018	2012	2018
Industrial	1242	566	278	512	481	364	2,001	1,441
Commercial	757	679	474	427	434	347	1,665	1,453
Total	**1,999**	**1,245**	**752**	**938**	**915**	**710**	**3,666**	**2,894**

Source: Survey of industrial and Commercial Waste Generated in Wales 2018 (NRW, 2020)

2.28 Table 9 shows that when compared to the results of the 2012 waste generation survey:

The quantity of waste generated in the I&C sector in Wales decreased significantly from 3.7 million tonnes in 2012 to 2.9 million tonnes in 2018 (split broadly 50%:50% between industrial and commercial businesses).

- The quantity of waste generated in the Industrial sector in Wales decreased significantly from 2 million tonnes in 2012 to 1.44 million tonnes in 2018.

- The quantity of waste generated in the Commercial sector in Wales has also decreased from 1.7 million tonnes in 2012 to 1.45 million tonnes in 2018 (marginally statistically significant).

2.29 In terms of the Mid & SW Wales region, as stated in para.2.27, the data in Table 9 cannot be used to directly compare the differences between the amounts of waste generated in 2012 and 2018 as the local authority groupings have changed between the two reports. However, at the all Wales level, the progress against the targets in TZW are set out below.

Progress against targets - Waste prevention

2.30 The waste prevention target for industrial waste is a reduction of 1.4% every year until 2050 (using 2007 as baseline). The data should therefore be reducing every year by 26,546 tonnes towards a total tonnage of 1,604 thousand tonnes in 2018.

2.31 The data in Table 10 suggests that there has been progress towards this target. There is a statistically significant decrease in the quantity of Industrial waste generated in Wales.

Table 10 Comparison of Industrial waste in Wales in 2007, 2012 and 2018

Survey Year	Target Industrial waste generation	Estimated Industrial waste generation	
	(thousands of tonnes)		
2018	1,604	1,441	+/- 6.76%
2012	1,763	2,001	+/- 11.7%
2007	Base year	1,896	+/- 11.4%

Source: Survey of industrial and Commercial Waste Generated in Wales 2018 (NRW, 2020)

2.32 The waste prevention target for commercial waste is a reduction of 1.2% every year until 2050 (using 2007 as baseline). The data should therefore be reducing every year by 20,124 tonnes towards a total tonnage of 1,456 thousand tonnes in 2018.

2.33 The data in Table 11 suggests that there has been progress towards this target with a reduction in the estimated amount. However, given the confidence range there is no statistically significant difference in the quantity of Commercial waste generated in Wales.

Table 11 Comparison of Commercial waste in Wales in 2007, 2012 and 2018

Survey Year	Target Commercial waste generation	Estimated Commercial waste generation	
	(thousands of tonnes)		
2018	1,456	1,453	+/- 6.05%
2012	1,576	1,665	+/- 10.4%
2007	Base year	1,677	+/- 7.4%

Source: Survey of industrial and Commercial Waste Generated in Wales 2018 (NRW, 2020)

Current Management of I&C Waste

2.34 In addition to setting out the amounts of I&C waste produced, the 2020 Study provides a detailed account of the different waste management methods used to deal with these waste types. Tables 12 & 13 below set out the industrial and commercial waste by management split by region in Wales 2018.

Table 12 Industrial waste by management method split by region, Wales 2018

Waste Management Method	By Regions in thousand tonnes and percentage of region							
	South East Wales		Mid & South West Wales		North Wales		All Wales	
Preparation for Reuse, Recycling and Composting	365	64%	401	78%	226	62%	992	69%
Land Recovery	35	6%	17	3%	37	10%	90	6%
Incineration**	41	7%	21	4%	32	9%	94	7%
Land Disposal	60	11%	44	9%	28	8%	133	9%
Treated	28	5%	15	3%	17	5%	59	4%
Other*	36	6%	13	3%	23	6%	73	5%
Total	**566**		**512**		**364**		**1,441**	

Source: Survey of industrial and Commercial Waste Generated in Wales 2018 (NRW, 2020)

* Other methods of waste management include Transfer Stations and Don't Know/

**Incineration includes With and Without Energy Recovery

Table 13 Commercial waste by management method split by region, Wales 2018

Waste Management Method	By Regions in thousand tonnes and percentage of region							
	South East Wales		Mid & South West Wales		North Wales		All Wales	
Preparation for Reuse, Recycling and Composting	443	65%	271	63%	222	64%	936	64%
Land Recovery	4	1%	2	0%	2	0%	7	0%
Incineration**	66	10%	43	10%	33	10%	142	10%
Land Disposal	80	12%	51	12%	42	12%	173	12%
Treated	63	9%	43	10%	34	10%	141	10%
Other*	24	4%	17	4%	13	4%	54	4%
Total	**679**		**427**		**347**		**1,453**	

Source: Survey of industrial and Commercial Waste Generated in Wales 2018 (NRW, 2020)

* Other methods of waste management include Transfer Stations and Don't Know/

**Incineration includes With and Without Energy Recovery

2.35 The predominant waste management method in both the Industrial and Commercial sectors was Preparation for Reuse, Recycling and Composting accounting for 78% and 64% respectively in the Mid & SW Wales region.

Progress against targets

Target – Reuse and recycling of Industrial & Commercial Waste

- By 2015/16 at least 57% of commercial waste and at least 63% of industrial waste should be recycled;
- By 2019/20 at least 67% of both commercial and industrial waste should be recycled;
- By 2024/25 at least 70% of both commercial and industrial waste should be recycled

2.36 The data in Table 14 suggests that there has been progress towards this target for the Industrial sector with a statistically significant increase in the Preparation for Reuse, Recycling and Composting rate for Industrial waste; the rate was 50% in 2012 and 69% in 2018. In 2012 this rate was heavily influenced by the management of Combustion wastes from the Energy Supply sector, a large proportion of which was landfilled.

Table 14 comparison of the Recycling rates of Industrial waste in Wales in 2007, 2012 and 2018

Survey Year	Estimated total Industrial waste recycled	
	Quantity (thousands of tonnes)	Recycling rate
2018	992	69%
2012	1,002	50%
2007	1,128	59%

Source: Survey of industrial and Commercial Waste Generated in Wales 2018 (NRW, 2020)

2.37 The data in Table 15 suggests that the Commercial waste producing sectors' performance has receded slightly to below the 2019/20 target, from a previous marginal exceedance of the target in the 2012 survey. However, this is not a statistically significant difference in the Preparation for Reuse, Recycling and Composting rate for Commercial waste; the rate was 68% in 2012 and 64% in 2018.

Table 15 comparison of the Recycling rates of Commercial waste in Wales in 2007, 2012 and 2018

Survey Year	Estimated total Commercial waste recycled	
	Quantity (thousands of tonnes)	Recycling rate
2018	936	64%
2012	1,131	68%
2007	628	37%

Source: Survey of industrial and Commercial Waste Generated in Wales 2018 (NRW, 2020)

Energy Recovery

2.38 There is a target for no more than 30% of Industrial waste to be sent to Energy Recovery by 2024/25. Table 16 shows that there is a statistically significant increase in the Energy Recovery rate since 2012 but the ceiling for 2024/25 has not been exceeded.

Table 16 comparison of the Energy Recovery rate of Industrial waste in Wales in 2007, 2012 and 2018

Survey Year	Estimated total Industrial waste sent to Energy Recovery	
	Quantity (thousands of tonnes)	Energy Recovery rate
2018	90	6.2%
2012	43	2.1%
2007	8	0.4%

Source: Survey of industrial and Commercial Waste Generated in Wales 2018 (NRW, 2020)

2.39 There is a target for no more than 30% of Commercial waste to be sent to Energy Recovery by 2024/25. Table 17 shows that there is a statistically significant increase in the Energy Recovery rate since 2012, but the ceiling for 2024/25 has not been exceeded.

Table 17 comparison of the Energy Recovery rate of Commercial waste in Wales in 2007, 2012 and 2018

Survey Year	Estimated total Industrial waste sent to Energy Recovery	
	Quantity (thousands of tonnes)	Energy Recovery rate
2018	135	9.3%
2012	20	1.2%
2007	15	0.9%

Source: Survey of industrial and Commercial Waste Generated in Wales 2018 (NRW, 2020)

Landfill

Landfill Targets for Industrial & Commercial Waste

- By 2019/20 a maximum of 10% of industrial and commercial waste should be landfilled;
- By 2024/25 a maximum of 5% of industrial and commercial waste should be landfilled

2.40 There is a target for no more than 10% of Industrial waste to be Landfilled by 2019/20, and no more than 5% by 2024/25. As shown in Table 18, there is a statistically significant decrease in the waste to Landfill to 9% in 2018 compared to 27% in 2012. This meets the 2019/20 target and is on course to meeting the 2024/25 target.

Table 18 comparison of the Landfill rate of Industrial waste in Wales in 2007, 2012 and 2018

Survey Year	Estimated total Industrial waste Landfilled	
	Quantity (thousands of tonnes)	Landfill rate
2018	133	9%
2012	534	27%
2007	550	29%

Source: Survey of industrial and Commercial Waste Generated in Wales 2018 (NRW, 2020)

2.41 There is a target for no more than 10% of Commercial waste to be Landfilled by 2019/20, and no more than 5% by 2024/25. As shown in Table 19, the Landfill rate for 2018 is 12%, a significant reduction since 2012 when it was 26%, and very close to meeting the 2019/20 target, and on course to meeting the 2024/25 target.

Table 19 comparison of the Landfill rate of Commercial waste in Wales in 2007, 2012 and 2018

Survey Year	Estimated total Commercial waste Landfilled	
	Quantity (thousands of tonnes)	Landfill rate
2018	173	12%
2012	429	26%
2007	848	51%

Source: Survey of industrial and Commercial Waste Generated in Wales 2018 (NRW, 2020)

Other studies into I&C waste arisings

2.42 In terms of future monitoring, the WG has been working with NRW to get a handle on how much waste is produced by regulated industry in Wales. The WG possess robust data on this, as operators are required to report it to NRW as part of the monitoring requirements of their permit. So for industrial waste at least, independent annual results are recorded which can be used to supplement the less frequent surveys - and the baseline reports have shown that they tally with these surveys quite closely.

2.43 Notwithstanding the latest 2020 Study, the lack of continuous annual data on I&C waste restricts opportunities for year on year analysis, and the establishing of trends over time, in the way that can be done with local authority waste data.

2.44 However, individual projects are useful in highlighting specific data, and perhaps more importantly showing where future studies could focus upon. One such piece of work commissioned by the WG focused on a specialised waste reduction study of the industrial sector in Wales[7]. The Study analysed the process efficiency of facilities operating in four priority sectors (food and drink, metals, paper, chemicals) using Pollution Prevention and Control (PPC) waste data returns, and made a high level assessment of the waste reduction opportunities in these sectors.

2.45 The data compiled and assessed for the Study showed that industrial waste in Wales is highly concentrated at source, with just three sites accounting for half of the total waste generated within the permitted industries (two from the metals sector and one from the paper sector). Although there are nearly 100 facilities covered by the permitted industries, the top 20 facilities account for 90 % of the total waste generated. In total, the waste from these facilities represents 30 % of all industrial waste in Wales.

2.46 As an approximation, the Study found that waste reduction opportunities could total around 155,000 tonnes in the four target sectors – nearly 15% of the total waste arising (or 8% of the total industrial waste arising). However, in terms of the regional distribution of the top 20 facilities, very few are located within the Mid & SW Wales region and so the study provides greater scope when applied to the all-Wales level.

Conclusions

2.47 Brief comparison with data from the previous survey in 2012 indicated that there was a statistically significant change in the total I&C waste generated in Wales, however this overall decrease was not sufficient to meet the reduction targets in *TZW*. The results were

[7] Waste Reduction Study: Wales Regulated Industries-Evidence Report, Oakdene Hollins (2014).

inconclusive as to whether the increase in the quantity of waste prepared for reuse, recycled and composted by the Industrial and Commercial sectors combined in 2018 was statistically significant compared to 2012. However, the survey results indicated that the reduction in the quantity of waste sent to Landfill by the Industrial and Commercial sectors combined was statistically significant compared to 2012 and therefore a reduction had occurred, and the TZW target for 2019/20 had been met.

2.48 The 2020 I&C waste survey has demonstrated a robust survey delivery and data methodology which can be used for future surveys within Wales, particularly as waste has now been aligned with the 3 Welsh economic regions. The 2018 survey results represent the most reliable and comprehensive set of national data on I&C waste since 2012. Through such surveys the WG has the benefit of a series of robust waste generation data allowing for comparisons between different years and building a picture of trends and developments over time. However, one drawback is that by aligning with the 3 Welsh economic regions, the regional level results cannot be directly compared with those in the previous surveys of 2007 and 2012.

2.49 The results of the 2018 survey highlight areas where further initiatives and support could be focused to improve progress with achieving targets set in TZW. For example, the majority (80%) of commercial waste landfilled in 2018 were mixed wastes consisting of (90%) mixed residual wastes, indicating that there are further opportunities to improve segregation of recyclable materials in the commercial sectors. Other studies and individual projects, such as the specialist waste reduction study highlighted above, are useful in highlighting specific data, and perhaps more importantly showing where future studies could focus upon.

Construction & Demolition Waste (C&D)

2.50 As in the case of Industrial & Commercial (I&C) waste, detailed in the previous section, data on Construction & Demolition (C&D) waste is not kept annually. Studies have been undertaken on an intermittent basis, the most recent being the survey of C&D waste generated in Wales in 2019 produced by NRW. The purpose of the Study was to produce information on the quantities, origins (by industry sector and geographic region), and fate of C&D waste generated by businesses in Wales. The Study was published in May 2022.

2.51 The data from the latest Study can be used to provide evidence in support of waste policy development, the targeting of interventions, and to monitor progress against the waste prevention and recycling targets. The current targets for C&D waste set in the Wales Waste Strategy 'Towards Zero Waste' and associated sector plans are outlined in Table 20 below.

Table 20: Waste targets for C&D Waste in Wales (Towards Zero Waste, 2010)

Target	Description
Waste prevention targets	For Construction and Demolition waste, a reduction of 1.4 per cent every year to 2050 based on 2006/07 baseline. This translates to 4.42 Mt in 2019/20.
Recycling targets (comprising Preparation for Reuse, Recycling Composting and Backfilling)	By 2019/20 to achieve a recycling target of 90% for Construction and Demolition
Landfill targets	By 2019/20, as a percentage of the 2007 baseline, to reduce the quantity of C&D waste that is Landfilled by 75%. This translates to no more than 328 kt Landfilled.

Source: 2019 Wales Construction & Demolition Waste Arisings Survey (NRW, 2022)

2.52 Several previous studies on C&D waste had been carried out in the past, these had been utilised in the previous WPMRs for both the SW Wales region and [in the case of 2022] the new regional grouping of Mid & SW Wales. The last study was produced in 2012. The 2019 survey was undertaken to assess whether there had been any change in the quantity of waste generated and the waste management practices of business sectors. The methodology used in the 2019 survey was mainly comparable to 2012, however the use of the Welsh economic regions of North Wales, Mid & South West Wales and South East Wales are a slightly different regional grouping of local authority areas than the 2012 study, and so consequently direct comparisons between the two reports at the regional level is not possible.

Amounts of C&D Waste Generated at the National Level

2.53 An estimated 3.43 million tonnes (Mt) of Construction and Demolition waste was generated in Wales in 2019. The results deliver a significant improvement on the survey precision compared with 2012, reducing from 33.2% to 16.7%. The 2019 survey provides the most accurate estimate of national C&D waste arisings to date as shown in Table 21

below. This increased precision provides a robust indicator for measurement against Welsh Government's waste prevention targets.

Table 21 Comparison of construction and demolition waste in Wales in 2012 and 2019

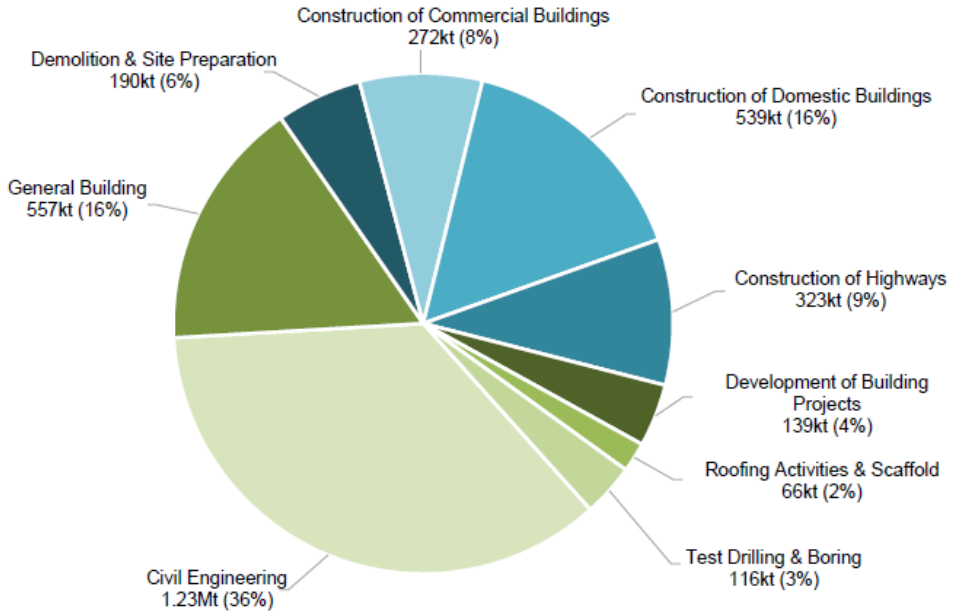
Survey Year	Construction and Demolition waste generated (kt)	Range (%)	Lowest (kt)	Highest (kt)
2019	3,427	+/- 16.7%	2,855	3,999
2012	3,359	+/- 33.2%	2,244	4,475

Source: 2019 Wales Construction & Demolition Waste Arisings Survey, NRW 2022

C&D Waste Generation – by Sector

2.54 Figure 3 shows the breakdown of total C&D waste generated by sector. Of the 3.4 Mt of C&D waste generated in 2019, over a third was generated by the Civil Engineering sector, accounting for 1.23 Mt (36%), making this the largest sector in terms of C&D waste generation by a considerable margin. Civil Engineering also generated the most Soil (780 kt), accounting for over 20% of Wales' total C&D waste arisings. The General Building (560 kt) and Construction of Domestic Buildings (540 kt) sectors were the second and third largest, each accounting for c.16% of total C&D waste. The remaining six sectors accounted for less than 10% each of the total C&D arisings.

Figure 3 breakdown of total C&D waste generated by sector



Source: 2019 Wales Construction & Demolition Waste Arisings Survey, NRW 2022

Amounts of C&D Waste Generated – by Region

2.55 An estimated breakdown of the C&D waste arisings in 2019 across each of the three regions of Wales is provided in Table 22. The majority of C&D waste was generated in South East Wales (47.0%), followed by Mid & South West Wales (30.5%) and North Wales (22.5%).

Table 22 Construction and Demolition waste generated by Region, Wales 2019

Region	Thousands of tonnes	Pecentage
South East Wales	1,618	47.0%
Mid & South West Wales	1,040	30.5%
North Wales	769	22.5%
Total	**3,427**	**100%**

Source: 2019 Wales Construction & Demolition Waste Arisings Survey, NRW 2022

C&D Waste by Waste Management Method

2.56 As shown in Table 23, at just over 2.5 Mt, for the country as a whole the majority of Construction and Demolition wastes were sent for recycling (73%) with a further 511 kt (15%) prepared for Reuse offsite and 213 kt disposed via Landfill (6%). The 19 kt managed by Incineration included 16 kt with Energy Recovery and 3 kt Without Energy Recovery.

2.57 At the regional level, recycling was the dominant recorded waste management method across each region of Wales. Each of the regions recorded a comparable recycling rate to the national rate, with no statistically significant difference between regional performance. Landfill rates ranged from 5% to 7% across the regions. The highest Landfill rate was recorded in the Mid & South West region. The variations in regional performance was not statistically significant.

Table 23: C&D waste by waste management method – regionally and all Wales 2019

Waste Management Method	South East Wales (kt & %)	Mid & South West Wales(kt & %)	North Wales (kt & %)	All Wales (kt & %)
Preparation for Reuse, Recycling, Composting and Backfilling	1,463 (90%)	924 (89%)	688 (89%)	3,074 (90%
Landfill	87 (5%)	78 (7%)	47 (6%)	213 (6%)
Treated	10 (<1%)	7 (<1%)	5 (<1%)	21 (<1%)
Incineration	9 (<1%)	5 (<1%)	4 (<1%)	19 (<1%)
Land Recovery	4 (<1%)	4 (<1%)	3 (<1%)	12 (<1%)
Other	44 (3%)	23 (2%)	22 (3%)	88 (3%)
Total	**1,618**	**1,040**	**769**	**3,427**

Source: 2019 Wales Construction & Demolition Waste Arisings Survey, NRW 2022

Other includes management via Other Recovery, Transfer Station and 'Don't Know'

Comparison with Previous Surveys and Targets in 'Towards Zero Waste'

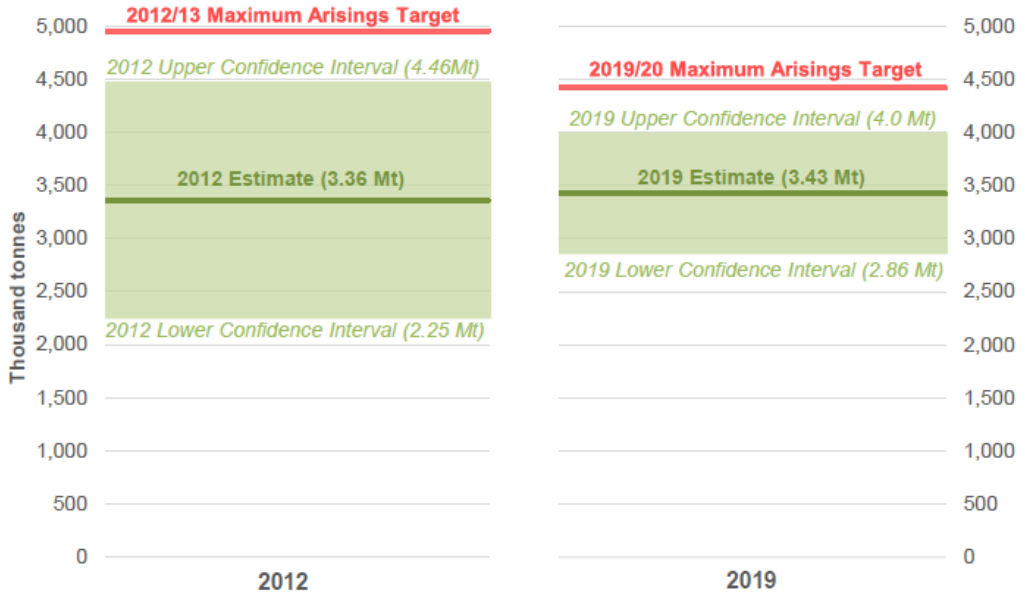
2.58 Comparing data with previous survey results is the only way that high-level trends can be identified because surveys are the only way of gathering this information at present. The ability to compare the 2012 and 2019 C&D results is constrained by the precision achieved by the two surveys. Both surveys have a certain margin of error, so differences between the 2012 and 2019 survey will sometimes be due to sampling error rather than a genuine change in waste generation or management, and so this must be taken into consideration.

2.59 It is important to also be mindful of the variable nature of the construction and demolition sector. Fluctuations in sector activity can have a direct impact on annual C&D waste generation, and arisings can be significantly influenced by the size and location of projects. For example, overall arisings can increase simply due to there being more and/or larger-scale projects in a particular surveyed year, whilst the average weight generated per unit at a project level may have decreased.

Waste Prevention targets

2.60 The waste prevention target for C&D waste is a reduction of 1.4% every year until 2050, using 2006/07 as baseline (Welsh Government 2010). This equates to an annual reduction of 75,701 tonnes to a target of 4.42 Mt for 2019/20. At the national level, Figure 4 illustrates the targeted maximum C&D waste arisings for 2019/20 and shows that the target was achieved by the C&D sector when measured against both the estimated tonnes generated in 2019 (3.43 Mt) and the margin of survey error (+/-0.57 Mt).

Figure 4: Generation of construction and Demolition waste in Wales 2019 compared to the TZW target



Source: 2019 Wales Construction & Demolition Waste Arisings Survey, NRW 2022

Recycling targets

2.61 *Towards Zero Waste* set a Recycling target (comprised of Preparation for Reuse, Recycling, Backfilling and Composting) of 90% by 2019/20 for the Construction and Demolition Sector. The survey results show that at the national level, Wales achieved the target in 2019 based on the estimated 93% Recycling performance. This has increased from the 87% reported in the 2012 Study.

2.62 The target above excludes hazardous wastes and naturally occurring soil and stones, however when including such wastes within the calculation, Wales achieved an estimated Recycling rate of 90%.

2.63 At the individual regional level, recycling was the dominant recorded waste management method across each region of Wales. Each of the regions recorded a comparable recycling rate to the national rate, with no statistically significant difference between regional performance.

2.64 As with previous surveys, these estimates are limited to the accuracy of information on final fates held by the waste producers. Any material collected for recycling but subsequently disposed of by the waste industry (i.e. due to contamination or inherent non-recyclability) is unlikely to be reported back to all waste producers, therefore this estimate is likely to represent the 'maximum' recycling rate.

Landfill targets

2.65 *Towards Zero Waste* contains targets to reduce the quantity of C&D waste Landfilled in Wales based on a percentage reduction of the 2007 baseline, with a specific target of a 75% reduction set for 2019/20. This translates into a target of no more than 318 kt to Landfill by 2019 based on a baseline figure of 1,272kt (Environment Agency Wales 2006).

2.66 The survey results show that Wales achieved the target in 2019 based on the estimated tonnes generated in 2019 of 213 kt. However, similarly to recycling, landfill estimates are also limited to the accuracy of information on final fates held by the waste producers. The three regions were broadly comparable in terms of the percentages of C&D wastes sent to landfill with rates ranging from 5% to 7%. The highest landfill rate was recorded in the Mid & SW Wales region, however the variations in regional performance was not statistically significant. The overall Wales rate was 6%.

2.67 As the 2022 report points out, the increasing costs of landfilling waste are likely to be a significant contributor to less C&D waste being sent direct to landfill and more being sent to intermediate waste sorting facilities compared to 2012. Waste materials are extracted for recycling at these facilities but, ultimately, a proportion of waste may have been unsuitable for recycling and sent indirectly for disposal to landfill. This detail may not have been reported back to waste producers and thus reported landfill figures are likely to be a 'minimum' estimate.

Conclusions and Recommendations from the latest C&D Waste Report

2.68 In terms of meeting the national targets set out in *Towards Zero Waste*, the C&D waste prevention and landfill targets were achieved by the C&D sector in Wales in 2019 when measured against the estimated tonnages. The C&D waste Recycling target was estimated to have been achieved in 2019 based on a 93% Recycling rate.

2.69 The survey has demonstrated a robust survey delivery and data methodology that can be used for future surveys. The 2019 results represent the most reliable and comprehensive set of national data on C&D undertaken to date in Wales. Through such surveys, the WG has the benefit of a series of robust waste generation data allowing for comparisons between different years for key metrics, and building a picture of trends and developments over time.

2.70 Importantly in terms of waste monitoring and planning, planning authorities can use the data from the survey at both national and regional level to inform waste planning.

2.71 The results of the survey highlight areas where further initiatives and support could be focused to improve progress with achieving targets set in *Towards Zero Waste*. For example, the majority of C&D waste Landfilled in 2019 was Soil (c.150 kt), indicating that there are further opportunities to improve recovery of this material within the C&D sectors.

2.72 The report also points out a number of ways in which future surveys could be improved, for example improvements in the electronic tracking of waste from the point of generation to final disposal are required to improve the reliability of C&D sector waste management statistics in the future.

Inert Wastes

2.73 Whilst C&D wastes include wastes other than inert wastes, it is helpful to look at data on inert wastes (as this is published on an annual basis), and to consider the management of inert waste in Wales, since this comprises the majority of wastes arising in the construction and demolition sector. Table 24 shows inert wastes managed in Wales by management method in 2021.

Table 24: Inert Waste Managed in Wales in 2021 (tonnes)

Facility Type	North Wales	South East Wales	Mid & South West Wales	Grand Total
CA Site	20105.76	22724.2896	17035.62	59865.6696
Car Breaker	17.394	5293.239	0.002	5310.635
Co-Incinerator	191545.358	0	0	191545.358
Composting	281.38	0	12304.03	12585.41
Deposit of waste to land (recovery)	240584.85	5997	2163.5	248745.35
Haz Waste Transfer	956.35	2481.655	17443.73	20881.735
HCI Waste TS + asbestos	0	0	973.1	973.1
HCI Waste TS + treatment	0	1220	5594	6814
HCI Waste TS + treatment (no building)	0	0	11029.41	11029.41
HCI Waste TS + treatment + asbestos	0	389.325	0	389.325
Inert & Excavation Waste TS	0	51033	1681	52714
Inert & excavation Waste TS + treatment	10470.33	2980	41673	55123.33
Inert LF	88855.4	0	0	88855.4
Inert Waste Transfer	30376.38	6779.546	0	37155.926
Material Recycling Facility (MRF)	69858.835	825641.8361	194887.945	1090388.616
Metal Recycling	79926.3732	30871.745	0.5	110798.6182
Metal Reprocessing	867.38	0	0	867.38
Mobile Plant (unknown)	0	0	74666	74666
Non-Hazardous LF	55716.15	89105.02	108249	253070.17
Non-Haz (SNRHW) LF	0	50469.86	0	50469.86
Non-Haz Waste Transfer	223120.844	210328.584	118078.161	551527.589
Non-hazardous household HWA Site	40.62	0	0	40.62
Non-hazardous & hazardous HWA Site	0	0	264.12	264.12
Physical Treatment	95867.364	215892.55	48442.6	360202.514
Physical - Chemical Treatment	0	4.128	0	4.128
Restricted LF	0	8044	76	8120
WEEE treatment facility	0	0	0	0
Landfill Total	144,572	147,619	108,325	400,515
Grand Total	1,108,591	1,529,256	654,562	3,292,408

Source: Waste Permit Returns Interrogator 2021 (NRW)

2.74 Of particular interest are the tonnages of waste being deposited in landfill, particularly inert landfill and deposits of waste to land, because these sites have a finite capacity. Just over 12% of inert waste managed in Wales in 2021 was sent to landfill. This is higher than the figure of 6% identified in the 2022 survey into C&D waste, however it should be noted that the waste permit returns data includes waste arising in England and does not include all wastes arising in Wales and may therefore reflect the distribution of sites in an area. Furthermore, non-hazardous landfill sites make use of inert wastes in their engineering operations and for use as daily cover.

2.75 In terms of overall percentage of inert waste managed in the three regions, in Mid & SW Wales in 2021 16.5% was sent to landfill. This is higher than in North Wales and SE Wales where 13% and 9.6% of inert wastes were sent to landfill respectively.

Hazardous Waste

Introduction

2.76 Hazardous wastes are those types of waste that are especially harmful to human health, or the environment either immediately or over an extended period of time. Hazardous waste is stringently controlled, and the consignee (the producer), the carrier and the consignor (the recipient) all have responsibilities in respect of reporting the production, movement and treatment/disposal of hazardous wastes.

2.77 In July 2005 the Hazardous Waste (England and Wales) Regulations and the List of Wastes (Wales) Regulations came into force, replacing the Special Waste Regulations. These new regulations had the effect of increasing the number of wastes classified as 'hazardous' – they include waste TV's, computer monitors and other waste electrical and electronic equipment, florescent tubes and pesticides – thereby resulting in increased amounts of this type of waste being recorded.

Current Arisings of Hazardous Waste

2.78 The CIMSP (2012) notes that around 255 thousand tonnes of hazardous waste were produced in Wales in 2010, generated from over 9 thousand businesses. Most of this arose from thermal process wastes (such as steel slag), oil and oil/water mixtures, petrol, gas and coal refining/treatment and construction and demolition waste and asbestos. More up to date figures from 2015-2021 are set out in Table 25, below based on European Waste Codes (EWC) - made up of chapters describing waste arising from different sources.

2.79 Prior to 2012, the Environment Agency in Wales (EAW) was required to monitor registered hazardous waste movements, and the data was maintained on the EA's Hazardous Waste Interrogator database. Now the responsibility lies with NRW. The most recent data available is for 2021, and includes:

- Hazardous waste arisings by EWC chapter; and
- Hazardous waste deposited in Wales by EWC chapter

Table 25 Hazardous waste arisings for Mid & SW Wales (2015 – 2021) in tonnes

Authority	2015	2016	2017	2018	2019	2020	2021
Carmarthenshire	11,422	12,716	14,908	15,337	9,673	19,729	28,020
Ceredigion	580	1,988	3,724	2,348	1,345	1,411	2,386
Pembrokeshire	28,473	42,935	5,772	16,599	14,871	14,138	11,158
Powys	8,112	8,656	7,917	4,450	2,833	3,648	3,569
Neath Port Talbot	21,588	19,847	10,046	14,697	18,304	22,283	28,149
Swansea	28,751	24,238	25,513	15,764	19,722	16,069	13,393
Mid & SW Wales	**98,926**	**110,380**	**67,880**	**69,195**	**66,748**	**77,278**	**86,675**
Wales	**305,547**	**303,859**	**468,422**	**411,429**	**257,216**	**286,946**	**321,865**

Source: EA Hazardous Waste Interrogators & NRW

Table 26 Hazardous waste deposited in Mid & SW Wales (2015 – 2021) in tonnes

Authority	2015	2016	2017	2018	2019	2020	2021
Carmarthenshire	7,609	7,418	9,184	5,760	9,341	8,261	349
Ceredigion	373	491	2,933	386	329	292	227
Pembrokeshire	7,124	23,045	3,530	4,099	2,498	1,438	35
Powys	7,840	3,683	4,618	224	184	234	244
Neath Port Talbot	2,467	2,247	6,561	2,150	2,252	1,525	1,956
Swansea	10,073	9,177	17,080	19,992	28,369	17,345	11,319
Mid & SW Wales	**35,486**	**46,061**	**43,906**	**32,611**	**42,973**	**29,095**	**14,131**
Wales	**383,396**	**407,411**	**390,767**	**301,774**	**320,223**	**317,640**	**340,275**

Source: EA Hazardous Waste Interrogators & NRW

2.80 In terms of reducing the amounts of hazardous wastes produced, the CIMSP (2012) states that the 242,000 cubic tonnes of hazardous waste produced in 2008 represented a 33% reduction in the amount produced in 2000 (365,000 tonnes). However, this reduction was based on the old definition of wastes classified as 'special' in 2000. More recent figures available from NRW relate to the post-2005 definition for hazardous wastes and so correlation with figures in the years prior to this is problematic.

2.81 What is clear however, is that in terms of hazardous waste arisings in Wales, the amount of waste decreased by over half during the decade from 2003 to 2013 (591,904 tonnes to 263,415 tonnes) – see Appendix 1, however there were fluctuations during this period. Table 25 shows that over the past 7 years there was a sharp rise to 468,422 tonnes in 2017, before dropping the subsequent two years to pre-2013 levels of under 300,00 tonnes, however a rise has occurred in the final reporting year. In the Mid & SW Wales region, the amounts produced here have also reduced considerably from a high point in 2016, but as with the national level, this too has seen an increase over the last two reporting periods. Given the fluctuations in the amounts of hazardous waste produced in Wales over the past decade, it is too early to say whether the recent increases are a cause for concern. Further monitoring over the next few years will provide a more detailed picture.

2.82 In terms of the amounts of hazardous waste deposited in Wales, Table 26 highlights that after exceeding 400 tonnes in 2016, the amounts have reduced considerably in the subsequent reporting years, albeit with an increase in the final reporting period. In Mid & SW Wales too, the amounts deposited have reduced from over 46,00 tonnes in 2016 to under 15,000 tonnes in 2021. The figures in Tables 25 & 26 indicate that more hazardous waste was deposited in Wales in 2021 than was produced in Wales. This positive net difference of 18,410 tonnes means that Wales was a net importer of hazardous waste. This is not mirrored at the Mid & SW Wales level where more hazardous waste was produced (86,675 tonnes) than was deposited in 2021 (14,131 tonnes). Of the 340,275 tonnes of hazardous waste deposited in Wales in 2021, only 4% of this was deposited in the Mid & SW Wales region.

2.83 In terms of the amounts of hazardous waste from Mid & SW Wales that have been deposited in England over the period from 2013-2021, Table 27 shows that from a high point in 2013, the tonnages have been fairly consistent in the 20,000s, only dropping below this figure in 2016 and 2018, with 2021 recording the highest figure since 2013.

Table 27 – Hazardous waste from Mid & SW Wales to England (tonnes) 2013-2021

Year	Hazardous waste from Mid & SW Wales to England
2013	45,664
2014	28,710
2015	23,504
2016	19,219
2017	24,698
2018	19,519
2019	21,870
2020	27,952
2021	36,112

Source: EA Hazardous Waste Interrogators

Current Management of Hazardous Waste

2.84 'Deposited' relates to a number of different processes or fates for the waste. Table 28 shows the management by fate of the 340,275 tonnes of hazardous waste deposited in Wales in 2021, the most common being recovery, which accounted for the fate of 39% of the waste. This was mirrored in Mid & SW Wales where recovery accounted for 52% of the fate of hazardous wastes. Most of the remainder was either treated (25%) or transferred (32%) in Wales. Only 2% was landfilled (3% in Mid & SW Wales). Whilst only a small amount was landfilled in Wales, a greater amount was deposited in hazardous waste landfill sites in England, although the amount has decreased sizeably since 2013 – see Table 29.

2.85 From a high point in 2013, Table 29 points to a reduction in the amount of hazardous from Wales to landfills in England over the last few years, however the figures for 2020 and 2021 have been skewed by an unusual amount of hazardous waste (bottom ash and slag containing dangerous substances) originating from one of the Mid & SW Wales authorities. From the data in Tables 25 & 29, around 15% of hazardous waste produced in Wales was sent to landfill in England in 2021 – up from 13% in 2020. In total in 2021 around 17% of the hazardous waste produced in Wales was disposed of to landfill.

Table 28 Percentages of Hazardous waste deposited in Mid & SW Wales (& Wales) in 2021 by waste fate[8]

Waste fate	Mid & SW Wales 2021	Wales 2021
Incineration with energy recovery	<1	<1
Incineration without energy recovery	1	1
Landfill	3	2
Other Fate	<1	<1
Recovery	52	39
Transfer (D)	4	5
Transfer (R)	35	27
Treatment	4	25
Total	**100**	**100**

Source: NRW

[8] Percentages shown are best estimates as the Welsh (NRW) published data does not provide the waste fate.

Table 29 Hazardous waste from Wales to landfills in England (tonnes)

	Hazardous Waste to landfills in England	
Year	From Mid & SW Wales	From Wales
2013	3,432	77,405
2014	4,479	66,469
2015	2,444	50,369
2016	1,180	48,980
2017	6,988	38,159
2018	3,307	47,905
2019	835	25,966
2020	10,479	39,603
2021	18,140	47,059

Source: EA Hazardous Waste Interrogators 2013-2021

Infrastructure and capacity for the management of hazardous waste

2.86 For the CIMSP (2012), information on the current infrastructure and capacity for the management of hazardous waste in Wales was gained through a report that the WG commissioned EAW to carry out on the capacity of waste management facilities in Wales in 2008/09.

2.87 The Report found that Wales was well served by facilities for the collection and temporary storage of hazardous waste materials – 168 facilities, and that the Country was also well served with a range of chemical, physical and physico-chemical treatment plant with a combined capacity of around 1.8 million tonnes.

2.88 Whilst there has been no up to date report detailing the capacity since 2008/09, an indication of the types and numbers of facility that deal with hazardous waste in Wales can be seen in Appendix 3 and Appendix 4. The country has a permitted capacity (sites with effective permits[9], July, 2022) of over 9.1 million tonnes per annum for the following categories of waste sites: Hazardous Waste Transfer station, Household, Commercial & Industrial Waste Transfer Stations, Household Waste Amenity Sites and Household Waste Amenity Sites taking Hazardous Waste (with over 2.4 million tonnes permitted capacity p/a in the Mid & SW Wales region). Whilst a sizeable amount of these figures relate to non-hazardous wastes, many of the facilities do accept various types of hazardous household wastes. The Household Waste Amenity Sites detailed in Table 30 below are covered by one or more of the above categories.

2.89 The aforementioned EAW Report found that there were no dedicated merchant hazardous waste landfills operating in Wales[10]. This is still the case, however capacity exists in a number of strategic hazardous waste landfills in England which can take hazardous wastes produced in Wales, as detailed above and indicated in Table 29.

[9] An effective permit does not necessarily mean that the site is currently operational.

[10] Some landfills in Wales have cells that accept asbestos waste; this accounts for the landfill figure in Table 26.

Local authority collections and infrastructure

2.90 In terms of local authorities, these provide separate reception facilities for a range of hazardous household wastes at their Civic Amenity (CA) Sites/Household Waste Recycling Centres (HWRCs). Table 30 highlights the availability of such facilities in the Mid & SW Wales region. There are 27 sites currently operating which allow various hazardous household waste materials to be placed separately within the sites. In addition, some authorities provide a collection service for certain types of hazardous waste not allowed at their CA sites/HWRCs.

Table 30 Current local authority facilities for accepting hazardous household waste in the Mid & SW Wales region

Authority	Civic Amenity Sites/Household Waste Recycling Centres
Carmarthenshire	4 HWRCs – all accept hazardous household wastes inc. cement bonded asbestos (which must be double bagged), WEEE, light bulbs inc. fluorescent tubes, tyres, engine oil, car & household batteries, paints. Gas bottles and fire extinguishers are accepted at all sites *except* at Wernddu, Ammanford.
Ceredigion	4 HWRCs. Small quantities (1-2 sheets per 3 months) of household DIY asbestos is taken at 2 of them (also a private transfer station at Beulah and the transfer station at LAS Lampeter accepts asbestos). Loose Asbestos will not be accepted at the above sites unless it has been triple bagged or wrapped. All 4 sites accept household batteries, chemicals, oil & paints, WEEE, fluorescent tubes and low energy light bulbs. None accept gas bottles or tyres.
Pembrokeshire	6 Waste & Recycling Centres. Small quantities of hazardous wastes accepted, including WEEE, engine oils, batteries, paints, car tyres (up to 4 tyres free of charge per year), garden chemicals, fluorescent tubes, gas cylinders (not at Waterloo site, Pembroke Dock). Asbestos is not accepted at any site.
Powys	5 HWRCs within the County. Hazardous waste from households accepted at all, including car and household batteries, engine oil, fluorescent light bulbs/tubes, paints, WEEE, garden & household chemicals (no tyres or gas bottles). Asbestos is not accepted at any of the sites, and people are advised to contact a professional asbestos removal/disposal company.
Neath Port Talbot	2 HWRCs within the County Borough. Hazardous waste from households accepted at both, including car and household batteries, engine oil, fluorescent light bulbs/tubes, paints, WEEE, garden & household chemicals. Asbestos is only accepted at the Briton Ferry site (should be double wrapped in polythene sheeting). Tyres are not accepted. Gas cyliners are only accepted at the Cymmer site. The Council also shares a facility in Lower Cwmtwrch with Powys Council as part of collaborative working. A similar range of materials are accepted (no asbestos, tyres or gas cylinders).
Swansea	5 HWRCs. All sites accept WEEE, gas cylinders and household batteries; paints, household chemicals, fluorescent tubes, engine oil. Car batteries only accepted at the Llansamlet and Clyne sites. Certain WEEE items such as fridges, freezers and large household appliances are only accepted at certain sites. Asbestos not accepted at the sites but the Council does offer a home collection service for bonded asbestos sheets (max 3 sheets – 3'x 8'). Waste tyres are not accepted at the sites.

Source: Information provided by individual authorities

Conclusions

2.91 Hazardous waste arisings within Wales have remained fairly consistent over the past decade, with some fluctuations. There was a notable rise in the amount of hazardous waste arisings in Wales in 2017, but this has reduced since and the last two reporting years (2019 and 2020) have seen the amount of hazardous waste arisings drop to well below the 300,000 tonne mark – the first time since 2013. A similar pattern can be seen at the Mid & SW Wales level. Future annual monitoring will establish whether this trend is set is to continue and whether any further action will be needed for new capacity and infrastructure in the coming years.

2.92 The identified gap in terms of landfill disposal options for hazardous waste in Wales, noted in the CIMSP, is still the case. There is no merchant disposal capacity in Wales (other than in a very small number of sites that accept limited amounts of asbestos). However, the tonnages of hazardous waste produced in Wales which is landfilled outside of Wales is small, and this is accommodated in readily accessible hazardous waste landfills in England.

2.93 The data for 2021 indicates that less hazardous waste was exported from Wales than was produced in that year, making Wales a net importer. This continued the trend that had been seen since the publication of the CIMSP in 2012 - with the exception of 2017 & 2018 when Wales exported more hazardous waste than it deposited in those years.

2.94 Notwithstanding the exporter: importer position identified from the 2017 and 2018 data, it must be emphasised that the Country is well served by facilities (other than landfills) for both the temporary storage of hazardous waste materials prior to further management as well as a range of chemical, physical and physico-chemical treatment plant – which was reported in the CIMSP (2012) to be a combined capacity of around 1.8 million tonnes. The CIMSP concluded that there was little market incentive to develop extra hazardous waste landfill whether in SW Wales or at an all-Wales level.

2.95 There is no evidence to suggest that this situation has changed in recent years. The EPR Waste Permit dataset (2022), published by NRW, points to a current combined capacity (chemical, physical and physico-chemical treatment plant with effective permits[11]) of around 5.5 million tonnes within Wales, with around 1.7 million tonnes capacity in Mid & SW Wales.

[11] An effective permit does not necessarily mean that the site is currently operational. Furthermore, this combined capacity covers the treatment of non-hazardous waste as well as the potential to treat hazardous wastes.

Agricultural Waste

Current Arisings and Management of Agricultural Waste

2.96 There is limited accurate data at the all Wales level for the quantities and types of agricultural waste produced, their disposal, re-use or recycling. This presents a barrier for identifying appropriate targets for the sector to meet *Towards Zero Waste* commitments and to develop actions for the sector. Consequently, it is not possible to give an estimate of the overall reuse, recycling, energy recovery or landfill rates of agricultural waste.

2.97 The Welsh Government (WG) published a draft position statement on agricultural waste in June 2014, accompanied by a call for evidence. In the call for evidence document, information available so far indicates that agricultural waste is not, at a strategic Wales level, a problematic waste, although components such as asbestos from farm buildings, demolition wastes, hazardous farm chemicals, animal drugs, sheep dip chemicals etc, can cause problems locally if not managed correctly.

2.98 In the call for evidence, the WG sought the opinion of the sector on whether or not a separate agricultural sector plan was needed. The response has been that a separate plan is not required, and so it remains in abeyance.

New project to tackle farm waste:

Tywi Farm Nutrient Partnership Final Report - ARC (arc-csg.cymru)

2.99 It is worth noting that a new project is underway that is aimed at reducing farm waste. Driving the project are Coleg Sir Gâr's Gelli Aur agricultural campus (Carmarthenshire) and Power & Water, a Swansea based company specialising in electrochemical-based water treatments. The information in the following paragraphs was obtained from the Coleg Sir Gâr website.

2.100 The project will innovatively reduce farm waste and help safeguard the environment and address the agricultural industry's impact on the environment by developing a dewatering and purification system to manage slurry on farms. With the intensification of the dairy industry, slurry management is becoming an increasing issue for farmers and the environment.

2.101 The Project has received funding through the WG's Rural Communities Rural Development Programme 2014-2020, which is funded by the European Agricultural Fund for Rural Development, and the WG. The project will apply innovative and proven concept technology to reduce air and water pollution to reduce the overall volume of slurry by up to 80%. A de-watering and purification system is used to filter slurry, transforming the water to a suitable quality for recycling or discharging to a clean watercourse. The system will also utilise nutrients from the slurry to produce good quality fertiliser.

2.102 The project aims to reduce significantly the risk of air and water pollution at the same time as maximising the recycling nutrient value. This development process will considerably reduce storage of slurry on farms as well as handling costs. Efficiently extracting nutrients from manures could save on the cost of commercial fertilisers and reduce serious

environmental impact. The project aims to design, develop and validate economically viable systems that will be made available commercially and used on farms.

2.103 Prosiectslyri Project as it is known has already made significant developments and is achieving its project goals. As a result of the project, Power & Water are developing farm-based treatment units based on herd size.

2.104 The Final Report on the project was published at the end of 2022 by the Tywi Farm Nutrient Partnership. The Report highlighted that:

Recent innovations in dewatering technologies now increases its suitability for the agriculture sector. The separation of liquid and solid from dairy slurry is demonstrated to reduce bulk volume, alleviating the pressure on farm storage capacity. Alongside successive wastewater treatment, we have seen overall reduction rates of 98.9% Nitrogen (N), 99.9% Phosphate (P) and 98.3% Potassium (K), in the separation of raw slurry (typically ~4-5% total solids) in addition to the treatment of dilute slurry and 'dirty water'. Capturing these nutrients presents an opportunity to reduce the need for artificial fertilisers. Importantly, this also helps farmers in Wales to meet compliance with recent changes to legislation, such as The Water Resources (Control of Agricultural Pollution) (Wales) Regulations 2021.

The Control of Agricultural Pollution Regulations

2.105 On 27 January 2021 the Minister for Environment, Energy and Rural Affairs announced the introduction of regulatory measures to address agricultural pollution in Wales, the Water Resources (Control of Agricultural Pollution) (Wales) Regulations 2021. The Regulations will apply from 1 April 2021 for an initial set of measurements. The remainder will be phased in over a period of 3 years.

2.106 The Regulations focus on those farms where the environmental risk from poor manure management is greatest. They are based on current good practice recommendations, so some farmers will see minimal impact, particularly those already following good practice and those not producing slurry, such as sheep farmers, whilst others will need time and support to become compliant. In summary, the regulations include the following requirements:

- Nutrient management planning;
- Sustainable fertiliser applications linked to the requirement of the crop;
- Protection of water from pollution related to when, where and how fertilisers are spread; and
- Manure and silage storage standards.

The Regulations establish baseline standards for production in Wales comparable to those in the rest of the UK and Europe.

Further Welsh Government measures:

2.107 In a related theme to agricultural waste, an article posted on the WG website on 14 August 2018, noted that the Cabinet Secretary for Energy, Planning and Rural Affairs, had

announced a new £6m Sustainable Production Grant (SPG) aimed at addressing on-farm nutrient management and storage.

2.108 The Grant will give farmers the opportunity to take the lead in tackling agri-pollution to improve water, soil and air quality. The items supported will include, amongst other things, covered slurry storage and management equipment.

2.109 The Cabinet Secretary was quoted saying:
“Our next round of the SPG will focus on supporting farmers to deliver our objectives of enhanced nutrient management, safeguarding and improving water, soil and air quality by reducing pollution. The investment will support farmers to address these important issues and ensure current and future generations continue to benefit from our natural resources.”

3. MONITORING THE REGION'S LANDFILL CAPACITY

Introduction

3.1 Environment Agency Wales (EAW) estimated in 2010 that if waste deposits at landfill continued at 2010 rates, and no new landfills are developed, non-hazardous landfills across Wales as a whole would reach the end of their life in around 10 years. The analysis was based on current inputs to landfill and it assumed that these would not change with time. This is therefore a worse case scenario and assumes that the interventions put into place by the Welsh Government (WG) to decrease waste and increase recycling will have little effect. It follows that remaining life at landfill sites (i.e. their remaining capacity) will be extended if annual inputs continue to decrease, as is intended in respect of the *Toward Zero Waste* 2025 goal of as close to zero landfill as possible. There is one possible problem here however, and that is landfill companies closing sites prematurely due to lack of inputs, and consequently insufficient income to continue the operations (see Figure 5, below).

3.2 Furthermore, whilst landfill is still one of the management methods for residual waste produced in Wales, as new waste prevention, recycling and other recovery activities develop in accordance with targets and actions, the need for landfill will decrease significantly.

The CIMSP findings

3.3 The CIMSP (2012) estimated remaining landfill life for non hazardous merchant landfills under three main scenarios. Table 31 below, is based on Table 34 of the CIMSP. Table 34 separated Wales into the 3 regions set out in TAN 21 – North, South West, and South East. Due to the restructuring of this Report into the three economic regions of Wales, direct comparisons are not possible. Table 31 then, is based upon the SW Wales region for indicative purposes. It estimates the year when landfill void will run out in accordance with the 3 modelled scenarios (and the sub-division of each of these scenarios into three further sub-scenarios) in relation to waste growth patterns.

3.4 In summary, the scenario modelling for the remaining landfill life in the SW Wales region delivers the following worst case / best case outcomes: Worst case – landfill void runs out in 2021-22; best case landfill void lasts indefinitely (assuming all targets are met for all waste streams and all Incinerator Bottom Ash (IBA) is recycled).

The current situation

3.5 A brief investigation into the current situation with regards landfill sites in the Mid & SW Wales region has found that no new sites have become operational since 2010. There is one site which has been permitted as a non-hazardous landfill, but this has not been constructed so its potential void space cannot be taken into account. So in the case of the scenarios above, the remaining landfill life will be entirely dependent upon the remaining capacity at existing landfills, recycling targets being met (including the reduction in waste going to landfill), and any new alternative residual treatment becoming operational. In terms of residual treatment, this is covered in section 4 below.

Table 31 Estimated year when landfill void will run out in SW Wales as modelled in CIMSP (2012)

Scenarios (worst case scenario highlighted in yellow)		Estimated year that landfill void will run out
If no alternative treatment capacity is developed	i) Only LAMW recycling targets met, other recycling rates remain as baseline, no additional waste prevention measures undertaken	2020-21
	ii) All recycling targets met, no additional waste prevention measures undertaken to meet waste prevention targets	2022-23
	iii) All recycling targets met and additional waste prevention measures undertaken to meet waste prevention targets	2024-25
If EfW is developed for LAMW residual waste only	i) Only LAMW recycling targets met, other recycling rates remain as baseline, no additional waste prevention measures undertaken	2021-22
	ii) All recycling targets met, no additional waste prevention measures undertaken to meet waste prevention targets	Beyond 2024-25
	iii) All recycling targets met and additional waste prevention measures undertaken to meet waste prevention targets	Beyond 2024-25
If EfW is developed for all residual waste	i) Only LAMW recycling targets met, other recycling rates remain as baseline, no additional waste prevention measures undertaken	Will not run out (1,846kt capacity remains)
	ii) All recycling targets met, no additional waste prevention measures undertaken to meet waste prevention targets	Will not run out (2,254kt capacity remains)
	iii) All recycling targets met and additional waste prevention measures undertaken to meet waste prevention targets	Will not run out (2,477kt capacity remains)

Source: Collections, Infrastructure and Markets Sector Plan (CIMSP, 2012)

3.6 Appendix 2 details the current landfills in the Mid & SW Wales region in 2021. As can be seen, there are two landfills associated with Corus Steel Works in Port Talbot (one is hazardous restricted and the other is restricted user) - these only cater for the company's own waste, and therefore cannot be factored into the remaining voidspace for the region as a whole.

3.7 Focusing on non-hazardous landfills, Table 32 below sets out the remaining total capacity in 2022; their remaining individual capacities have been omitted in the interests of commercial confidentiality.

Table 32 – remaining capacity (M^3) at the six non-hazardous landfills in the Mid & SW Wales region

EPR Number	Operator Name	Installation Name	Site Type	Local Authority	Capacity 2022
CP3735PB	Cwm Environmental Limited	Nantycaws Landfill Site	Non-hazardous	Carmarthenshire	-
BU8819IV	WRG Waste Services Ltd	Pwllfawatkin Landfill Site	Non-hazardous	Neath Port Talbot	-
VP3935AT	Swansea City Waste Disposal Co Ltd	Tir John Landfill Site	Non-hazardous	Swansea	-
MP3330WP	Potters Waste Management	Withyhedge Landfill Phase 2	Non-hazardous	Pembrokeshire	-
BU7766IC	Potters Waste Management	Bryn Posteg Landfill Site	Non-hazardous	Powys	
BT19081X	JLA Disposal Ltd	Palleg Landfill Phase 2	Non-hazardous	Powys	
				Total	2,172,015

Source: NRW

3.8 Table 33 sets out the combined annual deposition rates in 2021 of all non-hazardous landfills within the Mid & SW Wales region. The figures going back to 2014 have been included for comparison purposes. By dividing the final total tonnage input in Table 33 (2021) into the total in Table 32[12], we can work out roughly how many years landfill capacity is remaining in the Mid & SW Wales region: **5.5 years** (Figures have been adjusted to assume that 25% of the reported remaining capacity will be lost through engineering & cover). This is more favourable than the worst case prediction set out in the CIMSP whereby estimated remaining landfill life would run out in the SW Wales region by 2020/21 if no alternative capacity is developed and only Local Authority Collected Waste (LACW) recycling targets are met.

Table 33– tonnage inputs to landfill (Non Hazardous) in the Mid & SW Wales Region 2014-2021

Year	Total Tonnage Input[13]	From Mid & SW Wales authorities	From outside Mid & SW Wales authorities
2014	344,903	302,364.8	42,538.14
2015	379,911	255,769.6	79,691.18
2016	355,341	206,277.3	106,131.4
2017	374,111	257,226.4	81,137.25
2018	412,366	291306.5	117,668.5
2019	392,736	239,394.7	142,943.7
2020	345,091	219,053.5	117,003.4
2021	393,273	217,090.4	176182.4

Source: Waste Permit Returns Data Interrogator 2021, NRW

[12] Capacity figures are estimations and are subject to change pending further Quality Assurance work (NRW).

[13] Includes some wastes not codeable to any local authority: these amounts have been omitted from the other two columns in each year. For 2014 &15, the figure includes very small amounts of hazardous wastes.

Variations in the amounts of waste landfilled each year

3.9 Considerable increases in waste landfilled in a particular year, for example in 2018 (probably due to changes in individual waste contracts), and to a lesser extend in 2019, can skew the calculation - when compared to previous years. For example, if we use the final yearly input figure from 2018 into this year's calculation then the voidspace figure would decrease to 5.3 years. Alternatively if we were to use the final yearly input figure from 2020, then the remaining voidspace would last 6.3 years.

3.10 However, if we were to continue with the approach employed in previous WPMRs and use the most recent figure - 5.5 years as noted above, then this falls below the 7 year landfill void trigger set out in TAN21 – the period considered sufficient to enable the market to come forward with a solution. Whilst the figure has not dropped below the 5 year trigger – the one identified as a trigger for pursuing any action which may be necessary to facilitate future provision – the situation would suggest that preliminary discussions in terms of appropriate action should be considered by the stakeholders concerned - this would include the WG, NRW, local authorities (both Planning and Waste Teams) as well as the Waste Industry.

3.11 Table 34 below breaks down the data [in Table 33] further by looking at the split of Household/Industrial & Commercial (HIC) wastes to Inert Wastes (C&D). From this we can see that whilst the amounts of both classes of waste landfilled had remained fairly constant from 2014-2017, there was an increase in both HIC and C&D in 2018 (and 2019 for inert wastes), before dropping again in 2020. A sharp increase in HIC waste in the most recent reporting period (2021), pushing the overall tonnage to landfills to its highest since 2018, is concerning and is probably due to changes in residual waste contracts.

Table 34–tonnages of HIC and Inert Wastes landfilled (non-hazardous) in Mid & SW Wales region 2014-21

Year	HIC wastes	Inert Wastes (C&D)
2014	239,116.4	105,780
2015	273,340.2	106,569.7
2016	255,265.2	100,075.7
2017	250,394.9	123,715.6
2018	255,903.4	156,462.9
2019	230,321.2	162,415.2
2020	216,466.8	128,624.4
2021	285,023.8	108,249

Source: Waste Permit Returns Data Interrogator, 2014 – 2021, NRW

Other factors influencing remaining landfill capacity:

- **Restricted User Landfills** – the region currently has one such category landfill, namely Corus in Port Talbot. Whilst the site has a sizeable remaining capacity, this needs to be monitored because the company may require disposal elsewhere should the situation change.

- **New Residual Waste Treatment Facilities** – these are discussed in section 4 below. Any new facilities that would deal with residual waste would have the positive effect of potentially diverting further quantities of waste away from landfill within the region.

- **Waste from outside the region** – waste returns data indicates that waste is being imported to one or more of the landfills from outside of the Mid & SW Wales region. Whilst this is factored into the calculation on remaining voidspace above, it is not sustainable, particulary in terms of the proximity principle.

- **Procurement Contracts** - Conversely, many of the authorities within the region are not using the landfills themselves, but have entered into contracts to dispose of their waste by other methods, sometimes outside of the region. This is detailed in Table 38 in section 4 below.

- **Future of existing landfills** – some sites may close or cease operations indefinitely before reaching their capacity. The situation concerning each site will therefore need to be closely monitored. The current position with regards each of the six permitted non hazardous landfills in the Mid & SW Wales region are set out in Figure 5 below.

Figure 5 – current situation of the 6 non-hazardous landfills within the Mid & SW Wales region

Nantycaws landfill site (Cwm Environmental) This site provides the only void space in Carmarthenshire. CWM Environmental Ltd (a teckal company to Carmarthenshire County Council) is continuing to operate the other waste management operations at the site, but there is uncertainty with regards the landfill element of the site's future. Landfill operations have currently stopped at the site, therefore technically the operational lifetime has not reduced from the figures reported in previous WPMRs. In the Second Deposit Revised Carmarthenshire LDP (published for consultation in March 2023), Nantycaws has been designated a mixed use site, safeguarded under the mixed use policy. The site is strategically positioned site, alongside the main A48 (east : west) trunk road, and is already utilised for the sustainable management of waste. It offers the future opportunity to potentially harness small-scale energy from waste, and related employment-based activities. Future opportunities could be set out through the development of a masterplan for the site, and/or through detailed planning applications.
Withyhedge landfill site (Potters Waste Management) This is the main landfill site in Pembrokeshire. Previously operated by Sita, the site is now run by Potters. Withyhedge is now competing for business with more distant sites. In terms of local authority waste, Pembrokeshire County Council have continued to reduce their reliance on this facility through an Energy from Waste Contract however the Authority still have a limited requirement for a landfill solution, therefore the landfill contract has currently been extended until 2024 and caters for Bulky residual waste unsuitable for treatment via Energy from Waste. The contract also includes a contingency arrangement for increased requirements for landfill i.e. during EfW maintenance periods and for bulking of residual and recycling materials if required.

Pwllfawatkin landfill site (FCC Environment) A planning application, which would have allowed operations to have continued for close to 3 years (the permission was supposed to cease in 2018), was refused in late 2020. The LPA are now negotiating with the applicant with regard to proposals for restoration profiles for the site. The restoration plan will have to ensure efficient drainage and will need to meet with NRW requirements to ensure that the best restoration possible is achieved. A planning application for a 'revised restoration profile of Tip 890 including continuation of waste importation to 31st October 2023 with restoration completed by 31st October 2025' is currently being considered by NPT County Borough Council, as is a variation of Condition application to extend the operational lifetime of the site until 2025, followed by a year for restoration works.
Tir John landfill site (Enovert Ltd) The City & County of Swansea own Tir John but have contracted its operation to Enovert Ltd. Whilst there is significant void space remaining to be developed at the site, Swansea Council/Enovert will not develop this remaining capacity, and the site is now in the process of being capped and restored.
Bryn Posteg Landfill Site (Potters Waste Management) Situated near Llanidloes, Powys, the site is still operational and the remaining voidspace contributes towards the overall figure set out in Table 32 above, and a bund has been created with stored soils. A new system has allowed them to screen and shred the material a lot finer. The site is privately owned and is not used by Powys County Council. There is a current planning application being determined for the 'Regularisation and retention of over-tipped material on the existing landfill, additional landfilling operations in accordance with revised restoration profile and phasing details together with associated landfill infrastructure'. This is currently pending decision. There is no indication as to whether the site will continue to operate after the current voidspace is utilised.
Palleg Landfill Site (JLA Disposal Ltd) Situated near Ystradgynlais, Powys, the site is still operational and the remaining voidspace contributes towards the overall figure set out in Table 32 above. The site is privately owned and is not used by Powys County Council. The site is currently coming to the end of its life and a proposed final restoration scheme was approved in 2019. There is no indication as to whether the site will continue to operate after the current voidspace is utilised.

Source: information provided by the individual local authorities.

3.12 It is worth noting that the investigation of accurate landfill data has been prioritised as a piece of work by NRW, with the financial modelling of the new Landfill Disposals Tax being a key driver.

3.13 In conclusion, whilst the most recent calculations point to sufficient landfill void capacity within the Mid & SW Wales region, the figure is subject to a number of variables which will need to be monitored closely over the next few years to establish whether any action is needed to be taken to accord with the requirements of TAN 21, and to establish whether the *Towards Zero Waste* 2025 goal of as close to zero landfill as possible in Wales is going to be achieved.

3.14 In regard to the TZW 2025 landfill goal, it is important to point out that there is a general consensus amongst waste professionals of the need for at least a small landfill capacity in respect of residual waste both in terms of contingency (Energy from Waste (EfW)

closed for maintenance / repair etc.) and for certain elements of waste that cannot be recycled or dealt with in other ways.

4. MONITORING THE REGION'S RESIDUAL WASTE

Residual Waste Arisings

4.1 Residual waste is non-recyclable waste, the material that is left over after waste has been treated or recycled as much as possible. Table 35 below, sets out the estimated arising and management of residual waste per annum (as set out in Table 22 of the CIMSP, 2012, for the baseline year). Table 22 of the CIMSP separated Wales into the 3 regions set out in *Technical Advice Note (TAN) 21: Waste* – North, South West, and South East. Due to the restructuring of this Report into the three economic regions of Wales, the actual figures for each waste stream [in Table 35] are based on the latest figures for the authorities in the Mid & SW Wales region.

Table 35: Estimated regional arising and management of residual waste in Mid & SW Wales

Stream	Quantity of residual waste produced by the SW Wales Region (thousands of tonnes per annum) and its main method of management		
		SW Wales (baseline figures estimated in CIMSP)	Mid & SW Wales (actual LACW 2020/21; actual I&C 2018) actual C&D 2019)
Local authority collected waste (LACW)	Energy recovery	43	76
	Landfill	246	58
	Other	6	5
	Total	295	139
Commercial	Energy recovery	1	41
	Landfill	234	51
	Other	37	64
	Total	272	156
Industrial	Energy recovery	1	20
	Landfill	79	44
	Other	26	46
	Total	106	110
Construction and Demolition	Energy recovery	0	3
	Landfill	115	78
	Other	38	36
	Total	153	117
All streams	Energy recovery	45 (5%)	140 (27%)
	Landfill	674 (82%)	231 (44%)
	Other	107 (13%)	151 (29%)
	Total	**826**	**522**

Source: CIMSP (Welsh Government, 2012); StatsWales (Annual management of waste by management method (tonnes); Survey of I&C Waste Generated in Wales 2018 (NRW,2020); 2019 C&D Waste Generation Survey (NRW, 2022).

4.2 Whilst it is obvious from Table 35 that the region still has some way to go to meet the *Towards Zero Waste* goal of achieving as close to zero landfill as possible by 2025, it is

clear that the CIMSP (2012) clearly overestimated the future tonnages, which have actually reduced significantly over the decade since. Continued monitoring is needed over the next few years to see whether the target will be achieved, bearing in mind the fact that there will be a continued need for at least minimal landfill as a final disposal method, for example during times when EfW facilities might be temporarily closed due to individual circumstances.

4.3 NB It must be noted that the data in Table 35 should be treated as indicative only, due to the following reasons:

- the lack annual data for I&C and C&D wastes has an impact upon the accuracy of the data for these waste streams. Although recent studies have been published for these waste streams (2020 for I&C wastes using 2018 data, and 2022 for C&D wastes using 2019 data) there is no continuous form of annual data as in the case of LACW;

- the original Table 22 in the CIMSP (2012) related to the SW Wales region. The latest additions to Table 35 relate to the Welsh economic region of Mid & SW Wales region. Direct comparisons are therefore not possible between this and the original Table 22, however as the change of regions only includes the replacement of one county (Powys for Bridgend) then we can at least draw some indication from the latest data in Table 35;

- the latest (2018) data for I&C wastes grouped incineration (with energy recovery) with incineration (without energy recovery), however the later only amounted to around 5% of the total figure and so this has been accounted for in the energy recovery input in Table 35. Indeed, 2018 saw an increase in Incineration but a dominance of Incineration with Energy Recovery compared to 2012. In 2012, 143 thousand tonnes (3.9%) of waste went to Incineration (2.2% without Energy Recovery and 1.7% with Energy Recovery). In 2018 this increased to 236 thousand tonnes (8.2%) of waste (0.4% without Energy Recovery and 7.8% with Energy Recovery).

- The data on LACW is taken from the annual management of waste by management method on StatsWales, where it is pointed out that ‘There is an apparent discrepancy between the total waste figures given for the 'Waste managed (tonnes)' table and other tables. This is because there is a slight mismatch between the amount collected and the amount treated. This can be a matter of timing if, for example, authorities stockpile waste for later treatment. There may also be some inconsistencies in the measurement since the waste is weighed when collected and again when it is sent for treatment.’

4.4 Table 36 below focuses on residual LACW and compares actual figures from 2016/17 to 2021/22 with both the baseline estimates and the 2024-25 figures predicted in the CIMSP (for SW Wales). Again, with the change in regional make up, comparison of the baseline figures for SW Wales can only provide a best estimate when viewed alongside the actual residual waste arisings for the Mid & SW Wales region. However, it is encouraging to

note that the actual amounts of residual LACW in both Wales as a whole and within the Mid & SW Wales region had been consistently reducing over the period between 2016/17 and 2019/20. Whilst there has been a slight uplift in the figures in the last two reporting periods, in terms of the Mid & SW Wales region, the amount still remains within the CIMSP predicted arisings for 2024-25 (for SW Wales).

4.5 Whilst this shows positive progress within the region, this will need to be monitored to ascertain whether the trend continues and the amount of residual waste produced does not exceed the predicted arisings for 2024-25. The monitoring of residual waste is important because the level being produced within the region, and its method of management, will affect demand for recovery capacity and the rate at which landfill void will be used up.

Table 36 Local Authority Collected Residual Waste Arisings: Estimated and Actual[14]

Local Authority	CIMSP – estimated residual arisings baseline (Table 22)	CIMSP – estimated residual arisings 2024/25 (Table 32)[15]	2016/17 Actual	2017/18 Actual	2018/19 Actual	2019/20 Actual	2020/21 Actual	2021/22 Actual
Carmarthenshire	-	-	29,983	31,902	33,842	29,496	29,412	29,570
Ceredigion	-	-	19,901	18,019	16,504	15,086	12,817	14,928
Neath Port Talbot	-	-	32,931	33,666	32,594	27,765	31,780	31,055
Powys			22,742	21,443	21,769	21,178	22,020	21,345
Pembrokeshire	-	-	33,034	32,428	31,471	24,534	20,871	25,890
Swansea	-	-	44,868	40,810	40,456	39,039	40,958	43,230
Total Mid & SW Wales	295,000	148-168,000	183,459	178,268	176,636	157,098	157,858	166,018
Total Wales	1,026,000	512-583,000	675,835	645,530	630,703	608,135	628,068	626,689

Source: CIMSP (Welsh Government, 2012) & StatsWales 'Annual Waste generated (tonnes) by source'

Management of Residual Waste

4.6 The management of residual waste comprise three broad processes:

- Intermediate treatment e.g. MBT and MHT, and the production of RDF & SRF
- Other recovery – e.g. energy from waste and landspreading
- Disposal – e.g. landfill

[14] Figures changed to reflect StatsWales: 'Annual Waste generated (tonnes) by source'. Previous reports had used 'Annual management of waste by management method (tonnes)' which has an apparent discrepancy with other datasets.

[15] CIMSP estimated residual arisings (Tables 22&32) were based on the SW Wales region and so direct comparisons with the actual amounts from the Mid & SW Wales region are not possible.

4.7 Mechanical Biological Treatment (MBT) and Mechanical Heat Treatment (MHT) are the two main intermediate treatment processes currently used in the UK. With both of these processes, the non-recyclable residues go to either energy from waste, landfill or landspreading.

4.8 Other recovery of residual waste can include incineration, pyrolysis and gasification, with residues (such as incinerator bottom ash) being recycled or landfilled. Anaerobic digestion and co-incineration (e.g. in a cement kiln) are also forms of other recovery, as is landspreading of a compost like output (CLO) produced as a result of an intermediate treatment such as MBT or MHT, and which must be spread under an environmental permit for mobile plant.

4.9 Technology for treating residual waste is continuously being developed, with varying degrees of success. The likelihood that innovative and reliable treatment processes will become established in the Mid & SW Wales region over the coming years, as an alternative to landfill, remains to be seen. A number of waste facilities already exist within the region that employ MBT techniques, albeit for the treatment of recyclable rather than residual waste. The Baling Plant in Swansea, for example, uses a mechanical process to pre-treat its recyclable waste. Another site, in Neath Port Talbot, achieves a recycling rate of 70% of the waste it receives, and the residual waste from the process is then baled as refuse derived fuel (RDF). The site achieves a landfill diversion rate of 98% and the RDF is transported to energy from waste facilities in Europe.

4.10 The same can be said of thermal treatments; the region having a long history of utilising such technologies in the petroleum industry (e.g. Pembrokeshire) and steel making (e.g. Port Talbot) to deal with petrochemical or metal based wastes. But such technologies have not been used in the treatment of residual municipal waste within the region.

4.11 An investigation into existing facilities currently operating in the region is set out in Table 37 below.

Table 37: Permitted capacity and annual throughput for operational residual waste treatment or recovery in Mid & SW Wales 2021

Facility Type	Mid & South West Wales		
	No of Sites	Capacity (tonnes p/a)	Throughput (tonnes p/a)
MBT with residual EfW (EfW no longer operational)	1	260,200	67,403
MBT with residual to landfill	1	74,999	27,144[16]
Co-incineration	0	0	0
Incineration with energy recovery	0	0	0
Gasification	0	0	0
Total	2	335,199	94,547

Source: CIMSP (WG, 2012); EPR Waste Sites Dataset (NRW, July 2022) & Waste Permit Returns Data Interrogator (NRW, 2021)

[16] Figure includes Household/Industrial/Commercial; Inert C&D, & Hazardous wastes

4.12 There is one site in Mid & SW Wales with planning permission for incineration with energy recovery - Neath Port Talbot County Borough Council's waste facility at Crymlyn Burrows. The permission for the site also includes Mechanical Biological Treatment. However, there has been no on-site incineration for over 10 years, and there is currently no MBT operation and no associated production of RDF. NPT have in-sourced the facility and are currently remodelling the operation to focus on the increasing volumes of source separated recycling delivered to the site. The incinerator plant and the bio-drying tunnels were removed in 2022 as part of the operational remodelling. The decreasing volumes of residual waste delivered to the site will be bulked-up and transferred off-site for treatment and disposal. The Environmental Permit is being aligned accordingly and the site will no longer be permitted for MBT or incineration.

4.13 The only other operational residual waste treatment facility in the Mid & SW Wales region dealing with LACW is an MBT plant in Lampeter where the treated residue is sent to landfill. It has a capacity of 75 thousand tonnes, and as can be seen from Table 37, it is currently not operating to full capacity.

4.14 There is another facility in the Mid & SW Wales region that treats residual waste - Margam Green Energy Plant in Neath Port Talbot, however this deals specifically with wood waste. So whilst it is beneficial in dealing with a form of residual waste, and generating renewable energy in the process, it only caters for this specific waste stream. Moreover the wood waste is sourced from the UK (and beyond), and only a small proportion of the overall feedstock is sourced from local authorities within the Mid & SW Wales region.

Additional capacity for the treatment of residual LACW in Mid & SW Wales

4.15 Permitted capacity for the treatment of residual waste is not well supplied in the Mid & SW Wales region. In addition to the two operational sites in Table 37, the CIMSP (2012) noted that the SW Wales region had a further capacity (100,000 tonnes) at a new site in Bridgend which had obtained planning permission for a gasification plant. However, the project has since been abandoned due to insufficient funding [and Bridgend now forms part of South East Wales, in respect of waste reporting]. Consequently, the region currently has no further additional capacity other than the two facilities in Table 37.

4.16 Appendix 5 sets out all the applications/permissions for waste recovery/treatment facilities between April 2015 and March 2023. One application, relating to the treatment of residual LACW in Carmarthenshire, was refused in February 2016. Another application, for a small-scale waste to energy recovery facility in Swansea, which would have processed 21,000 tonnes of non-hazardous waste, was refused in May 2019. The other applications / permissions in this appendix cover a variety of waste related developments, such as MRFs, and waste transfer stations, for the management of non-residual wastes.

4.17 During the monitoring period for this Report, a planning application for an Energy Recovery Facility (ERF) within the Mid & SW Wales region was being determined - the Buttington ERF application near Welshpool. Whilst the facility would have generated low carbon energy and reduced the amount of waste sent to landfill, because it's capacity would have been greater than 10MW, it was at odds with the moratorium on future large scale

energy from waste developments, as set out in the Welsh Government (WG's) strategy *Beyond Recycling* (covered in paragraphs 4.21 & 4.22 below). The application was finally refused by the Planning Inspectorate in August 2022. This outcome is important in respect of setting the WG's firm stance against EfW in Wales in the future.

4.18 Initial conclusions to be drawn are that given the quantities of residual waste produced in Mid & SW Wales, and the continued use of landfill (in varying degrees) for its disposal, it is clear that the region has insufficient capacity in "other recovery" facilities and has therefore some way to go to be able to meet the 2025 goal of achieving as close to zero landfill as possible. However, whilst the 2025 goal [of as close to zero waste is sent to landfill] might appear to be some way off, residual treatment in the region requires further investigation, and its future is discussed in greater detail in the following section.

The Future of Residual Waste Treatment in the Mid & SW Wales region

4.19 At the time of publication of the CIMSP in 2012, the WG considered that Energy from Waste (EfW) with combined heat and power (CHP) technology had the greatest potential to make a positive impact on climate change than other residual waste treatment technologies. To this end the WG had funding packages available for the procurement of waste treatment capacity, and initially local authorities in Wales had been placed into regional hubs, whereby they would work together in groups to procure residual waste treatment. For example, the South West Wales Waste Hub included the City and County of Swansea Council, Carmarthenshire County Council, Neath Port Talbot County Borough Council, Pembrokeshire County Council and Bridgend County Borough Council (Ceredigion was grouped in with the Mid Wales Hub).

4.20 With regard to the Hubs, it was the intention that the constituent authorities would work together to find the most sustainable, cost effective, and practical solution for the treatment of their residual waste. However more than a decade later, there is no one regional contract encompassing all the constituent authorities, and no new regional residual waste facility has been developed. The actual contracts for the treatment/disposal of residual waste from all the authorities (in the new regional grouping of Mid & SW Wales), is set out in Table 40, below.

***Beyond Recycling* and the moratorium on large-scale Energy from Waste facilities**

4.21 In the Written Statement, *Taking action to make the circular economy a reality*, the WG stated that "Evidence from our recycling journey as a nation, as well as the accompanying reduction in waste, means we have now reached the point where we will not need any new large scale energy from waste infrastructure to deal with the residual waste generated in Wales."

4.22 With the publication of *Beyond Recycling* in March 2021, the WG therefore brought forward an immediate moratorium on any future large scale energy from waste developments, thereby ending the stance for the promotion of such development taken in the CIMSP in 2012. For the purposes of the moratorium 'large scale' is defined as plants of 10MW or greater.

The need for a new Residual Waste Facility in the Mid & SW Wales region

4.23 In March 2021, the WG published a *strategic assessment for the future need for energy from waste capacity in the three economic regions of Wales*. It was intended to provide "information to be used by developers, Local Planning Authorities and the Planning Inspectorate Wales when considering need for new, or variations of, planning permissions for energy from waste facilities and energy facilities using waste as a fuel".

4.24 The assessment replaced the strategic assessment for the need for new energy from waste capacity provided in section 2.3.4 of the CIMSP. Consequently, and in accordance with *TAN 21*: *Waste*, the Strategic Assessment represented the starting point for the determination of the need for future capacity and, accordingly, applicants are required to demonstrate that a proposal is within the capacity range identified in the *Strategic Assessment*.

4.25 The Strategic Assessment used 2 future scenarios to identify the need for new energy from waste capacity data (see Tables 38 & 39 below).

Table 38 Current levels and future projections for non-inert residual waste that can be managed in energy from waste facilities in Wales for Scenario 1.

Item	Estimated residual waste suitable for EfW by year and economic region (1,000s tonnes)								
	North			South East			Mid & South West		
	19/20	24/25	34/35	19/20	24/25	34/35	19/20	24/25	34/35
Household	125	70	45	260	180	85	125	70	50
Non-Household	20	20	20	35	35	25	10	15	15
Commercial	90	65	50	165	145	115	105	100	75
Industrial	45	30	25	65	40	30	40	25	20
C&D	10	5	5	25	15	15	20	10	10
Total residual	290	190	145	550	415	270	300	220	170
Available operating capacity	200	200	200	425	425	425	0	0	0
Capacity gap against operational	-90	10	55	-125	10	155	-300	-220	-170

Source: Strategic assessment for the future need for energy from waste capacity in the three economic regions of Wales, Welsh Government, March 2021.

Table 39 Current levels and future projections for non-inert residual waste that can be managed in energy from waste facilities in Wales for Scenario 2.

Item	Estimated residual waste suitable for EfW by year and economic region (1,000s tonnes)								
	North			South East			Mid & South West		
	19/20	24/25	34/35	19/20	24/25	34/35	19/20	24/25	34/35
Household	125	80	70	260	210	130	125	85	70
Non-Household	20	20	25	35	35	35	10	15	15
Commercial	90	75	70	165	165	150	105	105	100
Industrial	45	30	25	65	40	40	40	25	25
C&D	10	5	5	25	15	15	20	10	10
Total residual	290	210	200	550	465	370	300	240	220
Available operating capacity	200	200	200	425	425	425	0	0	0
Capacity gap against operational	-90	-10	0	-125	-40	55	-300	-240	-220

Source: Strategic assessment for the future need for energy from waste capacity in the three economic regions of Wales, Welsh Government, March 2021.

4.26 From Tables 38 & 39, the range of estimated capacity gaps for residual waste suitable for energy recovery by each region for 2034-35 was as follows:

- North Wales: 0 thousand tonnes per annum of under/over – capacity to 55 thousand tonnes per annum of over-capacity
- South East Wales: 55 to 155 thousand tonnes per annum of over-capacity.
- Mid & South West Wales: 170-220 thousand tonnes per annum of under-capacity.

4.27 The capacity gap figures provided reflected the current status of operational capacity of energy from waste plants in Wales. The figures will naturally change if any of the sites with existing planning permission translate this into on the ground operational capacity.

4.28 Notwithstanding the capacity gap, the Strategic Assessment Paper nevertheless highlights and describes the implications of the moratorium on large scale energy from waste set out in *Beyond Recycling* and which was put into immediate effect in the Ministerial Written Statement issued on 24 March 2021: The moratorium means the WG does not consider there to be a need for any new large scale energy from waste plants of 10MW or greater. In addition, small scale energy from waste plants of less than 10MW will only be allowable if the applicant can demonstrate need for such a facility for the non-recyclable wastes produced in the region. Any new small-scale facilities must also supply heat, and where feasible, be carbon capture and storage enabled or ready. This would therefore mean a small scale plant would not be allowable if waste is to be imported from outside of the proposed region (unless in close proximity to a region), in order to also avoid locking in transport emissions and associated pollution.

4.29 In the case of the Buttington ERF proposal (see para. 4.17), the applicant referred to the WG's Strategic Assessment and cited the proximity principle in dictating that the under-capacity identified in Mid & SW Wales must be addressed through an appropriately sited facility. They went on to argue that their proposed development is positioned in a central location at the junction of the three economic regions meaning it is ideally located to deliver the additional capacity required, particularly for Mid & SW Wales (the only region in Wales without any operational EfW capacity). The subsequent refusal of this development shows how the new WG stance on large scale EfW schemes is taking effect.

4.30 Another important factor to bear in mind when addressing the need for a new residual waste treatment facility to serve the Mid & SW Wales region is **existing contracts**. Table 40 below indicates that authorities within the Mid & SW Wales region have already got contracts in place to deal with their residual waste, most utilising facilities outside of the region. Consequently, and notwithstanding the Strategic Assessment's conclusions of the under-capacity within the region, this raises questions as to the need for a new facility if the source material is already bound elsewhere on long terms contracts. With an insufficient supply of source material from within the region it will be difficult to make a potential scheme viable. The Buttington proposal had considered this issue, however it was anticipated that some of the source material would be derived from outside the Mid & SW Wales region.

4.31 Questions surrounding the availability of source waste has already contributed to the refusal of residual waste treatment schemes within the Mid & SW Wales region in recent

years. For example, an application for an EfW facility in Carmarthenshire was refused partially due the fact that it was considered that there was insufficient availability of waste from within in the region (commercial and industrial) in order for it to operate to the capacity stated in its proposal. Furthermore, the local authority in its determination of the application took into consideration the fact that local authorities in the region are signed up to existing food waste and residual waste contracts. The availability of waste from municipal sources was therefore also considered to be limited.

4.32 These factors would suggest that at the present time the management of residual waste in the Mid & SW Wales region is being adequately catered for, and that no new capacity is required. The authorities within the region have already engaged in contracts, some of which involve their residual waste being transported outside the UK for treatment. Generally, there is a lot of waste processing capacity in Europe and consequently those authorities who are sending their residual waste to Europe have found that it is more cost effective to do so than sending it to facilities within Wales or England. Hence the economic case for creating further capacity within the region is further weakened. However, with the uncertainty surrounding Brexit, the future of such contracts might have to be carefully considered. There has previously been a regional over-reliance on EfW facilities in Europe as a destination for the Mid & SW Wales region's residual waste. However, new arrangements, such as those in Pembrokeshire (see Table 40), are resulting in more of the region's residual waste remaining within Wales.

4.33 Other issues can have knock on effects in respect of the residual waste situation within the region. Table 40 below highlights the contract details that the constituent authorities have engaged in. It points to the changes that can occur on a yearly basis, as well as the reliance upon facilities outside the region. What is clear however, is the increasing reliance upon EfW [albeit outside the region], in favour of landfill, is positive both in terms of heading towards the 2025 target of as close to zero landfill as possible, as well as extending the life of the remaining landfill voidspace, which could potentially be utilised when required in the future e.g at times of contingency such as when energy from waste facilities are closed for maintenance/repair etc, and for certain elements of municipal waste that cannot be disposed of by thermal treatment.

Table 40 Residual Waste Procurement Projects – Mid & SW Wales Region

Project Name	Partner Authorities	Status of Procurement	Facilities Developed	Residual Waste Treatment Capacity
Welsh Government Residual Programme				
South West Wales Residual Waste Project	Carmarthenshire; Pembrokeshire; Swansea Ceredigion. NPT not party to the Feasibility Study.	A feasibility study into a potential thermal treatment facility for waste for SW Wales was completed. However no scheme was taken forward.	None to date.	N/A

Residual waste – Procurement Status				
	PCC	Contract to send residual waste to the Viridor EfW facility in Cardiff.	Reliance on a facility outside the Mid & SW Wales region.	N/A
	Ceredigion	Currently being treated by energy from waste.	Reliance on a facility outside the Mid & SW Wales region.	N/A
	NPT (&Bridgend)	Current arrangements in place. Both NPT and Bridgend deliver residual waste to NPT's facility at Crymlyn Burrows, from where it is transferred for off-site treatment and disposal. Current arrangements due to expire 2030.	Utilises the existing facility at Crymlyn Burrows NPT. Off-site treatment and disposal at various facilities in the Mid & SW Wales region and beyond.	N/A
	Carmarthenshire	Contract with CWM Environmental Ltd for sorting; with residual waste going to EfW facilities in Europe & UK and a small amount being landfilled within and outside the region.	Utilises facilities outside the County (both within & outside the Mid & SW Wales region)	N/A
	Powys	A new contract has ensured that all material now goes to EfW via Potters Waste Management	All material goes to EfW in the UK, but outside of the Mid & SW Wales region.	N/A

	Swansea	Contract with Enovert to landfill the waste expired Feb 2022. New solution utilises EfW.	Some waste will initially go to NPT before processing and being sent to EfW facilities in the UK or Europe. Some waste will go straight to an EfW facility in England.	N/A

Source: information provided by the individual local authorities.

The future of residual waste treatment in the Mid and SW Wales region

4.34 As already stated, there is no regional treatment facility for residual waste in the Mid & SW Wales at present. The City and County of Swansea was the lead authority for procurement of a long-term contract, involving the WG, for the treatment of residual waste in SW Wales. However, the process concluded when it became apparent that the WG would not support the region in the development of a new thermal treatment facility. The publication of *Beyond Recycling* with its moratorium on large scale EfW facilities was published shortly after.

4.35 The stance of the WG is therefore clear. As we have seen with the recent refusal of the Buttington application, new EfW facilities in Wales are not deemed necessary, with the WG emphasis being firmly on reducing residual waste to meet the 2050 target, increasing recycling, and preventing waste at source.

4.36 For another recent example we can look to the South East Wales region where the WG's stance was also firmly emphasised in the refusal of the 200,000 tonnes-per-year Môr Hafren Bio Power EfW plant near Cardiff. The Plant, which would primarily have used residual industrial and commercial (I&C) waste materials was refused by the Planning Inspector who, in addition to objections relating to "insufficient need" and "ecological harm", cited that it was contrary to the WG's waste reduction plans. The Inspector found that waste reduction policies could see residual household waste arisings in South East Wales fall to levels that could be managed in existing EfW facilities – in particular, the existing Trident Park facility in Cardiff who's capacity for I&C residual waste will increase instead, resulting [according to the Inspector] in an insufficient need for an additional facility.

4.37 The situation in respect of the future management of residual waste within the region will continue to be closely monitored in future WPMRs.

5. MONITORING THE REGION'S FOOD WASTE

The UK and Wales position

5.1 As is the case with Industrial & Commercial (I&C) and Construction & Demolition (C&D) waste, there is no consistent annual reporting of food waste arisings in the UK or Wales, other than that collected by local authorities for composting (see Table 43 below). However, the Waste and Resources Action Programme (WRAP) has published data on household food waste (HHFW) regularly since 2007. Studies published in 2013 and 2017 estimated annual food waste arisings within UK households, hospitality and food service, food manufacture, retail and wholesale sectors at around 10 million tonnes.

5.2 By weight, household food waste (HHFW) makes up 70% of the UK post-farm-gate total, followed by manufacturing 17%, hospitality and food service 9% and retail 2%.

5.3 WRAP's 2017 Study found that at the UK level, there has been no statistically significant change in the estimated levels of HHFW between 2012 and 2015, and that the Courtauld 3 target to reduce HHFW by 5% by 2015 compared to 2012 had not been achieved.

5.4 The Report did however point out that there is evidence that levels of HHFW are lower in Wales than the rest of the UK. In Wales, the amount of HHFW per person in 2015 was significantly lower – by around 9% – compared to the average for the UK. In addition, between 2009 and 2015 there was a 12% decrease in the amount of HHFW in Wales (again, a statistically significant change).

5.5 Table 41 provides data for Wales for 2009 and 2015. For reference, the 2015 UK estimate for the same waste streams is 73.1kg / person / year.

Table 41: Household food waste in Wales for 2009 and 2015. Data for HHFW collected by local authorities (residual and collections targeting food waste) expressed on per person basis.

	HHFW (kg / person yr)			Change	
	2009	2014	2015	Kg / person / yr	%
Wales	75.4	n/a	66.2	-9.2	-12.2%

Source: WRAP, Household Food Waste in the UK, 2015 (January 2017)

5.6 The Report goes on to say that potential reasons for the above figure include Wales having lower income levels than the rest of the UK (which might provide a greater motivation for action); having more widespread and better used separate food waste collections (which could have helped raise awareness of the amounts wasted); differences in interventions made to help reduce HHFW; cultural differences relating to food, or a combination of all or some of these. The Report adds that further research is needed to better understand this, and identify any lessons that could help reduce further HHFW across the UK.

5.7 Further progress on tackling food waste is set out in the Courtauld Commitment 2025 Milestone Progress Report - published by WRAP in January 2020. This reveals that households and businesses have accelerated their efforts to drive down food waste, with a 7% reduction (480,000 tonnes) from 2015 to 2018. This was a greater rate of progress than

over the preceding five years. The report also shows a significant 7% reduction in the greenhouse gases associated with the food and drink consumed in the UK over this period.

5.8 Further information is published by WRAP in their *Food Waste Reduction Roadmap Progress report 2022*. The Roadmap supports delivery of the Courtauld 2030 food waste target and the UN's Sustainable Development Goal (SDG12.3), through providing guidance and resources to all food businesses. The Roadmap covers all main sectors (production, manufacture, retail and hospitality and food service), with ambitious and measurable milestones, to help halve UK food waste by 2030. Since the launch, the number of organisations committed to the Roadmap has more than almost quadrupled, from 90 to 351. The report highlights that whilst the majority are larger businesses, an increasing number of SMEs have also committed to the Roadmap (52 in 2022, up from 30 in 2021) showing greater awareness of and incentive to commit to the Roadmap for businesses no matter what their scale or resources.

Redistribution of surplus food

5.9 The 2022 report emphasises the importance of redistributing surplus food to reducing the amount of food that ends up as waste. Drawing on data from UK redistribution organisations, in July 2022 WRAP reported that the amount of surplus food redistributed in 2021 was over 106,000 tonnes, and that between 2018 and 2021, there was a 91% increase in the tonnage of food surplus redistributed.

5.10 Data from businesses implementing 'Target, Measure, Act' revealed that they redistributed over 51,000 tonnes more food between them in 2021 than in 2018, an increase of 150%. This food had a value of over £120 million and would have provided the equivalent of over 123 million meals. However, even with these positive increases, WRAP estimates that there is still potential to redistribute around 170,000 to 200,000 tonnes more from the retail, manufacturing and hospitality and food service sectors. There are extensive resources from WRAP and IGD aimed at realising this potential.

The Mid & South West Wales region

Background

5.11 The initial procurement hub for food waste included the same authorities as for residual waste within the SW Wales region. Following an initial investigation by the partnership bodies making up the SW Wales Hub into alternative environmentally friendly ways to treat food waste, Anaerobic Digestion (AD) was chosen as the preferred technology.

5.12 The Welsh Government (WG) consider that AD technology has a greater potential to have a positive impact on climate change than other food waste treatment technologies. AD can help positively address climate change by reducing greenhouse gas emissions and generating renewable energy. The WG initially created a capital and revenue financial support package for local authorities wishing to adopt AD technology.

5.13 In terms of the SW Wales waste site procurement process, Nantycaws (Carmarthenshire) and Velindre (Swansea) were reference sites. Carmarthenshire made some progress by gaining planning permission for an AD plant at Nantycaws, but this has not been developed and until recently the authority processed its food waste (along with garden waste) at its In-Vessel Composting plant at Nantycaws. Ultimately, as in the case of residual waste, no region-wide scheme involving all the constituent authorities was established for the treatment of food waste.

Recent activity in respect of Food Waste in the Mid & SW Wales region

5.14 Appendix 6 sets out the amount of new AD applications received and processed since April 2015. Initially, there had been a lot of waste disposal activity for AD plants. This was linked in to financial support mechanisms such as the Feed-in Tariffs (FITs), as a product is renewable energy. FITs were intended to encourage the provision of small-scale low carbon electricity, and AD facilities with less than 5MW (5000kw) capacity, completed after 15 July 2009 were eligible.

5.15 A number of applications for smaller AD schemes on farms had been received, particularly in the more rural counties in the Mid & SW Wales region. Some larger schemes have also been submitted; Severn Trent Green Power's AD facility in Stormy Down near Bridgend, for example is able to process 40,000 tonnes of food and organic waste and generate approximately 2.4 MW (2,400 KW) of renewable energy per annum. As can be seen from Table 42 below, the Stormy Down facility now takes the food waste from many of the authorities in the Mid & SW Wales region to some degree. However, it must be noted that with the change in regional structure to align with the three economic regions, the Stormy Down facility is now located outside the Mid & SW Wales area.

Table 42 Local Authority Food Waste Projects: Food Waste - procurement status

Project Name	Partner Authorities	Status of Procurement	Facilities Developed (or utilised)	Food Waste Treatment Capacity[17]
South West Wales Hub	Carmarthenshire, Pembrokeshire, Swansea, Neath Port Talbot, Bridgend	A regional procurement exercise did initially progress to an advanced stage before ending. Since then there has been no further progress for the group as a whole.	None as part of the South West Wales Hub.	N/A

[17] No capacity in terms of a regional facility. There are some small-scale capacity AD plants (essentially farm based), but these are not utilised by the local authorities in the processing of their LACW food waste.

Central Wales Hub	Ceredigion and Powys	A regional procurement exercise did initially commence, but there has been no further progress on establishing a facility within the region.	None as part of the Central Wales Hub.	N/A
	Regional hub comprising Ceredigion, Powys and Pembrokeshire	15 year Contract awarded to Severn Trent Green Power	Use of Private Sector Scheme: at one of three Severn Trent Green Power Ltd facilities (Parc Stormy, Bridgend; Cassington, Oxfordshire and Roundhill, Stourbridge	N/A
-	Swansea and Bridgend in partnership	Both authorities started a long-term contract (15(+10) years in 2017 with Severn Trent.	Use of Private Sector Scheme: Severn Trent Green Power AD facility in Bridgend	N/A
-	Carmarthenshire	Food waste delivered to CWM Environmental Ltd Nantycaws site from where it is transferred to off-site AD	Use of Private Sector Schemes: Currently processed by AD at Severn Trent Green Power facilities in Bridgend, Wallingford and Cassington	N/A
-	Neath Port Talbot	Food waste delivered to the	Utilises the existing facility at	N/A

		Council's waste facility at Crymlyn Burrows, from where it is transferred to off-site AD	Crymlyn Burrows in NPT for transfer. Treatment is subject to off-take contracts. Currently processed by AD at various Biogen facilities including the facility at Bryn Pica, in neighbouring LA, RCT.	
	Pembrokeshire	Food waste transferred to off site AD	Currently processed by AD at Severn Trent Green Power facility in Bridgend.	N/A

Source: information provided by the individual local authorities

Assessing the current need for Food Waste Treatment

5.16 With much of its food waste currently being managed at one facility outside of (but close to) the Mid & SW Wales region, the following questions need to be raised:

- Is there a need for any new facilities within the region?
- Would there be sufficient throughput capacity to sustain any new facilities, or would food waste need to be sourced from outside the region?

5.17 Importing waste from outside the region could be viewed as contrary to the sustainability principles, such as the proximity principle, contained within *Towards Zero Waste*. Furthermore, multiple schemes involving contracts with companies or local authorities outside the region could be argued as being contrary to the WG's initial aim of establishing a procurement hub comprising all the authorities within a region.

5.18 Based on the three Welsh regions in TAN 21 (North, SE and SW Wales), the CIMSP (2010) estimated that somewhere between 400,000 and 494,000 tonnes of total food waste treatment capacity would be required by 2024/25. As an indicative comparison, the figures for SW Wales are used here. Based on the assumption that the percentage split of food waste arisings across Wales (SW Wales 20% of total food waste arisings) can reasonably be applied to the residual element, it would translate into a capacity requirement for residual local authority collected food waste of between 38,400 and 47,400 tonnes in SW Wales, with

a further 28,800 - 35,560 tonnes for commercial. However these are estimates, and as stated above, there is little up to date data on food waste arisings from all sectors, other than the annual amounts collected by local authorities for composting.

5.19 The actual amounts of local authority food waste collected for composting is published annually for all 22 unitary authorities (see Table 43 below for those in Mid & SW Wales).

Table 43 Amounts of local authority food waste collected for composting

Authority	15/16	16/17	17/18	18/19	19/20	20/21	21/22
Powys	5,308	5,617	5,516	5,644	5,933	6,342	6,342
Carmarthenshire	7,909 mixed garden & food	2,840	6,630	7,074	8,342	9,970	9,550
Ceredigion	2,653	2,667	2,606	2,779	3,228	3,644	3,651
Pembrokeshire	4,882	4,925	5,036	5,353	7,161	8,702	8,435
Neath Port Talbot	4,798	5,135	5,089	5,177	5,822	6,557	6,257
Swansea	10,142	10,596	11,702	12,343	13,935	15,038	14,695
Mid & SW Wales Total	**35,692**	**31,780**	**36,579**	**38,370**	**44,421**	**50,253**	**48,930**

Source: StatsWales, Annual waste collected for reuse/recycling/composting (tonnes) by material and source

5.20 The amounts of local authority food waste collected for composting has been generally increasing, with the most recently reported figure just under 49,000 tonnes. This figure lies close to the range set out in paragraph 5.18 above regarding the estimated food waste treatment capacity for LACW that would be required for the SW Wales region by 2024/25. However, it does not include the additional capacity that would potentially be required for industrial and commercial (I&C) wastes.

5.21 Notwithstanding the lack of up to date data on the amounts of food waste produced annually (in terms of all food waste sectors), what is clear from the information in Table 42, and the information provided by the individual local authorities (Section 6, below), is that contracts are in place to deal with much of the local authority food waste produced within the Mid & SW Wales region and much of this being dealt with by one private facility [or others owned by the same company] - Severn Trent Green Power's AD facility near Bridgend. It is worth noting also that Bridgend County Borough Council has approved amendments to the AD facility near Bridgend to allow an increase in the tonnage of food waste accepted at the site to 95,000 t/pa.

5.22 It is clear that the current needs of local authority collected food waste in the Mid & SW Wales region is being catered for, with local authorities engaged often in long-term contracts. In terms of the possible future requirement for new AD facilities within the region, any company that might consider such options would therefore need to investigate whether there would be sufficient material within the region to make the proposal viable, in possibly focusing on other potential sources such as food waste such as from the industrial and commercial sectors. However, establishing a new facility and sourcing the waste from outside the region would be contrary to the principles of *TAN 21*.

6.0 LOCAL AUTHORITY: CURRENT SCHEMES AND PLANNED PROCUREMENT PROGRAMMES

6.1 The following information has been provided by colleagues within the six local authorities comprising the Mid & SW Wales region and consequently varies in its coverage and detail. National park authorities do not have responsibilities in relation to waste collection and disposal (TAN 21 para 1.7), consequently the two national parks situated within (or partially within) the Mid & SW Wales region are not covered in this section.

PEMBROKESHIRE COUNTY COUNCIL (PCC)

Current and Planned Procurement Programme:

6.2 Note: PCC is the waste collection authority for the County as a whole, including the Pembrokeshire Coast National Park Authority.

Kerbside Scheme

6.3 PCC is now into its 4th year of Service Change, 3 weekly residual collection and weekly kerbside sort recycling collection.

Recycling

6.4 Upon the implementation of the waste changes in November 2019 the Kerbside Recycling Collection Service moved to a kerbside sort recycling service with a weekly collection. This involves the collection of separated glass, food waste, cardboard, paper, household batteries and the collection of mixed metal food and drink packaging (i.e. cans, tins, foil and foil trays), mixed plastic bottles, pots, tubs and trays and food and beverage cartons.

6.5 These materials are bulked at PCC's Interim Waste Transfer Station at Pembroke Port, before prior transportation to recycling facilities across Wales and the UK. The Waste Transfer Station is an interim facility due to development plans for the Port surrounding Marine Energy and the Swansea Bay City Deal.

6.6 PCC has now secured planning for a long term replacement transfer station, Eco Park located on the outskirts of Milford Haven. The facility will enable materials collected across Pembrokeshire to be bulked sorted and stored prior to onward transfer to processing and disposal facilities across Pembrokeshire. Works for the Eco Park commenced at the end of February 2023, with the plan for it to be fully operational by June 2024. The new Eco Park has been designed with a visitor and education centre for the ongoing engagement of residents, local businesses, schools and supply chain and will provide a platform for the promotion of the ongoing need for good quality materials to support the circular economy in Wales.

6.7 Since the change in 2019, the service has a small number of properties which remained on a comingled based service of separate food and glass recycling collections and a dry mixed recycling comingled (Orange) bag collection – this is mirrored for commercial collections. However since this time, a review has been undertaken surrounding the future service provision for these properties to move to source segregated recycling collections in line with the Environment Act and Welsh Government preferred collection method, and the awaited business recycling regulations due in 1st October 2023. We are currently working on moving the smaller blocks of flats onto kerbside sort with the option of using the existing kerbside kit, quad bags or purpose built recycling frameworks for communal source segregation subject to space availability. We envisage the larger blocks of flats to be rolled out later in the year.

6.8 The small amount of dry mixed recycling (orange bags and commercial recycling) collected is currently processed via CWM Environmental Ltd, Carmarthen.

6.9 Along with the Service change in 2019, the service has also operated a fortnightly absorbent hygiene products (AHP) kerbside collection service for households which have subscribed to the service. This material is bulked in Pembrokeshire before onward transportation to NappiCycle in Ammanford, Carmarthenshire to be processed and recycled.

Household Waste and Recycling Centres

6.10 The Authority has 6 waste and recycling centres. All sites offer the typical suite of separated recycling provision common to HWRCs, with small nuances between sites. A plan of each site, setting out the location of each skip (in order for people to load their cars accordingly in advance of their visit), is available to view/download on the Council's website.

6.11 In recent years, PCC has invested heavily in these centres by upgrading them to accommodate more waste streams and also through intensive staff training.

6.12 All sites are closed for 2 days a week during the winter months, but closure days vary to ensure that some sites are open on each day.

Food waste

6.13 PCC is part of a regional hub comprising three local authorities, including Ceredigion and Powys. The contract is with Severn Trent Green Energy, who process the material at their Anaerobic Digester facility at Stormy Down, Bridgend. The food waste is firstly bulked at PCC's Waste Transfer Station at Pembroke Port before onward transportation to the AD facility.

Residual waste

6.14 Collections moved to a restricted basis of 3 Council provided grey bags collected every three weeks. From April 2023 households will no longer be provided with grey bags. This material is then bulked at PCC's interim waste transfer facility at Pembroke Port. This residual waste is contracted to Viridor at their Energy from Waste (EfW) facility at Trident

Park, Cardiff. This contract commenced on 12/12/18 for 8 years with the option to terminate after 5 years with 6 months' notice.

6.15 Bulky residual waste, unsuitable for treatment via Energy from Waste, is landfilled at Withyhedge Landfill Site, this contract is currently in place until 31 May 2024. The contract includes a contingency arrangement for increased requirements for landfill i.e. during EfW maintenance periods and for bulking of residual and recycling materials if required.

Green waste

6.16 PCC operates a chargeable garden waste kerbside collection service from March to November. This material once collected from households across Pembrokeshire by PCC is processed and recycled at Lawrence Landfill, Haverfordwest.

Digital Tracking of Waste from Collection to Disposal

6.17 PCC is the first authority in Wales to transfer over to Opensky Waste Data Management System. A digital solution to facilitate the tracking of waste from collection to disposal with accurate tracking results for reporting, planning and decision making purposes. This is a unique custom built cloud based system allowing for the gathering, transformation, management and reporting of data relating to the movement of waste from collection to disposal on one digital platform.

Future Plans

6.18 Following the introduction of the new household recycling and waste collection service in November 2019, Pembrokeshire is now Wales' top recycler. To support the kerbside collection service, as stated above the Council has been operating an interim facility at Pembroke Port (Units 29 & 41). However, due the temporary nature of the facility, future plans at the site, and to allow the Council to continue to further increase recycling capabilities, land was identified at a site on the edge of the Puma Energy complex near Milford Haven, as a suitable site for a permanent Eco Park for Pembrokeshire. The first four phases of the eco-park have gained planning permission, comprising a recycling transfer facility, vehicle and staff parking area, residual waste and recycling facility, and publicly accessible waste and recycling facility.

6.19 The proposed development is essential to ensure the Council can continue to provide the statutory services surrounding Waste and Recycling Collections across Pembrokeshire. The facility will enable materials collected across Pembrokeshire to be bulked, sorted and stored prior to onward transfer to processing and disposal facilities across Wales and the UK. The proposed site will not only future proof the waste facility but will ultimately allow the interim arrangements in Pembroke Dockyard to be concluded and the Winsel recycling facility to be closed.

CEREDIGION COUNTY COUNCIL

Current and Planned Procurement Programme:

Food waste

6.20 Food waste is separately collected weekly and this service is also offered county-wide. The food waste is treated by Anaerobic Digestion (AD) under a contract with Severn Trent Green Power Ltd (procured regionally by the Central Wales Waste Partnership). The contract started in 2012, for a 15 year term. The material goes to STGP's AD facility at Stormy Down, Bridgend.

Residual waste

6.21 This is currently collected 3-weekly. This waste is currently treated by Energy from Waste.

Kerbside schemes and Bring sites

6.22 Kerbside recycling is offered to 100% of households and commercial customers. Dry recycling (paper, card, cans and plastic) is collected weekly co-mingled in sacks and sorted at a MRF. Glass bottles and jars are collected at the kerbside 3-weekly.

6.23 Garden waste is collected on request (at most fortnightly) and this service is chargeable.

6.24 Four Household Waste Sites offer recycling facilities for a wide range of material types.

Future Provision

6.25 Private energy-from-waste and AD facilities may be developed, but they will typically be at a small scale – e.g. serving individual factories or farms. The Ceredigion LDP identifies a site for a regional waste facility at Glan-yr-Afon, Aberystwyth. This site is no longer required to serve as a potential site for the location of a regional waste facility, however it may still be required to meet any local requirement that there might be for resource recovery and waste management facilities.

CARMARTHENSHIRE COUNTY COUNCIL

Waste Service Profile

6.26 The Waste Section is based in Carmarthen and led by Head of Waste and Environmental Services and comprising of four sections, Waste Strategy & Policy, Waste Refuse Operational, Cleansing and Grounds Maintenance and Waste Enforcement.

6.27 Carmarthenshire provides a weekly kerbside collection of food waste and dry comingled recycling with a three weekly collection of kerbside black bag residual waste and glass contained in a kerbside box. The vehicles in the fleet collect dual streams for dry recycling and food kerbside collections with the food in pods separated from the recycling bags. There are dedicated vehicles for the separate collection of residual waste and glass.

6.28 The Council's Waste Collection Vehicles deposit waste collected on their daily rounds at the following depot/bulking up points:

Carmarthen – Nantycaws facility
Llanelli – Trostre facility
Ammanford – Wernddu facility
Plot 15 (Glass only)– Trostre Industrial Estate

6.29 Carmarthenshire is part of a regional contract for the recycling of textiles & media via Wilcox and Goldstone Books and WEEE and household batteries via ERP.

Kerbside Recycling and Residual Collection

6.30 The Council operate an unlimited comingled blue bag recycling service, collected weekly with food waste, and residual black bags and glass jars and bottles collected every three weeks. Black bags have an allowance of three black bags per collection. For those that require exemptions i.e. families of six or more and special circumstances, residents must apply via an online form and submit an application that is processed and authorised, which allows for the use of up to one additional black bag that must have an exemption sticker to identify it. Residents who produce coal ash are allowed an unlimited placement of black residual bags, but these must only contain ash and be individually stickered. CWM Environmental Ltd is a Teckal company and owned by Carmarthenshire County Council. They bale materials for reprocessing, with the County's residual waste being sent to energy from waste (EFW) facilities in Europe & UK and a small amount being landfilled at more local landfills. The blue bag recycling materials are currently transferred to sorting facilities in Ireland and sold onto reprocessing plants in the UK, European and Non-European countries.

6.31 In addition to the kerbside collection of dry recycling, food, glass and residual waste, the authority also collects absorbent hygiene products and nappy waste, every fortnight in purple bags. This is a free subscription service and residents can place these bags on dedicated days for collection. The authority also provide for the collection of green waste from 240 litre wheeled bins which is a subscription service with an annual fee.

6.32 During the autumn and winter all households in Carmarthenshire receive a delivery of three rolls of blue recycling bags. This equates to 156 bags, an average of six bags per collection week. As the number of blue bags that can be presented is unlimited, residents can visit designated collection points to obtain more blue bags. The annual delivery provides a more accessible service, with bags being delivered to households rather than residents having to collect. This enables the resident to recycle more and reduce the residual black bag waste. The Council has 17 outlets which stock blue bags and which are listed on the authority's website. Positioning the outlets in venues such as shops allows for residents to obtain more if required whilst undertaking their grocery shop and in line with the

government guidelines. Additional provisions are also supplied by the delivery service to assist those that were housebound or shielding.

Household food waste collection

6.33 Residents are supplied with a free 5 litre brown kitchen caddie and 23 litre green kerbside bin for the weekly collection of food. Free replacement containers are supplied on request. In certain locations a 'survival' compostable liner for the 23-litre green kerbside bin is supplied free of charge to allow for a co-mingled collection on a 3.5t cage vehicle. Households serviced by the 3.5t cage vehicle also receive a years supply of the larger 30 litre and smaller 7 litre compostable liners along with blue bags. The 7 litre liners are delivered like the recycling bags in a pack of three rolls comprising of 156 bags, averaging at a provision of around three per week. Householders who also receive the 30 litre liners receive two rolls comprising of 52 bags. Additional liners can be obtained at outlets and via our delivery service that issue out to individual households when required.

6.34 Food waste is delivered to either Wernddu, Trostre and Nantycaws. Wernddu and Trostre are bulking facilities and the food is then hauled to CWM Environmental at the Nantycaws site, from where it is transferred off-site to Severn Trent Green Power's AD plants, based in Bridgend, Wallingford and Cassington.

Household garden waste collection

6.35 The Council operates a fortnightly, chargeable garden waste bin service. 2021 season saw an increase in garden waste customers because of the restrictions with the Covid-19 pandemic, however this was mitigated to some extent by the opening of the HWRCs and disposal of green waste at these facilities. Garden waste custom has stayed fairly consistent since the pandemic ended. Garden waste customers have subscribed to purchase the hire of one or more 240 litre garden waste bin for the season.

6.36 Households continue to be encouraged to home compost by purchasing a compost bin for £13 (from April 1st) or alternatively take the garden waste to their local HWRC where possible. The garden waste is processed at Nantycaws via CWM Environmental's composting windrow and bagged into Merlin Magic compost or soil conditioner.

Hygiene & Clinical Waste Collection

6.37 The Council provides a kerbside collection of hygiene waste (Category E) to approximately 1,800 residents throughout the County. Residents have to subscribe to this free of charge service, which is treated at the Nappicycle facility in Capel Hendre. There is also provision for this material to be collected and treated from the Council's care homes, day centres and education establishments catering for special needs. A recycling rate of over 60% is achieved mainly through recovered cellulose fibres and liquids. The remainder is sent as refuse derived fuel to energy from waste plants in Europe.

6.38 Clinical waste collections (Categories A-D) are provided by the local NHS service, which is contracted to Natural UK, located at the same premises as Nappicycle

Household bulky waste collection

6.39 Our household bulky waste collection staff collect up to three items of furniture or WEEE from resident's homes for a fee. Residents can arrange a collection through contacting Carmarthenshire Direct Contact Centre Team on their requirements or through the website. Upon receipt of payment, residents are given a collection date through the electronic booking system.

6.40 As a first option Carmarthenshire Direct inform residents of charitable organisations that can provide a collection service free of charge or a reduced fee in order that items can be re-used in accordance with the waste hierarchy. Re use organisations are also listed on the bulky waste section of the waste / recycling webpages.

6.41 They also service the 13 small WEEE banks situated in a proportion of the County's bring sites where the Small domestic appliances (SDA) once collected are sent for processing as part of a regional WEEE contract via ERP. The contract is overseen by the CLAIRE Wales Regional Group.

Trade waste collection

6.42 CWM Environmental Ltd collects trade waste and also arranges the administration. The Council no longer provides a trade waste service in house but will assist any commercial premises on advice and support for commercial waste disposal in obtaining agreements as per Environmental Protection Act 1990 guidance.

Household Waste Recycling Centres (HWRCs)

6.43 Cwm Environmental Ltd, on behalf of Carmarthenshire County Council, operate 4 HWRCs within the County.

6.44 Currently the four sites are operating on a combined recycling performance of 75%. All sites offer the typical suite of separated recycling provision common to HWRCs. Cement bonded asbestos and plasterboard are also accepted but in limited quantities.

6.45 A charge is made for gas bottles, fire extinguishers and tyres – Wernddu does not accept fire extinguishers or gas bottles.

6.46 Larger quantities of plasterboard and cement bonded asbestos are taken over the weighbridge at Nantycaws and the resident charged an appropriate disposal fee.

6.47 The recycling centre has had major changes imposed on the operation of the sites because of the Covid-19 pandemic. The sites were closed in the early part of 2020 because of the first lockdown and in line with WG guidelines on public health and social distancing. An IT led appointment-based system was introduced when the first lockdown was lifted on 26th May 2020, however this has since been lifted and black bag sorting and residency checks reinstated.

6.48 These, along with permits for certain vehicles, have all proven to be a positive initiative implemented at the beginning of 2019 (albeit with a hiatus during the pandemic) to encourage further recycling of domestic waste and in-County usage of the HWRC sites.

Community Recycling Bring Sites

6.49 Carmarthenshire currently operates 121 community recycling bring sites across the County. A review of the bring sites in 2020/2021 led to paper and can banks being removed from the community recycling sites since these could be placed into the kerbside collection blue recycling bags on a fortnightly basis. Sites can vary in the recycling streams they offer such as glass, WEEE, media and textiles. Glass bank provision were enhanced at sites which have a high tonnage collected from site each week to meet requirements within the local communities. The glass is collected by the Council's in-house collection teams i.e. dedicated collection vehicles for the kerbside collections 2 x 3 compartment vehicles, 1 x hook lift lorry and WEEE bring banks are collected by our Bulky Waste Collection Teams. Materials are delivered to Trostre/Wernddu HWRCs and Transfer Stations with glass at Plot 15 in Trostre Industrial Estate and at Nantycaws. The glass is collected by hauliers on behalf of Recresco and taken to their facility in Cwmbran. A smaller proportion of glass is hauled by our own hooklift lorry on occasions.

Education & Awareness

6.50 Within the Waste Section, the Education and Awareness Team offer support and advice to the public about the combined recycling and food waste scheme.

6.51 Community Recycling Advisors work within the community to assist residents with accessing the resource and information required for them to contribute fully to the kerbside recycling scheme and support with any further recycling concerns they may have. Behavioural change techniques are used to encourage neighbours to partake like those on the same street/ in the community to recycle as much of their waste as possible. Identification work is also carried out through monitoring and analysis of tonnage data to pinpoint areas that require additional information and support to utilise the kerbside recycling scheme. Any common themes from surveys etc are used to form part of the processes moving forward to ensure that recycling is as easy as possible for all to contribute.

6.52 Social media is used alongside the Local Authority website to inform residents of changes to collection during Christmas and Bank Holiday collections, bad weather delays and to promote recycling events and press releases. Our website promotes all services offered by the Waste Collection Section and many services can be requested, reported or pre-paid on-line. A comprehensive A-Z of recycling and additional waste minimisation function 'Go the extra mile' has been developed to encourage residents to recycle all that they can and encourage reduction of waste in the first instance. This has been one of the Council's main tools to communicate with residents around the new waste changes together with on line widgets and hardcopy information packs to each householder.

Future Developments

6.53 The Authority is still working closely with WRAP Cymru on the collaborative Change Programme to understand the operation /collections disposal and treatment aspects of Carmarthenshire's future service changes. This will take into consideration infrastructure and vehicle requirements, Net Zero Carbon pledge as well as striving towards the WG Beyond Recycling and Circular Economy strategy for future generations and will result in allowing the Authority to plan for the service change in 2024 when some of the tour fleet of refuse/ recycling vehicles reach end of service. Weekly collection of blue bags and food together with three weekly collections of kerbside glass and black residual bags, commenced on the 23rd January 2023. In 2024/25 the WG blueprint of kerbside sort will commence with the weekly separate collection of all recyclable commodities. At this point glass collections will also revert to weekly collections.

6.54 Following the 2019/2020 Welsh Government capital funding round, the hygiene waste collection, which was originally contracted out, was brought in house in 2021 with a view to the kerbside collection of nappy waste being added in the Spring of 2022. The grant allowed for the purchase of four AHP vehicles and work in setting up IT application services and new treatment contracts to take on the collections in house. This service allows residents with young children, to remove nappy waste from their black bags, superseding the exemption sticker process. Purple bags are issued for the service and the collections made fortnightly. The waste product is collected by the Authority and transported to Nappy Cycle in Capel Hendre to be processed and whereby a percentage of the product can be recycled as opposed to processing via an energy from waste process. Other establishments within the Authority such as social care and education, can also benefit from this contract with Natural UK, and are provided with weekly collection and treatment of hygiene waste using bags decanted into wheeled bins.

6.55 An overview after the fourth year of the garden waste service has taken place and an additional fourth vehicle has been implemented for the start of 2021/2022 season. This will allow further expansion of the service allowing more customers to subscribe and join the payable service. Resulting in additional diversion of Biodegradable Municipal waste from landfill to meet targets and enhance the compostable material contribution to the percentage recyclable targets.

6.56 A recent Welsh Government Circular Economy grant and successful bids has allowed Carmarthenshire to start on our repair and reuse journey. A reuse village was established at Nantycaws in the late summer of 2022, whereby residents donate their waste items at donation stations at the HWRCs for repair or reuse at the Eco village. This move is to ensure that all products that can be recycled will have a reuse opportunity, reducing waste tonnages through repair and reuse. The centre at Nantycaws also has an education centre, and workshops will be held to promote repair and reuse within the community as the preferred method prior to recycling and disposal in line with the waste hierarchy. The Council has also opened a reuse shop in Llanelli town centre in February 2022 which allows people to purchase items at an affordable price whilst reusing an item that in the past would have been thrown away.

6.57 A commercial waste recycling facility has also been developed at Nantycaws which opened before Christmas 2022. This focusses on providing an outlet to the business sector of Carmarthenshire for the recycling and re-use of their waste by sorting and segregation of waste to the appropriate recycling recovery markets for use in the creation of sustainable products working towards the circular economy ambitions of Welsh Government. Thus, to significantly increase recycling capture from the business sector and enable business within the community to take collective action. In providing this facility, the Council seeks to create the conditions for businesses to seize the opportunities to recycle and re-use more of their waste, to reduce their carbon footprint, and become more resource efficient. This will enable local businesses to save money on disposal costs to become more resilient and achieve positive environmental outcomes. It will also provide a facility for businesses when they will be required by law to segregate their recycling in line with the domestic sector. This legislation is expected to become law in the Autumn of 2023.

NEATH PORT TALBOT COUNTY BOROUGH COUNCIL (NPTCBC)

Current and Planned Procurement Programme:

Current Schemes

6.58 Neath Port Talbot County Borough Council's municipal waste strategy is aligned to the Welsh Government's Collections Blue Print as far as meets local needs, and aims to achieve Welsh Government's statutory targets for recycling and composting. The strategy will be delivered primarily through: kerbside recycling; household waste and recycling centres; and the treatment of residual waste.

6.59 The Council attends the periodic regional cabinet members for waste meetings.

Residual Waste

6.60 As part of a long-standing sub-regional arrangement, NPT and Bridgend CBC deliver their residual waste to NPT's waste facility at Crymlyn Burrows. The Council remains part of the South West Wales Regional Waste Committee which has been superseded by the more general regional cabinet members for waste meeting.

6.61 The Council's residual waste collected at the kerbside is delivered to its facility at Crymlyn Burrows from where it is transferred off-site for treatment and disposal. The facility is now run in-house and the Council is utilising the former short-term arrangements for disposal to Energy from Waste (EfW) and landfill, prior to completing its own procurement.

6.62 The Council has no direct landfill contracts, however there is a need for landfill in respect of residual waste both in terms of contingency (EfW facilities closed for maintenance/repair etc) and certain elements of municipal waste.

Kerbside Recycling

6.63 The Council operates a kerbside sort recycling service wherever possible across the County Borough. Recyclables are collected in reusable sacks and boxes.

6.64 The Council operate a fortnightly residual waste collection; provides 140 litre bins to all households on wheeled bin collections (about 12% of the Borough are on bag collection); and restricts side waste.

6.65 Commercial waste collections, where undertaken by the Council, include compulsory recycling and offers the collections of the same recyclables as the domestic service.

6.66 Recyclables collected at the kerbside are delivered to the Council's facility at Crymlyn Burrows.

6.67 The Council currently enters into short-term arrangements for the onward processing of recyclables as required to maximise income, currently utilising treatment and reprocessing facilities within and beyond the Mid & SW Wales region.

Household Waste and Recycling Centres (HWRC)

6.68 There are currently two HWRCs in the County Borough which are managed under contracts by a private sector service provider. The onward processing or disposal of all materials delivered to these centres is put in place by the contractor, currently utilising treatment and reprocessing facilities within and beyond the Mid & SW Wales region. The Council also shares a facility in Lower Cwmtwrch with Powys County Council as part of collaborative working.

6.69 Household waste not collected as part of the kerbside recycling service can be sorted and taken to one of the HWRCs. To use these facilities, you must be a resident of Neath Port Talbot and be recycling or disposing your own household waste.

6.70 The Authority employs waste presentation areas at all its sites. Residents are advised to ensure that there are no recyclable materials in their black bags before disposing of them in the waste skips at the recycling centres.

Food waste

6.71 Food waste collected at the kerbside is delivered to the Council's facility at Crymlyn Burrows from where it is transferred for processing off-site by Anaerobic Digestion (AD), currently at various Biogen facilities outside the Mid & SW Wales region, including the facility at Bryn Pica, in neighbouring local authority, Rhondda Cynon Taff (RCT).

Future Provision

6.72 NPTCBC has bought the operation of the waste facility at Crymlyn Burrows in-house and is currently in the process of remodelling the plant and expanding recycling operations:-

- Residual Waste: Under the new arrangements the facility will function as a transfer station only for residual waste. There is a need for off-site infrastructure for the final treatment or disposal. Infrastructure provision will need to factor-in contingency needs, for example to accommodate down-time/cleaning/repairs at EfW facilities.

- Recyclables: Under the new arrangements the facility will continue to function as a transfer station for recyclables but with increased capacity and enhanced capabilities for the recovery of materials / refining of recyclables collected from the kerbside. There will continue to be a need for off-site infrastructure to achieve closed-loop recycling under the circular economy.

6.73 One of the eight headline actions in Welsh Government's circular economy strategy document *Beyond Recycling*, is to reduce the environmental impact of the waste collection operation. Having consulted the workforce and gained Member approval, NPTCBC are currently working up designs to co-locate the collection operation at the Crymlyn Burrows site where the former Waste to Energy (WtE) grid connection will be used for eV HGV charging.

6.74 The Council's overall waste strategy is currently being reviewed, with a Member decision anticipated in April 2023..

CITY AND COUNTY OF SWANSEA

Current and Planned Procurement Programme:

Current Schemes

6.75 Kerbside collection of recyclables is undertaken on a weekly basis. Food waste is collected every week. Dry mixed recyclables are collected on alternative weeks, i.e. green bags (cans, glass, separate paper and card) one week with pink bags (plastics) the following week. Garden waste is collected in reusable sacks on the same week as the green bags. Black bagged residual waste is collected on the same week as the pink bags. Kerbside collection extends to 100% of households in the County.

Residual waste

6.76 Residual (black bag) waste is being taken to two Energy from Waste contractors. One contractor is based in Neath Abbey and the second predominantly uses a site in Bedfordshire. The Council previously used Tir John landfill site to dispose of black bagged waste. The site is now in the process of being capped and restored.

6.77 The Authority continue to implement a "Keep it to 3" policy which places a limit on black bagged residual waste per household. The Authority continue to implement a "Keep it Out" policy where black bags at the kerbside are checked to ensure they contain no recyclable items. If they do then officers will engage with residents to advise they must recycle or risk potential fixed penalty notices.

Recyclables

6.78 Recyclables are taken to the Baling Plant Transfer Station for further sorting/bulking prior to transportation for treatment etc.

Household Waste Recycling Centres (HWRC)

6.79 There are five HWRCs offering extensive recycling facilities. Only two of the HWRCs accept non-recyclable waste (black bags).

Food Waste

6.80 A regional 15 (+10) year treatment contract (with Bridgend) started in August 2017. Swansea's waste is being treated at Severn Trent Green Power's Anaerobic Digestion (AD) facility in Stormy Down, Bridgend.

Future Schemes

6.81 The Authority is already meeting the Welsh Government's 2024/25 statutory recycling target and is currently undertaking modelling work to consider its future waste strategy.

POWYS COUNTY COUNCIL

Current and Planned Procurement Programme

Kerbside Collections

Recycling

6.82 Powys continues to operate the Welsh Government blueprint source separated weekly recycling collections for food waste; glass bottles and jars; mixed paper and cardboard; and cans and plastic bottles, pots, tubs, trays and cartons (tetra pak type). Collections are offered to 100% of Powys households, and the service is also used by a number of paying commercial customers, whose waste outputs are too small to justify a full suite of Commercial recycling containers, or are impractical to access using the Commercial recycling fleet (around 350 customers at time of writing).

6.83 There are three strategic locations for the bulking of kerbside material collected at the kerbside, although they are not all yet in use and all require development to meet future requirements for additional materials and to comply with NRW permitting requirements. The three sites are as follows:

Brecon – existing facility requiring additional development
Rhayader – existing facility requiring additional development
Abermule – awaiting NRW permit before becoming operational. Currently using a PCC owned site in Newtown and a third party transfer station in Welshpool.

6.84 Powys operates in-house sorting of the commingled cans and plastics stream at its Brecon transfer station, to separate: aluminium cans; steel cans; and mixed plastics. Further sorting options are also being explored for AHPs, batteries and plastic film.

6.85 Recyclate materials are tendered annually (except food waste) to be recycled via ex-works contracts with major national recycling contractors in order to secure maximum income from materials. All end processors are listed on the PCC public website.

Food Waste

6.86 This is handled under the joint partnership contract between Powys, Pembrokeshire and Ceredigion (lead authority), and is processed by Anaerobic Digestion (AD) at one of three Severn Trent Green Power Ltd facilities (Parc Stormy, Bridgend; Cassington, Oxfordshire and Roundhill, Stourbridge).

Residual Waste

6.87 Powys has collected residual waste three-weekly since November 2015.
As of November 2021, a new contract has ensured that all material now goes to Energy from Waste (EfW) via Potters Waste Management, primarily to Hooton Bio Power Ltd's plant in Merseyside, and Parc Adfer in Deeside. No kerbside, commercial, street cleansing (including fly-tipped material), or bulky collection waste now goes to landfill, except in an emergency situation.

Bulky Household Waste

6.88 The Council offers a bulky waste collection service to all households for a fixed fee for up to three items and then an additional fee thereafter. Whilst this material is sent to EfW (via a shredding facility), the public are directed to re-use organisations who will collect items free of charge if suitable.

Commercial Waste and Recycling Collections

6.89 The Council provides a residual and recycling collection service to businesses and organisations and is required to compete with the private sector for this work. All material collected is processed via the same channels as the household collection service.

Garden Waste

6.90 Powys started a seasonal kerbside garden waste collection service in 2019, running collections covering at least from March through to November (20 collections per household per season). The service has improved year on year, with 8,000 customers in its first season, rising to over 14,00 in the 2021 season (approx. 21% of households). The garden waste is currently composted by open windrow at SED Services in Wigan, into PAS100 specification compost. Options are currently being explored for future processing of garden waste, including the potential for joining other authorities' processing arrangements.

Household Waste Recycling Centres (Civic Amenity Sites)

6.91 Powys currently has five HWRCs: Lower Cwmtwrch (Ystradgynlais), Brecon, Llandrindod Wells, Newtown, and Welshpool.

6.92 All sites are Powys CC owned, with the exception of Welshpool which is owned by Potters Waste Management who run all five sites under the current contract.

6.93 This contract is in an extension period after the main contract period ended in June 2020, and soft market testing has been carried out to ascertain the interest in the market place. Options are now being considered, taking into account the current position with the Welshpool facility being owned by the incumbent contractor and the effect that this will have on any tendering process.

6.94 All sites offer the typical suite of separated recycling provision common to HWRCs, with small nuances between sites, such as plasterboard which is accepted at only two of the five sites (Brecon and Welshpool).

6.95 Three of the five sites now have dedicated re-use shops on site, or partnerships with outside organisations to save material for re-use via their own facilities.

6.96 All sites are open 5 days per week, with closed days alternating across the County within the weekdays to ensure complete coverage on weekends, and that at least one site is always open in the week between the North and South of the County.

Community Recycling (Bring) Sites

6.97 Powys currently operates 29 bring sites across the County, each with varying levels of provision from: bulky cardboard; textiles; and a small number of sites with small electrical appliance banks.

6.98 Garden waste was removed from these sites in April 2019 with the introduction of the kerbside scheme.

Gully Waste and Leaf Litter

6.99 Powys collects gully waste and leaf litter through the maintenance operations of the Highways team, and is tipped into in-house dewatering bays at one of three Highways depots serving South, Mid and North Powys (Brecon, Penybont and Newtown, respectively). It is currently bulk hauled to Neal Soil Supplies in Cardiff, where it undergoes processing to recover sand (approx. 15% by weight) gravel aggregates (approx. 60% by weight), and soil (approx. 15% by weight), and metals (approx.4% by weight), which are recycled, with the remaining waste (including litter sucked up by gully emptying/mechanical sweeping) being incinerated. The ashes from this are also recycled as cement clinker.

The impact of the Covid-19 pandemic on local authority waste services

6.100 The effects of the pandemic impacted upon the day to day running of waste services with the closure (or restricted use) of HWRCs at certain times of the year resulting in an increase waste in kerbside collection services and an increase in service demand. However the local authorities showed resilience during this difficult period and continued their collection services of residual waste and recyclables with minimal disruption throughout the period, and keeping residents and businesses informed of any changes to services.

6.101 With its intervals of social restrictions within communities, the pandemic saw large increases in the collection of waste, particularly garden waste, resulting in an additional vehicle requirements and the alteration of routes to accommodate more households to be serviced efficiently within their daily allocated rounds.

6.102 The sorting of black bag waste was put on hold by several authorities due to public health safety measures considering the pandemic, but much of this has now resumed in line with Welsh Government guidance.

6.103 Many local authorities took the opportunity to encourage more recycling and composting during this period. For example households were encouraged to home compost by purchasing a compost bin for a nominal fee. On the re-opening of HWRCs there was also reporting of an increase in clothing and textiles being deposited, as a result of lockdown restrictions, when people decided to take the opportunity to clear out old items from their wardrobes and homes.

6.104 Speaking at the *Policy Forum for Wales keynote seminar* on 24 September 2020[18], Brian Mayne, Chair of CIWM Cymru emphasised the positive responses to the Covid-19 pandemic in terms of the resourcefulness of the waste and resource industry, which has led to changes in consumer behaviour at a critical time when the Welsh Government are embedding circular economy principles into its policies.

18

Policy Forum for Wales keynote seminar:
Moving towards a circular economy in Wales - the Government's strategy, engagement with industry and communities, and next steps for meeting zero waste targets.

7.0 LOCAL DEVELOPMENT PLANS (LDPs)

Introduction

7.1 *Planning Policy Wales (PPW)* and *Technical Advice Note (TAN) 21: Waste* provide advice on how the land use planning system in Wales should contribute towards sustainable waste management and resource efficiency, reflecting the waste management drivers at the European Union level.

7.2 At the local authority level, planning policy is delivered through the Development Planning System - Local Development Plans (LDPs). LDPs should contain policies which address the need to ensure sufficient land is available for resource recovery and waste management facilities to enable all National and International obligations relating to waste to be satisfied, and which address the need to encourage all development to reduce and manage waste.

7.3 All six authorities in the Mid & SW Wales region (as well as the 2 National Park Authorities within their boundaries) have adopted LDPs in place. The Annual Monitoring Report (AMR) is the main mechanism for reviewing the relevance and success of the LDP and identifying any changes necessary.

7.4 The AMR should assess the extent to which LDP strategies, policies and key sites are being delivered. The first report should establish data on the range of monitoring framework indicators on which it is proposed to monitor policies. These should include indicators required by legislation, as well as Key indicators applicable to all Plans (Development Plans Manual Ed 3, Table 29). Importantly waste, as a core indicator initially set out in the First Edition of the Manual, does not form one of the key indicators that needs to be monitored. However, Local Planning Authorities (LPAs) are required to define locally specific and contextual indicators for their LDP. It is for the individual authorities to decide whether waste should be classed as an indicator within this category.

7.5 The Manual stresses that it is not realistic or necessary for all policies to be monitored - this would lead to an unnecessarily large and complicated document.

7.6 The following section summarises, for each LPA, the stage achieved in their Plan preparation process, a summary of their waste policies, and the current position in respect of LDP monitoring.

7.7 **LDP Review** – several authorities within the Mid & SW Wales region have commenced, or are about to commence, the review of their LDPs. A Review should draw upon published AMRs, evidence gathered through updated surveys and pertinent contextual indicators, including relevant changes to national policy. Collectively, this should enable the publication of a Review Report, within six months from the start of the review process. The Review Report should set out clearly what has been considered, which key stakeholders have been engaged and, where changes are required, what needs to change and why - based on evidence including issues, objectives, strategy, policies and the LDP Sustainability Appraisal. The review process will ultimately result in a revised / replacement LDP.

The LDP's role in facilitating sustainable waste management

7.8 The Welsh Government's strategy for waste management is contained in *Towards Zero Waste (TZW)* and associated sector plans. Planning authorities should, in principle, be supportive of facilities which fit with the aspirations of these documents and in doing so reflect the priority order of the waste hierarchy as far as possible.

7.9 The Collections, Infrastructure and Markets Sector Plan (CIMSP, 2012) describes the waste management framework to provide the best solutions to meet environmental, social and economic 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 reprocessing (as well as preparation for re-use and prevention). Through the shift towards embracing the circular economy, there is likely to be a significant change in the nature and type of infrastructure needed to support a transition towards circularity. Facilities will need to support high efficiency and high quality reuse and recycling, for example collection hubs will be necessary to support the returning of materials to the point of manufacture, as will facilities to refine/sort/improve the quality of the materials collected at the kerbside. Similarly, there will be a local need for recycling transfer facilities associated with regional facilities such as AD, composting and recycling/reprocessing.

7.10 The LDP process has a crucial role to play. For all wastes, suitable locations for sustainable waste management development should be identified in LDPs as well as criteria by which applications for such developments will be determined.

7.11 LDPs will need to demonstrate how national waste policy, and in particular the CIMSP, along with any updated position set out in the WPMRs, and any other form of waste management priorities relevant to its local area, have been taken into account. This will include identifying land to accommodate high quality facilities to deal with the reprocessing of wastes. In this regard, it will be important for LPAs to work in unison with partners in waste collection, and economic development – both locally and at the regional level - to identify potential sites that could serve the needs of both individual and potentially multiple authorities.

7.12 LDPs can also contribute towards the fulfilment of Article 16 obligations of the EU Waste Framework Directive (Directive 2008/98/EC)[20] as follows:

Article 16
Principles of self-sufficiency and proximity

1. Member States shall take appropriate measures, in cooperation with other Member States where this is necessary or advisable, to establish an integrated and adequate network of waste disposal installations and of installations for the recovery of mixed municipal waste collected from private households, including where such collection also covers such waste from other producers, taking into account best available techniques.

[20] EU legislation which applied directly or indirectly to the UK before 11.00pm on 31 December 2020 has been retained in UK law as a form of domestic legislation known as 'retained EU legislation'.

2. The network shall be designed to enable the Community as a whole to become self-sufficient in waste disposal as well as in the recovery of waste referred to in paragraph 1, and to enable Member States to move towards that aim individually, taking into account geographical circumstances or the need for specialised installations for certain types of waste.

3. The network shall enable waste to be disposed of or waste referred to in paragraph 1 to be recovered in one of the nearest appropriate installations, by means of the most appropriate methods and technologies, in order to ensure a high level of protection for the environment and public health.

4. The principles of proximity and self-sufficiency shall not mean that each Member State has to possess the full range of final recovery facilities within that Member State.

7.13 Paragraph 4 is important as it does not obligate the Mid & SW region, or indeed Wales as a nation, to have a full range of final recovery facilities in place.

Impact of the Covid-19 pandemic

7.14 The Covid-19 pandemic has led to a great deal of disruption in terms of its impacts upon the functioning of local planning authorities in 2020 and 2021. The WG issued ministerial guidance in the form of a letter to Local Authority Chief Executives in July 2020. The letter advised LPAs to reflect on the impact of the pandemic on their areas and consider the consequences for LDPs under review or being implemented. The information in paragraphs 7.15 – 7.17 below is taken from the letter.

7.15 LDPs are evidence based documents. As a result of the pandemic and resulting downturn in the economy, much of the evidence on which LDPs are based is likely to be out of date. LDPs currently undergoing review, which have not yet been submitted to the Planning Inspectorate for examination, should undertake an assessment of the evidence base, strategy and policies in terms of sensitivity to the consequences of the pandemic. Robust conclusions should be reached on the need for new evidence and any consequential changes to strategy and policy before progressing plan preparation. The assessment should be submitted to the WG with requests to extend Delivery Agreements (DA). It is acknowledged that this will slightly delay plan preparation in the short term.

7.16 Where a plan is part way through a public consultation (preferred strategy or deposit plan) the consultation should cease and start afresh once the assessment has been completed and new DA approved.

7.17 To assist preparation of LDPs there was no longer a requirement to submit Annual Monitoring Reports (AMR) in October 2020. However LPAs were strongly encouraged to continue with data collection, as this would help shape and inform policy and plan development. Whilst LPAs could publish an AMR in 2020 if they wished to do so, the next formal AMR submission date, set out in the ministerial letter, was in October 2021.

7.18 With many LDPs nearing the end of their plan period, particularly from 2021 onwards, the perception had been feared that LDPs would no longer be extant once they reached the end of their plan period. A further ministerial letter from the WG clarified the position in September 2020 – set out in paragraphs 7.19 – 7.20 below.

7.19 The provisions in the Planning Wales Act (PWA) 2015 regarding the period to which a plan has effect were commenced on 4 January 2016. These provisions do not have retrospective effect. This means that the provisions do not apply to LDPs adopted prior to this date. Plans adopted prior to 4 January 2016 will remain the LDP for determining planning applications until replaced by a further LDP. For those LDPs adopted after 4 January 2016, the plan will cease to be the LDP on expiry of the period specified in the plan.

7.20 The first LDP to expire under the end date provisions will be on 1 January 2026. The period to 2026 does provide an opportunity to explore the position further and consider whether further legislation is needed.

Phosphate levels within Riverine Special Areas of Conservation (SACs)

7.21 In January 2021, Natural Resources Wales (NRW) published monitoring data in relation to phosphate levels within Riverine Special Areas of Conservation, along with interim guidance (guidance update July 2022).

7.22 The phosphate targets were significantly tightened in 2016 by the Joint Nature Conservation Committee (JNCC) and these were adopted by NRW. NRW's assessment against these targets has shown a failure to meet targets in a number of Rivers in Wales. Overall, of 106 water bodies assessed, 42 (39%) passed their SAC phosphate targets and 65 (61%) failed.

7.23 These failures have potentially significant consequences for the Authorities, particularly in respect of their role as the Local Planning Authority (LPA). By considering the European Court of Justice (ECJ) "Dutch case" it is possible that any Habitats Regulations Assessment for new developments in SACs which have been shown to be failing their phosphate targets, will only be able to conclude no significant adverse impact if a development can demonstrate phosphate neutrality or betterment in its design and/or its contribution to the water body.

7.24 Alongside the planning position statement and evidence report, NRW are providing some limited interim guidance to support the consideration of development proposals and projects. They also provide NRW's position in respect to permitting. NRW recognises that guidance to support the planning process will need further development and they are keen to work with local authorities and other stakeholders to develop this.

7.25 This impact of this issue is detailed further under the individual local authorities concerned, below.

CARMARTHENSHIRE COUNTY COUNCIL

LDP

7.26 The Carmarthenshire LDP was formally adopted on the 10th December 2014. The Plan contains three waste policies, one strategic policy and two topic specific policies. In summary:

Policy SP12-Waste Management – strategic policy, part criteria based/part site specific, based on the waste hierarchy and favouring the siting of certain types of waste facility on allocated B2 employment sites

Policy WPP1-Nantycaws Waste Management Facility – topic specific policy favouring the continued use of a longstanding site for a range of waste management uses

Policy WPP2-Waste Management Facilities Outside Development Limits – topic specific policy catering for potential facilities to be located in areas not covered by policies SP12 and WPP1

LDP Monitoring

7.27 The Authority published its sixth Annual Monitoring Report in October 2022 (covering the period from 1 April 2022 to 31 March 2022).

7.28 Following the removal of waste as a core indicator at the national level, the LDP has only one monitoring target for waste (concerning the production of Supplementary Planning Guidance (SPG) on Nantycaws Waste Facility). The AMR stresses, however, that the need for this SPG has been superseded by evidence contained within the Mid & SW Wales Regional Waste Planning Monitoring Reports (WPMRs). Future monitoring at the LDP level will be in accordance with national policy namely, PPW and TAN 21, together with future evidence and recommendations contained within subsequent WPMRs. Details of take up of land on B2 employment sites is monitored on a monthly basis and is set out in an annual Employment Land Review which is published every October alongside the AMR. Details of new applications/permissions for waste facilities (whether on B2 sites or not) are monitored as part of this ongoing process.

LDP Review

7.29 On the 10 January 2018, the County Council resolved to prepare a revised LDP for Carmarthenshire. An invitation for candidate sites commenced in February 2018 and closed on 29 August 2018, and the consultation on the Draft Preferred Strategy closed on 8 February 2019.

Deposit Revised LDP

7.30 Preparation of the Revised Plan included a complete review of the existing waste policies, as well as an assessment of the employment allocations within the County which included assessing the suitability of B2 employment sites for in-building waste facilities.

7.31 Initially the Authority published its Deposit Revised LDP for public consultation in 2020. However, the restrictions and impacts of the Covid-19 pandemic resulted in slippage to the preparation timetable of the Revised LDP as set out within the Delivery Agreement (DA). Further slippage occurred following publication of guidance from NRW in relation to phosphate levels within Riverine Special Areas of Conservation (see paragraphs 7.21 - 7.24, above). As a result, work on the Revised LDP was temporarily put on hold while the Council actively worked on finding solutions to the phosphate issue.

7.32 A report providing an update on the *Revised LDP – Next Steps and Revised Delivery Agreement*, with the aim of re-commencing the preparation process, was endorsed by County Council in March 2022. Following this, the Authority produced a revised Delivery Agreement, setting out a revised timetable, which was agreed by the Welsh Government in August 2022.

7.33 Due to the nature of the issues that have arisen between the time of the publication of the First Deposit Revised LDP in 2020, the Authority has produced a Second Deposit Revised LDP which is currently out on public consultation at the time of writing (March 2023). The consultation is due to end on 14th April 2023.

7.34 The Second Deposit Revised LDP includes 4 policies relating to waste, taking on board the latest national policy guidelines set out within Planning Policy Wales (PPW), particularly in relation to promoting the circular economy and ensuring that placemaking principles are incorporated into the Plan. In summary:

Strategic Policy - SP 19: Sustainable Waste Management - strategic policy, part criteria / part site specific, centred upon the waste hierarchy and the principles of proximity and self-sufficiency, and favouring the siting of certain types of waste facility on allocated B2 employment sites.

WM1 Sustainable Waste Management and New Development – requires that new development proposals must make provision for the minimisation and recycling of waste within their design.

WM2: Landfill Proposals – acknowledges that there will still be a need for landfill at a regional level and that individual authorities should make provision in their LDPs to accommodate should the need arise.

WM3: Agricultural Land - Disposal of Inert Waste – enables the deposit of inert waste materials to improve agricultural land, provided that the operation meets certain criteria, including being categorised as a 'recovery operation'.

BRECON BEACONS NATIONAL PARK AUTHORITY (BBNPA)

LDP

7.35 The BBNPA LDP was formerly adopted on 17 December 2013. The Plan contains four policies on waste, one strategic policy and three topic specific policies:

SP7-Waste – strategic policy setting out that the national park will consider the development of local waste management facilities where the need is identified, but that it will not allocate land for a regional facility.

Policy 62-Local Waste Management Facilities – topic specific policy, containing criteria protecting local amenity and a site specific criterion favouring the siting of waste management and recycling facilities on existing waste management sites or B2 industrial units

Policy 63-Energy from Waste Development Schemes – topic specific policy enabling such proposals provided that they meet the criteria set out within the policy

Policy 64-Composting – topic specific policy permitting the composting of organic waste provided that there are no unacceptable impacts (a number of criteria are set out)

LDP Monitoring

7.36 The latest Annual Monitoring Report (covering the eighth monitoring period) was published in October 2022 and covers the period from 1st April 2021 to 31st March 2022. It contains the following policy indicators for waste required by the development plan framework:

Amount of vacant units within the identified B Class sites suitable to accommodate a local waste facility

As with the findings of the earlier AMRs, the latest AMR has evidenced that the requirement of the indicator is continuing to be met, however the recommendations within the AMR considers this to be an important indicator and so it will continue to be monitored.

Number of new licensed waste management facilities permitted

No permissions for waste management facilities were granted within the period, and no applications were received in the National Park. Consequently, the recommendation set out within the AMR is that this indicator will continue to be monitored and the need for additional sites/capacity within employment sites will be addressed through appropriate allocation/policy as necessary in LDP2.

LDP Review

7.37 On the 17 December 2017 the Authority commenced the Review of its LDP. The Review Report and Delivery Agreement were published for consultation from 5 July to 30 August 2018, and the Candidate Sites and Preferred Strategy were published for consultation from 4 July to 29 August 2019.

LDP 2 preparation

7.38 Due to the Covid-19 pandemic and the associated restrictions in movement, the National Park Authority has had to pause Local Development Plan 2 production. The

Delivery Agreement has been amended and will be consulted upon prior to agreement with the Welsh Government.

PEMBROKESHIRE COAST NATIONAL PARK AUTHORITY (PCNPA)

LDP2 (Replacement) – end date 2031

7.39 The PCNPA formerly adopted its LDP2 (Replacement) in September 2020. The Plan contains two policies on waste:

Policy 27-Local Waste Management Facilities - topic specific policy permitting "Local waste management and recycling facilities which predominantly serve the National Park area", containing criteria protecting local amenity and a requirement for a Waste Planning Assessment to accompany applications for a waste management facility classified as disposal, recovery or recycling.

Policy 28-Composting - topic specific policy permitting the composting of organic waste provided that there are no unacceptable adverse impacts (a number of criteria are set out), and a criterion requiring that the product has added value.

7.40 The Authority is working on a number of supplementary planning guidance documents to support LDP2.

LDP Monitoring

7.41 Following adoption of the first LDP in 2010, 8 AMRs have been published, covering the period since adoption to 31 March 2018. The findings were considered by the LPA and have fed into the preparation of the National Park Authority's LDP2.

7.42 The eighth AMR concluded that:

"Due to the changes in national policy, there is no longer a need to monitor the provision of waste management capacity based on land take (see paragraphs 2.13 – 2.19 of the 2014 Annual Monitoring Report). Updates are required to Local Development Plan Policies 27 'Local Waste Management Facilities' and 28 'Composting' to reflect the new national policy context.

LDP2 Monitoring

7.43 A new indicator to monitor the performance of the updated policies 27 and 28 has been included in LDP2 (see below), and will be monitored in the AMRs for the Replacement Plan. Consultation on the first LDP2 AMR is underway.

Policy Area		Indicator 10	Target
Policy 27, Policy 28		Waste Management Facilities Approvals contrary to the principle of local waste management facilities predominantly serving the National Park area.	0 approvals
Trigger: 2 or more developments contrary to recommendation. **Reason:** To ensure consistency of approach with national planning guidance by resisting inappropriate or unsuitable waste management facilities within the National Park.			

PEMBROKESHIRE COUNTY COUNCIL (PCC)

LDP

7.44 PCC formerly adopted its LDP on 28 February 2013. The Plan contains four policies on waste, one strategic policy and three topic specific policies:

Policy SP11-Waste – this policy establishes the Authority's strategic approach to planning for sustainable, integrated waste management.

Policy GN.40-New Waste Management Facilities – this policy allocates specific sites for the provision of waste management facilities.

Policy GN.41-Waste Minimisation, Re-use, Recovery, Composting and Treatment – criteria based policy for new waste management facilities.

Policy GN.42-Disposal of Waste on Land – this policy ensures that there is sufficient and appropriate land available for waste that cannot be dealt with by any other means.

LDP Monitoring

7.45 The ninth LDP AMR, covering the period 1 April 2021 to March 31 2022 was published in October 2022. It sets out that the core indicator, relating to the amount of waste management capacity permitted, is no longer required to have a target or a trigger. The AMR does however provide details relating to additional land that has been consented for waste facilities during the ninth AMR monitoring period – this amounted to 3.64 ha on four sites.

7.46 In terms of the other indicators associated with waste, both relate to progress with site delivery. In each case, the anticipated facilities have now been delivered and the requirements of the indicators have therefore been met.

LDP Review

7.47 The review of the Local Development Plan commenced on 5 May 2017, and preparation progressed to the formal consultation of the Deposit Plan between 15 January and 18 March 2020.

7.48 The restrictions and impacts of the Covid-19 pandemic resulted in slippage to the preparation timetable of the Replacement LDP.

7.49 Timetable delays have been further compounded by the publication of new guidance on ***Phosphate levels within Riverine Special Areas of Conservation (SACs)*** by NRW in January 2021 (guidance update July 2022) - see paragraphs 7.21 - 7.24, above.

7.50 In addition to any changes required as a consequence of the phosphates issue, the Authority is likely to wish to make a range of other changes to the Deposit Plan of 2020 in response to consultation feedback and as a result of updated evidence / changes to national policy and context, including those required as a consequence of Covid-19.

7.51 Therefore PCC has agreed to note delays to the LDP2 timetable and has approved a recommendation to allow an amended Delivery Agreement to be prepared which includes a return to the Deposit Plan stage. This means that a second Deposit Plan will be published for public consultation in the future. The Timetable is still uncertain as it is dependent on the release of information and outcomes of research. Specific dates for this are therefore not yet identified. A new Delivery Agreement and preparation of a second Deposit Plan will allow essential evidence and data to be gathered and mitigation options to be devised. In the meantime PCC is working with Natural Resources Wales, Dwr Cymru Welsh Water, Welsh Government, neighbouring Local Authorities and other organisations such as the Pembrokeshire Coastal Forum to find both national and local solutions to the issue.

CEREDIGION COUNTY COUNCIL

LDP

7.52 Ceredigion County Council formerly adopted its LDP on 25 April 2013. The Plan contains two topic specific policies on waste:

Policy LU31-Resource Recovery and Waste Management Facilities – this policy ensures that there is sufficient land available for waste uses by setting out the various locations that would be appropriate.

Policy LU32-Development and the Waste Hierarchy – development proposals will be required to demonstrate how waste will be minimised and managed in accordance with the waste hierarchy (where applicable).

LDP Monitoring

7.53 The 9th LDP AMR was published in October 2022 and covers the period 1 April 2021 to 31 March 2022. Waste is classed as a local indicator as follows:

“Amount of waste management capacity permitted expressed as a % of the total capacity required as identified by the Regional Waste Plan” with the target to “ensure that sufficient land is available to accommodate any outstanding requirement for regional waste management facilities to serve more than one local authority area.”

7.54 The accompanying analysis, however, acknowledges TAN 21's recognition that the Regional Waste Plans (RWPs) (which set the capacity requirements covered by this indicator) are outdated and should now be revoked.

7.55 Reference is made to the annual Waste Planning Monitoring Reports (WPMRs) for the SW Wales region. The AMR concludes that the evidence and recommendations set out within these reports, together with collaborative waste planning and monitoring work, will be used to inform Plan Review / Revision. Reference is made to the findings in the WPMR which confirms that the SW Wales region has sufficient landfill void space to meet the requirements set out in TAN 21 and that at the present time the management of residual waste and food waste is being adequately catered for.

7.56 The LPA will draw on collaborative waste planning and monitoring work to inform Plan Review / Revision.

7.57 As a result of the data and guidance from NRW published in January 2021 (guidance update July 2022) in relation to ***Phosphate levels within Riverine Special Areas of Conservation (SACs)*** (see paragraphs 7.21 - 7.24, above) the Council in November 2021 agreed to a temporary but as yet unspecified length pause for the replacement LDP to allow essential evidence and data to be gathered and mitigation options to be devised.

LDP1 Status

7.58 Although the current LDP plan period ended in 2022, it will continue to be the Development Plan for Ceredigion until a Replacement Plan is adopted.

Replacement LDP (LDP2)

7.59 When work restarts on the Replacement LDP, the Authority will need to submit a revised Delivery Agreement and timetable to the WG.

POWYS COUNTY COUNCIL

LDP

7.60 The Powys LDP was formally adopted on 17 April 2018 and sets out the Council's policies for the development and use of land in Powys. It applies to all of Powys except for the area within the Brecon Beacons National Park.

7.61 The plan contains the following policies related to waste:

Policy W1 Location of Waste Development – topic-based policy based on the waste hierarchy, supporting proposals on employment sites identified in Policies E1 and E4, and, where these sites are not suitable, permitting proposals within the development boundaries of Towns and Large Villages. Strictly controlling new waste management facilities in open countryside subject to certain criteria.

Policy W2 Waste Management Proposals – topic-based policy permitting waste management proposals where supported by a Waste Planning Assessment and subject to certain criteria.

Policy E1 Employment Proposals on Allocated Employment Sites – identifies certain employment allocations that would be suitable for waste uses through Policy W1.

Policy E4 Safeguarded Employment Sites – identifies certain existing safeguarded employment sites suitable for waste uses through Policy W1.

Policy DM13 Design and Resources (criterion 13 iv.) – development management criteria-based policy requiring developments to demonstrate a sustainable and efficient use of resources by including measures to achieve waste reduction.

Policy DM15 Waste within Developments - development management policy containing two criteria - the first around minimising waste production and managing waste materials in a sustainable way, in accordance with the waste hierarchy, and the second around making provision for storage, collection and recycling of waste materials.

LDP Monitoring

7.62 The Authority published its first statutory AMR in October 2021, covering the period 1st April 2020 to 31st March 2021. At the same time, the Authority also decided to publish background papers showing the results from previous monitoring years since the LDP was adopted - the Monitoring Report 2018-2019 and AMR 2020. The second AMR was published in October 2022, covering the period 1st April 2021 to 31st March 2022.

7.63 The AMR contains one indicator relating to waste (AMR25) which monitors the number of waste developments permitted on a) employment allocations listed under Policy E1; b) within development boundaries; c) in open countryside. The indicator is designed to test the implementation of LDP Policy W1 and, in particular, the efficacy of the five criteria in protecting the open countryside from inappropriate developments.

7.64 The results for indicator AMR25 identify the following planning applications permitted for waste developments since LDP adoption:

P/2018/0587 for a recycling bulking facility permitted on an employment allocation at Abermule.
P/2018/0067 for a household recycling centre in an industrial estate sited within a development boundary of Newtown.
19/0361/FUL for redevelopment of an existing waste transfer site at Llan-y-wern, Brecon, within open countryside, however it accorded with policy W1 which directs new waste management facilities to existing sites.

During the monitoring period for the second AMR, there were no planning applications for waste development proposals permitted in the Plan area.

LDP Review

7.65 In September 2021, Cabinet resolved to approve the AMR 2021 for submission to WG, and, at the same time, approved commencement of the review of the LDP, as per recommended by the AMR.

7.66 The LPA produced a Review Report, which set out the key findings and conclusions of the LPA's review. The draft findings of the review in terms of waste policies were as follows:

The waste policy framework includes policies related to dealing with waste in new developments (DM15), the location of waste development (W1) and waste management proposals (W2).

The policy framework aligns with national policy due to the policies being drafted after the publication of the Welsh Government Strategy "Towards Zero Waste - the Waste strategy for Wales" (2010) and takes into consideration the 'waste hierarchy'. In March 2021, the Welsh Government published "Beyond Recycling – A strategy to make the circular economy in Wales a reality" followed by the "Strategic Assessment for the future need for energy from waste capacity in the three economic regions of Wales". The waste policies will be reconsidered to reflect the growing emphasis on minimising waste and the circular economy, PPW (Edition 11), local and regional priorities and strategies and any updated evidence.

It has been noted that LDP Policy DM15, which concerns the management of waste within developments, has not been implemented as widely as intended, discussions will take place with Development Management in the review of this policy to address the matter.

7.67 Appendix 2 to the Review Report summarised the review of each policy.

7.68 The Review Report concluded that a Full Revision of the adopted Powys LDP, through a Replacement LDP for the period (2022-2037), is required.

7.69 Public consultation of the Review Report closed on 1 February 2022.

Replacement LDP

7.70 The Delivery Agreement (DA) for the Powys Replacement LDP was approved by the County Council on 3 March 2022 and agreed by the Welsh Government on 13 June 2022.

7.71 The Authority has engaged with statutory consultees with regards the ISA scoping report, and the call for Candidate Sites opened for six weeks from 1 November to 13 December 2022. At the time of writing (March 2023), the LPA are carrying out an initial assessment the Candidate Sites to determine if they are suitable, or not, for inclusion in the Replacement LDP.

NEATH PORT TALBOT COUNTY BOROUGH COUNCIL

LDP

7.72 The LDP was adopted on 27 January 2016. The Plan contains four policies on waste, one strategic policy and three topic specific policies:

Policy SP19-Waste Management – this is a strategic policy in which provision is made for the delivery of an adequate network of waste management facilities through site specific measures

Policy W1-In-building Waste Treatment Facilities – provision for new in-building waste treatment facilities through the identification of three preferred sites

Policy W2-Disposal of Inert Waste on Agricultural Land – criteria based policy which seeks to explore the options for recycling or reuse of the inert material in the first instance

Policy W3-Waste Management in New Development - requirement for new build development to include waste management provision

LDP Monitoring

7.73 The 6th AMR was published in October 2022. The AMR contains 4 monitoring indicators in respect of waste. These relate to SA Objective 2C – Minimise waste and reduce amounts of waste disposed of to landfill. An appraisal of the indicators has concluded that SP19 is being implemented as intended (see below). The policy will continue to be monitored:

Indicator 77 - *The number of applications permitted accompanied by site waste management plans*

Analysis: – Over the monitoring period there were 8 applications that met the threshold for requiring a Site Waste Management Plan (SWMP). Seven of these applications were either accompanied by a SWMP or were conditioned to submit a SWMP. One application was approved without this requirement (P2021/0226). One application has therefore been permitted contrary to the policy framework.
Action: - Officer and/or Member training may be required in respect of this indicator.

Indicator 78 – *The number of waste facilities permitted and refused on employment sites*

Analysis: no waste related applications were received / determined during the period monitored that relate to allocated and/or safeguarded employment land. Therefore there are no trigger applications for this indicator.

Action: - No further action required. Monitoring to continue.

Indicator 79 – *The amount of land and facilities to cater for waste in NPT*

Analysis: The trigger for this indicator is a landfill capacity for the region of at least seven years. The Waste Planning Monitoring Report (WPMR) 2021/22 for the SW Wales region indicates that the predicted landfill capacity for the region currently amounts to 7.5 years. This therefore exceeds the trigger limit of seven years and does not constitute a trigger for this indicator.

In respect of in-building waste treatment facilities, the take-up of employment land is specifically monitored by Indicators 50, 51, 52 and 56 respectively. Based on the results of the monitoring to date, coupled with the existing network of facilities that are currently operational, it is considered that there is sufficient land and facilities across the County Borough to deal with waste arisings in NPT.

Action: No further action required. Monitoring to continue.

Indicator SA6 (in respect of SA Objective 2C) – *% LACW reused/recycled/composted*

Analysis: In relation to SA objective 2C, although the LDP does not have a primary impact on waste issues, the above indicators generally suggest that the relevant plan policies are having an overall positive impact.

The available LACW figures show that there has been a steady increase in the percentage reused/ recycled/ composted (65.4% in 2020-2021 compared to 61.7% reported in 2021 AMR for 2019-2020).

Action: No further action required. Monitoring to continue.

LDP Review

7.74 A full review of the current Neath Port Talbot LDP (2011-2026) commenced in January 2020 and the Review Report was published in July 2020.

7.75 There was a period of uncertainty due to the effects of the Covid 19 pandemic which impacted upon the Plan's preparation timescale.

7.76 The Delivery Agreement (DA) was formally agreed with Welsh Government on the 11th of January 2022.

7.77 The "Call for Candidate Sites" closed and site submissions are currently being assessed. The Council anticipates consulting on a preferred strategy in autumn 2023.

CITY AND COUNTY OF SWANSEA

Local Development Plan (LDP)

7.78 The Swansea Local Development Plan 2010-2025 was adopted on 28 February 2019. The Plan became operative on that date and now forms the development plan for Swansea. The LDP contains four policies relating to waste:

RP 8 – Sustainable Waste Management – part site specific/part criteria based, this policy permits new in-building waste management facilities on preferred areas (identified on the proposals maps) and areas having the benefit of lawful B2 use, provided that the proposals meet the criteria set out within the policy.

RP 9 – Landfill Sites – part site specific/part criteria based, this policy stresses the continuing use of Tir John Landfill site for the disposal of residual waste until alternative facilities are available. The policy sets out criteria that new proposals for landfill sites (or extensions to existing ones) would have to satisfy to gain planning permission.

RP 10 –Sustainable Waste Management for New Development – criteria based policy requiring effective provision for sustainable waste management to be incorporated into new development.

RP 11 – Agricultural Land – Disposal of Inert Waste – sets out criteria for the deposit of imported inert waste materials for the improvement of low-grade agricultural land.

LDP Monitoring

7.79 The second LDP AMR covering the period 2021-22 was published in October 2022. It contains 1 monitoring indicator in respect of waste:

Local Indicator 111*: *Maintain sufficient land and facilities to cater for the County's waste capacity. This indicator is also used to monitor ***SA Objective 19: Promote sustainable management of waste in an integrated manner, aiming towards zero waste by 2050***, under the ***SA Theme Climatic Factors/Material Assets***.

Analysis: The latest information available from the WPMR for the South West Wales region is the 2021-22 report that indicates a predicted regional landfill void capacity of 7.5 years. This figure is dependent upon several assumptions, including the individual circumstances of the landfills currently operating (e.g. potential contracts coming to an end), new landfills or alternative residual treatment plants becoming operational, the reduction in actual quantities of residual waste produced, and increases in the amount of waste recycled, re-used or composted. The County's only landfill site, Tir John closed as a landfill site in 2022 and residual waste is being taken out of County for disposal in Energy from Waste facilities. How this will impact the regional landfill capacity void will be carefully monitored. The Report considers that at the present time the management of residual waste in the Mid and South West Wales region is being adequately catered for and no new capacity is required. Nevertheless, LDP policy does permit the development of new waste treatment works if additional capacity is required and new landfill sites, in exceptional circumstances, including the fact that additional capacity is required. When the LDP is reviewed, the waste policies within the LDP should be reviewed to ensure they reflect the latest WPMR and the situation within the County.

In respect of in-building waste treatment facilities, the take-up of employment land is specifically monitored by Indicator 11. Based on the results of the monitoring to date, coupled with the existing network of facilities that are currently operational, it is considered

that there is sufficient land and facilities across the County to deal with waste arisings. On this basis, it is considered that the requirements of this indicator have been met.

Action: No further action required, other than to continue monitoring.

Local Development Plan Review and Replacement

7.80 Planning legislation requires Council's to undertake a comprehensive review of their adopted LDP no longer than 4 years from the date of its adoption, and as such Swansea Council is now required to commence such a review of the Swansea LDP.

7.81 The Planning Authority has produced the **draft Swansea LDP Review Report,** which sets out the findings of a comprehensive review undertaken of the current Plan. The Review Report identifies the appropriate procedural route for producing the **Swansea Replacement LDP (RLDP),** and identifies key issues to be considered when taking the replacement process forward.

7.82 One of the key recommendations of the draft Swansea LDP Review Report is that the LPA should produce a **RLDP Delivery Agreement (DA).** The Planning Authority has therefore produced the draft RLDP DA, which comprises two main parts: a Timetable and a Community Involvement Scheme (CIS). The Timetable is intended to help with project management of the RLDP, ensuring that it is prepared within the identified timescale. The CIS sets out how, and when, the community and various stakeholders will be involved in preparing the Plan.

7.83 On the 2nd March 2023 Council Members approved the draft versions of the Review Report and DA for public consultation and stakeholder engagement. The documents are currently out for public consultation until 20th April. The final documents will be reported to a future meeting of the Council anticipated in June/July prior to submission to the WG.

7.84 Following WG approval of the DA, the RLDP will formally commence. In line with the Draft DA it is anticipated that the RLDP will be adopted in September 2026.

Conclusions on Local Development Plans.

7.85 All of the LPAs within the Mid & SW Wales Region have adopted LDPs in place with policies that will contribute towards facilitating the necessary waste infrastructure for the region.

7.86 In terms of LDP monitoring, most authorities have identified the changes in national policy that no longer require waste as a 'core' indicator to be monitored. However, all authorities have published at least one of their AMRs since adoption, and have continued to identify waste as an indicator, albeit on a more local scale, and continue to monitor this topic at their authority level.

7.87 Importantly, all constituent authorities in the Mid & SW Wales region are fully conversant with the situation nationally, in terms of changes in PPW and TAN 21, and liaise

on a regular basis through six-monthly meetings of the Planning Officers Society for Wales (POSW) Minerals & Waste Topic Group. All constituent authorities now fully utilise the evidence and recommendations within the annual WPMRs in the preparation of their AMRs and LDP Reviews.

7.88 The Covid-19 pandemic has had a considerable impact on the preparation of LDPs over the past three years. All authorities have reported delays to their preparation timetables, with some authorities revising their DAs to cater for the slippage. WG advice in the form of a ministerial letter helped to ease the pressure in workload by eliminating the requirement for AMRs to be submitted in October 2020. A further ministerial letter allayed fears concerning 'drop dead' (expiration) dates for current adopted LDPs, by clarifying the position.

7.89 More recently the situation concerning newly published data and guidance from NRW in relation to phosphate levels within riverine Special Areas of Conservation (SAC) has come to the fore and is an issue for several local authorities within the Mid & SW Wales region. Alongside the planning position statement and evidence report, NRW are providing some limited interim guidance to support the consideration of development proposals and projects. NRW are keen to work with local authorities and other stakeholders to develop this guidance further. In addition, the individual authorities concerned are liaising with each other, as well as looking to see what is being done in authorities in England in a similar position, in order to achieve a way forward. Nutrient Management Boards (NMBs) have recently been set up for the rivers Tywi, Tefi and Cleddau. The Boards will identify and deliver actions that achieve phosphorous conservation targets along the SAC rivers through the delivery of a Nutrient Management Plans. Carmarthenshire County Council is leading the way in its recent publication of a nutrient budget calculator for developers to calculate the level of phosphates their development will generate; this is an important first step in allowing nutrient neutral development to proceed.

8 FUTURE POLICY DIRECTION AND CHANGES

8.1 Planning Policy Wales (PPW) is the national land-use planning policy document for Wales. It sets out the land use policies of the Welsh Government and provides the context for land use planning in Wales. It is used by Local Planning Authorities (LPAs) to inform policies and land-use allocations in Local Development Plans (LDPs) and it is a material consideration for decision makers in determining individual planning applications.

8.2 Whilst sustainable development has been at the core of PPW since it was first published in 2002, very little had changed to the format of the document since. When the *Planning (Wales) Act*, the *Well-Being of Future Generations (Wales) Act (WFG Act)* and the *Environment (Wales) Act* were being developed, a commitment was given to restructure PPW so it more clearly evidenced the legislative requirements of these pieces of legislation.

8.3 The planning system is one of the main tools available to create sustainable places and it can make a major contribution to the successful implementation of the WFG Act. Consequently for Edition 10 (published in 2018), PPW was restructured to reflect the new legislative framework, provided by the new Acts, whilst continuing to provide an appropriate context within which development plans are prepared and decisions on development proposals are taken.

8.4 In restructuring PPW, some new policy requirements have been introduced in a number of the chapters. In terms of waste, promoting the circular economy has been introduced to encourage and promote positive action and early consideration of materials choices and resource use in the planning process and to provide a greater driver for action further up the waste hierarchy. Making best use of resources can result in better location, site treatment and design choices. At a strategic level there is a need to support the infrastructure necessary to move towards a circular economy.

8.5 A circular economy is one which aims to keep materials, products and components in use for as long as possible. There are environmental, social and economic benefits of taking such an approach, most notably the increased value and productivity of materials, financial savings for the construction sector and the prevention of waste for society as a whole.

8.6 Local authorities have an important role to play in facilitating a shift towards embedding circularity in the flow of materials. This includes promoting the best choice of materials and efficiency of use. Waste prevention and the use of fewer resources in the first place will help to avoid the creation of waste which cannot be effectively reused. Ultimately this reduces materials being sent to landfill and makes sustainable use of finite resources. There may be significant cost reductions, in material costs, reduction in disposal costs and significant reduction in vehicle movements associated with material movements, associated with careful pre-operational planning of this nature.

8.7 Planning authorities can also promote the recycling of waste materials through the allocation of land for such activities, by encouraging the practice of on-site recycling at minerals sites, and encouraging the recycling of construction and demolition waste in conjunction with other suitable uses, such as builders merchant yards. Adequate facilities and space for the collection, composting and recycling of waste materials should also be

incorporated into the design of any development as well as waste prevention efforts at the design, construction and demolition stage.

8.8 The latest edition of PPW – edition 11 was published in March 2021, to coincide with the publication of *Future Wales: The National Plan 2040* (formerly the *National Development Framework NDF*). *Future Wales* is the development plan for Wales. It will influence all levels of the planning system in Wales and will provide direction for Strategic and Local Development Plans and support national economic, transport, environmental, housing, energy and cultural strategies and ensure they can be delivered through the planning system PPW11 sits alongside *Future Wales* and has been updated to reflect the different measures set out within the national plan, as well as making reference to the Covid-19 pandemic.

8.9 Wales has the opportunity to build on the fact that it currently has one of the highest waste recycling rates in the world, and with innovation and investment it could potentially become a European leader in high technology waste management, utilising techniques in decarbonising wastes and paving the way for the use of Combined Heat and Power (CHP) in the UK.

8.10 Encouraging signs for the future in terms of progress towards the circular economy were presented and discussed at the *Policy Forum for Wales Keynote Seminars* on Waste over the past few years. With a variety of keynote speakers from the waste and resource industry, as well as representatives from local and central government, the seminars highlight the progress that has already been made in respect of waste recycling, reuse and embracing the circular economy.

8.11 Following the covid-19 pandemic, the last two seminars were held online, and have focussed on the implementation of the *Beyond Recycling* strategy and promoting the circular economy in Wales.

8.12 Speaking at the seminar in September 2020, David Warren, the WG's Head of Circular Economy Development, highlighted that recycling has become part of the culture of Wales over the past 20 years and that the nation can be proud as it now has the third highest recycling rate in the world. He pointed out that as part of the consultation for *Beyond Recycling* 40 events were organised across Wales and around 1,000 responses were received from citizens and stakeholders on how we should make the transition towards a zero waste / circular economy. He also highlighted some interesting changes that resulted from the pandemic, such as communities coming together to take targeted action, and businesses adapting to survive and thrive. He added that through the pandemic not only has the country has shown its resilience, but also there has been an increasing awareness of how important resources are and how scarce they can be.

8.13 The seminar highlighted numerous examples of good practice as to how the circular economy was already being put into practice in projects and everyday work. For example, Dr Gavin Bunting has set up the Circular Economy Research & Innovation Group (CERIG) with the aim of connecting complementary expertise (academics and industry) to facilitate circular economy innovation and research in Wales to help inform government policy. Dr Bunting highlighted the example of the company Riversimple who in developing a hydrogen fuelled car have imbedded circularity within their business model.

8.14 In the more recent keynote seminar held in May 2022, the focus was on the challenges of implementing *Beyond Recycling*, and a raft of speakers from both industry, academia, and government were in attendance to provide their views and solutions. Whilst Wales' high recycling rates were acknowledged, the question how can we do more was discussed and this involved answers ranging from the need for fundamental behavioural changes to the need to extend our attention to hard to recycle materials. The reduction of residual waste through re-use was also key to the discussion and examples were given on successes to date in this regard.

8.15 The May 2022 seminar also focussed on skills development to meet the needs of the green economy, utilising circular economy principles. Again, as with earlier seminars, professionals from business and academia – often in collaboration – were present to describe their solutions, experiences and successes.

8.16 Examples such as these show that embracing the circular economy is not only sustainable and good for the environment, but can also be profitable for companies. These success stories will hopefully encourage other companies to trial and employ similar approaches, and this could ultimately be an incentive for changing peoples' mindsets towards realising the benefits of the circular economy.

Links with other Strategies and Studies

8.17 There are opportunities to look at the changes being ushered in with PPW 11 and link / integrate them with the other priorities / objectives of the WG, set out within documents and strategies such as *Technical Advice Note (TAN) 23: Economic Development,* and *Innovation Wales*.

8.18 The Waste industry has an important contribution to make towards the economic development of the country, and so the objectives set out within TAN 23 are particularly relevant. Whilst recognising that the traditional land use classes B1-B8 must continue to be planned for in a sustainable way, TAN 23 recognises that these only account for part of the activity in the economy and that planning for economic development needs to cater for any economic use of the land where activities generate wealth, jobs and income. The TAN's recognition of the need for larger than local planning affiliation is an important issue. As we have seen from this Report, and previous WPMRs, waste is an industry that lends itself well to cross-boundary working, and so the encouragement of regional working set out in TAN 23 has particular relevance to this field.

8.19 Evidence, both on the Continent as well as in the UK, has shown that the waste industry lends itself well to innovation. Techniques and processes within the field of waste management are constantly evolving, and the buildings that contain them can be architecturally innovative and can look at home within modern technical and science parks. As highlighted above, the changes needed in bringing about the move towards the circular economy will require new and innovative facilities for dealing with our waste – both at the national, strategic, and local level.

8.20 Innovation is one of the WG's key drivers for economic growth and job creation. The WG published *Innovation Wales* in 2014. The document attempts to recognise and

understand the role of innovation in the Welsh economy and it complements and builds on existing strategies and policy approaches in Wales. Innovation is the successful exploitation of new ideas and can involve the development of new or improved products, of different or better processes for producing goods or services, or the introduction of entirely new services.

8.21 The waste industry has already started benefitting from innovation, not only through the design of new technologies but also through reducing the amount and type of material used in production, and by addressing whole-lifecycle issues such as reuse and re-manufacture. Such changes will contribute to business resilience and economic growth.

9 CONCLUSIONS

9.1 This Waste Planning Monitoring Report has:

• collated and assessed available data on waste arisings in the Mid & SW Wales region to monitor trends in past arisings and monitor performance against the targets set out in TZW and the CIMSP;

• collated and assessed available data on landfill void and has made a prediction with regards the remaining landfill capacity of the region;

• collated and assessed available data on the arisings and management of residual waste (including food waste) and commented on progress being made towards meeting targets regarding alternatives to landfill;

• collated information on current local authority waste management / resource recovery schemes and future procurement;

• collated and assessed information on the coverage of waste matters in Local Development Plans, including AMRs and LDP Reviews, to monitor the implementation of the provisions of TAN 21: Waste

9.2 The information collected shows that whilst a number of targets have been met, a number of significant challenges lie ahead.

9.3 This is the second Monitoring Report covering Mid & South West Wales, following the change in regional grouping to align with the three economic regions of Wales. Whilst direct comparison with previous WPMRs (namely those of the South West Wales region) is not possible, the small change in local authority membership (i.e. Powys joins the region, but Bridgend moves to the South East Wales region) means that the data on the other 5 authorities remains relevant. Where possible, data going back several years for all the authorities has been set out to enable comparisons both at the individual authority level as well as for the region as a whole.

Progress in respect of meeting *Towards Zero Waste* (TZW) targets

Reduction in amounts of Local Authority Collected Waste (LACW)

9.4 Total LACW arisings had, generally, been decreasing over the period 2006/07 to 2012/13 in each of the six Mid & SW Wales authorities. For the region as a whole, the TZW target of reducing LACW by 1.5% each year since the 2006/07 baseline was generally being met until 2013/14, when the change in the definition of Municipal Solid Waste (MSW) from April 2012 to include more types of waste consequently resulted in an increase in waste tonnage figures. From then, total LACW arisings rose to a high point in 2015/16, but the amounts have dropped over the five subsequent reporting years. Whilst the reductions have not consistently dropped by 1.5% year on year in line with the TZW target, the reporting figure for 2020/21 was the lowest for the past decade. Whilst these signs are promising, the

slight rise in the latest reporting figure (2021/22) means that continued effort will be required to ensure that the future TZW targets are met.

Recycling and Composting of LACW

9.5 There has been a steady increase in recycling and composting rates over the years, with three of the six authorities meeting the 2012/13 target of 52%, and *all* of the authorities meeting the 2015/16 target of at least 58%. The Mid & SW Wales region has consistently performed better than Wales as a whole for most of the last nine years, and the TZW target of achieving at least 64% recycling by 2019/20 was achieved at both the regional and Wales level. Whilst there was a slight reduction at the regional level in the most recent reporting period (2021/22), the 2024/25 target of 70% (which Pembrokeshire has already met for a third consecutive year) looks achievable. This is very positive, and timely with the publication of the WG's latest strategy *Beyond Recycling*.

Landfilling of Local Authority Collected Waste (LACW)

9.6 There was a notable rise in the amount of LACW going to landfill reported in 2017/18 and 2018/19. This was probably due to the changes in individual waste contracts in some local authorities in the Mid & SW Wales region. The recent reduction in the use of landfill by local authorities (with some authorities now engaged in long term contracts for alternative uses) is encouraging. As a result, the reported amounts of LACW going to landfill dropped in the 2019/20 period and have continued to do so in the two most recent reporting periods.

9.7 However whilst this is more positive, the potential for fluctuating increases in the use of landfill is concerning, particularly as there is uncertainty surrounding remaining landfill void capacity within the region.

9.8 Nevertheless, what is clear is that the actual figures for LACW landfilled are considerably less (65% less) in 2021/22 than predicted in the CIMSP (2012) for the SW Wales region for the same year. Whilst this is very positive, the situation requires further monitoring over the next few years, bearing in mind that the TZW target (as near to zero waste as possible is sent to landfill by 2025) is fast approaching.

Landfilling of Biodegradable Municipal Waste (BMW)

9.9 The results show that the authorities in the Mid & SW Wales region have (apart from one exception) met their landfill allowance targets from 2006 to 2020. There have been some fluctuations over the years, but generally up until 2016 the region had performed better by using less of their landfill allowances than Wales as a whole. After two poorer performing years (with one authority exceeding its allowance in 17/18), in 2019/20 4 of the 6 authorities used less than 50% of their allowances and all 6 remained within their allowances.

9.10 2019-20 was the last year in which Local Authorities in Wales were allocated landfill allowances. Local Authorities in Wales have reduced the amount of BMW sent to landfill by 91 per cent (778,195 tonnes) since the first full year of the scheme in 2005/06.

Industrial & Commercial Waste (I&C)

9.11 There is no continued source of annual data kept for I&C waste. The most recent report was published in 2020, utilising data from the 2018 calendar year. This was generally comparable with the two previous reports, one produced in 2009 and the other in 2012, (at least at the all Wales level). For regional groupings, direct comparisons are not possible because the 2020 report uses different regional groupings than the 2012 report. The 2020 Report showed that there had been progress towards meeting the waste reduction targets for both industrial and commercial waste, although for commercial waste this was not statistically significant. In terms of preparation for reuse, recycling and composting, the 2020 report showed that for industrial waste this reached 69%, but commercial only achieved 64%. The TZW target was 67% by 2019/20, so this was almost reached by both I&C combined.

9.12 The 2020 report showed that whilst landfill remained the second highest management route for I&C waste in 2018, there have been significant reductions since 2012, with the figure for industrial waste (9%) meeting the TZW target of a maximum of 10% being landfilled. The commercial waste figure (12%) only exceeds the 10% target by a small margin, and so along with industrial waste, remains on course to meet the 2024/25 target of a maximum of 5% being landfilled.

Construction and Demolition (C&D) Waste

9.13 As with I&C waste, no continued source of annual data is kept for C&D waste. The most recent study was published by NRW in 2022 and utilised 2019 survey results. The methodology used in the 2019 survey was mainly comparable to the previous study (2012), however the use of Welsh economic regions of North Wales, Mid & South West Wales and South East Wales are a slightly different regional grouping of local authority areas than the 2012 study, and so consequently direct comparisons between the two reports at the regional level is not possible.

9.14 In terms of meeting the national targets set out in TZW, the 2022 report showed that the C&D waste prevention and landfill targets were achieved by the C&D sector in Wales in 2019 when measured against the estimated tonnages. The C&D waste Recycling target was estimated to have been achieved in 2019 based on a 93% Recycling rate.

9.15 The 2022 C&D report [as indeed in the case of the 2020 I&C report above] demonstrates a robust survey delivery and data methodology that can be used for future surveys. The results of both studies represent the most reliable and comprehensive set of national data on C&D [and I&C] undertaken to date in Wales. Through such surveys, the WG has the benefit of a series of robust waste generation data allowing for comparisons between different years for key metrics, and building a picture of trends and developments over time.

9.16 Importantly in terms of waste monitoring and planning, planning authorities can use the data from the surveys at both national and regional level to inform waste planning.

Hazardous Waste

9.17 The amounts of hazardous wastes arising in Wales, as well as those deposited in the Mid & SW Wales region, have fluctuated from 2007 onwards culminating in a high point in arisings in 2017 for Wales (2016 for the region), when for the first time since the CIMSP was published in 2012, more hazardous waste was produced in Wales than was deposited, making the Country a net exporter of this waste. This continued for a second year at the Wales level, before reverting back to the country being a net importer in 2019, 2020 and 2021. At the Mid & SW Wales level, the region has continued to be a net exporter of hazardous waste in each of the years from 2016 – 2021.

9.18 In terms of actual amounts of hazardous wastes produced, these have fluctuated over the six years between 2015-21, reaching a high point of over 460,000 tonnes in 2017, to well below 260,000 tonnes in 2019. For Mid & SW Wales, hazardous waste arisings had reduced each year from a high point of over 110,000 tonnes in 2016 to around 77,000 tonnes in 2020. However, small increases have been reported at both the national and regional level for the final reporting period in 2021.

9.19 However, in terms of the landfilling of hazardous waste (in England), this has been steadily decreasing since 2013, as other more sustainable treatment processes have replaced it (although there were small fluctuations, with increases in 2018, 2020 and 2021). Whilst Wales has no dedicated hazardous waste landfills, the small tonnages of wastes that are not processed at chemical, physical and physico-chemical treatment plants in Wales can be accommodated at readily accessible hazardous waste landfills in England. There is therefore little market incentive to develop extra hazardous waste landfill void in Wales.

Remaining Landfill Capacity

9.20 The predicted remaining landfill capacity for the Mid & SW Wales region points to 5.5 years. This is more favourable than the worst case prediction set out in the CIMSP whereby estimated remaining landfill life would run out in the SW Wales region by 2020/21 if no alternative capacity is developed and only LACW recycling targets are met.

9.21 The remaining landfill capacity figure is, however, dependent upon several assumptions, such as variations in the amounts of waste landfilled each year; the individual circumstances of the landfills currently operating (e.g. potential contracts coming to an end); mothballing or closure of existing landfill sites; new landfills or alternative residual treatment plants becoming operational; the reduction in actual quantities of residual waste produced; and increases in the amount of waste recycled, re-used or composted.

9.22 This report has shown that some of these variables have taken effect and this can be seen in the reduction in voidspace since last year's report (7.5 years) to this year's 5.5 years. Whilst the figure has not dropped below the **5 year** trigger set out in *TAN 21: Waste*– the threshold identified for pursuing any action which may be necessary to facilitate future landfill provision – the situation would suggest that preliminary discussions in terms of appropriate action should be considered by the stakeholders concerned - this would include the WG, NRW, local authorities (both Planning and Waste Teams) as well as the Waste Industry.

Residual Waste

9.23 . It is encouraging to note that the actual amounts of residual LACW in both Wales as a whole and within the Mid & SW Wales region had been consistently reducing over the period between 2016/17 and 2019/20. Whilst there has been a slight uplift in the figures in the last two reporting periods, in terms of the Mid & SW Wales region, the amount still remains within the CIMSP predicted arisings for 2024-25 (for SW Wales). Whilst this is positive, 35% of this residual waste was still sent to landfill in 2021/22. Referring to Wales as a whole, the CIMSP (2012) stated that it is clear that there is currently insufficient capacity in "other recovery" facilities if the 2025 goal of as close to zero landfill as possible is to be achieved. This statement is still true when considering the Mid & SW Wales region. However as with future landfill capacity, the residual waste issue is not clear cut and is dependent upon a number of variables.

9.24 No facilities for residual waste treatment have been implemented in the Mid & SW Wales region in recent years, apart from one that deals specifically with wood waste. One residual waste project within the region was refused planning permission, partly on the grounds that there was insufficient waste within the region to make it viable. More recently, a planning application was refused for a small energy from waste facility within the region.

9.25 This raises important questions as to whether there is any actual need for new residual treatment facilities in the Mid & SW Wales region, bearing in mind that authorities within the region have already engaged in contracts, some of which involves their residual waste being transported outside the UK for treatment. Generally, there is a lot of waste processing capacity in Europe and consequently those authorities who are sending their residual waste to Europe have found that it is more cost effective to do so than sending it to facilities within Wales or England. Hence the economic case for creating further capacity within the region is further weakened. However, the potential impact of the UK's departure from the EU will be something that will need to be considered, particularly how this will affect the use of waste facilities in Europe.

9.26 Whilst the City and County of Swansea had taken on the role of lead authority for procurement of a long-term contract for the thermal treatment of residual waste in the region in recent years, this was ultimately not supported by the Welsh Government. Shortly after, the WG's stance on energy from waste facilities was set out in *Beyond Recycling*. This new strategy introduced an immediate moratorium on large scale EfW facilities in Wales, and its effect is already being seen, with the refusals of two EfW facilities, one near Welshpool, and the other in Cardiff.

9.27 The situation on residual waste treatment within the Mid &SW Wales region (as with remaining landfill capacity highlighted above) is something that will need to be closely monitored over the next few years in subsequent waste planning monitoring reports. Although it is clear that at least for the present time, the requirements for dealing with the residual waste from the Mid & SW Wales authorities is being adequately catered for, in the most part outside of the region.

Food Waste

9.28 In terms of facilities, there have been a number of new applications for AD plants of various capacities, from single farm proposals to larger proposals such as Severn Trent Green Power's (STGPAD facility near Bridgend (which became operational in 2016). Whilst the original regional procurement exercise for food waste was never finalised, STGP's facility now takes the food waste from four of the six local authorities [on long term contracts] within the Mid & SW Wales region. Carmarthenshire also has a contract with STGP and is utilising three AD facilities operated by the company, including the Bridgend plant. The food waste from Neath Port Talbot is currently processed by AD at various facilities outside the Mid & SW Wales region. It is worth pointing out that STGP's AD facility near Bridgend now lies within the South East Wales region following the re-alignment of local authorities with the three Welsh economic regions.

9.29 With much of the local authorities in the Mid & SW Wales region engaged in long term contracts in respect of its food waste, the situation would suggest that there is insufficient need within the region for a new large-scale AD facility. Indeed, the initial procurement exercise for the SW Wales region, whilst putting forward a couple of preferred sites (Nantycaws in Carmarthenshire and Felindre in Swansea) no operational facility was ultimately developed. A number of smaller scale AD plants have gained planning permission in recent years and cater for farm based wastes, but could potentially be utilised for wastes from local commercial businesses.

Local Development Plans (LDPs)

9.30 TAN 21 places particular emphasis on the requirement for Development Plans to contain policies regarding suitable locations for waste management operations.

9.31 There is now a region-wide coverage of adopted LDPs. All of the eight planning authorities within the Mid & SW Wales region (including the 2 National Parks) now have LDPs in place, with a range of policies covering waste.

9.32 It is positive to see LDP policies are using a mixture of criteria and site specific based policies in respect of identifying land for future waste management infrastructure needs. The utilisation of B2 employment sites for waste purposes has now been adopted as mainstream and many of the authorities have identified sufficient space on their employment allocations to cater for additional in-building waste facilities.

9.33 Most authorities have already published at least one of their LDP annual monitoring reports (AMRs) since adopting their Plans. Whilst most have acknowledged the fact that waste is no longer required to be monitored as a 'core indicator', they have nevertheless continued to monitor the amount of land and/or facilities allocated or available for waste purposes in their counties, often including information on new planning applications and permissions. There is also recognition of the fact that the annual WPMRs for the region are available to be used as evidence in AMRs and LDP Reviews.

9.34 Some authorities have already started on the Review of their LDPs. This comes at a timely juncture as such reviews will be able to incorporate the changes being ushered in

through revisions to *Planning Policy Wales*, and the introduction of *Future Wales* and *Beyond Recycling*.

9.35 The Covid-19 pandemic has impacted upon the running of Planning Departments within the region, as well as resulting in consequential effects upon the timescales of the preparation of revised LDPs.

9.36 More recently a number of authorities across Wales, including some in the Mid & SW region, have been impacted by new measures relating to phosphate levels in rivers that have been designated as Special Areas of Conservation (SACs). This will potentially impact upon the strategies of revised LDPs as well as resulting in further delays to plan preparation which will require revisions to Delivery Agreements.

Current local authority waste management / resource recovery schemes and future procurement

9.37 It is encouraging to note that each local authority within the Mid & SW Wales region has put in place, or has future plans for, innovative schemes to increase the rates of kerbside and bring recycling to help meet the targets set out in TZW. All authorities provide local residents with assistance as to how they can increase the recycling of their waste, and some authorities have introduced measures such as black bag splitting at their household waste recycling centres to ensure that any recyclable materials are removed. Also new measures are being implemented such as behavioural change techniques to encourage neighbours to partake like those on the same street / in the community to recycle as much of their waste as possible.

9.38 Pembrokeshire County Council is the first authority in Wales to transfer over to Opensky Waste Data Management System. A digital solution to facilitate the tracking of waste from collection to disposal with accurate tracking results for reporting, planning and decision making purposes. This is a unique custom built cloud based system allowing for the gathering, transformation, management and reporting of data relating to the movement of waste from collection to disposal on one digital platform.

9.39 In terms of future procurement, particularly the regional hubs for food waste and residual waste treatment, these are issues that will need to be monitored closely over the coming year(s) as part of the WPMR process. Whilst contracts for the treatment of food waste seem more clear cut, with the majority of authorities utilising one or more of Severn Trent Green Power's AD facilities, the situation surrounding residual waste is more complicated with continued use of landfill, as well as energy from waste facilities outside the region.

9.40 With the uncertain position regarding future landfill capacity within the region, and the potential implications that Brexit might have on the use of energy from waste facilities on the continent, future contracts for residual LACW will be an important topic on which clarity needs to be established in the coming few years.

9.41 The Covid-19 pandemic has impacted upon the running of Council Waste Divisions within the region and Wales as a whole. Whilst local authorities have kept kerbside

collection schemes running as normal, lockdown measures had seen closure and disruption of household waste recycling centres (HWRCs), and the increase in demand for kerbside collections.

9.42 Social media has been effectively used by Councils to communicate with residents the changes resulting from the pandemic. Websites have also been effective tools through which recycling and waste minimisation have been promoted throughout the last three years.

Data Gaps:

9.43 There is a lack of consistent annual data available for certain types of waste to enable regular annual monitoring to be undertaken. This is particularly the case for I&C waste, C&D waste, food waste (from certain sectors) and agricultural waste. Currently, monitoring reports on I&C and C&D waste are produced roughly every five years, although it had been 10 years between the 2012 report on C&D waste, and the latest in 2022. The production of reports on a more frequent basis would enable greater consistency and comparability of the data.

9.44 Whilst a new report for I&C waste had been published in 2020, at the regional (Mid & SW Wales) level this could not be compared with the previous (2012) report as the former was not based upon the three economic region of Wales.

9.45 The I&C waste survey 2020 itself establishes that whilst information on waste management in the report is generally reliable, the accuracy is limited owing to the complexities of waste management routes and difficulties linking final fate back to source. It adds that improvements in the electronic tracking of waste from cradle to grave are required to improve the reliability of Industrial and Commercial sector waste statistics in the future, and would provide more real-time and regular data without the inherent delay and error of a sampled survey.

9.46 Similarly with C&D waste, the most recent survey published in 2022 whilst being broadly comparable with the earlier two studies at the Wales level, the re-structuring of the regions has meant that direct comparisons with earlier studies is not possible. Furthermore, whilst the information in the 2022 report is generally reliable, it is noted that the accuracy of the results is limited to information available to surveyed producers on the final destinations of their waste. The report highlights that improvements in the electronic tracking of waste from the point of generation to final disposal are required to improve the reliability of Construction and Demolition sector waste management statistics in the future.

9.47 Greater clarity on the amounts and nature of agricultural waste produced is also lacking, as is the methods of management of this specific waste type.

9.48 In terms of food waste, whilst annual data is published on the amounts of local authority food waste, the amounts produced by the other sectors is not identified consistently on an annual basis. However, reports produced by bodies such as WRAP every few years are very useful sources of information, and highlight the extent to which the countries of the UK are progressing towards meeting food waste reduction targets.

9.49 It has now been 11 years since the publication of the Collections, Infrastructure and Markets Sector Plan (CIMSP, 2012) which covered the collection and subsequent management of all wastes in Wales arising from all sectors (public and private). The most up to date data on waste arisings and management was utilised at the time to inform the Plan. Since its publication, updates have relied on annual data on certain streams, but only intermittent studies on other streams, such as I&C and C&D wastes. It might therefore be timely to produce an update to the CIMSP over the coming years to establish a more detailed picture on the current situation, particularly in light of impending TZW targets.

Recommendations / issues to raise:

9.50 Two specific groups, the Planning Officers Society of Wales (POSW) and the South West Wales Waste Planning Group (SWWWPG) meet generally twice a year and they provide the opportunity of discussing and progressing topics and ideas. With the change in regional structure to align with the three economic regions of Wales, the South West Wales Group has recently been restructured to become Mid & SW Wales and to involve representatives from Powys to take part in future discussions.

Waste contracts

9.51 A topic that has been raised in meetings of both the above groups, is the need for table of waste contracts for Mid & SW Wales. This would help with the evaluation of waste planning applications. It was agreed that each authority would collect information for their areas on contracts, dates and waste destinations. Such data would be useful in the production of future WPMRs. To date there has been some progress, with differing levels of information being provided by authorities which has been included in the procurement section of this (and earlier) WPMRs. The process needs to be more timely and consistent to ensure that the best available information can be utilised in the production of WPMRs.

Interface between waste planning and waste permitting

9.52 A guidance document was suggested by the Planning Officers Society for Wales (POSW) where a steering committee had been established involving members from the POSW Minerals and Waste Group and representatives from NRW and the WG. Progress on the document had been delayed due to the covid-19 pandemic when POSW meetings had been suspended. However, discussions have recommenced recently in regard to its production. Close liaison between local planning authorities and NRW already exists through consultations on planning applications and LDPs, as well as WPMRs. In future this will be extended to include liaison on other projects, such as the NRW Area Statements.

Interface between waste planning and waste management

9.53 A close liaison should be maintained between local planning authorities and local waste authorities. This is beneficial in bringing about a more joined up approach to waste management. It is the responsibility of the LPA to ensure that sites for potential waste facilities are identified within their LDPs. Specific stages in LDP preparation, for example the candidate site stage, offer opportunities for local waste authorities to put forward sites for

inclusion within an LDP. The LPA can assist through highlighting such opportunities to their waste colleagues. Such liaison would be particularly pertinent if it is aligned to a waste authority's procurement process.

Residual Waste Procurement and the future use of landfill

9.54 The future stance on procurement for a regional facility is a topic that has been raised in the recommendations of previous monitoring reports. With the continued reliance on landfill (some within sites outside the Mid & SW Wales region), and the shipping of some of the region's residual waste to EfW facilities on the continent, this issue remains as pertinent as before. With the landfill target for 2025 set out in TZW fast approaching, the future of all landfill sites within Wales must be addressed. With the new moratorium on large scale Energy from Waste facilities in Wales, the question remains, will there be sufficient capacity within alternative residual treatment facilities to cater for the region's waste post-2025. As a result of questions such as these, continued monitoring of the situation is essential, together with stakeholder discussions at the regional level, and with a clear steer at the national level.

GLOSSARY OF ACRONYMS

AD	Anaerobic Digestion
AHPs	Absorbent Hygiene Products
AMR	Annual Monitoring Report
AONB	Area of Outstanding Natural Beauty
BMW	Biodegradable Municipal Waste
C&D	Construction & Demolition [Waste]
CIMSP	Collections, Infrastructure and Markets Sector Plan
CIWM	Chartered Institution of Wastes Management
CLO	Compost Like Output
DA	Delivery Agreement [of a Local Development Plan]
EA	Environment Agency (now NRW in Wales)
EfW	Energy from Waste
EWC	European Waste Catalogue [code]
FIT	Feed in Tariff
HIC	Household/Industrial & Commercial [wastes]
HWRC	Household Waste Recycling Centre
IBA	Incinerator Bottom Ash
I&C	Industrial & Commercial [wastes]
LACW	Local Authority Collected Waste (new definition used in statistical publications, which previously referred to municipal waste).
LAS	Landfill Allowance Scheme
LAWDC	Local Authority Waste Disposal Company
LDP	Local Development Plan
LPA	Local Planning Authority
MBT	Mechanical Biological Treatment
MHT	Mechanical Heat Treatment
MREC	Materials Recovery & Energy Centre (Waste facility in Neath Port Talbot County Borough)
MRF	Material Recovery Facility
NRW	Natural Resources Wales (formed in 2013, largely taking over the functions of the Countryside Council for Wales, Forestry Commission Wales and the Environment Agency in Wales, as well as certain Welsh Government functions)
ONS	Office of National Statistics
PPE	Personal Protective Equipment
POSW	Planning Officer Society for Wales
RDF	Refuse Derived Fuel
SPG	Supplementary Planning Guidance
SRF	Solid Recovered Fuel
TZW	Towards Zero Waste (National Waste Strategy for Wales)
TAN21	Technical Advice Note 21: Waste
WDA	Waste Disposal Authority
WEEE	Waste Electrical & Electronic Equipment
WG	Welsh Government
WRAP	Waste and Resources Action Programme
WtE	Waste to Energy

APPENDICES

Appendix 1

Wales: Hazardous waste arisings by EWC chapter from 1998 - 2013

	EWC Description	1998/9	2000	2001	2002	2003	2004	2006	2007	2008	2009	2010	2011	2012	2013
01	Mining and Minerals	-	79	68	141	1	18	39	26	2	0	13	7	12	6
02	Agricultural and Food Production	67	3,365	60	54	22	132	42	46	59	66	48	13	23	27
03	Wood and Paper Production	670	210	81	134	1,728	762	878	6	70	76	88	15	91	10
04	Leather and Textile Production	80	57	11	63	17	76	0	1	1		5	2	7	32
05	Petrol, Gas and Coal Refining/Treatment	9,012	5,773	5,597	4,822	31,494	10,335	1,689	11,067	15,375	17,952	19,136	18,975	16,468	24,374
06	Inorganic Chemical Processes	123,501	30,258	34,373	38,082	20,793	19,775	6,813	6,769	6,468	5,901	6,106	13,871	10,103	10,411
07	Organic Chemical Processes	23,940	43,270	21,320	24,554	18,948	17,524	9,867	9,643	9,085	6,822	13,708	8,478	8,899	7,231
08	MFSU Paints, Varnish, Adhesive and Inks	7,024	6,990	5,742	6,809	6,388	5,770	5,876	5,717	6,361	4,739	5,062	5,427	5,809	4,418
09	Photographic Industry	117	220	489	412	470	614	563	401	348	279	270	302	300	229
10	Thermal Process Waste (inorganic)	32,110	69,120	42,043	46,489	52,355	59,739	51,366	53,547	42,505	34,665	56,753	83,651	69,446	57,125
11	Metal Treatment and Coating Processes	16,860	11,465	12,700	11,049	18,650	15,132	12,545	14,845	10,669	6,754	9,520	11,116	7,701	5,106
12	Shaping/Treatment of Metals and Plastics	9,446	8,030	10,694	10,679	6,891	6,473	6,185	4,466	6,966	6,018	5,215	4,414	4,419	5,421
13	Oil and Oil/Water Mixtures	111,376	117,406	116,166	88,816	70,203	178,408	54,494	41,422	44,078	30,101	32,914	35,987	34,259	39,431
14	Solvents	2,972	2,997	3,953	3,835	1,659	963	852	986	1,142	652	1,040	1,317	1,062	969
15	Packaging, Cloths, Filter Materials	1,890	2,709	1,990	1,648	1,905	3,136	5,295	6,086	6,524	5,424	5,464	5,942	6,860	6,807
16	Not Otherwise Specified	35,488	416,584	270,270	401,094	302,565	245,480	135,764	65,477	43,619	51,159	52,400	48,877	44,160	40,728
17	C&D Waste and Asbestos	26,227	42,443	98,256	32,344	30,089	81,078	34,474	28,832	22,040	12,801	17,465	23,088	23,399	22,860
18	Healthcare	367	430	850	648	568	780	12,482	10,870	10,284	9,621	9,487	10,437	9,792	9,768
19	Waste/Water Treatment and Water Industry	4,811	3,196	1,638	2,720	10,804	3,976	18,120	22,719	16,353	5,763	4,504	6,104	18,125	15,039
20	Municipal and Similar Commercial Wastes	2,089	3,311	1,800	1,990	1,833	1,218	11,522	14,780	15,067	10,910	15,504	13,602	13,702	13,423
99	Unclassified	2,605	1,970	2,224	5,708	14,522	2,231								
Total		**410,651**	**769,882**	**630,325**	**682,091**	**591,904**	**653,621**	**368,866**	**297,709**	**257,015**	**209,701**	**254,701**	**291,625**	**274,636**	**263,415**

Source: Natural Resources Wales

2005 data is unreliable and has not been included in the above tables; a new hazardous waste management system and database was introduced in mid-2005 to coincide with the introduction of the new Hazardous Waste Regulations, classification and data collection changes introduced some inconsistency and some data was lost as new systems took a little time to become fully operational.

Appendix 2

Permitted and constructed landfills in the Mid and South West Wales Region (not including inert Landfills) 2022

EPR Number	Operator Name	Installation Name	Site Type	Local Authority
CP3735PB	Cwm Environmental Limited	Nantycaws Landfill Site	Non-hazardous	Carmarthenshire
BW2692IM	Corus UK Limited	Port Talbot Steel Works (Haz)	Hazardous Restricted	Neath Port Talbot
BV7311IE	Corus UK Limited	Port Talbot Steel Works (Non-Haz)	Restricted user	Neath Port Talbot
BU8819IV	FCC Environment	Pwllfawatkin Landfill Site	Non-hazardous	Neath Port Talbot
VP3935AT	Swansea City Waste Disposal Co Ltd	Tir John Landfill	Non-hazardous	Swansea
MP3330WP	Resources Management UK Ltd	Withyhedge Landfill	Non-hazardous	Pembrokeshire
BU7766IC	Potters Waste Management	Bryn Posteg Landfill Site	Non-hazardous	Powys
BT19081X	JLA Disposal Ltd	Palleg Landfill Phase 2	Non-hazardous	Powys

Source: Natural Resources Wales

Appendix 3: Number of permitted sites by local authority. Source: EPR Waste Sites (NRW, July 2022)

Type Code	Local Authority / Type of Facility	Carmarthenshire	Ceredigion	Neath Port Talbot	Pembrokeshire	Powys	Swansea	Total
A02	Other Landfill Site taking Hazardous Waste	-	-	1	-	-	1	2
A04	Household, Commercial & Industrial Waste Landfill	2	-	-	1	-	1	4
A05	Landfill taking Non-Biodegradeable Wastes	3	1	-	8	3	-	15
A06	Landfill taking other wastes	1	-	-	-	1	1	3
A07	Industrial Waste Landfill (Factory curtilage)	-	-	3	-	-	2	5
A08	Lagoon	-	-	-	-	-	1	1
A09	Hazardous Waste Transfer Station	-	-	1	-	-	-	1
A11	Household, Commercial and Industrial Waste Transfer Station	3	5	2	-	1	1	12
A11	Household, Commercial & Industrial Waste Transfer Stn	10	1	5	8	12	5	41
A12	Clinical Waste Transfer Station	-	-	1	-	-	-	1
A13	Household Waste Amenity Site	2	1	1	1	1	-	6
A13a	Household Waste Amenity Site taking hazardous waste	-	2	-	5	1	2	10
A14	Transfer Station taking Non-Biodegradable Wastes	-	-	-	1	-	-	1
A15	Material Recycling Treatment Facility	2	-	-	2	1	1	6
A16	Physical Treatment Facility	3	1	3	2	6	1	16
A17	Physico-Chemical Treatment Facility	-	-	1	-	-	-	1
A19	Metal Recycling Site (Vehicle Dismantler)	-	1	2	-	-	2	5
A19a	ELV Facility < 2500 tonnes per year	1	3	1	4	1	4	14
A20	Metal Recycling Site (mixed MRS's)	4	-	5	2	4	2	17
A22	Composting Facility	-	1	-	1	-	-	2
A23	Biological Treatment Facility	-	1	-	2	-	-	3
A24	Mobile Plant	-	-	2	-	-	-	2
A24a2	Mobile Plant - Land spreading MEDIUM RISK	2	11	-	3	4	3	23
A24a3	Mobile Plant - Land spreading HIGH RISK	-	8	-	1	8	-	17
A24b	Mobile Plant - Land remediation	1	1	1	-	-	1	4
A24c	Mobile Plant - Waste treatment	-	1	-	-	-	-	1
A25	Deposit of waste to land as a recovery operation	1	1	-	1	1	1	5
A27	Pet Crematorium	-	-	-	-	1	-	1
A29	Gas Engine for burning of landfill or other bio-gas	-	1	1	-	-	-	2
A30	Mining Waste Operations	-	-	-	-	1	-	1
S01210: SR2012 No10	On-farm AD facility using farm wastes only, 100t per day	-	-	-	-	-	-	-
S0801: SR2008 No1	HCI Waste Transfer Station	1	1	1	-	-	-	3
S0803: SR2008 No3	HCI Waste TS + treatment	-	-	2	2	-	2	6
S0805: SR2008 No5	HCI Waste TS + asbestos	1	-	-	-	-	-	1
S0807: SR2008 No7	HCI Waste TS + treatment + asbestos	1	-	-	1	-	-	2
S0809: SR2008 No9	Asbestos Waste Transfer Station	-	-	-	-	-	1	1
S0811: SR2008 No11	Inert & excavation Waste TS + treatment	1	1	-	-	-	1	3
S0813: SR2008 No13	Non-hazardous & hazardous HWA Site	-	-	-	-	3	-	3
S0816: SR2008 No16	Composting in open windrows	-	-	1	-	1	-	2
S0821: SR2008 No21	Metal recycling site	1	-	-	-	-	1	2
S0823: SR2008 No23	WEEE treatment facility	-	-	1	-	-	-	1
S0824: SR2008 No24	Clinical Waste Transfer Station	-	-	-	-	1	1	2
S0827: SR2008 No27	Mobile Plant for the remediation of waste soils and contaminated material	-	-	1	-	-	-	1
S0908: SR2009 No8	Management of inert extractive waste at mines and quarries	-	-	-	-	4	-	4
S1210: SR2012 No10	On-farm AD facility using farm wastes only <100tpd	-		-	-	4	-	4
S1210: SR2012 No10	On-farm AD facility using farm wastes only, use of the biogas <100tpd	-		-	-	1	-	1
S1214: SR2012 No14	Metal recycling, vehicle storage, depollution	1		1	2	-	3	7
S1215: SR2012 No15	Storage of electrical insultating oils	1		-	1	-	1	3
SR/04: SR2010 No4	Mobile plant for land spreading	-		-	1	5	3	9
SR/07: SR2010 No7	Use of waste in construction <50,000 tps	1		-	1	-	-	2
SR/09: SR2010 No9	Use of waste for reclamation etc <50,000 tps	-		-	-	-	1	1
SR/12: SR2010 No12	Treatment of waste to produce soil <75,000 tpy	-		-	-	2	2	4
SR/17: SR2010 No17	Storage of anaerobic digestate <75,000 total	-		-	-	1	-	1
SR/20: SR2011 No2	Metal Recycling Site <25000 tpa	-		1	-	-	-	1
SR/21: SR2011 No3	Vehicle Depollution Facility <5000tpa	-	1	-	1	3	2	7
SR/22: SR2011 No4	Treatment of waste wood <75000 tpa	-	-	-	-	-	1	1
SR2018 No11:SR2018 No11	on-farm anaerobic digestion facility.	1	1	-	-	-	-	2
	Grand Total	**44**	**44**	**38**	**51**	**71**	**48**	**296**

Notes:

The Permit status of the above sites are classed as effective and have therefore not expired. However this does not mean that the sites are currently operational.

Appendix 4: Capacity of permitted sites by local authority. Source: EPR Waste Sites (NRW, July 2022)

Type Code	Local Authority / Type of Facility	Carmarthenshire	Ceredigion	Neath Port Talbot	Pembrokeshire	Powys	Swansea	Total
A02	Other Landfill Site taking Hazardous Waste	-	-	-	-	-	-	-
A04	Household, Commercial & Industrial Waste Landfill	-	-	-	-	-	-	-
A05	Landfill taking Non-Biodegradeable Wastes	-	74,999	-	79,998	-	-	154,997
A06	Landfill taking other wastes	-	-	-	-	-	-	-
A07	Industrial Waste Landfill (Factory curtilage)	-	-	-	-	-	-	-
A08	Lagoon	-	-	-	-	-	-	-
A09	Hazardous Waste Transfer Station	-	-	74,999	-	-	-	74,999
A11	Household, Commercial and Industrial Waste Transfer Station	23,099	134,999	373,995	-	315,050	229,998	1,077,141
A11	Household, Commercial & Industrial Waste Transfer Stn	229,992	24,999	153,649	283,998	277,277	164,995	1,134,910
A12	Clinical Waste Transfer Station	-	-	4,999	-	-	-	4,999
A13	Household Waste Amenity Site	79,998	4,999	4,999	24,999	4,999	-	119,994
A13a	Household Waste Amenity Site taking hazardous waste	-	9,998	-	109,996	315,050	254,997	690,041
A14	Transfer Station taking Non-Biodegradable Wastes	-	-	-	75,000	-	-	75,000
A15	Material Recycling Treatment Facility	224,999	-	-	99,998	90,000	150,000	564,997
A16	Physical Treatment Facility	400,000	170,000	474,998	150,000	301,997	229,998	1,726,993
A17	Physico-Chemical Treatment Facility	-	-	4,999	-	-	-	4,999
A19	Metal Recycling Site (Vehicle Dismantler)	-	4,999	64,998	-	-	254,999	324,996
A19a	ELV Facility < 2500 tonnes per year	2,500	7,497	-	9,999	2,499	9,999	32,494
A20	Metal Recycling Site (mixed MRS's)	160,497	-	289,998	49,998	415,050	194,999	1,110,542
A22	Composting Facility	-	170,000	-	75,000	-	-	245,000
A23	Biological Treatment Facility	-	36,500	-	20,161	-	-	56,661
A24	Mobile Plant	-	-	75,000	-	-	-	75,000
A24a2	Mobile Plant - Land spreading MEDIUM RISK	24,445	96,488	-	25,073	23,280	21,500	190,785
A24a3	Mobile Plant - Land spreading HIGH RISK	-	44,542	-	12,025	43,702	-	100,269
A24b	Mobile Plant - Land remediation	18,200	1,338	7,500	-	-	1,250	28,288
A24c	Mobile Plant - Waste treatment	-	3,400	-	-	-	-	3,400
A25	Deposit of waste to land as a recovery operation	45,500	170,000	-	75,000	50,000	4,999	345,499
A27	Pet Crematorium	-	-	-	-	201	-	201
A29	Gas Engine for burning of landfill or other bio-gas	-	36,500	-	-	-	-	36,500
A30	Mining Waste Operations	-	-	-	-	-	-	-
S01210: SR2012 No10	On-farm AD facility using farm wastes only, 100t per day	-	-	-	-	-	-	-
S0801: SR2008 No1	HCI Waste Transfer Station	74,999	75,000	75,000	-	-	-	224,999
S0803: SR2008 No3	HCI Waste TS + treatment	-	-	150,000	149,998	-	149,999	449,997
S0805: SR2008 No5	HCI Waste TS + asbestos	74,999	-	-	-	-	-	74,999
S0807: SR2008 No7	HCI Waste TS + treatment + asbestos	74,999	-	-	75,000	-	-	149,999
S0809: SR2008 No9	Asbestos Waste Transfer Station	-	-	-	-	-	3,650	3,650
S0811: SR2008 No11	Inert & excavation Waste TS + treatment	-	-	-	-	-	75,000	75,000
S0813: SR2008 No13	Non-hazardous & hazardous HWA Site	-	-	-	-	150,000	-	150,000
S0816: SR2008 No16	Composting in open windrows	-	-	74,999	-	5,000	-	79,999
S0821: SR2008 No21	Metal recycling site	74,999	-	-	-	-	75,000	149,999
S0823: SR2008 No23	WEEE treatment facility	-	-	-	-	-	-	-
S0824: SR2008 No24	Clinical Waste Transfer Station	-	-	-	-	75,000	74,999	149,999
S0827: SR2008 No27	Mobile Plant for the remediation of waste soils and contaminated material	-	-	75,000	-	-		75,000
S0908: SR2009 No8	Management of inert extractive waste at mines and quarries	-	-	-	-	-		-
S1210: SR2012 No10	On-farm AD facility using farm wastes only <100tpd	-	-	-	-	75,300		75,300
S1210: SR2012 No10	On-farm AD facility using farm wastes only, use of the biogas <100tpd	-	-	-	-	100,000		100,000
S1214: SR2012 No14	Metal recycling, vehicle storage, depollution	25,000	-	24,999	49,999	-	129,999	229,997
S1215: SR2012 No15	Storage of electrical insultating oils	500	-	-	500	-	500	1,500
SR/04: SR2010 No4	Mobile plant for land spreading	-	-	-	-	-		-
SR/07: SR2010 No7	Use of waste in construction <50,000 tps	-	-	-	49,999	-		49,999
SR/09: SR2010 No9	Use of waste for reclamation etc <50,000 tps	-	-	-	-	-	50,000	50,000
SR/12: SR2010 No12	Treatment of waste to produce soil <75,000 tpy	-	-	-	-	149,999	149,999	299,998
SR/17: SR2010 No17	Storage of anaerobic digestate <75,000 total	-	-	-	-	75,000		75,000
SR/20: SR2011 No2	Metal Recycling Site <25000 tpa	-	-	29,998	-	-		29,998
SR/21: SR2011 No3	Vehicle Depollution Facility <5000tpa	-	5,000	-	4,999	12,499	9,998	32,496
SR/22: SR2011 No4	Treatment of waste wood <75000 tpa	-	-	-	-	-	75,000	75,000
SR2018 No11:SR2018 No11	on-farm anaerobic digestion facility.	100	100	-	-	-	-	200
	Grand Total	1,534,826	1,071,358	1,960,130	1,421,740	2,481,903	2,311,878	8,490,242

Notes:

The Permit status of the above sites are classed as effective and have therefore not expired. However this does not mean that the sites are currently operational.

Grand total figure has been adjusted to account for double counting (multiple uses on one permit).

On the small number of sites where the capacity is in cubic metres a standard conversion rate has been use to adjust to tonnes per annum.

On farm AD facility capacities are in tonnes per day (tpd); annual capacity has not been calculated.

The above data is taken from the EPR Waste Sites dataset (NRW) and does not include certain bespoke installations such as non-hazardous landfills and large-scale AD Plants.

Appendix 5 Planning applications/decisions for waste recovery/treatment facilities (including MRFs, but excluding AD plants) in the Mid & SW Wales region April 2015 –March 2023

Application	Location	Proposal	Decision
CARMARTHENSHIRE			
S/29559	New Lodge Farm, Pontardulais Road, Cwmgwili, Llanelli SA14 6PW	Demolition of existing structures on site, restoration and re-profiling the site and the construction of a 2 - 3 MWE Photovoltaic solar array and an energy recovery centre (comprising an advanced conversion technology (ACT) 8 - 12 MWE pyrolysis plant and an anaerobic digestion 2 - 3 MWE facility with an integrated education centre) together with access improvements, landscaping and associated works	Refused 4th February 2016
W/31601	Cerrigyrwyn Quarry, Llangynog, Carmarthenshire SA33 5HU	Construction of an inert waste recycling facility and associated works	Full Granted 12/10/16
E/32491	The Old Albion Yard, Station Road, Llangadog, SA19 9LT.	Cert of Lawfulness - Existing Storage of Skips, hardcore and wood. Recycling of wood and hardcore	CLEUD - Approval 8/9/15
S/33036	Skip Solutions, Heol Y Bwlch, Bynea, Llanelli, SA14 8SU.	Change of use from B2 to waste transfer station (sui generis).	Full Granted 2/2/16
S/34071	Former Morlais Colliery, Pontardulais Road, Llangennech,Llanelli, SA14 8YN	Inert waste processing centre.	Full Granted 12/9/17
W/32963	Land part of MEKATEK, Amex Park, Old Llansteffan Road, Johnstown, Carmarthen, Carmarthenshire SA31 3NF	Formation of HGV hardstanding and lorry park.	Full Granted 11/1/16
E/35575	Former ATS vehicle repairs garage, Towy Terrace, Ffairfach, Carmarthenshire	Application for a Certificate of Lawfulness for a Proposed Development from a vehicle repairs place (B2) to a non-ferrous metals sorting place (B2)	CLOPUD Granted 15/6/2017
W/35655	Land off Alltycnap Road, Johnstown, Carmarthen SA31 3QY	Construction of a tyre recycling warehouse with associated offices, operational yard, storage compounds and ancillary infrastructure.	Full Granted 4/1/18

W/36430	Factory Yard, Cwmann, Lampeter, Carms, SA48 8ES	Application for a Lawful Development Certificate for a proposed use or development certificate for a proposed use or development retention of existing building and associated yard for the incineration of animal and clinical waste, but with proposed internal reconfiguration and sub-division of floorspace to provide plant and equipment to process the animal waste as animal foods and tallow (thus continuing to fall under Use Class B2).	CLOPUD - Approval 25/1/18
S/38134	Glyngerwen Quarry, Felinfoel, Llanelli, SA14 8BX	Variation of condition 6 on S/29950 (Types of Waste that can be accepted on site).	Approved on 29/1/19.
E/38116	Land adjacent to Ty Newydd, Thornhill Road, Cwmgwili, Llanelli, SA14 6PT.	The proposed development is for a hardstanding pad with an enclosed drainage system which will be utilised as an inert waste transfer station	Full Planning Permission granted on 13/2/19
E/37516	Unit E1 Capel Hendre Industrial Estate, Ammanford SA18 3SJ UNIT	Building to be used for storage of waste paper	Approved on 13/2/2019
S/39657	AMG Resources Ltd, Nevills Dock, Llanelli, SA15 2HD	The Building is a large open space former foundry building which is in poor state of repair and subject to increased vandalism. The buildings are in a state of dilapidation and no longer fit for purpose in terms of the rationalised scale of recycling operations currently undertaken at the site.	Demolition notification Granted 01/11/19
W/39352	Cerrigyrwyn Quarry, Llangynog, Carmarthenshire	Waste management development comprising of large shed to house biomass boiler, wood shaver, and soil storage (replacement for soil storage shed previously approved under planning permission w/31601). Part retrospective.	Full Granted 29/11/19
W/39490	Amex Park, Old Llansteffan Road, Johnstown, Carmarthen, SA31 3NF	Non material amendment on W/25417 (demolition of existing warehouse and construction of new steel framed building and concrete yard) revision to scale and external finishing of proposed waste transfer building.	Non-Material Amendment Granted 07/11/19
PL/01162	Land to the Rear of Unit 3, Trostre Industrial Park, Llanelli, SA14 9UU	Use for the importation and storage of inert construction and demolition waste, crushing and screening of the waste, and production of secondary aggregate products for use at other construction projects.	CLEUD approval 30/06/2021
PL/01679	Land at the Nantycaws Recycling Centre, Llanddarog Road, Nantycaws, Carmarthen, SA32 8BG	Proposed full planning application for a Household Waste recycling, re-use and upcycle sector including parking and associated infrastructure works	Full Granted 13/08/2021
PL/01161	Civic Amenity Site, Nantycaws Landfill Site, Llanddarog, Carmarthen, SA32 8BG	Proposed full planning application for an extension to the existing municipal recycling facility together with construction of covered storage bays, a roof cover to the existing yard and associated infrastructure works	Full Granted 26/4/2021

PL/03948	Land at the Nantycaws Recycling Centre, Llanddarog Road, Nantycaws, Carmarthen, SA32 8BG	Discharge of condition 5 on PL/01679 (lighting plan)	Discharge of Planning Condition granted 28/10/2022
NEATH PORT TALBOT CBC			
P2014/0569	1 Bypass Works Dock Road, Port Talbot, Neath Port Talbot SA13 1RS1	Certificate of Lawful Development (Proposed) for the use of the site as a Tyre and Plastics Pyrolysis and Oil Recovery facility (Use Class B2)	Refused 7/10/15
P2016/0028	Intertissue Neath, Brunel way, Baglan Energy Park, Neath, SA11 2HZ	Consultation from Natural Resources Wales for variation of Environmental Permit to add a co-incineration plant combusting less than 3 tonnes per hour of non-hazardous waste to produce steam for use in the paper production plant.	No objections.
P2016/0668	Unity Mine, Heol, Wenallt, Cwmgrwrach, Neath, SA11 5PT	Temporary change of use of part of plant/machinery and buildings from coal processing to Waste Electrical and Electronic Equipment (WEEE) facility for a period of 12 months.	Full Plans approved.
P2018/0511	Pwllfa Watkin landfill Baran Road Pontardawe Swansea SA8 4RX	The variation of Condition 1 (to extend the operational lifetime of the site until 2025, followed by a year for restoration works) 2, 5, 6, 8, 15, 19 & 21 (to reflect the submitted updated plans and statements) attached to planning permission P2014/0693 (Please note amended date from 2023 to 2025)	Application valid from 20/6/2018 – Awaiting Decision
P2018/0512	Pwllfa Watkin landfill Baran Road Pontardawe Swansea SA8 4RX	The REMOVAL of planning conditions 1 (commencement) 8, 12, 17, 18, 19, 37, 42, 49, 54, 61 (duplicated by other conditions) 21 (move to notes section) 24, 32, 36, 44, 45, 46, 53, 59 (relating to required works that have already been completed) 34 & 39 (superseded by subsequent permissions) 38 (Tip 891 has been restored). The VARIATION of planning conditions 2 (to extend the operational lifetime of the site until 2023, followed by a year for restoration works) 3, 5, 7, 22, 23, 28, 35, 41, 43, 48, 50, 51, 55, 60 (update conditions to allow for updated plans/information submitted) attached to planning permission P2002/1016.	Refused 17/12/20
P2018/0549	Port Talbot Steelworks Grange Road Margam Port Talbot SA13 2NG	Application for the variation of condition 1 (to allow for the excavation and recovery of deposited material) condition 4 (to allow for amended plans) and conditions 5 & 37 (to allow a longer time period for the submission of details required by condition) attached to planning permission P2016/0735	Approved 17/10/2018
P2018/0485	Briton Ferry Industrial Estate, Household waste Recycling Centre, Wharf Road, Llansawel, Neath, SA11 2HZ	Single-storey extension to Household Waste and Recycling Centre	Approved 12/7/2018

P2020/0511	Neath Abbey Wharf, Morris And Co Neath Abbey Wharf Access Road Skewen	Erection of steel framed shelter for the storage of incinerator waste.	Full Planning permission approved 14.8.20)
P2020/0670	Margam Green Energy Plant Longlands Lane Margam	Section 73 application for the removal of condition 3, 4 and 20, (all construction related conditions) as the development has now been constructed, and also variation of conditions 5,6, 7 and 8, (all relating to surface water and foul management) 11, (landscaping details) 12, (noise monitoring) and 19, (landscape and environmental management plan) to allow for the submission of a revised details, of planning application P2015/0992 approved on 04/01/2016 which related to the construction of a waste wood storage building.(amended landscape and ecology management plan)	Approved 2.12.20
P2021/0916	Pwllfawatkin Refuse Tip Pontardawe Link Road To Baran Road Pontardawe	Request for scoping opinion - extension of time and amended restoration profile at Pwllfawatkin Landfill site	Decided 04/11/21: Scoping Opinion
P2021/1277	Pwllfawatkin Refuse Tip Pontardawe Link Road To Baran Road Pontardawe SA8 4RX	Revised restoration profile of Tip 890 including continuation of waste importation to 31st October 2023 with restoration completed by 31st October 2025.	Awaiting decision
P2022/0769	Land At Units 1-3 Sirius Drive Seaway Parade Industrial Estate Baglan Energy Park Port Talbot SA12 7BR	Change of use to asbestos waste transfer station, construction of steel reinforced concrete pad and drainage works.	Approved 17/11/22
P2022/0606	R And J Metals The Dock Yard Estate Briton Ferry Neath Neath Port Talbot SA11 2HZ	Change of use of land for the storage of waste disposal skips (for collection and delivery) and provision of additional car parking in association with existing scrap yard. Erection of pallisade fence to enclose site, laying of hardstanding and creation of accesses.	Approved 31/08/22
PEMBROKESHIRE			
13/0818/PA	Ledwood Mechanical Engineering Ltd, Waterloo Industrial Estate, Waterloo, Pembroke Dock, SA72	Construction of a pyrolysis unit to generate syngas by thermally treating oily sludge and filter cake generated by the oil refining industry, to power engines which will generate electricity for the National Grid.	Refused 24/2/16
14/0514/PA	Causeway Factory, The Causeway, Camrose	End of life vehicle breaker's yard	Conditionally approved13 03 15
14/0589/NM	Materials recycling facility at Withyhedge Landfill Site, Rudbaxton	Alterations to layout, inverters, location of sub-station, fence height, maintenance track and increase in number of CCTVs	Unconditionally approved 20 02 15
14/1028/PA	Plot 12A, Waterston Industrial Estate, Main Road, Waterston	Storage building at existing facility (consented under 12/0756/PA – end of life vehicle recovery facility)	Conditionally approved 09 04 15
14/1029/PA			

	Plot 12A, Waterston Industrial Estate, Main Road, Waterston	Variation of condition 3 and removal of conditions 4 and 5 of 12/0756/PA, in relation to approved design, surfacing and turning area (end of life vehicle recovery facility)	Conditionally approved 09 04 15
14/1112/PA	Green Acres Skip Hire, Dwrbach, Fishguard	Side extension to existing waste building and operation as material recovery facility, recycling facility and associated works	Conditionally approved 21 10 15
14/0660/PA	Land west of Clunderwen Depot	Removal of condition 1 from consent 07/1044/PA (material recovery facility)	Conditionally approved 30 06 15
15/1266/PA	Highway House, Ferry Terrace, Waterloo, Pembroke Dock	The retention of mixed use of land buildings as a waste transfer / recycling centre and the parking of heavy goods vehicles.	Conditionally approved 25/7/17
15/0669/CL	Highway House, Ferry Terrace, WATERLOO, Pembroke Dock, Pembrokeshire, SA72 6TY	Certificate of lawfulness for a scrap and metal recycling yard	Refused 06.11.15
18/0064/PA	Meigan Wells, Blaenffos, Boncath, Pembrokeshire, SA37 0JE	Variation of Conditions 10 (Waste and facility type), 11 (Types of waste), and removal of conditions 12 (Storage), 13 (Storage), 16 (Noise levels) of planning permission 05/1360/PA (Plastic Recycling Facility).	Conditionally approved 14/6/18
18/0302/PA	Material Recycling Facility, Withyhedge Landfil Site, RUDBAXTON, Haverfordwest, Pembrokeshire, SA62 4DB	Variation of condition 2 (temporary use of site and restriction of planning permission ref: 06/0165/PA) to extend the recycling use of the site.	Conditionally approved 30/01/20
18/0667/PA	Tangiers Quarry, Tangiers Farm, Haverfordwest, Pembs, SA62 4BU	Operation of a construction and demolition recycling facility within the quarry	Conditionally approved 05/04/19
19/0244/PA	Plot 12A, Waterston Industrial Estate, Main Road, Waterston	Change of use of existing end of life vehicle recovery site to include metal and waste electrical and electronic equipment (WEEE) bulking facility	Conditionally approved 02/09/19
19/0589/NM	Waterston Industrial Estate, plot 12A, Main Road, Waterston	Non-material amendment to condition 4 (use of site) for pp 19/0244/PA (see above)	Unconditionally approved 10/10/19
19/0577/PA	Unit 29 and 29A, The Dockyard, Pembroke Dock	Change of use of building to a Waste Transfer Station, to bale source-segregated recycling and to bulk source-segregated waste streams, absorbent hygiene products, dry mixed recycled and residual waste for onward transportation for recovery or disposal elsewhere	Conditionally approved 07 11 19
20/0191/PA	Land adjoining Clunderwen Depot, Nevern Road, Glanrhyd, near Cardigan	Variation of condition 1 (commencement date) of pp 14/0660/PA (removal of condition 1 from consent 07/1044/PA (commencement required)) – material recovery facility	No decision
20/0295/PA	Land to the west of Greenacres Skip Hire, Dwrbach, Fishguard	Extension of recycling facility	Conditionally approved 21 12 20

20/0376/PA	Highway House, Ferry Terrace, Pembroke Dock	Variation of condition 1 (site layout plan) and condition 4 (waste material height) for pp 15/1266/PA (retention of mixed use of land and buildings for waste transfer / recycling)	Refused 08 12 20 but **appeal allowed** 21 09 21
20/0841/DC	Land to west of Greenacres Skip Hire, Dwrbach, Fishguard	Discharge of condition 8 (surface water disposal) for pp 20/0295/PA (extension to existing recycling facility)	Conditionally approved 22 04 21
21/0674/PA	Land adjacent to PG Recycling, Parc Gwyn, Parc Gwyn Fryn, Crymych	Variation of condition 1 (lifespan of operations) of pp 10/1063/PA (change of use of agricultural land to deposit of inert waste)	Conditionally approved 24 03 22
21/0796/PA	Pembrokeshire Metal Recycling, Unit C, G Building, Carew Pavilion, Carew Airfield, Carew	Change of use of land from scrap metal storage to metal recycling, vehicle storage, depollution and dismantling (authorised treatment) facility	Conditionally approved 25.08.22
21/1104/PA	Land off Amoco Road, Milford Haven	Outline application for Phase 4 of the proposed Pembrokeshire County Council Eco Park. The publicly accessible Waste and Recycling Centre (WRC) will be developed in Phase 4.	Conditionally approved 05 10 22
21/1102/PA	Land off Amoco Road, Milford Haven	Full application for phases 1, 2 and 3 of the proposed Pembrokeshire County Council Eco Park. Phase 1 – recycling transfer facility and associated access roads; phase 2 – vehicle and staff parking area; phase 3 – residual waste and recycling facility.	Conditionally approved 05 10 22
22/0569/PA	Quarry, Tangiers Farm, Haverfordwest	Variation / removal of condition 2 of pp 18/0667/PA (operation of a Construction and Demolition Recycling Facility within the Quarry)	Decision pending
22/0689/PA	Land to the west of Greenacres Skip Hire, Dwrbach, Fishguard	Extension to existing recycling building	Decision pending
22/0856/DC	Land at Amoco Road, Milford Haven	Discharge of condition 17 (vegetation) of pp 21/1102/PA (full application for phases 1, 2 and 3 of the proposed PCC eco-park – phase 1 recycling transfer facility and associated access roads, phase 2 vehicle and staff parking area and phase 3 residual waste and recycling facility)	Decision pending
22/0872/DC	Land at Amoco Road, Milford Haven	Discharge of conditions 3 (CEMP), 12 (landscape) and 16 (EEMP) for pp 21/1102/PA (full application for phases 1, 2 and 3 of the proposed PCC eco-park – phase 1 recycling transfer facility and associated access roads, phase 2 vehicle and staff parking area and phase 3 residual waste and recycling facility)	Decision pending
22/0821/DC	Land at Amoco Road, Milford Haven	Discharge of conditions of pp 21/1102/PA (full application for phases 1, 2 and 3 of the proposed PCC eco-park – phase 1 recycling transfer facility and associated access roads, phase 2 vehicle and staff parking area and phase 3 residual waste and recycling facility)	Decision pending
SWANSEA			
2014/1155	Stenor Environmental Services, Burrows Rd, Kings Dock	Continued use of waste reclamation and recycling centre for a temporary period	Granted 5/8/15

2014/1982	Glass Tech Recycling Ltd, Land at Roberts Rd, King's Dock. SA1 1QR	Change of Use from Class B8 to Glass Recycling Operation (B2) with associated storage	Granted 11/3/15
2015/1167	Land at Roberts Road, Kings Dock, Swansea, SA1 1QR	Glass Recycling Operation - Discharge of conditions 3 (Site Operation Plan) and 6 (Flood Management Plan) of planning permission 2014/1982 dated 11th March, 2015	Granted (Unconditional) 24/7/15
2017/0969/S73	Glass Tech Recycling Ltd, Land at Roberts Road, Kings Dock, Swansea, SA1 1QR	Variation of condition 7 of planning permission 2014/1982 granted 11th March 2015 to allow the use to be extended to 24 hours per day and operational 7 days per week	Granted 29/6/17
2015/1668	Lock Head Kings Dock Swansea Docks Swansea SA1 1QR	Glass Recycling Operation - Variation of condition 7 of planning permission 2014/1982 dated 11th March, 2015 to extend the hours of operation to 16 hours between 05.30 & 21.30	Granted 27/10/15
2015/0013	Shanks Waste Services Ltd, Meadow St, Townhill, Swansea	Change of use from waste recycling centre to sports use	Granted 22/2/15
2016/1356	Gwyn Yard 4 St Teilo Street Pontarddulais Swansea SA4 8T	Waste Recycling Transfer Station incorporating machinery, conveyors, portable/temporary buildings and material storage bays	Withdrawn
2016/1522	Griffiths Waste Management Site, BryntywodLlangyfelach Swansea SA5 7LP	Demolition of existing waste management facility buildings and construction of replacement buildings and associated infrastructure	Approved 21/9/16
2017/0325/S73	Former J R Steel Works Bryntywod Llangyfelach Swansea SA5 7LE	Retention of use of land as timber recycling centre including processing of wood, wooden materials, associated plant and machinery and previously tipped inert material together with on site storage of wood chip material, construction of building for the dry storage of recycled wood waste and the creation of a 1m high clay bund around southern, western and northern boundaries of the site without complying with conditions 2, 3, 5, 9, 10, 11, 14 and 16 of planning permission 2007/1250 granted 11th December.	Granted 19/4/17
2017/0373	Former Greyhound Stadium Ystrad Road Fforestfach Swansea SA5 4NE	Retention of use of site for waste reclamation, recycling and self storage units for a temporary period of ten years	Granted 5/10/17
2017/2094	Graigola Wharf Kings Dock, Swansea Dock, SA1 8QT	Change of use of land from waste storage to scrap metal storage facility	Approved 29/1/18
2017/0880/DOC	Griffiths Waste Management Site Bryntywod Llangyfelach Swansea SA5 7LP	Discharge of condition 2 of planning permission 2016/1522 granted on 21st September 2016 (site investigation scheme)	Approved 18/5/17
2018/2059/FUL	Biffa Waste Services Clarion Close Swansea Enterprise	Small scale waste to energy recovery facility including extension to existing building, external	Refused 9/5/19. Appeal withdrawn in November 2020

	Park Swansea SA6 8QZ	plant, associated structures and 25m chimney stack	
2020/1492/FUL	Land Adjacent To Former Bus Depot New Road Crofty Swansea	Change of use of former bus depot (Class B8) to a private waste recycling centre (Class B2)	Being considered
2020/0805/FUL	Land To The Rear Of Yard 4, Gwyn Yard St Teilo Street Pontarddulais Swansea SA4 8TH	Waste Recycling Transfer Station incorporating machinery, conveyors, portable/temporary buildings and material storage bays	Being considered
2021/3210/FUL	Michton Kingsway Fforestfach Swansea SA5 4DL	Use of the building for plastic recycling (Class B2)	Approved 04/08/22
POWYS			
P/2013/0984	Tir Canol Landfill Site Lower CWMTWRCH Swansea SA9 2QQ	Provision of a new office block facility to serve existing landfill, waste transfer and retention of waste transfer station	Approved 24/06/14
P/2013/0569	Land At Stonehouse Farm Maes Mawr Welshpool Powys SY21 9DB	Change of use of existing forestry land associated with the importation, tipping and spreading of waste material (top soil and sub soil) and associated engineering operation (retrospective) and material operations on land involving the spreading of 300 mm of topsoil to cap the area of soil deposition (proposed).	Approved 16/04/2014
P/2013/1089	CWM Wernheulog Llanfaredd Builth Wells Powys LD2 3TE	Proposed siting of an inert waste dump at two disused quarries. Condition 3 requires deposition of waste to cease on or before 31st March 2019.	Approved 17/04/2014
P/2013/0458	Tan Y Foel Quarry Cefn Coch Welshpool Powys SY21 0AN	Deepening of existing quarrying operations, regularisation of existing quarry waste tip and its further extension along with regularisation of existing ancillary development and submission of modern planning conditions in accordance with schedule 14 of the Environment Act 1995	Approved 16/09/2013
P/2014/0851	CWRT-Y-Plyffin Landfill Site Llanfilo Brecon Powys LD3 0TT	Full: Change of use of grazing land and extension to existing waste transfer station, including the construction of a waste transfer building, welfare unit and additional weighbridge, alterations to the site access, creation of additional hardstanding, the creation of storage bays, together with bunding and additional landscaping and associated	Approved 26 Feb 2015
P/2015/0650	Tir Canol Landfill Site Lower CWMTWRCH Swansea SA9 2QQ	Application for the establishment of an open windrow green waste composting facility on an area of completed but unrestored landfill. Tir Canol Landfill Site, Swansea, SA9 2QQ	Approved 16/12/2015
P/2015/0942	Council Depot (Waste & Recycling) Station Road Rhayader Rhayader LD6 5AW	Redevelopment of waste recycling and recycling bulking facility including removal of 2 store buildings, construction of building for bulking up of waste and cardboard, new welfare amenity building, conversion of existing welfare.	Approved 03 Dec 2015
P/2015/0827	Community Recycling Site Waterloo Road Llandrindod Wells Powys LD1 6BH	Provision of a dedicated area within the existing recycling site for safe storage of household waste classed as hazardous.	Approved 02 Dec 2015

DIS/2017/0126	Tir Canol Landfill Site, Palleg Road, Lower Cwmtwrch, Swansea, Powys	Discharge of conditions no. 10 of B/01/0276	Approved 22 March 2019
P/2018/0587	Abermule Business Park Abermule Montgomery Powys	Hybrid application comprising of a full application for a proposed recycling bulking facility and associated works and an outline application for the erection of business units (B1/B2/B8) and all associated works	Approved 02 Aug 2018
P/2018/0067	Dyffryn Industrial Estate Pool Road Newtown Powys SY16 3AJ	FULL: Demolition of existing building/unit and construction of household waste recycling centre and associated infrastructure	Approved 09 Oct 2018
19/0361/FUL	Brecon Waste Transfer Site Llan-y-wern Brecon Powys LD3 0TT	Demolition of existing structures and the proposed development of offices/welfare unit, a bulking facility, a storage shed, sump and silo for food waste, an area of hardstanding and associated car parking spaces for staff and operational vehicles	Approved 21 Aug 2020
19/1477/FUL	Bryn Posteg Landfill Site, Tylwch, Llanidloes, SY18 6JJ	Regularisation and retention of over-tipped material on the existing landfill, additional landfilling operations in accordance with revised restoration profile and phasing details together with associated landfill infrastructure	Pending decision
21/0733/DNS	Buttington Quarry Buttington Welshpool Powys SY21 8SZ	Proposed construction and operation of an energy recovery facility for the importation, storage and treatment of municipal, commercial and industrial waste and generation of heat and electricity, involving partial re-profiling of quarry void, earth works, alteration to existing residential access and provision of new vehicular site access from the A458 and site haul roads, ancillary buildings, structures, transformer, sub-station and grid connection, parking, hardstanding including laydown areas for materials storage and plant, workshop, weigh bridge, offices, welfare/mess facilities, fencing, gates, security and CCTV, bicycle storage and electric vehicle charging facilities, sustainable drainage measures, landscape works and ecological enhancements.	Refused 02/08/22
22/1631/FUL	The Ffaldau Waste Re-Cycling Centre Llandegley Llandrindod Wells LD1 5UD	Construction of a building to house and install a combined heat and power plant - "CHP development" with dual purpose to provide heat 4MW thermal output & 2.5MW electrical output and all associated works	Validated 25/10/22 Pending Consideration
CEREDIGION			
A141004	Abercoed quarry, Tregaron.	Proposed building for inert waste treatment facility to produce soil substitute and aggregate,	Approved 26.10.15
A150985	Crugmore Farm, Penparc, Cardigan.	Minor amendment to application A130627 (proposed installation of an additional CHP engine within the existing building),	Non material amendment approved 03.12.15
A150654	Crugmore Farm Penparc	Amendments to weighbridge, log cabin office, toilet & staff room, [amendment to A120654 Construction of inert waste recycling and green waste composting facility and associated works].	Non material amendment approved 22.01.13 Consent given to the repositioning of the weighbridge only
A160320	Troedrhiw-Gwynau, Rhiw Brialli, Comins Coch SY233BE	Inert waste recycling facility and associated works	Refused 29.7.16
A161148			

	Las Waste Transfer Station, Lampeter Industrial Estate, Lampeter	Demolition of existing building and erection of a steel framed building for storage of different segregated recyclable materials	Permitted STC 06/03/17
A190720	Waun Uchaf, Cribyn, Lampeter, Ceredigion, SA48 7QJ	Change the use of the existing barns into a motorcycle dismantling and recycling business.	Approved 11.12.19
A220646	Helyg Fach Caravan Park, Aberporth, Cardigan, Ceredigion, SA43 2EB	Change of use of agricultural yard and building to include a waste sorting and storage area, as an ancillary facility for the adjoining caravan site.	In progress

Source: information provided by individual authorities

Appendix 6 **Planning applications/decisions for AD facilities in the Mid & SW Wales region April 2015 –March 2022**

Application	Location	Proposal	Decision
CARMARTHENSHIRE CC			
S/29559	New Lodge Farm, Pontardulais Road, Cwmgwili, Llanelli SA14 6PW	Demolition of existing structures on site, restoration and re-profiling the site and the construction of a 2 - 3 MWE Photovoltaic solar array and an energy recovery centre (comprising an advanced conversion technology (ACT) 8 - 12 MWE pyrolysis plant and an anaerobic digestion 2 - 3 MWE facility with an integrated education centre) together with access improvements, landscaping and associated works	Refused 4th February 2016
W/31966	Nantycaws landfill Site, Llanddarog Road, Nantycaws, Carmarthen SA32 8BG	Provision of an anaerobic digestion plant.	Full Granted 3/8/15
E/32296	Parc Henry Farm,Parc Henry Lane Ammanford, SA18 2EL	Alteration to existing slurry tank by installing a 20KW AD Plant.	Full Granted 8/9/15
W/32504	Coomb Farm, Llangynog, Carmarthen, SA33 5HP	Planning application for 0.5MW Anaerobic Digestion Plant, Coomb Farm, LLangynog, Carmarthen, SA33 5HP	Full Granted 8/9/15
PEMBROKESHIRE CC			
15/0421/PA	Langdon Mill, Begelly	1 MW anaerobic digestion plant	Conditionally approved 11/12/15
15/0425/PA	Ludchurch Farm, Ludchurch	0.5 MW anaerobic digestion plant	Conditionally approved 11/12/15
15/0558/NM	Brawdy Farm, Brawdy	Non-material amendment to 13/0303/PA – alteration to site layout and elevations (500 kwE agricultural anaerobic digester plant)	Conditionally approved 5/3/16
15/0493/AG	Trefigin Manor Farm, near Cardigan	Anaerobic digester system and electricity generation (agricultural notification)	No objection 27/8/15
16/0125/AG	Land to NW of Trefigin Manor Farmhouse	Steel portal framed agricultural building to house a high throughput anaerobic biodigester and CHP plant, to provide heat and power for Trefigin Farm.	Unconditionally approved 13 06 16
16/0555/PA	Langdon Mill, Begelly	Variation of conditions 2 (approved plans), 6 (tree protection), 9 (ecological appraisal) and 10 (planting scheme) for 15/0421/PA (1MW anaerobic digestion plant)	Conditionally approved 04/10/16
16/0815/NM	Langdon Mill, Begelly	Non-material amendment to 16/0555/PA	Unconditionally approved 20.12.16
17/0912/NM	Langdon Mill, Begelly	Non-material amendment to 16/0555/PA (1MW Anaerobic Digestion plant)	Unconditionally approved 18 01 18

POWYS CC			
P/2014/0528	Glanmeheli Farm Kerry Newtown Powys SY16 4LN	Installation of an anaerobic digester plant to include erection of a digester tank, digestage storage tank, separator and clamp, together with the erection of a new building, landscaping and all other associated works.	Approved 29/09/2014
P/2014/1021	Land At Argoed Farm Trefeglwys Caersws Powys SY17 5QT	Construction of a 250kW on-farm Anaerobic Digester tank, digester store tank, 3 silage clamps, storage shed, slurry tank, CHP unit, transformer and substation, gas flare together with retaining wall, formation of access road, engineering operations including formation of earth bund and all associated works	Approved 12/12/2014
P/2015/0381	Barland Farm Evenjobb Presteigne LD8 2SH	Proposed construction of a 250kW Anaerobic digester plant and associated equipment	Approved 14/09/2015
P/2016/0209	The Maesydd Pool Quay Welshpool Powys SY21 9LA	Erection of an anaerobic digestion plant, construction of vehicular access and track and all associated works (part retrospective)	Approved 05/09/2016
20/0934/FUL	Ystym Colwyn Meifod Powys SY22 6XT	Erection of an anaerobic digestion plant (comprising 2 x 200kw boilers and 250kw engine) and all associated works	Approved 31/01/2021
CEREDIGION CC			
A150551	Rhos y Gadair, Blaenanerch, Cardigan	Anaerobic digester to include digester and slurry tank	Returned invalid
A150407	Penybont, Tregaron.	Erection of an anaerobic digestion plant (no importation) with landscaping and all associated works and erection of an agricultural storage building	Returned invalid.
A150264	Llanfair Fach, Lampeter.	Erection of an anaerobic digestion plant (no importation) with landscaping and all associated works	Approved STC 30.09.15
A150263	RhosygadairFawr, Blaennannerch, Cardigan	Erection of an anaerobic digestion plant (no importation) with landscaping and all associated works	Approved STC . 30.09.15
A150211	Cwmporthman, Blaenporth, Cardigan	Erection of an anaerobic digestion plant (no importation) with landscaping and all associated works,.	Approved STC 30.09.15
A150118	PencefnDrysgol	Erection of an anaerobic digestion plant (no importation) with landscaping and all associated works,	Returned invalid

A150116	Ty Hen, Beulah, Newcastle Emlyn	Erection of an anaerobic digestion plant (no importation) with landscaping and all associated works,	Withdrawn
A150108	Gelligarneddau, Olmarch, Llangybi, Lampeter	Installation of an anaerobic digester system with associated works,.	Approved 31.03.15
A150538	PencefnDrysgol, Dewi Road, Tregaron	Anaerobic digester plant to include digester and slurry tank (Determination)	Prior approval refused 14.08.15
A150996	Pengallt Coed y Bryn, Llandysul, Ceredigion, SA44 5LZ	Erection of agricultural building with lean-to features to house primary Anaerobic Digestion plant and ancillary equipment	Prior approval refused 21.12.15
A181127	Crugmore Farm, Penparc, Cardigan, Ceredigion, SA43 1RD	Variation of condition 2 of planning decision A130627 to accommodate alterations to the proposed scheme. (reduction in ground level; different holding and digester tanks; formation of an earth bund instead of concrete retaining walls and associated works	Approved subject to conditions 15/02/19
A191009	Gelligarneddau, Llangybi, Lampeter, Ceredigion, SA48 8NJ	Variation of condition 3 and 4 of planning permission A150108 - condition 3 No waste materials other then agricultural manure, farm slurries, feed crops and category 3 commercial food waste (where necessary for technical reasons to ensure effective running of the Anaerobic Digestion process) shall be used as a feed stock for the anaerobic digester hereby approved. condition 4 No slurry shall be imported on to the farm to be used as a feed stock for the anaerobic digester hereby approved.	Approved subject to conditions 24/03/20
NPTCBC			
SWANSEA			

Source: information provided by individual authorities