



Caerphilly County Borough
2nd Replacement Local Development Plan 2020-2035

EB28: Waste Evidence Paper

October 2026

Introduction

This paper is one of a series produced as part of the evidence base for the 2nd Replacement Local Development Plan, 2020-2035 (2RLDP). Each topic paper can be read in isolation or together to gain a wider understanding of how the policies and/or allocations in the 2RLDP have been developed to address issues facing Caerphilly County Borough.

This paper sets out the evidence that supports the waste management policies within the 2RLDP.

The 2nd Replacement Local Development Plan (2RLDP) will, once adopted, form the local tier of the development plan, which applications for planning permission must be determined in accordance with (material planning considerations notwithstanding). The 2RLDP must be in general conformity with Future Wales, which forms the national tier, and must also have regard to national planning policy, particularly Planning Policy Wales and the accompanying technical advice notes, as well as policy, guidance and complementary strategies relating to national, regional and local levels.

Policy Context

Planning Policy Wales (PPW), Technical Advice Note (TAN) 21: Waste, local development plans, *Towards Zero Waste* and the associated sector plans, taken as a whole, comprise the overall waste management plan for Wales as required by the Waste Framework Directive.

Towards Zero Waste: the Overarching Waste Strategy Document for Wales

Towards Zero Waste sets out the Welsh Government's high-level policies, targets and principles with respect to waste management. Implementation of these is addressed in the sector plans.

In order to comply with the Waste Framework Directive, the following waste hierarchy is applied as a priority order in waste prevention and management legislation and policy:

Prevention;

Preparation for reuse;

Recycling;

Other recovery e.g. energy recovery; and

Disposal.

The hierarchy should be applied by everyone making waste management decisions, unless a life-cycle assessment suggests otherwise.

Towards Zero Waste sets out two, key milestones:

2025: towards zero waste – an aspirational endpoint where all waste produced is reused or recycled as a resource, without the need for landfill or energy recovery;

2050: achieving zero waste – as a minimum, to reduce the amount of waste produced by 65% and phase out residual waste, so that the only waste produced is reused or recycled.

Collections, Infrastructure and Markets (CIM) Sector Plan

The CIM Sector Plan supports *Towards Zero Waste* by detailing policies, delivery actions and outcomes concerning the collection and management of waste resources, and the use of waste derived products. Its aim is to facilitate delivery of efficient and sustainable collection systems; and the development of infrastructure, capacity and markets in relation to recycle.

The Sector Plan focuses on a number of 'priority materials' – those from all sectors specifically referred to by the Waste Framework Directive which are associated with the highest ecological footprint, and for which appropriate management is of paramount importance. These include food waste and dry recyclates (paper/card, metal, plastic, glass) as well as hazardous wastes, 'directive' wastes (those defined by EU directives) and residual wastes – those remaining after preparation for reuse and recycling has been undertaken.

The Sector Plan sets out key areas for action, involving the following measures:

Preparing for reuse;

Recycling;

'Other recovery' – ensure that waste which is not suitable for reuse or recycling is separately collected and capable of recovery in local applications, and/or managed in accordance with the Waste Framework Directive in respect of the waste hierarchy;

Energy recovery from, and disposal of, residual waste – to ensure that residual waste not suitable for reuse, recycling or 'other recovery' is used for the optimised recovery of energy in local applications and, where no alternatives exist, to ensure that sufficient landfill void is maintained until such time as the transition to a 'zero landfill' society has been completed.

Overarching actions

The development of waste hierarchy guidance to assist in the implementation of *Towards Zero Waste*;

Ensuring the waste management infrastructure adapts to climate change;

Reducing carbon emissions from the collection and transportation of waste;

Effective regulation of waste management;

Controlling waste exports;
Protection of the environment and human health;
Reviewing land use planning for the development of waste infrastructure;
Reviewing training and education need in connection with waste management.

Actions taken to implement reuse objectives

Development of a separate reuse strategy for Wales;
Increased action by local authorities in respect of preparing for reuse;
Support for preparing for reuse by waste electronic and electrical equipment compliance schemes;
Provision of improved facilities for the collection of waste items for reuse from homes and businesses;
Investigating mechanisms for the establishment of enhanced reuse and repair networks;
Enhancing markets for items which have been prepared for reuse.

Actions taken to implement recycling objectives

Provision of separate collections of paper, metal, glass and plastic for all sectors;
Improving the quality of recyclate collected through working with reprocessors to set specifications for end markets;
Increasing the recyclability of products and packaging;
Encouraging 'recycling on the go' by all sectors to improve the recycling of material currently collected as residual waste or litter;
Assisting local authorities in providing enhanced recycling services to improve the collection of an increased range of materials at the kerbside and at civic amenity sites;
Retaining the value of collected recyclate within Wales where possible, by improving local markets;
Supporting businesses to undertake high quality recycling of business waste through market intervention as required, and increasing their access to collection and recycling infrastructure to improve the quantity, quality and range of materials collected;
Support for the improvement of the recycling infrastructure;
Working with manufacturers to increase the quantity of recycling content in products through the development of agreements, standards and procurement processes;
Supporting changes to the UK PRN system to ensure that the increased amount of material recycled will achieve the best environmental outcome;
Ensuring the development of adequate markets for recyclate in Wales.

Actions taken to implement 'other recovery' objectives

Provision of guidance on deviation from the waste hierarchy;
Promote the anaerobic digestion of food waste over landspreading;
Work with water companies to ensure the appropriate use of in-sink food waste disposal units;
Support the development of appropriate energy from waste routes for those separated wastes where energy from waste represents the best practicable environmental option.

Actions taken to implement energy recovery and disposal objectives

Support local authority procurement regarding treatment of residual municipal waste, and development of capacity to treat residual waste from other sectors;
Support the development of appropriate energy recovery options regarding residual waste, including the development of markets for heat output and processed combustion revenues as well as electricity;
Engage with local communities and stakeholders in respect of the need for, and development of, residual waste management capacity;
Consultation on the introduction of restrictions regarding landfilling or incineration of certain wastes;
Consultation on the revision of planning policy to ensure that the revised requirements on proximity as set out in the Waste Framework Directive are incorporated fully into national planning policy and guidance;
Ensure that the planning system in Wales makes provision for continued landfill capacity as required;
Ensure that the landspreading of 'compost like outputs' is appropriately controlled;
Ensure that there is adequate treatment for capacity for hazardous waste.

Beyond Recycling

Beyond Recycling sets out Welsh Government's strategy for the delivery of the circular economy. Building on *Towards Zero Waste*, it establishes the following key targets (reduction targets set against a 2006/7 baseline):

By 2025:

26% reduction in waste;
Zero waste to landfill;
50% reduction in avoidable food waste;
70% recycling.

By 2030:

33% reduction in waste;
60% reduction in avoidable food waste.

By 2050:

'One planet' resource use;

62% reduction in waste;

Zero waste;

Net zero carbon.

The strategy is based on six core themes:

Driving innovation and materials use;

Upscaling prevention and reuse;

Building on our recycling record;

Investing in infrastructure;

Enabling community and business action;

Aligning government levers;

and eight headline actions:

Support businesses in Wales to reduce their carbon footprint by becoming more resource-efficient, enabling them to become more productive and efficient;

Provide the tools to enable community action and support local initiatives;

Phase out unnecessary single-use items, especially plastic, sending no plastic to landfill and reducing the amount sent to energy recovery;

Eradicate avoidable food waste by working with businesses across the supply chain;

Ensure procurement is undertaken on a basis which prioritises remanufactured, refurbished and recycled materials or come from low-carbon and sustainable ones;

Strive to achieve the highest rates of recycling in the world, working with local government, businesses, social enterprises and communities;

Reduce the environmental impact of waste collection from homes and businesses by introducing low-emission vehicles and investing in infrastructure;

Take full responsibility for our waste by reducing the amount we produce, managing what we create and not exporting problem waste elsewhere.

Planning Policy Wales, Ed. 12

Planning Policy Wales (PPW) sets out the land-use planning policies of the Welsh Government. National policy should be taken into account in LDP preparation.

Chapter 5 sets out the Productive and Enterprising Places theme, which seeks to ensure that the circular economy is promoted and that best use is made of material resources. The principles of the circular economy (keeping materials in use for as

long as possible) should be incorporated into all development. This includes encouraging the use of renewable resources and promoting the use of recycled and secondary materials.

Early consideration in the preparation of development plans should be given to the following:

Promoting the use of existing buildings wherever possible;

Designing out waste by using materials which are, or can be, recycled or reused; and by appropriate site selection and treatment;

Using design choices which encourage a more adaptable and durable approach to building design;

Incorporating recycling facilities into the design of development; and

Recognising synergies and the multiple benefits that can be gained through appropriate materials choices.

This includes encouraging the recycling and reuse of secondary aggregates and construction waste, where appropriate, as well as innovative approaches to recycling including on-site facilities on minerals sites, support for 'urban quarries' and the recycling of waste in conjunction with other suitable uses, such as builders' merchants.

The planning system should recognise the social, economic and environmental benefits that can be gained from the management of waste as a resource, whilst at the same time:

Minimising adverse environmental impact;

Protecting designated landscape and nature conservation areas from inappropriate development; and

Protecting the amenity of the users of other land uses.

LPAs should, in principle, be supportive of facilities that fit with the aspirations set out in *Towards Zero Waste*, the Welsh Government's waste management policy, and reflect the priority order of the waste hierarchy. While the hierarchy provides the starting point for all types of waste management proposals, it should be considered against the wider social, economic, environmental and cultural factors which are relevant in any given case.

Development plans should demonstrate how national waste policy has been taken into account, in particular the Collections, Infrastructure and Markets (CIM) Sector Plan, as well as any updated position in the waste planning monitoring reports.

LPAs should monitor progress towards the provision of an integrated and adequate network of waste disposal installations, and of installations for the recovery of mixed

municipal waste and similar waste from the commercial and industrial sectors, as well as private households.

LPAs must support the provision of a wide ranging and diverse infrastructure, which may include disposal facilities for residual waste which cannot be dealt with at a higher level of the hierarchy. Suitable locations for sustainable waste management should be identified in development plans, as well as criteria by which applications for such facilities will be determined. LPAs should also make provision for the storage and processing of inert minerals arising from construction, demolition and maintenance operations by the identification of preferred locations for recycling facilities in development plans.

Technical Advice Note 21: Waste

Technical Advice Note (TAN) 21 should be read in conjunction with PPW and should be taken into account by LPAs in the preparation of development plans. It provides advice on how the land use planning system should contribute towards sustainable waste management and resource efficiency.

Towards Zero Waste, along with the CIM Sector Plan, sets out the long-term framework for resource efficiency and waste management until 2050. The strategic planning response needs to help contribute to short and longer term waste management goals. LPAs should provide a framework for the development of all types of waste infrastructure indicating, as far as possible, the locations to which facilities should be directed.

While the Waste Framework Directive requires that disposal and recovery of mixed municipal waste should be undertaken at one of the nearest appropriate installations to the source, this does not necessarily mean that all areas should be self-sufficient. The infrastructural network is likely to be spread over a regional or sub-regional area, and waste arising in one area may be best treated in an adjacent one. However, all areas should be prepared to accommodate infrastructure to support the development of an integrated network.

Regional monitoring is required to identify whether:

Sufficient landfill capacity is being maintained to treat waste which cannot be dealt with higher up the hierarchy;

Sufficient treatment capacity for the recovery of mixed municipal waste is coming forward;

The spatial pattern of provision is appropriate to fulfil identified needs; and

Further action needs to be taken by LPAs to address unforeseen issues.

Information on landfill void and operational recovery capacity should be set out in an

annual waste planning monitoring report. This should identify where landfill capacity falls below both a seven year and five year void. A seven year void represents the level at which sufficient capacity is likely to exist in a region to meet future disposal needs. A five year void should be identified as a trigger for pursuing any action which may be necessary to ensure future provision. This is likely to involve a site search and selection process at the regional level.

The CIM Sector Plan outlines the potential for recovery treatment capacity to increase. An updated regional position on likely sites coming forward should be provided, as well as an indication of where further provision should be set out in LDPs.

The locational requirements of waste facilities should be considered when preparing LDPs. Many modern in-building facilities are similar in nature and external appearance to industrial processes, and therefore sites allocated or safeguarded for general industrial use are likely to be suitable for such facilities, though this will depend on a variety of local factors.

As part of LDP preparation, LPAs should ascertain whether:

Support for local authority procurement programmes is necessary;

Any agreement contained in the regional waste monitoring report needs to be addressed by way of allocations or criteria-based policies; or

Opportunities exist to derive benefits from the co-location and development of heat networks.

LDPs should indicate where suitable and appropriate sites exist for the development of waste management facilities and, where necessary, criteria-based policies may be used. Some facilities will not be suitable in built-up areas. The suitability of locations will be influenced by *Towards Zero Waste* and the CIM Sector Plan though, in general, the most appropriate locations will be those that have less adverse impacts on the local population and environment, and that contribute most to a broad, infrastructural framework. New sites may be located within or adjacent to the following locations:

Industrial areas, especially those containing heavy or specialised uses;

Active or worked-out quarries – quarry depth and the nature of the local water table will be relevant considerations;

Degraded, contaminated or derelict land;

Existing or redundant sites or buildings;

Sites previously or currently occupied by other types of waste management facilities;

Sites where the nature of existing and proposed neighbouring uses present opportunities for co-location, and the creation of environmental technology clusters;

Farms, where the output will be used on the farm.

And/or where:

Site infrastructure is present (including electricity grid connections for energy from waste facilities);

Existing or proposed transport infrastructural links are present;

There is a need for sites for smaller scale, community-based reuse and recycling activities;

There are existing planning permissions/environmental permits;

The cumulative effect of waste management facilities and other development on sensitive environmental receptors would be acceptable;

The cumulative effect of waste management facilities and other development on the well-being of the local community, including any significant adverse impacts on environmental quality, social cohesion and inclusion or economic potential would be acceptable.

Future Wales: the National Plan 2040

Future Wales forms the national tier of the development plan and the 2RLDP will therefore be required to be in general conformity. Policy 16 requires LPAs to identify opportunities for district heat networks and for large-scale, mixed-use developments, where feasible, to have such networks. While this is a matter for the renewable energy background paper to address, there is the possibility of such networks making use of waste heat energy sources. Therefore, waste management policies and proposals have potential implications in this area.

CCBC Waste and Recycling Strategy 2023-28

The overarching aim of the strategy is to assist in meeting statutory recycling targets, as well as reduce the overall amount of waste produced. The document includes a number of objectives in common with national-level initiatives:

Reduce overall waste arisings;

Increase repair and reuse;

Increase the proportion and quality of material that is recycled;

Optimise contribution to and use of renewable energy;

Help residents manage waste more sustainably.

Beneath the Strategy sits an accompanying Waste and Resource Routemap, which sets out a number of 'pillars' – one of which (HRC provision) explicitly concerns the Council's network of waste infrastructure facilities and therefore has clear links to land-use planning.

Waste Monitoring

South East Wales Waste Planning Monitoring Report 2020

The requirement for waste monitoring is established in TAN 21 and is intended to enable LPAs to take a strategic overview of issues and trends in relation to waste management and to help inform LDPs. The Waste Framework Directive requires the establishment of an adequate and integrated network for the disposal of waste, and for the recovery of mixed municipal waste. TAN 21 requires that progress is monitored to identify whether sufficient landfill and treatment capacity is being maintained; whether the spatial pattern of provision is appropriate to fulfil identified need; and whether further action is needed by LPAs to address unforeseen issues. The 2020 report, prepared by Flintshire County Council, is the most recent (at the time of writing) and covers the 2018/19 period.

The upper threshold of the capacity gap for 2024/25 identified in the CIM Sector Plan is likely to represent the point at which the extent of provision in a region is considered sufficient for recovery capacity. In South East Wales, this is identified as 411-861 thousand tonnes per annum.

Landfill life is estimated on the basis of a number of different scenarios depending on residual waste arisings and diversion rates. In a worst case scenario, landfill void in South East Wales was expected to last until 2019/20, and under a best case scenario, would last indefinitely.

Very little disposal capacity for hazardous waste has been identified, but low levels of arisings and significant capacity within close proximity of the English border means that there is very little market incentive to develop disposal capacity in Wales. It is therefore considered that the current infrastructure forms an adequate and integrated network for the purposes of hazardous waste.

Local authority collected municipal waste

Local authority collected municipal waste: arisings

There was a reduction in local authority-collected waste for all local authorities in the region between 2008/9 and 2014/15, followed by a region-wide increase the following year which preceded further reductions. This variation could be due to waste minimisation efforts, changes to waste management collections and economic changes.

Local authority collected residual waste

While the quantity of residual waste collected has reduced at a regional level between 2015/16 and 2018/19, there is variation between local authorities. There is considerable progress to be made in relation to the quantity of residual waste

produced as well as waste management methods, which will affect demand for recovery capacity and the rate at which landfill void will be used up.

Local authority collected waste: management

Towards Zero Waste and the Municipal Sector Plan set a 64% recycling target for local authority collected waste by 2019/20, and 70% by 2024/25. Recycling rates have remained fairly constant between 2017 and 2019 and the region, on average, has not experienced an increase in recycling rates since 2016/17. However, both Caerphilly and the Vale of Glamorgan hit the 2019/20 64% target. Progress towards these targets will therefore need to be monitored.

Landfilling of local authority collected municipal waste

All local authorities in the region met their targets for 2018/19 under the Landfill Allowance Scheme (LAS), and all sent significantly less biodegradable municipal waste (BMW) to landfill than in 2014/15, due in part to the Trident Park EfW facility becoming operational. In Caerphilly, the quantity sent to landfill reduced from 14,952 tonnes in 2014/15 to 406 tonnes in 2018/19, representing a reduction in LAS allowance used from 58.7% to 2.0%.

Tonnages of local authority collected municipal waste reduced significantly from 2011/12 until 2016/17, but remained fairly level on a regional basis until 2018/19 (though Caerphilly experienced a reduction from 4,286 tonnes to 1,054 during this time). This has potential implications for the take-up rate of landfill void, though the Trident Park facility became operational in 2015 and some authorities have diverted waste that would otherwise have gone to landfill to treatment facilities outside of Wales, which has resulted in lower than predicted tonnages being sent to landfill.

Industrial and commercial waste

Industrial and commercial waste: arisings

Data regarding industrial and commercial waste generation is collected sporadically and is not available at a local authority level. Nonetheless, the quantity of industrial and commercial waste did not change significantly between 2007 (the CIM Sector Plan baseline year) and 2012 (from when annual assumptions regarding the amount of industrial and commercial waste generated applied). In the absence of more reliable data sources, it will be difficult to monitor progress towards the targets set out in *Towards Zero Waste*: a 1.4% reduction per annum for industrial waste; and a 1.2% reduction per annum for commercial waste – both from the 2006/07 baseline until 2050.

Recycling targets for both industrial and commercial waste were 67% by 2019/20 and 70% by 2024/25. In 2012, the 67% target had been achieved in South East Wales (67.7%) for commercial waste, though the figure was only 45% for industrial

and 58% for industrial and commercial as a whole. In 2018, an estimated 2.9 million tonnes (43% of which was in the South East) of industrial and commercial waste were generated in Wales, 67% of which was in the preparation for reuse, recycling and composting category. This represents a reduction from 3.7 million tonnes in 2012, and an increase in the rate of preparation for reuse, recycling and composting. There was also an increase in incineration from 143 thousand tonnes in 2012 to 236 thousand tonnes in 2018.

Construction and demolition waste

Construction and demolition waste: arisings

The latest survey on the generation of construction and demolition waste was conducted in 2012, with the amount of residual waste in the region being relatively small (71,600 tonnes). The CIM Sector Plan estimated a Wales-wide requirement of between 200 and 250 thousand tonnes of capacity for 2024/25, though this is likely to be an overestimate on the basis of the 2012 data.

Hazardous waste

Hazardous waste: arisings

South East Wales is a net importer of hazardous waste, producing 83 thousand tonnes in 2019 but managing nearly 194 thousand. This accounts for a relatively small proportion of total waste, with the majority being recovered or treated. The CIM Sector Plan has concluded that the current infrastructure forms an adequate, integrated network for the management of hazardous waste, and that the majority is being managed in accordance with the waste hierarchy. While there is little disposal capacity for hazardous waste, some was sent to Trecatti Landfill Site during 2019.

Landfill capacity

Inert waste

While the disposal of inert waste is no longer acceptable in most circumstances, it is reasonable to consider the level of provision, especially since the need for such capacity is often cited as justification for new facilities by applicants. Over 166 thousand tonnes of inert waste was disposed of at non-hazardous landfill sites in 2018.

Two sites accepted inert waste in 2018: Whitehall (Vale of Glamorgan) and Hendy Quarry (Rhondda Cynon Taf). These sites had a permitted void remaining at the end of 2019 of just over one million cubic meters. Based on permitted capacity and previous deposition rates, capacity is assumed to last in excess of 16 years. Other sites permitted to manage non-hazardous waste can manage inert waste, and a number of permissions – including at Gelliargwellt Uchaf Farm, Gelligaer – have

been granted for site restoration involving inert waste material. These sites can have an important role to play. Remaining inert landfills are time-limited and will require careful monitoring.

Non-hazardous waste

While the best case scenario is that landfill void in South East Wales will last almost indefinitely, the worst case scenario is that it would run out in 2019/20 and fall below the five year trigger identified in TAN 21 as a catalyst for investigating future provision. There were just over nine million cubic metres of landfill void remaining at the end of 2019, across a number of sites, which would last just over 10.6 years based on current deposition rates. Although this is sufficient due to declining deposition rates, landfill void should be monitored to ensure that operational decisions do not result in insufficient capacity.

Non-landfill capacity

Residual waste treatment procurement projects

A number of local authorities have procured residual waste treatment capacity. Prosiect Gwyrdd commenced in 2016 and is a partnership comprising Caerphilly, Cardiff, Monmouthshire, Newport and the Vale of Glamorgan. It involves managing up to 170 thousand tonnes per annum at the Viridor energy from waste facility at Trident Park, Cardiff. In addition, Blaenau Gwent, Merthyr, Rhondda Cynon Taf and Torfaen comprise the Tomorrow's Valley partnership which involves a 25 year contract (since 2015) to manage 95,000 tonnes p.a. at the same facility. While Trident Park has available capacity (it can manage up to 350 thousand tonnes p.a.), such local authority contracts will reduce that, and could have implications for industrial and commercial waste.

Food waste treatment procurement projects

Towards Zero Waste and the CIM Sector Plan both regard food waste as a priority stream, with the most sustainable method of management being anaerobic digestion (AD). Again, a number of contractual arrangements exist between consortia of local authorities and private companies with regard to the development of AD facilities and management of food waste. Significant progress has been made but careful monitoring is required. Food waste also comes from sources other than local authority collections and a number of planning permissions for AD facilities have been granted, including to manage agricultural waste.

Urban quarries

TAN 21 advocates the management of inert waste through the development of urban

quarries. While permissions for the management of construction and demolition waste have been granted, these are not large scale sites for the storage of inert waste. Applications for urban quarries in the South East have not been forthcoming.

Conclusion

The assessment undertaken by the 2020 Waste Planning Monitoring Report indicates that the landfill projections significantly overestimated the rate at which landfill void within the region is being used up. Furthermore, progress is being made with respect to the development of waste infrastructure which would divert waste from landfill, and this is expected to further reduce demand. The contractual arrangements of a number of local authorities have resulted in residual waste being managed outside of Wales, reducing the availability of waste to merchant facilities within the region. Consequently, there is no further need for landfill capacity within South East Wales, and any proposals for further residual waste treatment should be carefully assessed to ensure that overprovision would not result.

Waste Infrastructure in the County Borough

Existing Arrangements

The County Borough has a network of waste management facilities, with the Council currently operating six household waste recycling centres (HWRCs) at the following locations. The Full Moon site also operates a waste transfer station (WTS):

Aberbargoed (Bowen Industrial Estate);

Penmaen (Penmaen Industrial Estate, Pontllanfraith);

Full Moon (Full Moon Industrial Estate, Wattsville);

Trehir (Pandy Lane, Llanbradach);

Penallta (Penallta Industrial Estate, Hengoed);

Rhymney (The Lawns Industrial Estate).

In 2018/19 (the most recent year covered by the Waste Planning Monitoring Report), 104,290 tonnes of waste were collected in Caerphilly, of which 65.1% was reused, recycled or composted, thereby hitting the 2019/20 target of 64%. Only 1,054 tonnes were sent to landfill.

As previously mentioned, Caerphilly is a member of the Prosiect Gwyrdd partnership along with other local authorities in the region, which will account for the County Borough's residual waste requirements up to 2041. In terms of Caerphilly's residual waste being handled at the Viridor facility in Cardiff, TAN 21 makes clear that the infrastructural network is likely to be spread over a regional or sub-regional area, and

waste arising in one area may be best treated in an adjacent one. Both dry recyclable and residual waste are dealt with initially at the Council's WTS before being sent further afield.

Organic waste is processed at the Bryn Compost facility, Gelligaer.

Collaborative Change Programme

WRAP Cymru is a climate change NGO whose Collaborative Change Programme (CCP) offers strategic and technical support to help local authorities develop and deliver detailed plans to achieve the outcomes of Towards Zero Waste. The Council has been engaged with the CCP since 2015, and a series of reviews have been undertaken on a range of waste management services including kerbside collection and household waste recycling/waste transfer infrastructure. These reviews have culminated in a business plan and cost benefit analysis process. The main findings from a planning perspective are as follows:

Waste Transfer Station

Whilst benefitting from good connectivity, the footprint of the existing WTS at Full Moon is not considered to be of sufficient capacity to deal with the future management of residual waste and dry recyclable material. Changes to collection systems that arise as a result of the CCP will affect WTS requirements, and therefore any new facility needs to take account of this. A number of sites have been considered, including the expansion of Full Moon, the redevelopment of Trehir and/or the acquisition of a new site.

The site of a former highways compound, adjacent to Pwllypant roundabout on the A469, was initially regarded as being a preferred site for this purpose and, to that end, its suitability was assessed. The area of the compound itself is only 0.26 ha, although it forms part of a larger, 2.56 ha site in mixed (Council and private) ownership, lying to the west of the existing Trehir HWRC and accessed via the same route.

Site investigation work was undertaken in 2010. However, although it was determined that a viable facility could be developed at this location (including redevelopment of the HWRC), significant challenges existed in terms of topography, accessibility, the need for potential remediation and environmental impact. Ultimately, the costs associated with developing the site for this purpose were considered prohibitive.

Consequently, a site at Dyffryn Business Park, Ystrad Mynach has been assessed as part of the modelling work undertaken through the CCP work, whose Mid Valleys location would enable shorter journey times and a requirement for fewer vehicles. This site is now the preferred location for the new facility, with Council granting approval to purchase the site in October 2024. However, in its current form, the site

would not allow for 'future proofing' and redevelopment of the existing building is therefore required. This option is based on the acquisition of the site and buildings, demolition, and construction of a new, purpose-built facility. At the time of writing, pre-application discussions are presently ongoing, prior to the anticipated submission of a planning application.

Household Waste Recycling Centres

A review was undertaken as part of the CCP work to assess options in respect of HWRCs, within the context of the CCP and increasing the efficiency of the service. It concluded that a reduction in the number of HWRCs, plus avoiding the need to acquire any additional sites, would be most preferable. It recommended that four of the existing six sites be retained, with Penmaen and Rhymney being the most suitable sites for closure. Penmaen is a small site with limited opportunity for operational improvements, and is located adjacent to residential properties. Rhymney is the least used, and is the closest site for only 6% of the County Borough's households. This streamlined portfolio of HWRCs, plus the retention of Full Moon in its capacity as a HWRC, would operate in conjunction with the redeveloped new WTS facility at Dyffryn Business Park.

Following the approval of the Council's Waste and Recycling Strategy and accompanying Waste and Resource Routemap, these recommendations will be considered in the context of that document's stated 'enabling themes' and 'pillar projects', one of which specifically concerns HWRC provision. This will include the development of a comprehensive infrastructure strategy and a business case for change.

Planning Policy Implications

Requirements

National planning policy requires that local planning authorities, through LDPs, should make provision for a diverse waste management infrastructure, and ensure that suitable locations are identified for such facilities. Criteria-based policies against which applications for such facilities will be determined should also be included. The pattern and nature of provision should reflect not only national waste policy, but also the up-to-date position as set out in the waste planning monitoring report. LDPs should, in principle, support the aspirations of *Towards Zero Waste*.

Development, and development plans, should adhere to the principles of the circular economy. This should include promoting reuse; designing out waste; making adaptable design choices; and incorporating recycling facilities into development. LPAs should also make provision for the storage and processing of inert minerals arising from construction, demolition and maintenance operations by the identification of preferred locations for recycling facilities in development plans.

The 2RLDP Pre-Deposit Plan sets out the following strategic policy, which adheres to national planning and waste management policy and which is designed to frame the context for further policies which may follow:

Policy WM1: Sustainable Waste Management

To facilitate the delivery of sustainable waste management, the plan will:

- A) Ensure that proposals conform to the principles of the waste hierarchy, supporting those that move waste up the hierarchy;*
- B) Support an integrated and adequate network of waste management installations that has regard to the nearest appropriate installation concept and self-sufficiency principles where necessary;*
- C) Consider in-building waste management treatment facilities to be acceptable in principle on sites allocated and safeguarded for class B2 use, subject to Policy XXX and other, relevant planning considerations; and*
- D) Support the circular economy by encouraging the minimisation of the production of waste and the use of reused and recycled materials in the design, construction and demolition stages of development.*

Waste Monitoring

The latest survey on the generation of construction and demolition waste was conducted in 2012, with the amount of residual waste in the region being relatively small (71,600 tonnes). The CIM Sector Plan estimated a Wales-wide requirement of between 200 and 250 thousand tonnes of capacity for 2024/25, though this is likely to be an overestimate on the basis of the 2012 data.

Sporadic monitoring makes it difficult to monitor progress as regards meeting the targets set in *Towards Zero Waste* for industrial and commercial waste. However, there was a reduction in the amount generated in Wales as a whole between 2012 and 2018.

In terms of hazardous waste, the CIM Sector Plan has concluded that the current infrastructure forms an adequate, integrated network, and that the majority is being managed in accordance with the waste hierarchy.

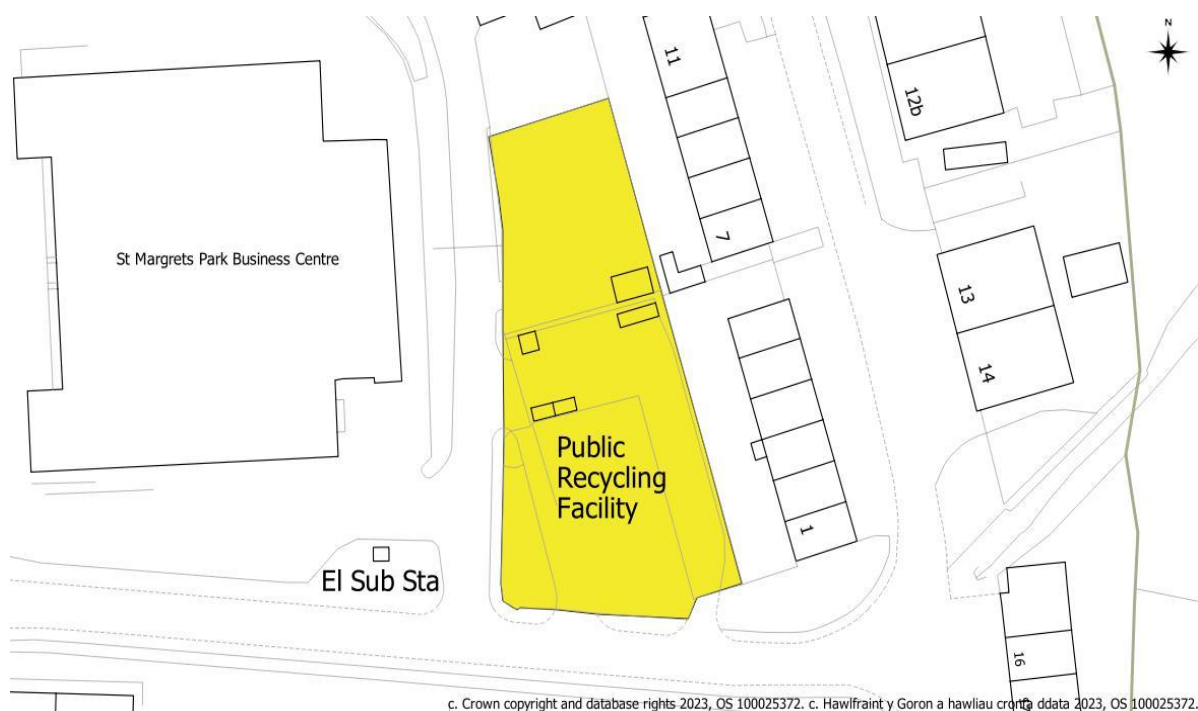
Based on permitted capacity and previous deposition rates at the two sites accepting inert waste in 2018, capacity is assumed to last in excess of 16 years. Other sites permitted to manage non-hazardous waste can manage inert waste, and a number of permissions – including at Gelliargwellt Uchaf Farm, Gelligaer – have been granted for site restoration involving inert waste material.

The South East Wales Waste Planning Monitoring Report 2020 makes clear that there is no need for additional landfill capacity within the region.

Waste Management Infrastructure – Existing Sites

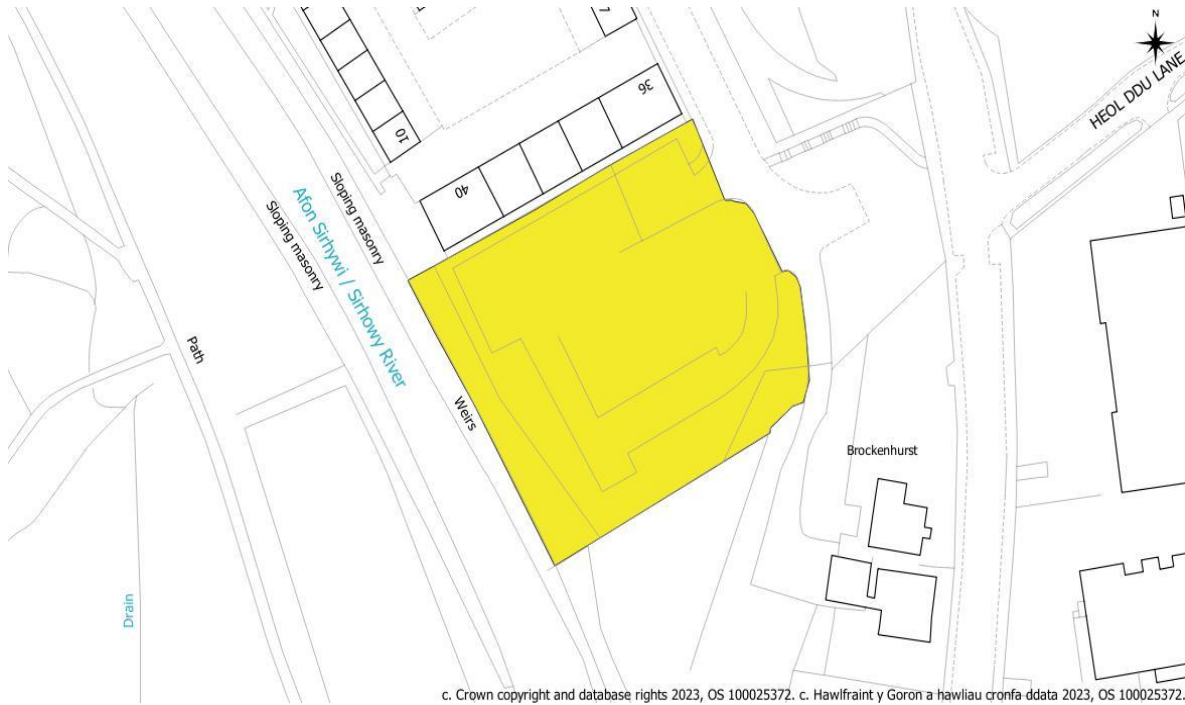
Existing waste management facilities operate on the following sites. A brief assessment is presented of each:

Aberbargoed HWRC



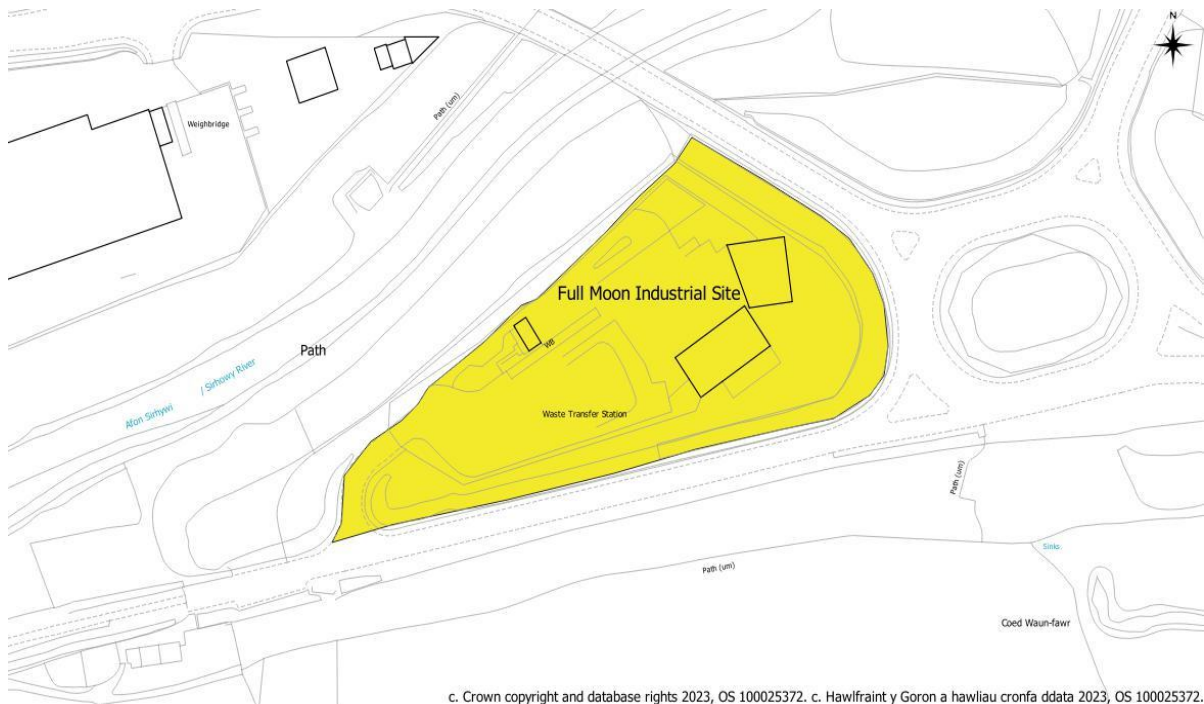
Aberbargoed HWRC is leased by the Council and is located on Bowen Industrial Estate which is safeguarded as a secondary employment site within the adopted LDP. Class B2 and appropriate sui generis uses are permissible in principle, and therefore this use is considered acceptable in policy terms. This is likely to remain the case as part of the 2RLDP policy framework (EM1 and EM2 Sites – below). The facility has been assessed as using space efficiently.

Penmaen HWRC



Penmaen HWRC is located on Penmaen Industrial Estate which is safeguarded as a secondary employment site within the adopted LDP. Class B2 and appropriate sui generis uses are permissible in principle, and therefore this use is considered acceptable in policy terms. This is likely to remain the case as part of the 2RLDP policy framework (EM1 and EM2 Sites – below). Although much of the site previously fell within a C2 flood risk area, the site is not indicated as being affected by flooding under the new Flood Map for Planning, which has now come into effect. However, the site has limitations in terms of space and is in close proximity to existing residential properties. Residential amenity is therefore a concern.

Full Moon HWRC



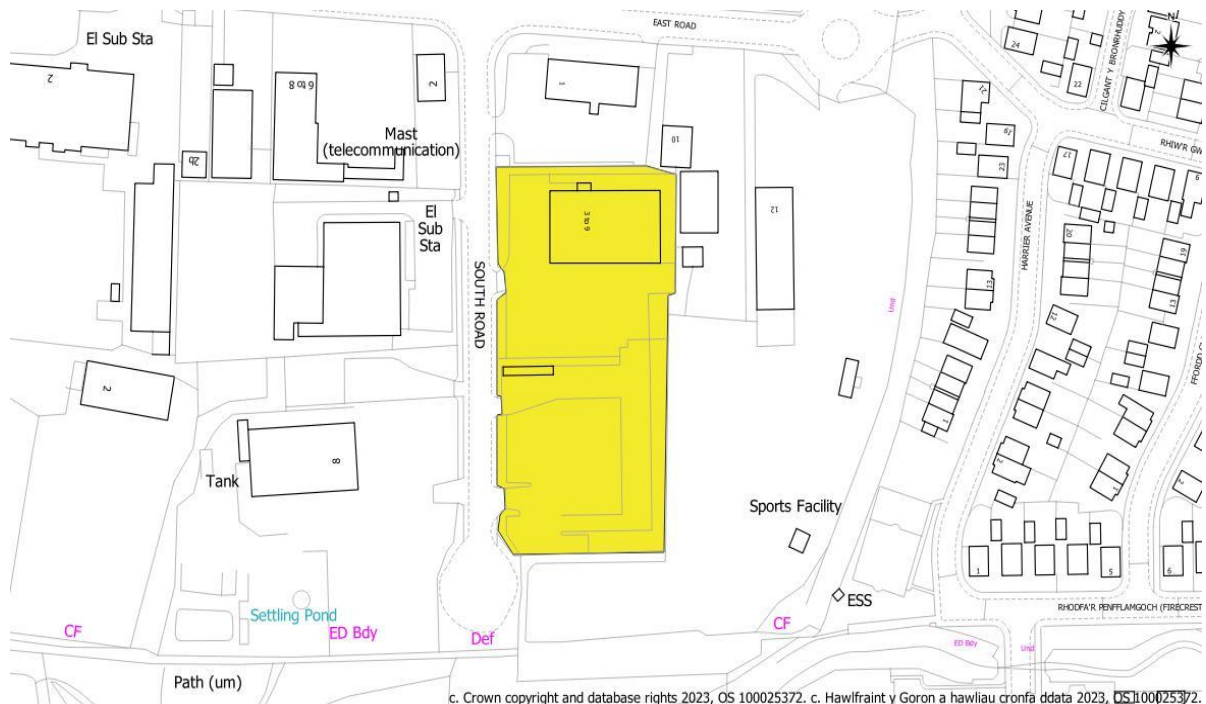
Full Moon WTS and HWRC is not subject to any site allocations or designations as set out in the adopted LDP, though it does lie within the settlement boundary. It is separated from Blackvein Industrial Estate by the Sirhowy River and an associated site of importance for nature conservation (SINC). Despite this, the site is not indicated as being affected by flooding under the new Flood Map for Planning. Although this use remains acceptable in policy terms, redevelopment of the site has been recommended in order to optimise its role.

Trehir HWRC



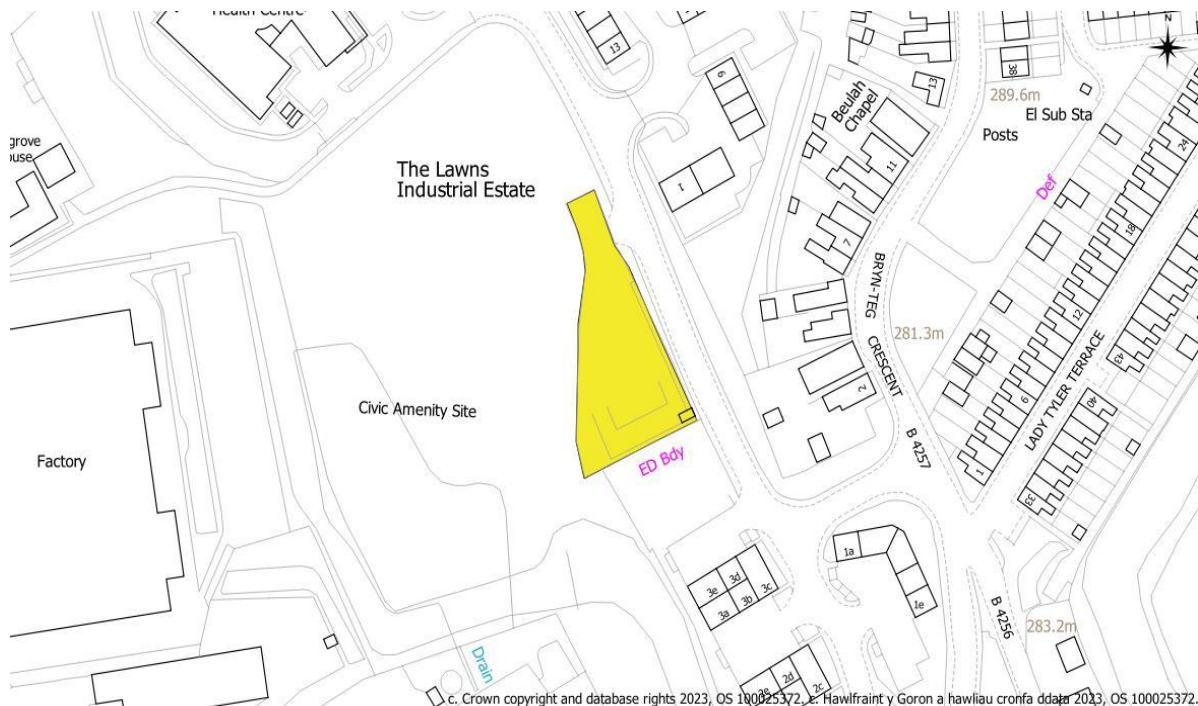
Trehir HWRC is located to the east of the A469 and the settlement of Llanbradach. It lies within a special landscape area (SLA) although use of the site for its existing purpose is not contrary to its location outside the settlement boundary, nor does it harm, by itself, the integrity of the landscape designation. Although well located in terms of its proximity to the highway, access to the site is reliant on an existing Bailey Bridge which requires significant maintenance. Land on the west bank of the Rhymney River (the site of the former compound adjacent to Pwllypant roundabout) had been earmarked for the location of a replacement facility, incorporating a new WTS and site investigation work undertaken. However, although it was determined that a viable facility could be developed at this location (including redevelopment of the HWRC), significant challenges existed in terms of topography, accessibility, the need for potential remediation and environmental impact. Ultimately, the costs associated with developing the site as a new WTS were considered prohibitive.

Penallta HWRC



Penallta HWRC is located on Penallta Industrial Estate which is safeguarded as a secondary employment site within the adopted LDP. Class B2 and appropriate sui generis uses are permissible in principle, and therefore this use is considered acceptable in policy terms. This is likely to remain the case as part of the 2RLDP policy framework (EM1 and EM2 Sites – below). This site accommodates a spacious, split-level facility which has the opportunity of providing additional capacity in its current design.

Rhymney HWRC



Rhymney HWRC is situated on land allocated for commercial development / community facility use in the adopted LDP in order to facilitate development of the Rhymney Integrated Health and Social Care Centre. This, along with additional business units, has since been delivered. The site is small and is the closest site for only 6% of the County Borough's households, and is not considered suitable for retention, in light of the CCP.

Waste Management Infrastructure – Going Forward

Due to the limitations associated with those sites identified through the CCP work, Penmaen and Rhymney HWRCs are proposed for closure, with the remaining sites being sufficient to meet the Council's statutory duty as well as WRAP guidelines (although these recommendations will be considered within the context of the Council's Waste and Recycling Strategy and accompanying Waste and Resource Routemap). The 2RLDP will be required to adhere to the principles of the circular economy, and to promote reuse and recycling. As part of the CCP, a review of operations has been undertaken of the County Borough's existing facilities within the context of *Towards Zero Waste*. This concluded that redevelopment of some facilities would be beneficial in terms of optimising their ability to fulfil these requirements.

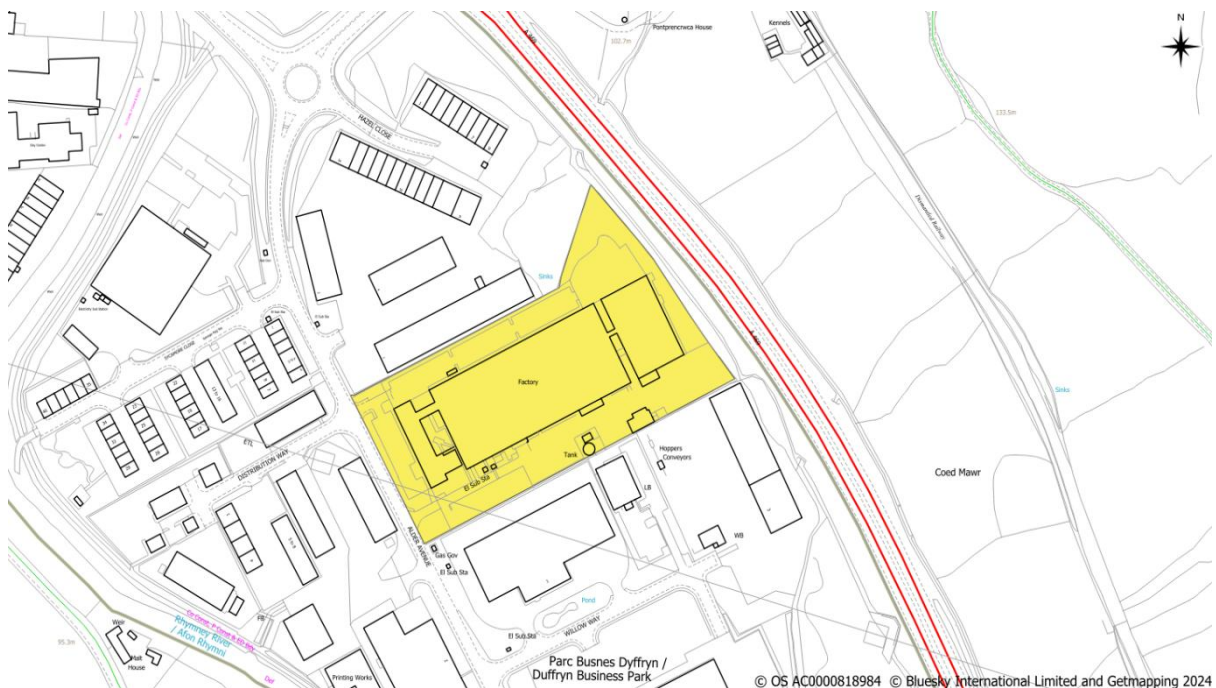
In terms of current procedures, some material is presently recycled on site at HWRCs with the remainder being sent to Bryn Recycling where it is sorted again and additional recyclable material extracted. Redevelopment of the following sites would help increase the on-site recycling rate in the longer term, though this could be achieved within the existing (and proposed) policy framework:

Full Moon – there is little room for cars to pass others which have stopped to deposit materials. A clearly marked passing lane and marked spaces would help improve traffic flow;

Penallta – as above, plus switching the entrance and exit may be beneficial, as the loop at the end of the road could be used to hold traffic;

Trehir – traffic enters and exits the site through one entrance and exit which creates traffic flow issues and queueing. A replacement facility is proposed for land on the west bank of the Rhymney River.

The CCP seeks to help give effect to the high-level policies and targets set out within Towards Zero Waste and, in turn, to those of Planning Policy Wales which transpose these waste management aspirations into a land use context. In terms of future WTS provision, it is recognised that a 3 ha. preferred site has been identified at Dyffryn Business Park (plan below). This site benefits from being located on a safeguarded employment site which is considered as being acceptable in principle for class B2, in-building waste management facilities, though flood risk needs to be taken into account for specific types of waste processing, as part of the site is within zone 3 of the new Flood Map for Planning.



While a rationalisation of the County Borough's existing portfolio of HWRCs will not have implications for the 2RLDP's protection of these facilities (new HWRC sites are not being sought, and therefore safeguarding will not be required), the introduction of a criteria-based policy would also enable additional sites to come forward for waste management purposes in appropriate locations. While those WTS and HWRC sites identified will form the core of the Council's waste management network, such a policy would allow for additional sites to contribute as part of a wider portfolio, where so required.

Allocated and Safeguarded Employment Sites

The locational requirements of waste facilities should be considered when preparing LDPs. Many modern in-building facilities are similar in nature and external appearance to industrial processes, and therefore sites allocated or safeguarded for general industrial use are likely to be suitable for such facilities, though this will depend on a variety of local factors.

The policy framework for the 2RLDP proposes that sites allocated or safeguarded for employment be placed into one of three categories: business parks; primary sites; and secondary sites. Class B2 and appropriate sui generis uses are considered appropriate on the latter two categories and are therefore considered suitable, in principle, for the development of in-building waste management facilities. These sites are as follows:

Site Name	Settlement	Size (Ha)	Type
Heads of the Valleys Industrial Estate	Rhymney	5.2	Primary site
Plateau 1, Oakdale Business Park	Oakdale	17.8	Primary site
Plateau 2, Oakdale Business Park	Oakdale	7.0	Primary site
Plateau 4, Oakdale Business Park	Oakdale	2.0	Primary site
Land at Trecenydd Industrial Estate	Caerphilly	1.3	Secondary site
Hawtin Park North	Gellihaf	4.5	Primary site

Table 1: Proposed primary and secondary employment allocations

Site Name	Settlement	Size (Ha)	Type
New Tredegar Business Park	New Tredegar	1.3	Primary
Heads of the Valleys Ind Est	Rhymney	14.3	Secondary
Capital Valley Ind Est	Rhymney	14.8	Secondary
Maerdy Ind Est	Rhymney	12.5	Secondary
Angel Lane Ind Est	Aberbargoed	3.1	Secondary
Bowen Industrial Estate	Aberbargoed	11	Secondary
Plateau 1, Oakdale Business Park	Oakdale		Primary
Plateau 2, Oakdale Business Park	Oakdale	13	Primary
Plateau 4, Oakdale Business Park	Oakdale		Primary
Penyfan Industrial Estate	Croespenmaen	73	Primary
North Celynen (south)	Newbridge	9.1	Primary
Hawtin Park	Gellihaf	29.8	Primary
Dyffryn Business Park	Ystrad Mynach	29.4	Primary
Croespenmaen Industrial Estate	Croespenmaen	6.5	Secondary
Britannia Industrial Estate	Pengam	2.9	Secondary
St. David's Industrial Estate	Pengam	5.2	Secondary
Tiryberth Industrial Estate	Tiryberth	7.1	Secondary
Penallta Industrial Estate	Hengoed	23.9	Secondary
Newbridge Road Ind Est	Pontllanfraith	12.8	Secondary

Site Name	Settlement	Size (Ha)	Type
Tram Road Industrial Estate	Pontllanfraith	2.5	Secondary
Blackwood Business Park	Pontllanfraith	10.1	Secondary
Penmaen Industrial Estate	Pontllanfraith	6	Secondary
Woodfieldside Business Park	Pontllanfraith	1.9	Secondary
Pantglas Industrial Estate	Bedwas	31.8	Primary
Caerphilly Business Park	Caerphilly	11.5	Primary
Prince of Wales Ind Est	Abercarn	23.3	Secondary
Nine Mile Point Ind Est	Cwmfelinfach	15.7	Secondary
Blackvein Ind Est (north and south)	Wattsville	7.4	Secondary
Newtown Industrial Estate	Crosskeys	8.3	Secondary
Park Road Industrial Estate	Risca	0.7	Secondary
Rogerstone Park	Pontymister	12.4	Secondary
Bedwas House Ind Est	Bedwas	29.9	Secondary
Pontygwindy Industrial Estate	Caerphilly	16.8	Secondary
Trecenydd Industrial Estate	Caerphilly	8	Secondary
Western Industrial Estate	Caerphilly	15.4	Secondary

Table 2: Proposed primary and secondary safeguarded sites

A number of proposed allocated and safeguarded sites lie partly within flood zones 2 and 3 (both rivers; and surface water and small watercourses) as set out in the new Flood Map for Planning. The revised TAN 15 (which is now in effect) regards general industrial development, as well as renewable energy generation, as being “less vulnerable” and, therefore, justifiable in zone 2 subject to the application of the TAN 15 justification test, and potentially zone 3, though the test is more stringent. However, uses involving an attendant risk to the public and the water environment should the site be inundated are considered “highly vulnerable” and are not acceptable in zone 3. Although the TAN does not set out an exhaustive list of uses, waste management proposals (as opposed to waste disposal) are likely to be considered, for the most part, as falling within the same category as general industrial development for flood risk purposes. Nonetheless, planning applications concerning sites within flood zones 2 and 3 will be considered in the context of the TAN, with particular regard to the justification of the use(s) concerned and the acceptability of consequences.

The 2RLDP is required to demonstrate how the CIM Sector Plan has been taken into account in terms of making provision for a diverse waste management infrastructure. The purpose of the CCP that the Council has been engaged in since 2015 is to help local authorities develop and deliver detailed plans to achieve the outcomes of *Towards Zero Waste*. Therefore, the network of waste management facilities that will be provided as a result will comply with the provisions of the CIM Sector Plan, which itself supports *Towards Zero Waste*. It will comprise a WTS and a series of HWRCs on a portfolio of sites already in use for that purpose. In addition, in-building waste management facilities will, in principle, be permissible on primary and secondary sites allocated or safeguarded for class B use. In land-use terms, this will

enable the provision of a network of facilities of appropriate scale in order to reflect the priority order of the waste hierarchy, and is consistent with the recommendations of the most recent waste planning monitoring report. However, the need for such proposals should be demonstrated, and must accord with the principles of the waste hierarchy.

The following policy is proposed:

Policy WM2: Waste Management Facilities – Employment Sites

Sites allocated or safeguarded as either primary or secondary employment sites are identified as being suitable, in principle, for new in-building waste management facilities.

Proposals for such uses must:

- A) Comply with the provisions of Policy WM3, and;*
- B) Demonstrate that they do not conflict with existing, neighbouring uses, or will not prejudice the development of the remainder of such sites for their primary, identified purpose.*

Inert Minerals

LPAs should make provision for the storage and processing of inert minerals arising from construction, demolition and maintenance operations by the identification of preferred locations for recycling facilities in development plans. Such facilities will, in principle, be acceptable on the primary and secondary employment sites listed above.

In addition to the Council's HWRCs and additional facilities located on employment land, the storage and processing of inert waste, including construction and demolition waste, is presently undertaken within the County Borough at the Bryn Waste facility in Gelligaer, which operates in conjunction with Bryn Quarry. As an existing facility, its identification in the 2RLDP as a preferred location is not required; the safeguarding of that use being implied by its location in the open countryside, a suitable distance away from the nearest settlement or existing housing.

Criteria-Based Policy

The following policy is proposed for the assessment of new, potential waste management sites:

Policy WM3: Waste Management Facilities

Proposals for new waste treatment facilities will only be permitted where all of the following criteria are satisfied:

- A) *There is an identified need;*
- B) *They accord with the principles of the waste hierarchy, and the Waste Framework Directive;*
- C) *They would not have a significant adverse impact on amenity or the environment;*
- D) *They provide for the comprehensive restoration and aftercare of the site, where relevant and appropriate; and*
- E) *A waste planning assessment has been undertaken.*

It is considered that this policy will allow potentially suitable sites to be identified, while also ensuring that such proposals are appropriately assessed and deemed to be sustainably located in relation to other forms of development and more peripheral locations. TAN 21 requires that waste planning assessments are undertaken and submitted along with planning applications, in order to demonstrate how proposals meet the overriding objectives of *Towards Zero Waste* and the CIM Sector Plan.