

Conwy Deposit Local Development Plan 2007 – 2022 (Revised edition 2011)



REVISED BACKGROUND PAPER 20 – SUBMISSION

Waste Management

August 2012

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1. Introduction

- 1.1 This is one of a number of background papers that have been prepared to accompany the Local Development Plan (LDP). The LDP sets out the Council's objectives and priorities for the development and use of land until 2022. When adopted, the LDP will provide a framework for deciding planning applications throughout the County Borough outside the Snowdonia National Park.
- 1.2 There are many drivers for change in terms of how we manage our waste. European Directives and National Guidance, and also regional-level working is bringing about a step-change in the management of waste. The purpose of this background paper is to set the context and provide a summary of these drivers and local issues which will influence land-use policy, and form part of the evidence base to support waste policies in the LDP.

2. Background

2.1 Policy Overview

- 2.1.1 When planning for the management of waste, the Council must have regard to national guidance i.e. Technical Advice Note (TAN) 21: Waste and the National Waste Strategy. At a regional level, the Council must also take the North Wales Regional Waste Plan 1st Review (NWRWP 1st Review) into account.

2.2 TAN 21

- 2.2.1 TAN 21 provides local planning authorities with advice on how the land use planning system should contribute to sustainable waste management with an aim to *“facilitate the introduction of a comprehensive, integrated and sustainable land use planning framework for waste management in Wales”*

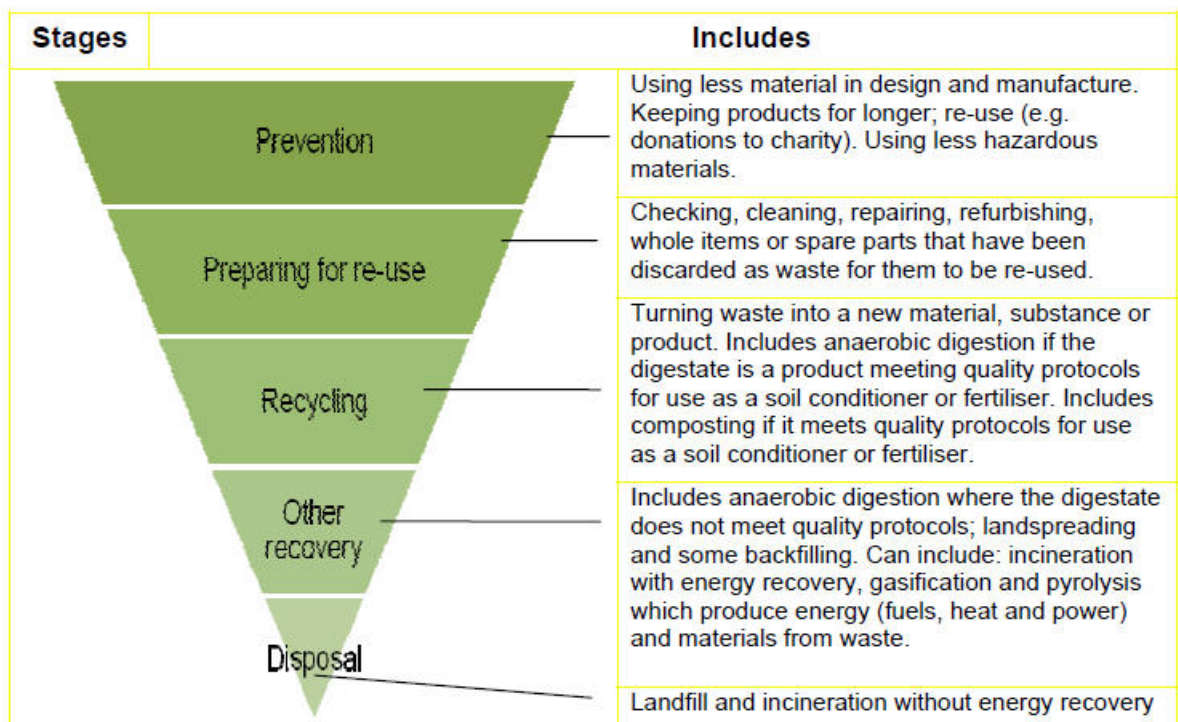
2.3 The Proximity Principle and the Waste Hierarchy

- 2.3.1 TAN 21 advises that local planning authorities must take into account the Proximity Principle when considering the requirements for, and location of, waste management facilities. This means that waste should be treated and/or disposed of as near to the source of origin as possible to avoid the unnecessary environmental impact caused by transporting waste from one location to another. However the TAN also recognises that the treatment and/or disposal of waste as

near to the source as possible depends on the quantities and types of arising on the local and regional level.

2.3.2 The TAN advocates a hierarchy where as much value is obtained from waste as is possible. In the first instance, the amounts of waste produced should be minimised. The next stage in the hierarchy is around the re-use of waste products (one example here would be the re-use of glass bottles). Following this, recycling, energy recovery, and only then should disposal to landfill or incineration without energy recovery be considered. The waste hierarchy that appears in TAN 21 has since been superseded by the one below which has been taken from Welsh Government (WG) Guidance published January 2012 – “How to apply the Waste Hierarchy”.

Figure 1



2.3.3 TAN 21 also sets out guidance in terms of the need for regional co-ordination, with Welsh local planning authorities working in conjunction with WG to prepare waste plans for each of the regions in order to meet the obligations in the EU Waste Directives. It specifies the content of the Regional Waste Plans, and sets out principles and techniques for waste management.

2.4 Towards Zero Waste – Overarching Waste Strategy Document for Wales (2010)

2.4.1 Towards Zero Waste is the new overarching waste strategy document for Wales. Published in June 2010 following public consultation, it sets out how the Welsh Government aims to build on the successes achieved through Wise About Waste - The National Waste Strategy for Wales (2002). It sets out a long term framework for resource efficiency and waste management between now and 2050. It identifies the outcomes, high level targets and sets out a general approach to delivering these targets and other key actions.

2.4.2 The document focuses on four sector plans to begin with. They are:

- Municipal waste – this is mainly domestic waste but sometimes can include waste from businesses.
- Waste industry, infrastructure and markets for recyclates.
- Construction and demolition waste.
- Retail waste.

Other plans will follow which will include the food and drink and public sectors.

2.4.3 There are two key targets that the strategy is aiming for:

1. By 2025 sectors in Wales to be recycling at least 70% of their waste – this includes businesses, households and the public sector. This will go a long way to helping us achieve zero waste.
2. By 2050 achieve zero waste. This will mean that products and services will be designed so they have eliminated waste entirely.

2.4.4 The approach to the development of the sector plans is explained in greater detail in this document. Where new policies and actions have yet to be developed, Wise About Waste is still relevant, except where policies, targets and actions have been specifically updated.

See <http://wales.gov.uk/docs/desh/publications/100621wastetowardszeroen.pdf>

2.5 North Wales Regional Waste Plan 1st Review (NWRWP)

2.5.1 The NWRWP 1st Review sets out the level of need across the region in 2013. The Review provides an assessment of the most sustainable types of waste management facility (the technology strategy), and areas of search potentially suitable for the location of waste management facilities (the spatial strategy). The NWRWP 1st Review can be viewed on line at:
www.walesregionalwasteplans.gov.uk.

2.5.2 The NWRWP 1st Review was endorsed by the Council in July 2008, with a proviso that it should be taken into account when preparing the LDP, but should not be used in isolation to determine the location of future waste management facilities, or as a tool to guide development control decisions. The NWRWP 1st Review will be superseded by the Waste Sector Plan for Collections, Infrastructure and Markets (see draft plan at <http://wales.gov.uk/docs/desh/consultation/110310wastecimeconsulten.pdf>).

3. Existing Waste Management Facilities

3.1 Overview

3.1.1 This section of the background paper examines the current level of provision of waste management facilities (including a brief summary of the waste management initiatives and facilities in operation), the forecasted future level of waste arisings, and how much land is required to meet the need for the development of future waste management facilities.

3.2 Current facilities and schemes

3.2.1 A number of waste management facilities and schemes already exist within the County Borough. They include:

- Two civic amenity sites at Gofer (near Abergele) and Mochdre (provides residents with a facility to dispose of household waste that is too large to be disposed of through the normal refuse collection service, plus a facility for deposit of recyclable and compostable materials).
- Recycling bank sites (seventy six across the County Borough).
- A bulking station (at Gofer).
- Composting facilities at Dolgarrog, Llanddulas and Caerhun.

- ELV / Scrap yard / metal re-processing (3 three within the County Borough).
- Waste transfer sites (seven within the County Borough).
- Llanddulas landfill site for municipal waste, (excluding materials that are recycled or composted).
- Inert landfill site at Ty Mawr, Abergele
- Four depots for refuse and recycling collection vehicles
- Kerbside Recycling (fortnightly collection of glass, cans, paper and garden waste) 48,000 households
- Food waste and plastic collection (trialled to 7,000 households from May 2009, extended to 48,000 September 2010)
- Domestic refuse collection (fortnightly to 50,000 households, weekly to 3,000 households)
- Bulky waste collection service
- Community skip service
- Clinical waste collection service
- Farm plastics registration scheme in conjunction with the Environment Agency (at Gofer)
- Trade / commercial waste refuse collection service
- Trade / commercial recycling collection service (cans, glass, paper, plastic, cardboard, food waste)

Table 1 - Existing Waste Management Facilities - Licensed Annual Non-Landfill Capacity in Conwy (tonnes) 2005/2006¹

Civic Amenity	ELV / Scrap Metal reprocessing	Transfer	Total
33,023	5,598	155,837	194,458

3.2.2 Sites outlined as existing safeguarding sites on the proposals map are already developed out and no further capacity exists for significant development on these sites. The amount of B2 land that may be suitable for future waste management facilities is in the region of 30 ha. However, it is recognised that not all of this land would be available purely for waste management facilities as other categories of B class use e.g. B1, B8 are needed at these locations. The allocations for waste management adequately meet the need for waste management facilities as

¹ Data from the NWRWP 1st Review.

identified in the NWRWP 1st Review; however there will be flexibility within the Plan to permit use of industrial land for waste management facilities and each application would be determined on its own merits (see policy MWS/7).

3.3 Landfill Buffer Designation

3.3.1 The Environment Agency generally advises that development should be a minimum of 250 metres away from landfill sites. The greatest danger to development near to landfill sites is that of migrating landfill gas travelling through the underlying rock and entering premises from underground. Problems also arise from time to time in respect of odour, dust, noise and pests. The landfill buffer zone serves two purposes. One is to protect the amenity of residents and other sensitive land users; the other is to ensure that the landfill operators can carry out their normal activities without being constrained by the undue presence of sensitive land users. A 250 metre buffer zone around the landfill site has therefore been designated to ensure that appropriate development only is located in this area. All applications for residential (except householder), employment, tourism development and community facilities within the buffer zone should be brought to the attention of the Council's Environmental Health Officer and the Environment Agency. Proposals which would result in significant detriment to amenity or safety, or which would unacceptably restrict the operation of the landfill site, will be refused.

4. Planning for Future Waste Arisings

4.1 Forecast Arisings in Conwy for 2013

4.1.1 In order to plan for the future management of waste, it is prudent to estimate the future level of waste arisings. The North Wales Regional Waste Group (NWRWG) undertook a forecasting exercise for the year 2012/13, taking into account past trends, population projections, the likely impact of awareness raising campaigns and other waste reduction measures. As with any forecasting exercise there may be unforeseen factors which affect the arisings of waste and the patterns of dealing with that waste.

4.1.2 The NWRWG considered it unrealistic to forecast beyond the year 2013 due to policy, regulatory and technology changes, all of which would impact on the level

of waste arisings. LDPs must plan for 15 years during which time many changes in waste trends and technologies are expected; however such changes can be picked up via the LDP monitoring and review processes.

- 4.1.3 Table 2 below shows the forecast waste arisings in 2013 in Conwy (taken from Option 0 – of the Sustainability Appraisal of the Regional Waste Plan working from the basis of all residual waste being sent to landfill).

Table 2 - Forecast waste arisings in tonnes within Conwy in 2013²

Municipal	Construction & Demolition	Commercial	Industrial	Agricultural	Total
117,812	223,390	55,453	8,557	2,694	407,906

- 4.1.4 Having established the predicted level of waste arisings for 2013, the North Wales Regional Waste Plan Technical Group commissioned the Environment Agency to undertake a Sustainability Appraisal of the different types of technologies that could be used to manage waste more effectively in the future. The Sustainability Appraisal can be found at: www.walesregionalwasteplans.gov.uk.

4.2 Land Requirements

- 4.2.1 Table 3 highlights the seven most sustainable options (as identified within the NWRWP 1st review), and the estimated land area required for each option.

Table 3 - Estimated Land Area Requirements in hectares within Conwy for facilities to serve more than one local authority, based on the seven most sustainable options.³

Type of facility	Land area requirement (ha)
Option 2a – Pyrolysis	4.22
Option 2c – Incineration with energy recovery	7.81
Option 3a – MBT followed by Pyrolysis	6.95
Option 3b – MBT followed by Gasification	9.93
Option 3c – MBT followed by incineration with energy recovery	10.92
Option 3d – MBT with fuel to off-site energy use	7.40
Option 4d – Autoclave followed by fuel to off-site energy use.	3.97

² Data from the NWRWP 1st Review.

³ Data from the Sustainability Appraisal to accompany the NWRWP 1st Review.

4.2.2 In addition to facilities that would be capable of serving more than one local planning authority, the NWRWP 1st Review recommends that land is also provided for facilities that will specifically serve the local authority area. This is outlined in Table 4.

Table 4 - Estimated Land Area Requirements in hectares within Conwy for facilities to serve the local authority in 2013⁴

Transfer Station	Civic Amenity Sites	Open Windrow Composting	C & D Recycling	Total
5.01	0.00	1.48	4.34	10.83

4.2.3 Based on the option requiring the most land in table 3 – i.e. option 3c - MBT followed by incineration with energy recovery, plus the amount of land required for local facilities in table 4, the NWRWP 1st Review estimates that Conwy should provide 21.75 ha of land to meet the County Borough’s and the North Wales region’s needs for waste management facilities. This is in addition to existing waste management facilities and includes an over provision of 50% to provide market flexibility and a contingency. Since publication of the NWRWP 1st Review, it has been agreed that LPAs only need to make a 20% overprovision (resulting in a total land requirement of **17.4** ha in Conwy).

4.2.4 It should be noted that the above land requirement does not include land needed for landfill sites, this has been assessed separately and more information can be found within Background Paper 26 – ‘Landfill Feasibility Study.’

4.2.5 Although recycling schemes will have a significant impact on reduction of waste going directly to landfill sites, a solution still needs to be found for residual waste (that is, waste remaining to be disposed of after reuse, recycling, composting and recovery of materials and energy). Discussions are taking place between Local Planning Authorities across North Wales to find a regional solution for the management of residual waste. The North Wales Residual Waste Treatment Project (NWRWTP) is currently underway and is planning how to treat future residual waste by means of procuring a solution from the waste management industry. The Project Team is currently reviewing and evaluating possible

⁴ Data from the NWRWP 1st Review.

solutions and it is expected that the service should be operational by 2015. This timescale fits in with the anticipated remaining capacity of landfill void at Llanddulas, which it is expected will be filled by 2015 at the earliest.

4.3 The Location of Waste Management Facilities

4.3.1 The Areas of Search desktop exercise within the NWRWP 1st Review used only broad level strategic data and did not consider any specific site in detail. This has resulted in a number of unsuitable sites being included in 1st Areas of Search, while some potentially suitable sites are excluded. As noted in Section 10.3.3 of the NWRWP 1st Review Core Document the Areas of Search maps are not to be used either as a Development Control tool or as a definitive guide to site selection for inclusion in the LDP.

4.3.2 Instead, a more thorough site appraisal has been carried out during the process of compiling the LDP. Details of site assessment and appraisal, including the assessment of employment sites for waste management purposes can be found in Appendix 1.

4.4 The role of LDP in the providing land for Waste Management Facilities

4.4.1 As a land-use plan, LDPs have the scope to protect land currently used for waste management purposes (known as 'safeguarding') and also have powers to allocate new sites for additional waste management facilities. The following provisions are therefore included within the LDP:

- Criteria based policy for all new waste management facilities that takes into account need identified by the NWRWP, need arising at a local level, the site location and suitability for the proposal at that location, and promoting the recovery of value from waste.
- Create flexibility within LDP policies that govern the use of employment land to enable co-location of waste management facilities alongside suitable employment uses, where this is appropriate.
- Allocations of land in suitable locations (Gofer and Llanddulas as outlined on the proposals map).

4.4.2 The rationale behind the selection of Gofer and Llanddulas as locations for future

waste management facilities, along with site assessment methodology can be found at Appendix 1. Whilst the total area of the allocations measure approximately 22 ha, reasons relating to topography and the fact that the Llanddulas site is located within a quarry void, mean that it is likely that not all of this land will be feasible for development. The take up of land will be monitored in terms of addressing need for new facilities.

5. Conclusion

- 5.1 The European Directives on waste and landfill, and national targets from the Welsh Government pose significant challenges for how we manage our waste now, and in the future. Taking into account European and national drivers, the work done at a regional level within the NWRWP 1st Review, plus further research undertaken at a local level, the LDP will need to include appropriate provisions to ensure that sufficient land is available up to 2022.

- 5.2 These provisions include policies to recover value from waste during the development process (where the planning has the ability to influence this), the safeguarding of land which hosts existing facilities, flexibility within employment land policies to encourage more innovative solutions to waste management in appropriate locations, and new allocations of land for waste facilities at Llanddulas and Gofer.

6. Appendix 1 – Assessment of land for suitability for waste management facilities.

6.1 Introduction

6.1.1 The approach taken when assessing waste sites for inclusion with the LDP has been spilt into two main stages to take into account advice contained within national planning policy on waste, and that outlined within the NWRWP 1st Review (2008).

6.1.2 Firstly, as advocated by the NWRWP 1st Review, existing available industrial land has been assessed for suitability to host waste management facilities. Following this, an assessment of candidate sites received as part of the LDP ‘call for sites’ in December 2006 has been carried out. A large number of these sites have been ruled out due to constraints already identified in section two of this background paper, however, sites deemed generally suitable for employment or mixed use developments have been assessed for their potential to host waste management facilities.

6.1.3 Finally, a separate study to identify a suitable contingency landfill site was undertaken by RPS (consultants engaged on behalf of the Council). This site search was subject to a separate methodology from the one that appears in this paper. For further details, please refer to Background Paper 26 – ‘Landfill Feasibility Study.’

6.2 Site Assessment Criteria

6.2.1 The criteria used when assessing the suitability of waste management sites is outlined below:

- **Location** – Is the site in a sustainable location close to the source of waste arisings, taking into account the ‘proximity principle’?
- **Size and capacity of the site** – the size of a site depends upon a number of factors, including dimension, access, type of facility etc. Only sites of 0.5 ha or larger will be considered for allocation.
- **Transportation infrastructure and access** – In most cases, waste facilities need good access due to the requirement for access by heavy

goods vehicles.

- **Previously developed or greenfield land** – Although previously developed land is preferred, both greenfield and brownfield land will be considered due to the shortage of available brownfield sites.
- **Flood risk** - Where flood risk sites have been identified, consultation with the Environment Agency and the Council's Environmental Services Department (taking into account the Conwy Tidal Flood Risk Assessment - CTFRA) has been undertaken to determine whether such a use would be suitable in this location.
- **Benefits to neighbouring uses** – Could a waste management facility in this location be of benefit to surrounding uses? (i.e. could it utilise waste products from nearby operations and / or recover energy from waste to provide sources of power to nearby operations?)
- **Impact on neighbouring uses** – Proximity to residential development will be a constraint - particularly for open air facilities.
- **Groundwater vulnerability** – Sites that are on a major aquifer will only be considered for in-built facilities and open-windrow composting, subject to further risk assessment by the EAW.
- **Visual impact** – whilst landscaping can be used to mitigate the visual impact of a waste facility, it may not be appropriate to develop certain sites due to their visual impact on the landscape and or neighbouring uses.
- **Impact on historic environment** – Consideration will be given to the potential impact on a historic monument, building or park /garden.
- **Impact on nature conservation** – In Conwy there are many statutory designated sites which will be avoided. However, locally designated sites will also be given consideration.
- **Agricultural land quality** –the best and most versatile agricultural land should be preserved, therefore, whilst grade 1 and 2 land has generally been avoided, in some cases such land has been considered.
- **Use Class** – Does the site/land benefit from planning permission for class B2 uses, or is it suitable for B2 uses?
- **Deliverability** – Would the landowners be in favour of a waste management facility in this location?

6.3 Assessment of the Stock of Existing Employment Land

6.3.1 The NWRWP 1st Review suggests that Local Planning Authorities consider their existing stock of employment land, in particular land with existing permission for class B2 industrial uses when assessing sites for waste management facilities. The rationale behind this being advances in technology and the introduction of new legislation, policies and practices mean that many modern waste management and resource recovery facilities look and operate no differently to any other industrial building.

6.3.2 Due to the above reasons, many existing use class B2 'general industrial' employment sites could be suitable locations for the new generation of in-building waste management facilities in accordance with the Regional Waste Plan Technology Strategy (NWRWP 1st Review, 2008).

6.3.3 Assessment of sites that form available employment landbank for Conwy County Borough Council for suitability for waste management facilities.

The Employment Land Monitoring Report updated December 2009 (See Background Paper 13) was used as the basis for the site assessment. Each site with capacity remaining was assessed using the criteria outlined in section 2. The relevant details are recorded below:

Table 5

Sites	Use Class	Neighbouring Uses	Location	Size (ha)	Other relevant issues	Recommendation
Lynx Express, Penrhyn Avenue, Links Rd, Rhos on Sea	B1	Residential	Sustainable location close to waste arisings	0.13	-	Not suitable – site too small, in a predominantly residential area and deemed as being suitable for B1 uses.

Llandudno 'on line', Conway Rd, Llandudno Junction	B1, B2	Offices, residential car show room.	Sustainable location close to waste arisings	3.2	-	Not deliverable - A substantial area of the site currently being marketed for offices and it is anticipated that remainder of site will also be developed as B1.
Ty Gwyn, Llanrwst	B1, B2, B8	Range of industrial and commercial uses (sited on industrial park)	Rural location with good access but could serve the needs of Llanrwst and surrounding settlements	1.54	C2 flood risk zone (not suitable for waste disposal)	Not deliverable -It is understood that land has been purchased with the intention of marketing for industrial starter units.
Tir Llwyd, Kinmel Bay	B1, B2, B8	Range of industrial and commercial uses (sited on industrial park)	Sustainable location close to waste arisings	27.9	C1 flood risk zone	May be suitable in principle. Large supply of land available (subject to satisfactory FCA)
Abergele Business Park (phase 1)	B1	Offices, proposed new medical centre. Residential	Sustainable location close to waste arisings	0.38		Not suitable – original permission is for offices and light industry – not class B2 uses.
Abergele Business Park (phase 2)	B1	Residential	Sustainable location close to waste arisings	9.5		Not suitable – original permission is for offices and light industry – not class B2 uses.

6.4 Summary

6.4.1 The most favourable site which meets criteria set out in the methodology is Tir Llwyd in Kinmel Bay. Other industrial sites such as Ty Gwyn in Llanrwst fulfil most of the criteria but are constrained in terms of flood risk and deliverability plans for their future use. In addition to the above land bank sites, existing employment sites in the County Borough exist and these could become available as windfall sites during the timeframe of the plan. In such cases, Policy EMP/3 of the LDP could be used to assess proposals for waste management facilities.

6.5 Assessment of LDP candidate sites

LDP candidate sites have been assessed for their suitability for development. The purpose of this section is to outline those sites which may be suitable for employment/ industrial / waste uses, and assess their suitability specifically for waste management uses as per the criteria outlined below:

Table 6

Site	Size (ha)	Constraints	Recommendation and Action
E3 - Abergele South East	8	<p>Agricultural land – site is thought to consist of <u>significant</u> amounts of the best and most versatile agricultural land.</p> <p>Transportation infrastructure and access – Requires new link road (Rhuddlan Road to St George Road).</p> <p>Potential use – The Council's Regeneration Department and the Welsh Government have indicated that if the site were to be developed, <u>B1 uses</u> would be most suitable.</p> <p>Impact on neighbouring uses – The site is directly adjacent a strategic housing allocation in the deposit LDP.</p>	<p>This greenfield site is not suitable on grounds of visual impact and impact on neighbouring uses as proposed in the LDP. Action: Not to allocate as a waste management site in the LDP.</p>
E13 - Land north of Gofer	6	<p>Flood Risk – site classified as greenfield land within a C1 flood risk zone and fails justification test in TAN 15.</p> <p>Impact on nature conservation – The site is an incursion into the open countryside. There may be potential impact on watercourses used by protected species, therefore a survey of protected species is recommended.</p> <p>Impact on neighbouring uses – Not suitable for open air facilities such as windrow composting due to the proximity to dwellings to the south of the site.</p>	<p>This site has been suggested by the landowner for a recycling facility. However, this site is classified as greenfield land within a C1 flood risk and therefore fails the justification test outlined in TAN 15.</p>

E14 - Land South of Tir Llwyd	8	<p>Flood Risk – site classified as greenfield land within a C1 flood risk zone and fails justification test in TAN 15.</p> <p>Potential use – Site could form an extension to Tir Llwyd Industrial Estate.</p>	<p>This site has been suggested as a possible extension to Tir Llwyd. However, this site is classified as greenfield land within a C1 flood risk and therefore fails the justification test outlined in TAN 15.</p>
E21 off Towyn Road	2	<p>Flood Risk – site is located immediately behind the flood defences and is within a C1 flood risk zone.</p> <p>Impact on neighbouring uses – Site is constrained due to the location of underground cables (and necessary buffer zone of 20 metres) from an off-shore wind farm.</p>	<p>Development of much of this site is constrained due to restrictions on development above the underground cables running through this site which support the off-shore wind farm.</p> <p>Action: Not to allocate as a waste management site in the LDP.</p>
E24 – Gofer Ex Landfill Site	16	<p>Flood Risk – site is outside the extreme flood area. No objection from Environmental Services or the EAW.</p> <p>Impact on nature conservation – CCW would not support <u>extensive</u> development here, although some limited expansion of the recycling plant in the south west corner might be acceptable. A survey of protected species is recommended.</p>	<p>This site has been suggested by the landowner for waste management facilities. The site benefits from being within an accessible location, close to waste arisings and within close proximity to a bulking station, transfer station and civic amenity facility, it is also considered that this brownfield site is capable of delivering benefits to neighbouring uses.</p> <p>Action: Include as an allocation for waste management facilities in the Deposit LDP.</p>
E25 (a) – Nr Llanddulas Quarry. (Land owner's suggested use - Eco-park / reprocessing)	2	<p>Groundwater vulnerability – Site overlies a major aquifer of high vulnerability. No objection from the EAW for eco park / reprocessing, but would require stringent conditions in planning permission.</p> <p>Transportation infrastructure and access – An assessment undertaken by Atkins show that <u>significant</u> alterations to the A547 would be required to access this site.</p>	<p>The transport assessment identified significant access problems relating to this brownfield site. Significant alterations to the main road would be required which may make a potential scheme unviable.</p> <p>Action: Not to allocate as a waste management site in the LDP.</p>

<p>E25 (b) – At Llanddulas Quarry. (Land owner’s suggested use - Integrated Waste Management Facility)</p>	<p>5.7</p>	<p>Groundwater vulnerability – Site overlies a major aquifer of high vulnerability – no objection from the EAW for a waste management facility, but would require stringent conditions in a planning permission.</p>	<p>This site has been suggested by the landowner / site operator as being potentially suitable for waste management facilities. The site benefits from being within an accessible location, close to waste arisings, and in close proximity to the landfill and composting facility, it is also considered that this brownfield site is capable of delivering benefits to neighbouring uses. Action: Include as an allocation for waste management facilities in the Deposit LDP.</p>
<p>E25 (c) – At Llanddulas Quarry. (Land owner’s suggested use – extension to landfill)</p>	<p>34.6</p>	<p>Groundwater vulnerability – Site overlies a major aquifer of high vulnerability, therefore the EAW would <u>object</u> to the landfilling of residual waste in this location. Impact on nature conservation – site subject to assessment. Potential impacts upon Llanddulas limestone, Gwrych Castle Wood SSSI and protected species such as the lesser horseshoe bat.</p>	<p>This site has been suggested by the landowner / site operator as being potentially suitable as an extension to the existing landfill site, however the EAW raise significant objections to this proposal. Action: Retain and safeguard the existing landfill and composting areas, but do not allocate as an extension to landfill in the Deposit LDP as per advice from the EAW.</p>
<p>CR15 - Esgyryn, Llandudno Junction</p>	<p>10.2</p>	<p>Potential use – The Council’s Regeneration Department and the Welsh Assembly Government have indicated that if the site were to be developed, <u>B1 uses</u> would be most suitable.</p> <p>Transportation infrastructure and access – Access would be from Narrow Lane (not ideal for the type of traffic that would be generated by a waste management facility).</p> <p>Impact on neighbouring uses – Within a predominately residential area.</p>	<p>This greenfield site is not considered suitable due to reasons of access, conflicts with proposed future uses (prestige B1 and residential development), and existing residential uses within the proximity of the site. Action: Not to allocate as a waste management site in the LDP- Also see site assessment for employment / mixed use sites.</p>

Safeguarded Rail-freight Designation, Llandudno Junction.		Flood risk – An SCFA has been undertaken to look at this brownfield site from the perspective of using part of this site as a location for waste management facilities, in particular waste transfer.	This brownfield site may be suitable for certain waste management facilities, for example, waste transfer. Action: Ensure that the safeguarding policy in the LDP STR/6 does not restrict uses which are complementary to a rail-freight use such as waste transfer. Refer to the site in the supplementary text of Policies MWS/5 and 6.
R45 – Dolgarrog Aluminium Works		Location – This brownfield site is in a rural location, away from the urban area and major sources of waste arising. Impact on neighbouring uses – It is proposed that this site will comprise of a mixture of leisure and tourism uses – a waste management facility may not be complementary to all these uses.	This brownfield site is not considered suitable due to its rural location, and potential impact on other elements of the mixed use site including leisure and tourism uses. Action: Not to allocate as a waste management site in the LDP- Also see site assessment table for employment /mixed use site assessment.

6.6 Areas of Search Maps – North Wales Regional Waste Plan

- 6.6.1 As part of the North Wales Regional Waste Plan (NWRWP) 1st Review spatial strategy, areas of search maps for in-building and open air facilities were compiled. This desk-top exercise used broad level strategic data only and did not consider any specific site in detail.
- 6.6.2 The Areas of Search Map for in-building facilities identify Gofer and Llanddulas as second level areas of search. The Areas of Search exercise excluded all these locations for open-air facilities due to proximity to SSSI - Site of Specific Scientific Interest (Llanddulas) and ground water vulnerability. Consultation has since been undertaken with Countryside Council for Wales (CCW) and the Environment Agency Wales (EAW) to ascertain the extent of these issues.
- 6.6.3 CCW have stated that the location at Llanddulas is of no known interest to them but recommends that assessment be undertaken towards the southern end of Llanddulas quarry to identify impact on the SSSI and European Protected Species. The EAW does not object to the principle of integrated waste

management facilities at Llanddulas subject to appropriate planning conditions being in place to prevent pollution during operation. CCW have raised some issues with the sites at Gofer in terms of incursion into the countryside, and the need to undertake protected species surveys, but have not raised specific objections at the candidate site assessment stage. Furthermore, given the LDP's role in monitoring the take-up of land, CCW can be assured that development of these sites would be on the basis of need, and only following a detailed site assessment to ensure that the type, scale and siting of the facility at these locations is appropriate.

6.7 Conclusion

6.7.1 Following site assessment, it is concluded that the following sites should be included as allocations specifically for waste management facilities in the LDP:

E25b - Llanddulas Quarry

E24 - Ex. Gofer Landfill Site

6.7.2 The Environment Agency flood maps indicate that Gofer is not at risk of flooding. Although this site is allocated for waste transfer, the developed site should still be outside of the 1 in 200 annual probability flood extent. The Conwy Tidal Flood Risk modeling shows this to be the case. A Strategic Flood Consequence Assessment concludes that the site is suitable to host certain waste management facilities (see BP/17 – 'Conwy Strategic Flood Consequence Assessment').

6.7.2 In addition to these allocations, other land may be suitable (subject to criteria based policies. These are as follows:

6.7.3 Safeguarding Rail Freight, Llandudno Junction - this site has potential to host Waste Management facilities such as Waste Transfer. The site will still be designated as safeguarding rail freight, but policy text at STR/6 will encourage complementary uses such as waste transfer. Also, the supporting text for policies MWS/5 and 6 will make reference to the potential of the safeguarded rail freight site for a use such as Waste Transfer.

- 6.7.4 Tir Llwyd in Kinmel Bay also has potential to host waste management facilities, however, there are flood risk constraints at this location. Considering such constraints, it would not be sensible to allocate this site for waste management.
- 6.7.5 Existing employment sites (in particular B2 industrial uses) that may become available as windfall sites may also be suitable for waste management. Policies EMP/3 and MWS/7 will support this approach.

7. Appendix 2 – Glossary of terms.

Agricultural Waste	Waste produced at agricultural premises as a result of an agricultural activity.
Anaerobic Digestion	A process where biodegradable material is encouraged to break down in the absence of oxygen. Material is placed into an enclosed vessel and in controlled conditions the waste breaks down typically into a digestate, liquor and biogas.
Autoclave	Technique for processing waste using steam sterilisation producing high biomass content fibre.
Civic Amenity Site	A facility provided by the local authority where the public can bring household waste to be recycled or disposed of. Wastes handled include bulky items such as furniture, white goods, garden waste and general household wastes as well as recyclables.
Commercial Waste	Waste arising from premises which are used wholly or mainly for trade, business, sport, recreation or entertainment, excluding industrial and waste from municipal facilities.
Composting	A resource recovery process where biodegradable waste (such as garden and kitchen waste) is converted, in the presence of oxygen from the air, into a stable granular material which, applied to land, improves soil structure and enriches the nutrient content.
Construction and Demolition (C&D) Waste	Waste arising from the construction, repair, maintenance and demolition of buildings and structures. It mostly includes brick, concrete, hardcore, subsoil and topsoil, but it can also contain quantities of timber, metal, plastics and occasionally special (hazardous) waste materials.
Disposal	According to the waste hierarchy the final disposal of waste through landfill, landraise or incineration without energy recovery.

Gasification	Thermal treatment process which comprises heating waste in the presence of air or steam at high temperatures to breakdown waste containing carbon into ash and gas with minimum oxygen.
Household Waste	Includes wastes from household collection rounds, from services such as street sweepings, bulky waste collection, litter collection, hazardous household waste collection and separate garden waste collection. Also includes waste from civic amenity sites and source segregated wastes collected for recycling or composting through bring or drop-off schemes and kerbside schemes.
Industrial Waste	Waste from any factory and from any premises occupied by an industry (excluding mines and quarries).
Inert Waste	Innocuous, undamaging, non-toxic. Something that is not detrimental to health or the environment.
Kerbside Collection	Any regular collection of recyclables or waste from premises, including collections from commercial and industrial premises as well as households.
Landfill	Licensed facilities where waste is permanently deposited for disposal.
MBT (Mechanical Biological Treatment)	A generic term for mechanical sorting and separation technologies used in conjunction with biological treatment processes such as composting.
Municipal Waste	Household waste and any other wastes collected by the Waste Collection Authority, such as municipal parks and gardens waste, beach cleansing waste, commercial or industrial waste for which the collection authority takes responsibility, and waste resulting from the clearance of fly-tipped materials.
Proximity Principle	This principle suggests that waste should generally be disposed of as near to its place of production as possible.

Pyrolysis	Thermal treatment process using high temperatures to breakdown waste containing carbon into ash and gas without oxygen.
Recyclate / Recyclable	Post-use materials that can be recycled.
Recycling	Involves the processing of wastes, into either the same product or a different one. Many non-hazardous wastes such as paper, glass, cardboard, plastics and scrap metals can be recycled. Hazardous wastes such as solvents can also be recycled by specialist companies.
Reduction	Reducing the quantity or the hazard of a waste produced from a process. Reduces the need for primary resources and thus also reduces cost.
Regional Waste Group (RWG)	The WAG has given the responsibility of preparing, monitoring and revising the RWP to the South West Wales Regional Waste Group. The group is led by a Member Forum of councillors from the 8 local planning authorities in the region, supported by a Technical Group of officers from local government, the Welsh Assembly Government, Environment Agency Wales and other government bodies, and representatives from the waste industry and environmental groups.
Residual Waste	Waste remaining to be disposed of after reuse, recycling, composting and recovery of materials and energy.
Technical Advice Note 21 (TAN21)	TAN 21 (published in November 2001 by the Welsh Assembly) provides guidance on how the land use planning system should contribute to sustainable waste management.
Transfer Station	A facility to which waste is delivered for separation or bulking up before being removed for recovery and/or disposal.
Waste Arisings	The amount of waste generated in a given locality

over a given period of time.

Windrow Composting

The aerobic decomposition of appropriate shredded biodegradable waste using open linear heaps known as 'windrows'. The process involves mechanical turning of the waste until the desired temperature and residence times are achieved to enable effective degradation.