

*North Wales Regional Waste Group*

**North Wales Regional Waste  
Plan 1st Review Non-Technical  
Summary**

*Recommended Draft*

*March 2008*

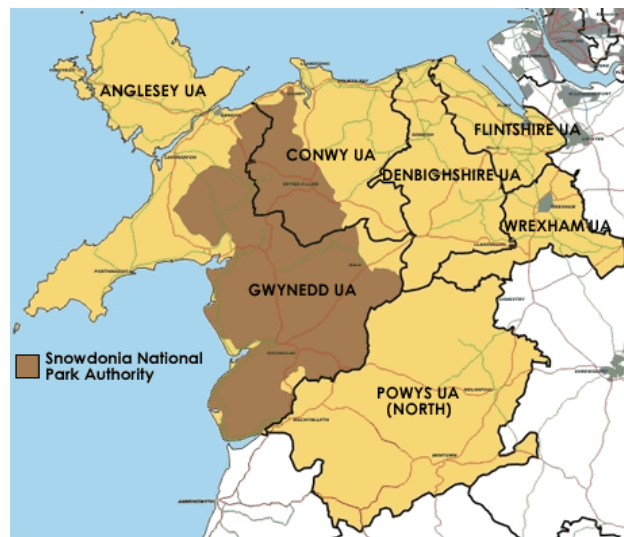


## **Introduction**

1. This is a Regional Planning Document which deals primarily with the land use elements of waste to assist in bringing forward an integrated network of waste management facilities to deal with waste in a more sustainable way and reduce current reliance on landfill. The North Wales Regional Waste Plan (NWRWP) 1<sup>st</sup> Review has the following vision and aims:

<b>Vision:</b>	<b>To provide a land use planning framework for the sustainable management of wastes and recovery of resources in North Wales with the following aims:</b>
<b>Aim A:</b>	<b>To minimise adverse impacts on the environment and human health.</b>
<b>Aim B:</b>	<b>To minimise adverse social and economic impacts and maximise social and economic opportunities.</b>
<b>Aim C:</b>	<b>To meet the needs of communities and businesses.</b>
<b>Aim D:</b>	<b>To accord with the legislative requirements, targets, principles and policies set by the European and national policy framework.</b>

2. The North Wales waste planning region is made up of 7 Unitary Authorities and Snowdonia National Park Authority. For the purposes of Regional Waste Planning Powys is split into two. The former Montgomeryshire falls within the North Region and the rest of Powys falls within the South East region.



3. The RWP 1<sup>st</sup> Review relates to the following principal controlled waste streams:
  - Municipal Solid Waste;
  - Industrial Waste;

- Commercial Waste;
  - Construction & Demolition Waste;
  - Hazardous Waste; and
  - Agricultural Waste (the proportion requiring external management only).
4. The RWP 1<sup>st</sup> Review contains two separate elements:
- The '**Regional Waste Plan Technology Strategy**' – which provides strategic information on the types of waste management / resource recovery facilities required in North Wales to meet demand/targets; and
  - The '**Regional Waste Plan Spatial Strategy**' – which provides strategic information on the types of locations likely to be acceptable.
5. The NWRWP 1<sup>st</sup> Review is a material consideration in the planning process providing a strategic framework for Local Development Plans and assisting in the determination of planning applications with respect to waste. **The NWRWP 1<sup>st</sup> Review covers the period 2004-2013.**

### **Regional Waste Planning**

6. This plan has been produced by the North Wales Regional Waste Group (NWRWG) in line with the requirements of the Welsh Assembly Government (WAG) Technical Advice Note (TAN) 21: Waste and later guidance from the WAG.
7. The North Wales Regional Waste Group (NWRWG) is one of three such bodies set up in Wales to provide regional coordination and a strategic integrated approach to waste planning. The group is led by a Member Group made up of Members from the Constituent Local Planning Authorities in the region and is supported by the Regional Technical Group (RTG) made up of officers from local government, the Welsh Assembly Government, Environment Agency Wales and other government bodies and representatives from the waste industry, environmental groups, health representatives and voluntary sector.
8. The first Regional Waste Plan for the North Region was agreed by the Regional Member Group, endorsed by all the Local Planning Authorities and published in March 2004. TAN 21: Waste requires that the RWP is reviewed every three years.

## **Waste – the current situation**

9. Like the rest of the UK, North Wales has historically had an over-reliance on landfill, wasting potential resources that could be reused, recycled, composted, or recovered before final disposal to landfill. In recent years there has been a revolution in the way that society thinks about waste and the way in which it is managed. Recycling and composting are fast becoming a way of life and the need to reduce overall consumption is being recognised.
10. Despite increased levels of recycling and composting there remains a significant fraction of the waste stream that cannot be recycled or composted and which must be treated in order to extract further benefit. This fraction is termed **residual waste** and may be treated to extract further recyclable materials, compost and/or energy. For technical reasons there will also inevitably be a remaining fraction of waste that can only be dealt with by disposal in landfill.
11. In order to deal with the waste that is being recycled, composted, the residual fraction and the remaining fraction that can only be dealt with by disposal, a range of new facilities will be needed across the region. There is currently very little capacity to deal with waste and the main route for waste being managed within the region remains landfill of which there is very limited capacity.
12. Within the North Wales Region there is a need to start planning for new facilities now due to the long lead in times for facilities and the limited landfill capacity.
13. There are a number of drivers behind the change in approach to waste management, including climate change, regulatory changes, legislative changes and cost. These drivers have an impact on the way that both the public and private sectors manage waste.

## **The Regional Waste Plan Technology Strategy**

14. A range of assessment techniques were used to develop the Regional Waste Plan Technology Strategy, including Life Cycle Assessment (LCA), Sustainability Appraisal (SA), Strategic Environmental Assessment (SEA) and Strategic Health Impact Assessment (HIA). These assessments concluded that overall there is no best waste management option. However, the SA identified 7 options which are considered to be the most sustainable, feasible and suitable. Following consultation, the North Wales Regional Waste Group agreed to retain the 7 top

performing options identified during the SA as the framework for waste planning in North Wales:

### **The Regional Waste Plan Technology Strategy**

High recycling and composting levels with all remaining residual wastes, where possible being treated by:

- High levels of thermal treatment using **pyrolysis**. All remaining residual waste would then be sent to **landfill**.
- High levels of thermal treatment using **Incineration with energy recovery**. All remaining residual waste would then be sent to **landfill**.
- **MBT / BMT** with the output recovered using **pyrolysis**. Any remaining residual waste would then be sent to **landfill**.
- **MBT / BMT** with the output recovered using **gasification**. All remaining residual waste would then be sent to **landfill**.
- **MBT / BMT** with the output recovered using **incineration with energy recovery**. Any remaining residual waste would then be sent to **landfill**.
- **MBT / BMT** with the output recovered using **fuel to off-site energy use**. Any remaining residual waste would then be sent to **landfill**.
- **Autoclave** with the output recovered using **fuel to off-site energy use**. Any remaining residual waste would then be sent to **landfill**.

15. It should be noted that each Option has an identical 'front end' recycling and composting rate and that each option includes a requirement for landfill. Each option also includes the use of Energy from Waste, either in a dedicated facility or as a refuse derived fuel (RDF) for use in a cement kiln or similar off-site energy use. Energy from Waste has a clear role to play in any sustainable waste management strategy and can help reduce the impact of waste on the environment and climate change through diversion of waste from landfill and the off-setting of fossil fuels in energy generation.

16. The NWRWP 1st Review sets out the following figures and calculations for each of

the seven options:

- Identifies the *total* capacity required at various types of waste management / resource recovery facilities in 2013 to each Unitary Authority area on the basis of forecast waste arisings;
- calculates an indicative *new* capacity required and an indicative number of *new* facilities required for new non-landfill waste management / resource recovery facilities by 2013 in each UA area; and
- forecasts the remaining landfill void in 2013 in North Wales.

17. The forecast of landfill void in the region identifies:

- The region is likely to need non-hazardous landfill void by 2013;
- The region requires hazardous landfill now as there is currently no capacity; and
- The region will require inert landfill before the end of the decade.

18. It was agreed by the North Wales Regional Waste Group that National Parks should not need to identify land for waste facilities that can serve more than one local authority area. Guidance provided by the Welsh Assembly Government<sup>1</sup> supports this by identifying:

*“Each local authority should identify a list providing a choice of preferred potential locations or sites for additional waste facilities with capacity for greater than one local authority area for inclusion in the RWP. It is unlikely however that National Parks would be suitable locations for major in-built waste development and National Park Authorities will not therefore be required to identify potential locations or sites for this type of development.”*

19. Snowdonia National Park will therefore only be required to ensure that there is adequate land provision to deal with its own needs.

### **The Regional Waste Plan Spatial Strategy**

20. At the commencement of the Review process the North Wales Regional Waste Group agreed that due to advances in technology, regulatory control and practices, the majority of modern in-built waste management facilities could be located on planning use class B2 sites (general industrial sites), with some being suitably located on B1 (light industrial) and B8 (distribution) and sui generis use sites (uses

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<sup>1</sup> Welsh Assembly Government, 2006: *The Revision of the Regional Waste Plans*. Cardiff: WAG

which do not fit into any other use class).

21. The key elements of the spatial strategy are:

- 1) The assessment of a land area (in hectares) which each local authority would then be expected to allocate within their Local Development Plans;
- 2) An analysis of the potentially available land within the region based on the assumption that B2 land is suitable for in-built WMF;
- 3) A list of preferred sites for waste management that can potentially serve more than one local authority area<sup>2</sup>;
- 4) 'Areas of Search' maps for use in identifying new sites for in-building and open-air waste management / resource recovery facilities.

### **Assessment of land for Non-Landfill Waste Management Facilities**

22. The capacity requirements for each type of non-landfill waste management facility identified within the Regional Waste Technology Strategy were converted into a land area (in hectares) as a guide to local authorities as to the amount of land that they should identify within their Local Development Plans.

23. The requirements are broadly grouped into:

- 'land for those non-landfill facilities that can serve the local authority area only'; and
- 'land for those non-landfill facilities that can potentially serve greater than one local authority area'.

24. This distinction needs to be made because the locational requirements of a local facility will be very different to those that are more strategic in nature.

25. The estimated total land area required in North Wales for non-landfill facilities by 2013 for the seven sub-options ranges from between **77.5 hectares to 120.28** hectares. The land areas required vary greatly due to different number of facilities required for each option and due to the different typical land take requirements of each individual technology.

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<sup>2</sup> Sites are put forward by local authority officers as a precursor to their evaluation at the LDP stage using a variety of techniques including SEA and SA.

### **Analysis of potentially available land within the region**

26. The analysis of the potentially available land area on existing B2 or major industry sites and B2 sites that have already been allocated in development plans has shown that in each Unitary Authority area for which data is available there appears to be a clear surplus of developable land with a B2 planning permission or proposed use to accommodate the highest estimate of the total land area required for new in-building waste management facilities. In North Wales there is approximately 1,100 developable hectares of land with a B2 planning permission or allocation within a development plan.

### **Sites suitable for waste management that can potentially serve more than one Local Authority**

27. The Welsh Assembly Government requested that each local authority supply a list of sites that they consider suitable for waste management to serve more than one local authority area.

28. Local Authority Officers from each of the constituent Unitary Authorities provided a list of sites / locations / areas that they consider merit further investigation at the local level which can be found in chapter 9 of the Core document. The land area put forward by local authorities significantly exceeds the land area requirements of the land take calculations.

### **'Areas of Search' maps for use in identifying new sites for in-building and open-air waste management / resource recovery facilities.**

29. The 'Areas of Search' project has been undertaken using a Sustainability Appraisal process which incorporated the requirements of Strategic Environmental Assessment. The project used a Geographical Imaging System (GIS) to produce a set of 'Areas of Search maps for in-built facilities' and a set of 'Areas of Search maps for open-air facilities'.

30. The 'Areas of Search' are presented in two hardcopy maps in Appendix N of the Technical Companion, namely areas of search maps for in-building and open-air facilities respectively. Each map comprises:

- **1<sup>st</sup> areas of search** – identified as areas appropriate for waste management development due to the presence of appropriate site characteristics (such as proximity to the road network) and few

significant environmental constraints;

- **2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> areas of search** – identified as those areas that cannot be excluded from consideration as appropriate areas, but where a greater level of constraint or constraints exists; and
- **Exclusion Zones** – identified as those areas which, on the basis of clear planning policy, have been excluded from consideration as appropriate for waste management development.

31. The purpose of the maps is to identify Areas of Search at a regional level which can then be used by LPA's to identify preferred locations or sites for new waste management facilities. The ranking of a particular area effectively establishes the issues that would need to be addressed in more detailed planning assessments at later stages. These more detailed assessments may require the quantification of this risk, based on the nature of the waste management facility, or facilities. In identifying a location or site it is recommended that there is a need to consider the Areas of Search maps together with other relevant information before a LPA can be satisfied that the location or site is appropriate.

32. The areas of search maps have been developed at a Wales wide, strategic level, and as a result there may be local circumstances which it has not been possible to assess (for example, the location of small areas of residential properties or individual dwellings that have not been included in this strategic study). **Waste management facilities are only one aspect of development which LPA's must consider in their LDP's, and as a result other pressures and priorities may justify selecting 2<sup>nd</sup>, 3<sup>rd</sup> or 4<sup>th</sup> Areas of Search over a 1<sup>st</sup> area.** It is recommended that the Sustainability Appraisal process, which must be undertaken on all LDP's, is an appropriate mechanism for justifying any such approach.

33. The locations that have been identified as 2<sup>nd</sup>, 3<sup>rd</sup> or 4<sup>th</sup> areas of search cannot be excluded from consideration as appropriate areas. However, in instances where a greater level of constraint or constraints exists, it must be acknowledged that in turn a greater level of operational mitigation may adequately control potential environmental impacts. Waste management facilities can be placed almost anywhere if they are appropriately designed, managed and regulated to control any potential impacts.

34. In the areas of search maps there are a number of existing waste management facilities that have been identified to be in areas that are, by virtue of the

surrounding constraints, shown to be excluded. It should be acknowledged that in some circumstances the associated impacts of a waste management facility are being appropriately mitigated against at these sites. As a result they may not present an unacceptable risk to the constraining designations or land use characteristics. It is recommended that in these instances it will be for LPA's to assess whether the expansion of operations at these locations is appropriate and that any potential adverse effects can be effectively controlled.

### **Other considerations**

35. There are a number of factors that will determine whether sites are brought forward on the ground including existing infrastructure at the site; availability of funding for the site; value of the land and so on. The Wales Spatial Plan aims to guide development within Wales, specifically guiding the allocation of public sector and to a certain extent, private sector funding. It is therefore recommended that links between strategic industrial sites and areas of regeneration are considered by local authorities looking for potential sites for waste management.
36. Locations where significant developments are being planned and/or high energy users in the region should also be looked at when investigating potential sites for Energy from Waste plants. This will maximise the benefit gained from the EfW plant.
37. Locations that enable the use of rail and waterways should be considered, where suitable, in order to reduce reliance on the road network and reduce the overall transport impacts of waste movements in line with the Sustainable Transport Resource And Waste (STRAW) report recommendations. Local Authorities may also wish to liaise with their respective transport consortiums<sup>3</sup> (partnerships of authorities with transport responsibilities) as to proposals for transport networks that may impact on existing transport infrastructure.

### **Conclusion**

38. The North Wales Regional Waste Plan 1st Review has sought to achieve its vision and aims by:
  - Providing a Regional Waste Plan Technology Strategy which guides local authorities and potential developers as to the most sustainable waste

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<sup>3</sup> There are four consortia in Wales, TAITH (North Wales), TRaCC (mid Wales), SEWTA (South East Wales) and SWWITCH (South West Wales)

management options for the North Wales Region, taking account of; Best Practicable Environmental Option; Sustainability Appraisal; Strategic Environmental Assessment; and Strategic Health Impact Assessment, and assessing number of facilities and capacity requirements for the region based upon the Technology Strategy chosen.

- Providing a Regional Waste Plan Spatial Strategy which includes; strategically mapped locational criteria in the form of 'Areas of Search Maps', to assist in the identification of suitable geographic locations for future in-building and open-air facilities; an assessment of the potentially available industrial land upon which in-built waste management facilities may be appropriately located; a list of preferred locations/areas for waste management that may potentially serve more than one local authority area, provided by local authority officers which may be further evaluated at the Local Development Plan stage.
- Providing guidance to Local Authorities, Economic Development bodies and the waste industry as to how to implement the North Wales Regional Waste Plan 1st Review.

39. It is the role of Local Authorities, the waste management industry and economic development bodies to implement the North Wales Regional Waste Plan 1st Review through Local Development Plans and collaborative working between local authorities and the private sector. It is essential that in the rush for local authorities to achieve the municipal targets set by Europe, commercial waste is considered and catered for.