# Tees Valley Joint Minerals and Waste Development Plan Documents

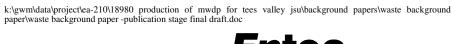
**Waste Background Paper** 

2009

## **Purpose of this Report**

This report has been produced for the purpose of providing background information to the Tees Valley Joint Minerals and Waste Development Plan Documents. The report contains information on where figures and evidence used in the DPDs has been obtained from. The information itself is not included in the actual DPDs in order to keep these documents in a concise form.

The report covers National, Regional and Local planning policy of relevance to waste, information on the sources of data and evidence used in the production of the DPDs, details of site assessment work undertaken and full explanations of how various figures used in the DPDs have been obtained.







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# 1. Waste Policy and Information

## 1.1 European Policy

#### EU Waste Directive 2006/12/EC and 2008/98/EC

- 1.1.1 The European Waste Directive includes statements that Member states shall:
  - Prevent or reduce waste production and its harmfulness to human health or the environment:
  - Recover value from waste by recycling, re-use or reclamation or by using waste as a source of energy;
  - Seek for the EC to become self sufficient in the management of its waste with member states also aiming to be self sufficient individually; and
  - Draw up waste management plans which include the identification of the type, origin and quantity of waste to be recovered or dispose and identify suitable sites for disposal or installations.
- 1.1.2 The 2006 Directive has been superseded by Directive 2008/98/EC, which consolidates a number of EC Directives into one document. The requirements are however unchanged from the original 2006 Directive.

## 1.2 National Policy

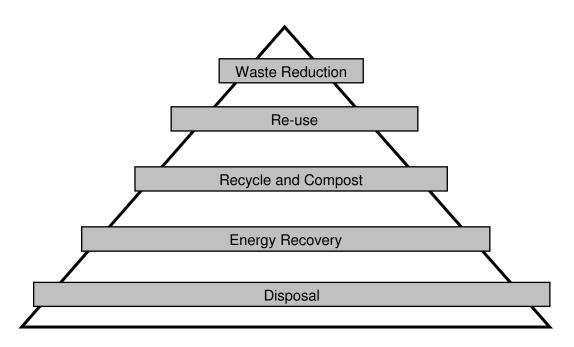
# Planning Policy Statement 10: Planning for Sustainable Waste Management (ODPM, 2005)

- 1.2.1 PPS 10 requires planning bodies to:
  - Drive waste management up the waste hierarchy, by addressing waste as a resource and looking to disposal as a last option, but one which must be adequately catered for;
  - Enable sufficient and timely provision of waste management facilities to meet the needs of their communities:
  - Ensure planning policies implement the national waste strategy and are consistent with European legislation and other guidance and controls;
  - Protect human health and the environment, and enable waste to be disposed of in the nearest appropriate installation;
  - Reflect the concerns and interest of communities, authorities and businesses;



- Protect green belts, but recognise that the particular location needs of some types of waste management facilities may have an impact on green belts and other environmental designations.
- Ensure the design and layout of new development supports sustainable waste management.

#### The Waste Hierarchy



1.2.2 The waste hierarchy is set out above, and the aim of national planning policy is to push the management of waste up the waste hierarchy. In this way the amount of waste produced will be minimised, waste that is produced will be used in a beneficial manner and waste will be disposed as a last option only. The terms used in the waste hierarchy are detailed below:

#### **Waste Minimisation:**

1.2.3 This process aims to minimise the amount of waste which is produced. If this is achieved there would be less waste to be managed, and therefore less resources used in the management processes.

#### **Re-use of Waste:**

1.2.4 This refers to the direct re-use of materials found in waste streams. An example of this is the re-use of glass bottles, which can be washed and then re-filled, without the need for the glass itself to be re-processed.

## **Recycle and Compost:**

1.2.5 Recycling is when waste is reprocessed into another form, before it can be used again. For instance glass bottles which are recycled could be melted



down and the glass re-moulded into a different shape for another use. Composting is a similar process, but is undertaken with waste materials arising mainly from plants. These materials are 're-processed' by the natural decomposition of the materials to form compost.

## **Energy Recovery:**

- 1.2.6 This is where waste resources are used to fuel the generation of heat or electricity. This can be achieved by either using the waste resources directly as a fuel, or by extracting bio-fuel or gases from the waste to use as fuel.
- 1.2.7 The processes of re-use, recycling and composting and energy recovery, can be collectively referred to as 'recovery', because value is recovered from the waste which passes through the processes.

## Disposal:

1.2.8 Disposal is where waste is disposed of in a process which does not create any direct value from the process. This normally involves the landfilling of waste, where waste is buried underground, but can also include incineration if no energy is generated.

## Waste Strategy for England (DEFRA, 2007)

- 1.2.9 Waste Strategy at a national level is contained within Waste Strategy for England 2007 (DEFRA). The Strategy sets out the changes that are needed to reduce waste by making fewer products with natural resources, break the link between economic growth and waste growth and for the waste that is produced look to re-use, recycle or recover energy from it. The Waste Strategy seeks to:
- 1.2.10 Reduce the amount of household waste which is not re-used, recycled or composted from over 22.2 million tonnes in 2000 by:
  - 29% by 2010 (to 15.8 million tonnes), and
  - 45% by 2020 (to 12.2 million tonnes).
- 1.2.11 To recycle and compost the following amounts of household waste:
  - 40% by 2010,
  - 45% by 2015, and
  - 50% by 2020.
- 1.2.12 Recover value from municipal solid waste, from:
  - 53% by 2010,
  - 67% by 2015, and
  - 75% by 2020.



## 1.3 Regional Policy

- 1.3.1 Regional Policy is contained within the North East of England Plan Regional Spatial Strategy to 2021 (RSS) and sets out a broad development strategy for the region for the period up to 2021. There are three policies directly relating to waste within this document: policies 45, 46 and 47. Policy 45 concerns sustainable waste management and sets out the overarching priorities and principles for waste management. These aim to achieve a behavioural change in the way that waste is managed in order to provide a more sustainable waste management system. Policy 46 sets out waste management provision including figures for estimated waste arisings and targets for recycling and recovery of different waste streams. It also sets out criteria that Waste and Local Development Frameworks should take account in order to meet these targets and these include:
  - Allocate sites for waste management facilities and contain policies which identify specific criteria for the location of waste management facilities, having regard to the locational and planning considerations set out in national policy, environmental and social-economic impacts, suitability of the road network and potential for access by non-road transport
  - Encourage the provision of new waste related businesses to process recycled materials including where appropriate, defining suitable sites and/or criteria based policies;
  - Facilitate development of a network of small scale local waste management facilities in accessible locations, and effective methods of waste management such as to separate/store different types of waste including materials that have to be separated for kerbside collection schemes;
  - Limit additional landfill sites unless it can be demonstrated that there is insufficient capacity for deposit of residual wastes; and
  - Assess the capacity gap for the municipal solid and commercial and industrial waste streams.
- 1.3.2 The figures for waste arisings in policy 46 for municipal solid waste and commercial and industrial waste have been updated by research commissioned by the North East Assembly. These updated figures are therefore used in the Minerals and Waste DPDs and further information is provided in Chapter 3
- 1.3.3 Policy 47 relates to hazardous waste, and sets tonnages for different waste management methods at certain dates up to 2021/22. The policy states that Local Development Frameworks should provide for facilities with capacity to deal with these tonnages. The figures are only provided for the whole of the North East and are not broken down by sub-region. It is however stated in the supporting text that Tyne and Wear and the Tees Valley should be home to the majority of these facilities. Policy 47 states that Waste and Local Development Frameworks should:



- Identify specific sites or criteria for the location of facilities to treat and manage hazardous waste, with priority being given to appropriate industrial areas in Tyne and Wear and Tees Valley;
- Identify criteria against which individual proposals will be assessed; and
- Provide for the appropriate treatment of hazardous waste where this arises on a regional or sub regional scale.
- 1.3.4 No figures are provided in the RSS for Construction and Demolition waste as this is not required in national policy. However, previous draft versions of the RSS did include these figures and the figures from the North East of England Regional Spatial Strategy Secretary of State's Proposed Changes to the Draft Revision Submitted by the North East Assembly, May 2007 have been used as they are the most up to date figures publicly available. Further details of the figures used are provided in section 3.

#### **Tees Valley Joint Waste Management Strategy 2008**

- 1.3.5 The Joint Waste Management Strategy was published in June 2008. The principles of are:
  - · To reduce waste generation;
  - To be achievable and affordable;
  - To work towards zero landfill:
  - · To minimise the impact on climate change;
  - To have an accountable and deliverable structure; and
  - To contribute towards economic regeneration.
- 1.3.6 The Strategy details the drivers which influence the strategy, provides information on the current situation in terms of the amount and make up of waste, waste management practices and performance against statutory targets. The Strategy then identifies options for future waste management and recommends a preferred option to take forward as the strategy to 2020. Policies and actions are then put forward for achieving the strategy.
- 1.3.7 The Headline Strategy identifies the preferred option as being one which requires a new approach to waste awareness and minimisation, a new approach to waste collections, additional waste treatment facilities to divert additional waste from landfill and the continued use of the EfW facility for waste recovery.





## 2. Existing Waste Sites

## 2.1 Major Waste Management Sites

#### Haverton Hill, Stockton-on-Tees

- 2.1.1 The Haverton Hill site (A1046 Haverton Hill Road, Haverton Hill) includes an energy from waste (EfW) plant, a household waste recycling centre and a municipal green waste composting facility. The site is owned and operated by SITA. The energy from waste plant principally accepts municipal solid waste, including from the boroughs of Hartlepool, Middlesbrough, Redcar & Cleveland and Stockton-on-Tees but also can accept certain commercial and industrial wastes. The waste is used as fuel for the generation of electricity and the existing plant has a capacity of 200,000 tonnes per year and an extension to this plant is being constructed to increase the capacity up to 325,000 tonnes per year. Planning permission has also been granted to provide a second energy from waste building on the site which would provide an additional 256,000 tonnes of capacity per year, giving a site total of 580,000 tonnes per year for energy from waste.
- 2.1.2 The household waste recycling centre serves the populations of both Stockton-on-Tees and Middlesbrough and has a capacity of 25,000 tonnes per year. The composting facility also has an annual capacity of 25,000 tonnes.

#### Other Sites with Planning Permission:

#### South Tees Eco-Park, Redcar and Cleveland

2.1.3 Outline planning permission was granted for the South Tees Eco-Park (adjacent to Eston Road, Grangetown) in February 2008. In May 2008, full planning permission was granted for an autoclave and community recycling (household waste recycling centre) facilities. The Eco-Park concept is one where all of the businesses located on the site are related to each other, for example one business produces a material from a waste management process which another business then uses to manufacture a product. In this way the businesses all support each other and transport costs and organisation is minimised. The autoclave would have the capacity to deal with up to 300,000 tonnes of municipal solid and commercial and industrial waste every year, and would produce a range of materials to be used by future developments on the Eco-Park. The household waste recycling centre could manage up to 100,000 tonnes per year, with the materials collected either processed by the autoclave or used by other businesses on the site.



## Port Clarence, Stockton-on-Tees

2.1.4 The Port Clarence site (Huntsman Drive, Port Clarence) is home to an existing landfill site which can accept municipal solid, commercial and industrial and hazardous wastes. Planning permission was granted in February 2008 for the development of a range of treatment and management processes to deal with hazardous waste and the more difficult commercial and industrial wastes. The facilities approved would be able to be brought on and off line in response to market conditions ensuring that the management operations can react guickly to changing circumstances. All of the facilities approved could however be operated simultaneously, giving a total site capacity of 173,000 tonnes per year for hazardous waste treatment. In addition, the permission also covers the provision of soil washing and recovery plant which could deal with a total of 250,000 tonnes per year. This facility is expected to deal with around 50% contaminated soils and 50% 'clean' soils from construction and demolition waste. Soils would be used to cap the landfill on the site as its cells are filled and can also be sold on.

## New Road, Billingham, Stockton-on-Tees

2.1.5 New Road in Billingham is a former chemical site which received permission in January 2008 for the development of an Eco-Park, with initial waste management facilities to include a waste transfer station and a glass recycling plant. The waste transfer station would have an annual capacity of 25,000 tonnes and would replace an existing transfer station located near Grangetown. The glass recycling facility would have an annual capacity of 50,000 tonnes per year. The site is already allocated for employment uses in the Stockton-on-Tees Local Plan and this allocation is proposed to continue in the Stockton-on-Tees Core Strategy with an acknowledgement that the area would be suitable for chemical industries as well as other employment types. The intention is therefore for the New Road to accommodate a mixture of uses, including waste management, but this mix will be determined by market conditions. If the site was wholly occupied by waste management services it could provide a capacity of around 200,000 tonnes per year given its size.

## 2.2 Household Waste Recovery Centres

- 2.2.1 There are five existing Household Waste Recovery Centres (also known as HWRCs or Civic Amenity Sites) within the Tees Valley. These are:
  - Burn Road, Hartlepool (Hartlepool, Hartlepool BC);
  - Carlin Howe Farm, Dunsdale (Redcar and Cleveland, SITA);
  - Drinkfield, Darlington (Darlington, Darlington BC);
  - Haverton Hill (Stockton-on-Tees, SITA); and
  - Warrenby (Redcar and Cleveland, Redcar and Cleveland BC).

Brackets indicate local authority location of the site and the operator



2.2.2 Burn Road, Drinkfield and Warrenby are run by the relevant local authority. Carlin Howe Farm and Haverton Hill are run by SITA.

## 2.3 Composting

2.3.1 There are currently only two composting sites within the Tees Valley, one at SITA's Haverton Hill complex (Stockton-on-Tees) and one at Darlington Borough Council's depot in Darlington. Other resources which are presently used to compost green municipal waste collected in the Tees Valley are located outside of the Tees Valley boundaries at Murton Hall Farm, Embleton Old Hall Farm (both A&E Thompson Composting Services) and Oneholmes Farm (J. Robert Campbell). All three of these sites are located in North Yorkshire.

## 2.4 Landfill

- 2.4.1 Landfill sites which are currently able to receive municipal solid waste and commercial and industrial wastes are:
  - Carlin Howe Farm (Redcar and Cleveland, SITA)
  - Corus (Redcar and Cleveland, B S Cleveland Landfill);
  - Cowpen Bewley (Stockton-on-Tees, ICI);
  - Elementis Chromium, Eaglescliffe (Stockton-on-Tees, Elementis Chromium);
  - Port Clarence (Stockton-on-Tees, Augean);
  - Seaton Meadows (Hartlepool, Alab); and
  - SWS Landfill (Hartlepool, SWS).
- 2.4.2 Landfill sites which can accept hazardous waste are:
  - ICI Teesport No. 3 (Impetus/ICI); and
  - Port Clarence (Zero Waste (now Augean)); and
  - Teesport No.2 (Impetus).

Brackets indicate local authority location of the sites and the operator

## 2.5 Other Sites

2.5.1 In addition to these sites there are large number of companies and sites across the Tees Valley dealing with recycling or recovery. These deal with a wide range of materials, capacities and markets including specialist operations of regional or national importance.



## 2.6 Existing Capacity

2.6.1 The North East Assembly's Waste Apportionment Report (January 2008) identifies the existing annual capacity of municipal solid waste and commercial and industrial waste management facilities in the Tees Valley. It also identifies facilities which had planning permission at this time but had not been developed. Since this date, there have been other developments which have received planning permission and the annual capacities are detailed below. All of the capacities for recycling, composting and recovery are available across the whole of the plan period.

Table 2.1 Existing and Planned Recycling, Composting and Recovery Capacity for Municipal Solid Waste (Jan 2008)

	Existing	Planned		Total
Recycling	857,939	HWRC, South Tees Eco- Park	100,000	1,007,939
	857,939	Glass facility, New Road, Billingham	50,000	1,007,939
Composting	25,999	n/a		25,999
Recovery	490,996	Line 3 extension to EfW plant, Haverton Hill	125,000	965.996
		South Tees Eco-Park	350,000	

2.6.2 Information on the available capacity of hazardous waste treatment is provided in section 3.4.



2.6.3 Landfill capacity is obviously a finite resource as the available void is only able to take a certain amount of waste before it becomes full. The table below therefore details how the landfill capacity will change over the period to 2021 if landfill deposits continue at each site at their present rate. An end date of 2021 has been used, rather than the end of plan period of 2025, as waste predictions and targets for after 2021 will be subject to national and regional targets which are expected to change before this date. Information from 2021 to 2025 will be included in a future review of the DPDs when these targets and predictions are known. The site by site breakdown of this information is provided by the Environment Agency but it is not publicly available at this time and therefore this information is provided in the Confidential Annex.

Table 2.2 Landfill Capacity

	Void space 2010	Void Space 2011	Void Space 2012	Void Space 2013	Void Space 2014	Void space 2015	Void space 2016	Void space 2017	Void space 2018	Void space 2019	Void space 2020	Void space 2021
Municipal solid & commercial and industrial waste	14,181,186	13,497,346	12,813,506	12,129,666	11,445,826	10,665,413	10,325,827	9,989,790	9,677,880	9,365,968	9,154,060	8,942,150
Hazardous	5,244,516	5,031,036	4,817,556	4,604,076	4,390,596	4,177,116	3,963,636	3,750,156	3,536,676	3,323,196	3,109,716	2,896,236

Environment Agency Void Space Report, August 2007



## 3. Waste Target Figures

# 3.1 Municipal Solid Waste and Commercial and Industrial Waste

3.1.1 Figures for municipal solid waste and commercial and industrial are considered together as the majority of facilities relevant to these waste streams can deal with both municipal solid waste and commercial and industrial waste.

## **Projected Waste Arisings**

- 3.1.2 The Regional Spatial Strategy (RSS) identifies the projected arisings for municipal solid waste however these figures have subsequently been revised by the North East Assembly<sup>1</sup> and it is the revised figures which are used in the Minerals and Waste DPDs (Table 3.2).
- 3.1.3 Target figures provided in the RSS refer to proportions of household waste as well as municipal solid waste. Household waste forms part of the municipal solid waste totals and Table 3.1 shows that 82% of the municipal solid waste in the Tees Valley is made up of household waste.<sup>2</sup>

Table 3.1 Proportion of household waste as part of municipal solid waste (tonnes)

Year	Municipal Solid Waste	Household Waste	Proportion
2003/04	372,400	327,100	86.8%
2004/05	392,600	330,800	84.3%
2005/06	364,363	297,169	81.6%
2006/07	395,357	314,053	79.4%
2007/08	392,446	310,340	79.1%
Average	383,433	315,892	82.4%

**Entec** 

<sup>&</sup>lt;sup>1</sup> Apportionment of Future Waste Arisings, Waste Apportionment Report, Entec UK Ltd for North East Assembly, January 2008.

<sup>&</sup>lt;sup>2</sup> Figures from Municipal Waste Arisings in the Tees Valley 2003/04 and 2004/05, Tees Valley JSU and from <a href="http://www.defra.gov.uk/environment/statistics/wastats/index.htm">http://www.defra.gov.uk/environment/statistics/wastats/index.htm</a> <a href="Municipal Waste Statistics">Municipal Waste Statistics</a> <a href="2005/06">2005/06</a>, 2006/07 and 2007/08, downloaded May 2009.

3.1.4 Table 3.2 details the predicted household waste arisings over the period from 2009/10 to 2020/21. The remainder of municipal solid waste is made up of the other waste collected by waste collection authorities and includes some commercial waste, the authorities' own waste and waste collected from litter bins and street cleaning.

Table 3.2 Predicted arisings for municipal solid waste in the Tees Valley (tonnes)

Year	Municipal solid waste	Household waste*	
2009/10	412,330	338.111	
2010/11	416,140	341.235	
2011/12	419,080	343.646	
2012/13	422,460	346.417	
2013/14	425,870	349.213	
2014/15	429,300	352.026	
2015/16	432,320	354.502	
2016/17	434,810	356.544	
2017/18	437,440	358.701	
2018/19	440,100	360.882	
2019/20	442,760	363.063	
2020/21	445,410	365.236	

<sup>\*</sup>Household waste is predicted as being 82% of municipal solid waste as shown in Table 3.1

3.1.5 The RSS identifies projected arisings for commercial and industrial waste however these figures have subsequently been revised by the North East Assembly<sup>3</sup> and it is the revised figures which are used in the Minerals and Waste DPDs (Table 3.3).

Table 3.3 Predicted commercial and industrial waste arisings for the Tees Valley (tonnes)

Commercial and industrial waste	
2,316,400	
2,315,655	
2,314,912	
2,314,171	
	2,316,400 2,315,655 2,314,912

<sup>&</sup>lt;sup>3</sup> Apportionment of Future Waste Arisings, Waste Apportionment Report, Entec UK Ltd for North East Assembly, January 2008.

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Year	Commercial and industrial waste	
2013/14	2,312,431	
2014/15	2,312,693	
2015/16	2,311,957	
2016/17	2,311,223	
2017/18	2,310,491	
2018/19	2,309,760	
2019/20	2,309,031	
2020/21	2,308,303	

## **Targets and Allowances**

- 3.1.6 These arisings are then divided on the basis of targets set in the Waste Strategy for England 2007 and confirmed in the RSS and in the LATS (Landfill Allowance Trading Scheme) allowances for landfilling of waste<sup>4</sup>. targets and allowances relate to the minimum amount of recovery, recycling and composting which should take place with these arisings, and the maximum amount of landfilling. These targets and the related tonnages are set out in Table 3.4. The use of the years 2010, 2016 and 2021 are used are used as those are the dates at which the targets are set to change. For the LATS landfill figures, 2010, 2013 and 2021 are used as these are the published dates for the allowances. For commercial and industrial waste, targets are only actually set for 2016 and 2021. The Waste Strategy 2007 identifies that in 2010 the landfill of commercial and industrial waste is expected to have fallen to 20% of 2004 levels. In the Tees Valley in 2004, 678,000 tonnes of household and commercial and industrial waste was landfilled<sup>5</sup> and a 20% reduction on this figure would give a landfill allowance of 542,000 tonnes in 2010.
- 3.1.7 In Table 3.4, 'household waste recycling' refers to the recycling and composting of the household waste stream only. 'Recovery' concerns the total municipal solid waste stream and concerns any waste management procedure where value is recovered from the waste stream. Therefore the 'amended municipal solid waste recovery' target subtracts the household waste recycling figure from the target tonnage.

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<sup>&</sup>lt;sup>4</sup> Landfill Allowances Trading Scheme letter from Elliot Morley, Defra, 3<sup>rd</sup> February 2005

<sup>&</sup>lt;sup>5</sup> Figures from <a href="http://www.defra.gov.uk/environment/statistics/wastats/index.htm">http://www.defra.gov.uk/environment/statistics/wastats/index.htm</a> <a href="Municipal Waste">Municipal Waste</a> <a href="https://www.defra.gov.uk/environment/statistics/wastats/index.htm">Statistics 2005/06</a>, 2006/07 and 2007/08, downloaded May 2009.

Table 3.4 Initial target figures (tonnes per year)

	Year	Projected Arisings	Target (%)	Target
	2009/10	410,000	53%	010 505
Municipal solid waste total recovery		412,330		218,535
,	2015/16	432,320	67%	289,654
	2020/21	445,410	75%	334,058
Household waste	2009/10	338.111	40%	135,244
recycling	2015/16	354.502	45%	159,526
	2020/21	365.236	50%	182,618
		Recovery	Household Recycling	Amended Recovery
Amended municipal solid waste	2009/10	218,535	135,244	83,291
recovery*	2015/16	289,654	159,526	130,128
	2020/21	334,058	182,618	151,440
LATS municipal	2010			139,408
solid waste landfill allowance	2013			92,586
	2020			64,974
Commercial and	2009/10	2,316,400	Less 524,000	1,792,400
industrial recovery	2015/16	2,311,957	73%	1,687,729
	20/2021	2,308,303	73%	1,685,061
Commercial and	2009/10	2,316,400	524,000	524,000
industrial landfill	2015/16	2,311,957	27%	624,228
	2020/21	2,308,303	27%	623,241

\*Household recycling forms a part of the municipal solid waste total recovery and the amended recovery figure therefore details the remaining recovery target after the recycling has been considered.

3.1.8 The household waste recycling targets cover both recycling and composting and need to be split to reflect these two management options. Table 3.5 shows the amount of household waste which has been recycled or composted in the Tees Valley and the average split over this period<sup>6</sup>. This split is 69% recycled to 31% composted and therefore the target figures have been split on this basis (Table 3.6)

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<sup>&</sup>lt;sup>6</sup> Figures from Municipal Waste Arisings in the Tees Valley from 2003/04, Tees Valley JSU

Table 3.5 Household waste: previous recycling / composting split (tonnes)

Year	Recycled (tonnes / %)	Composted (tonnes / %)
2003/04	29,300 / 80%	7,200 / 20%
2004/05	35,300 / 77%	10,200 / 23%
2005/06	41,400 / 66%	21,600 / 34%
2006/07	50,000 / 66%	26,300 / 34%
2007/08	50,500 / 66%	26,500 / 34%
Average	41,200 / 69%	18,320 / 31%

Table 3.6 Household waste - future recycling and composting split (tonnes per year)

	Year	Overall target	Recycling (69% overall target)	Composting (31% overall target)
	2009/10	135,244	93,318	41,926
Household waste recycling	2015/16	159,526	110,073	49,453
	2020/21	182,618	126,006	56,612

3.1.9 The recovery target figures for municipal solid waste are also subject to further amendment. When the target tonnages for 'household waste recycling', 'amended recovery' and the 'LATS allowance' (Table 3.4) are totalled this does not meet the total municipal solid waste arisings shown in Table 3.2 for those years. The excess amounts can not be landfilled, as the LATS allowances are maximum amounts, and therefore must be added to the recovery targets. These further amendments to the recovery targets are shown in Table 3.7

Table 3.7 Municipal solid waste recovery – further amended targets to account for LATS allowances (tonnes per year)

	Predicted municipal solid waste arisings	Total target figure (recycling, recovery and LATS)	Difference	Remaining recovery target	Revised recovery target (difference plus remaining)
2009/10	412,330	357,943	54,387	81,638	136,025
2015/16	432,320	382,240	50,080	128,182	178,262
2020/21	445,410	399,032	46,378	149,213	195,591

3.1.10 The final requirements for household recycling, household composting, municipal solid waste/commercial and industrial waste recovery and municipal solid waste/commercial and industrial waste landfill are therefore set out in Table 3.8



Table 3.8 Final requirements

	Year	Final Annual Requirements
Household recycling	2009/10	93,318
	2015/16	110,073
	2020/21	126.006
Household composting	2009/10	41,926
	2015/16	49,453
	2020/21	56,612
Municipal solid waste and commercial and industrial	2009/10	1,910,425
waste recovery	2015/16	1,865,991
	2020/21	1,880,652
Municipal solid waste and commercial and industrial	2009/10	663,408
waste landfill	2015/16	716,814
	2020/21	688,215

## **Existing and Planned Capacity**

3.1.11 Existing and planned capacity is that which is identified in the Waste Apportionment Report for the North Assembly as of January 2008. There are waste management facilities which have received planning permission since January 2008 but these are not included here in order to retain the clarity of the published figures and avoid confusion. Capacity for recycling, composting and recovery are all available from 2010 until 2021.

Table 3.9 Existing and planned capacity of waste managements facilities (tonnes per year)

	Facility Type	Existing Annual Capacity from 2010	Planned Annual capacity	Total (Existing and Planned)
	Recycling	857,939	150,000	1,007,939
	Composting	25,999	0	25,999
Municipal solid waste and commercial and	Recovery	490,996	425,000	915,996
industrial waste		Void space at 2010	Void space at 2016	Void space at 2021
	Landfill	14,181,186	10,325,827	8,942,150



## Capacity Gap

3.1.12 The difference between the final requirement figures shown in Table 3.8, and the existing and planned capacity shown in Table 3.9 determines whether there is a capacity gap or whether there is excess capacity available. This is shown in Table 3.10. For municipal solid waste and commercial and industrial waste recovery the existing capacity includes that identified solely for recovery purposes in Table 3.9 and also the difference in the household recycling capacity identified below.

Table 3.10 Recycling, composting and recovery capacity gap (tonnes per year)

	Year	Existing and Planned Capacity	Target Tonnage	Difference
	2009/10	1,007,939	93,318	914,621
Household recycling	2015/16	1,007,939	110.073	897,866
	2020/21	1,007,939	126.006	881,933
	2009/10	25,999	41,926	-15,927
Household composting	2015/16	25,999	49,453	-23,454
, ,	2020/21	25,999	56,612	-30,613
Municipal solid waste	2009/10	1,830,617	1,910,425	-79,808
and commercial and industrial waste	2015/16	1,813,862	1,865,991	-52,129
recovery	2020/21	1,797,929	1,880,652	-82,723

3.1.13 In terms of landfill capacity, the identified landfill voids in Table 3.9 are calculated using the average annual inputs for the sites from 2007. This annual figure was 678,000 tonnes in 2007 which would give a landfill void capacity of over 14 million tonnes in 2010. From this date, the identified landfill requirements from Table 3.8 are used to assess if sufficient landfill capacity is available. Therefore from 2009/10 to 2014/15 the annual landfill requirements of 643,000 are used to calculate the deposit rate, with the requirements of 716,814 tonnes per year being used from 2015/16 to 2019/20 and 618,215 tonnes in 2020/21.

Table 3.11 Landfill capacity gap (tonnes)

Year	Void Space Available	Deposits
2009/10	14,181,1	86 643,000
2010/11	13,538,1	86 643,000
2011/12	12,895,1	86 643,000
2012/13	12,252,1	86 643,000
2013/14	11,609,1	86 643,000
2014/15	10,966,1	86 643,000
2015/16	10,323,1	86 716,814
2016/17	9,606,3	716,814
2017/18	8,889,5	716,814
2018/19	8,172,7	716,814
2019/20	7,455,9	716,814
2020/21	6,739,1	26 618,215

3.1.14 Although the increased rate of deposits may result in some of the sites identified being filled quicker than at present (Table 2.2 and the Confidential Annex), the final void space remaining in 2020/21 shows that there is sufficient capacity elsewhere to accommodate any closures which do occur without prejudicing the ability to meet the requirements.

## **Spatial Distribution of Household Waste Recycling Centres**

3.1.15 Despite there being no capacity gap identified for the provision of household recycling services there is an identified need for new facilities to improve the spatial distribution of household waste recycling centres in the Tees Valley. The areas around Thornaby, Ingleby Barwick, Yarm and Eaglescliffe (Stockton South) and the built up area between Middlesbrough and Redcar (the South Tees and Eston areas) are not well served by the existing household waste recycling centre provision, given the size of their populations. To address this spatial imbalance two new household waste recycling centres are required: one in the Stockton South area and one in the South Tees/Eston area<sup>7</sup>.

**Entec** 

<sup>&</sup>lt;sup>7</sup> Household Waste Recycling Centres: Review of Household Waste Recycling Centres within the Tees Valley, Entec UK Ltd for the Tees Valley Joint Strategy Unit, June 2008.

## 3.2 Construction and Demolition Waste

## **Projected Waste Arisings**

3.2.1 The published version of the Regional Spatial Strategy does not identify predicted arisings for construction and demolition waste. However, these figures were included in draft versions of the Regional Spatial Strategy<sup>8</sup>. These figures in the draft version were derived from a report by ERM; "Apportionment of Future Waste Arisings Tyne and Wear and Tees Valley Final" (9 December 2005) which was commissioned to inform the emerging Regional Spatial Strategy. These are the latest publicly available figures and therefore are used in the Minerals and Waste DPDs.

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Table 3.12 Predicted construction and demolition waste arisings for the Tees Valley (tonnes)

Year	C&D
2009/10	1,353,000
2010/11	1,374,000
2011/12	1,394,000
2012/13	1,415,000
2013/14	1,436,000
2014/15	1,458,000
2015/16	1,480,000
2016/17	1,502,000
2017/18	1,524,000
2018/19	1,547,000
2019/20	1,571,000
2020/21	1,594,000

#### **Targets and Allowances**

3.2.2 These arisings are then divided on the basis of targets set in the adopted Regional Spatial Strategy. These targets and how these relate to tonnages are set out in Table 3.12. The years 2016 and 2021 are used as it is 2016 when the Regional Spatial Strategy states that this target should first be met, and 2021 to show the situation at the end of this DPD.

**Entec** 

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<sup>&</sup>lt;sup>8</sup> North East of England Regional Spatial Strategy, The Secretary of State's Proposed Changes to the Draft Revision Submitted by the North East Assembly, Government Office North East, May 2007

Table 3.13 Construction and demolition recycling target figures (tonnes per year)

	Year	Projected Arisings	Target	Targ	et (tonnes)
Populing	2015/16	1,480,000		80%	1,184,000
Recycling	2020/21	1,594,000		80%	1,275,200

## **Existing Capacity**

3.2.3 No firm information is available on the exact current recycling capacity for construction and demolition waste as much of the recycling work done is undertaken by mobile or temporary plant which is moved around different development sites, in both the Tees Valley and across a wider area, in response to demand. However in 2005, 909,625 tonnes of construction and demolition waste was recycled in the Tees Valley and County Durham, out of a total of 2,418,260 tonnes produced<sup>9</sup>. This is 38% of the total and if this percentage is applied to the predicted arisings of the Tees Valley for 2005<sup>10</sup>, it indicates that 484,500 tonnes of construction and demolition waste would have been recycled at this time. This figure has therefore been assumed as the construction and demolition recycling capacity for the Tees Valley.

## **Capacity Gap**

3.2.4 The difference between the target figures shown in Table 3.14, and the existing capacity shown detailed in paragraph 3.2.3, determines whether there is a capacity gap or whether there is excess capacity available. This is shown in Table 3.14.

Table 3.14 Construction and demolition recycling capacity gap (tonnes per year)

	Year	<b>Existing Capacity</b>	Target Tonnage	Difference
Populing	2015/16	484,500	1,184,000	-699,500
Recycling	2020/21	484,500	1,275,20	-790,700

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<sup>&</sup>lt;sup>9</sup> Survey of Arisings and Use of Alternatives to Primary Aggregates in England 2005, DCLG, February 2007

<sup>&</sup>lt;sup>10</sup> North East of England Regional Spatial Strategy, The Secretary of State's Proposed Changes to the Draft Revision Submitted by the North East Assembly, Government Office North East, May 2007

## 3.3 Hazardous Waste

3.3.1 The Regional Spatial Strategy identifies that the North East as a whole should make provision for a range of facilities to treat and manage the tonnes of hazardous waste shown in Table 3.15.

Table 3.15 Predicted hazardous waste arisings - North East (tonnes)

Waste Management Method	2010/11	2015/16	2021/22
Landfill	156,000	168,000	187,000
Physical/Chemical Treatment	115,000	124,000	136,000
General Hazardous Waste Incineration	34,000	37,000	40,000
Animal/Healthcare Waste Incineration	1,700	1,900	2,000
Solvent Recovery	76,000	82,000	90,000
Oil and Oil/Water Recovery	132,000	143,000	156,000
Metal Bearing Waste Recovery	15,000	16,200	18,000
Other Recovery/Recycling	36,000	38,000	42,000
Total	567,000	610,000	671,000

3.3.2 The situation in the North East is that 2,520,965 tonnes of hazardous waste was managed in 2007<sup>11</sup>. However around 1,500,000 tonnes of this relates to organic chemical waste which is dealt with by a facility at Bran Sands (Redcar and Cleveland) which opened that year. Previously this material was deposited in the Tees Estuary and was not recorded in the 2002 figures the Regional Spatial Strategy is based on. To allow a more accurate comparison to be made these 1,500,000 tonnes have not been included in the treatment category in Table 3.16 and will not be considered in the assessment of how hazardous waste was managed in 2006. As the 1,500,000 figure is an estimated figure, the 599,670 remaining in the treatment category is therefore also an estimate.

**Entec** 

<sup>&</sup>lt;sup>11</sup> North East Hazardous Waste 2007 spreadsheet, Environment Agency website <u>www.environmentagency.gov.uk</u>, downloaded April 2009

Table 3.16 Hazardous waste deposits - North East 2006 (tonnes)

Waste Management Method	Amount
Incineration with energy recovery	33,056
Incineration without energy recovery	250
Landfill	132,187
Other Fate	2
Recycling / reuse	182,717
Rejected	664
Transfer (D)	8,463
Transfer (R)	63,954
Treatment	599,670
Total	1,020,965

3.3.3 For the landfilling of hazardous waste, Table 2.2 shows the void capacity available if deposits continue at the present rate at each site. Table 3.17 shows how the landfill void capacity will be affected if deposits are made at the rate predicted in Table 3.15.

Table 3.17 Hazardous waste landfill capacity (tonnes)

Year	Existing Void Space	Predicted Deposits	Remaining Void Space
2009/10	5,244,516	156,000	5,088,516
2010/11	5,088,516	156,000	4,932,516
2011/12	4,932,516	156,000	4,776,516
2012/13	4,776,516	156,000	4,620,516
2013/14	4,620,516	156,000	4,464,516
2014/15	4,464,516	156,000	4,308,516
2015/16	4,308,516	168,000	4,140,516
2016/17	4,140,516	168,000	3,972,516
2017/18	3,972,516	168,000	3,804,516
2018/19	3,804,516	168,000	3,636,516
2019/20	3,636,516	168,000	3,468,516
2020/21	3,468,516	168,000	3,300,516



3.3.4 These figures indicate that there is already sufficient capacity for hazardous waste management in the North East Region. However, there are around 133,000 tonnes of tonnes of hazardous waste in the North East which is landfilled or transferred for disposal each year and 130,000 tonnes of this occurs in the Tees Valley<sup>11</sup>. There is potential to move the management of these wastes up the waste hierarchy through the provision of additional facilities. However, the nature of hazardous waste means that there will always be substances which can not be treated or re-used and have to be disposed of. It is therefore not possible to put a figure on how much can undergo treatment as it will depend on the nature of the waste arising.





## 4. Site Search Work

# 4.1 Identifying the General Locations of Waste Management Sites

- 4.1.1 Policy MWC8 of the Minerals and Waste Core Strategy identifies the general locations where large, strategic waste management facilities should be located. The process of identifying the locations contained within the policy is detailed below.
- 4.1.2 The Issues and Options Report considered the strengths and weaknesses of identifying a general location for clusters of waste management facilities (which would form the basis of strategic facilities) against using an approach where they are spread out in individual locations across the plan area. An area of land around the River Tees/Teesmouth was identified as a potentially appropriate area. Issue 13 therefore asked for comments on the concept of waste clusters and, if acceptable, whether such clusters should be focused on the River Tees or located elsewhere. If not, it asked whether a spread of individual sites should be considered or whether a combination approach would be preferable.
- 4.1.3 Responses to the Issues and Options Report favoured a combination approach whereby a general location for large waste management facilities, or clusters of facilities forming a large complex, should be identified, but with other smaller sites spread throughout the plan area to serve local needs.
- 4.1.4 The Preferred Options Report therefore identified an area of land for this purpose. The identification of this land first looked at the location within the Tees Valley as a whole. Potential locations included the South Tees and Wilton areas in Redcar and Cleveland, the Portrack area of Middlesbrough and Stockton-on-Tees, the North Tees area (around Seal Sands and Port Clarence, Hartlepool and Stockton-on-Tees) and the industrial estates in Billingham (Stockton-on-Tees) and the land around Graythorp, Greatham and Seaton Carew (Hartlepool). The Portrack area was quickly ruled out due to confines of land available and other development already ongoing in the area. Wilton was also ruled out due to the existing works and uses on this site (Wilton International). The wide area around the North and South Bank of the River Tees (roughly from Middlesbrough to Teesmouth) and reaching into Billingham and up towards Graythorp and Seaton Carew was therefore identified as the initial search area for the location.
- 4.1.5 The land within this search area was therefore examined more closely and boundaries drawn up taking into consideration the following criteria:
  - Land to be included:
    - currently used or designated for employment/industrial uses;



- existing waste management facilities;
- proximity to existing rail and port infrastructure;
- Land excluded:
  - within international or national ecological designations;
  - land connected to local nature reserves and Sites of Nature Conservation Importance;
  - existing chemical works and Hartlepool Power Station;
  - proposed nature reserve at Saltholme;
- 4.1.6 Consideration was also given to the land allocations which are emerging through the drafts of the Stockton-on-Tees Core Strategy.
- 4.1.7 Comments received through the Preferred Options consultation helped to confirm these boundaries, with some amendments being made to ensure that the boundaries between the proposed area, and the various ecological designations, did not overlap.
- 4.1.8 Additional work on the production of the Publication Document made some further amendments to these boundaries, with land connected to Teesport and existing retail uses removed.

## 4.2 Invitation for Site Submissions

- 4.2.1 An invitation for the submission of sites to be considered as part of the site allocation exercise was made in two stages. First during the evidence gathering stage, those companies we had identified as being involved in the waste industry in the Tees Valley were contacted to establish their existing operations and their future plans (Appendix A shows the list of companies contacted). They were also invited to submit any specific sites which formed a part of their future plans and which they wished to be put forward for consideration. Two sites were put forward and shown in the Issues and Options report: Haverton Hill and the South Tees Eco-Park. A third site, Port Clarence, was submitted but the operator informed us that an application was forthcoming and it was therefore not included in the Issues and Options Report. The second invitation for the submission of sites was made in the Issues and Options Report.
- 4.2.2 This request produced a further three submissions: Graythorp Industrial Estate, Carlin Howe Farm (for construction and demolition recycling) and the former anhydrite mines lying below Billingham.
- 4.2.3 In addition, all of the local authority waste management teams within the Tees Valley were informed of the invitation to submit sites. They agreed to discuss the situation and identify if any local authority sites needed to be submitted, and to make sure their contacts in the waste industry were aware of the



- invitation. One site, at Bowesfield Lane, was submitted by Stockton-on-Tees Borough Council.
- The Preferred Options consultation included details of the sites which had 4.2.4 submitted and which preferred those were for Representations from Scott Bros on this consultation made a submission for a site at Billingham Bottoms and also highlighted that a planning application had been approved for waste management facilities at New Road in Billingham. In addition, representations from Stockton-on-Tees Borough Council were made stating that Bowesfield Lane would no longer be pursued due to land ownership issues but they were still committed to the provision of a household waste recycling centre in the south of their Borough although no other site was identified.
- 4.2.5 A number of the companies involved were also pursuing planning applications for the sites they had submitted as part of this process. As of December 2008, along with New Road, full permission had been granted for an autoclave and various recycling facilities at the South Tees Eco-Park and outline planning permission granted for the remainder of the Eco-Park development on this site. Permission had also been granted at Haverton Hill for an extension to the Energy from Waste plant and at Port Clarence for hazardous waste treatment and recycling operations.

## 4.3 Other Sites

4.3.1 Using the sites identified in the National Land Use Database as a starting point, an investigation was made into whether there were other suitable sites within the Tees Valley that had not been submitted and needed to be considered as part of the allocation process. The National Land Use database sites were chosen as the starting point to promote the re-use of previously developed land. Sites were filtered using a range of criteria which are addressed below in Table 4.1 and twenty one potential sites were identified. The filter of sites was undertaken by the use of a GIS system to allow different weighting to be given to different criterion, and the filter scenario to be examined at the application of each criterion. Primary criteria are those which have a greater degree of weight and therefore failure to meet these is more likely to result in the site being omitted. Secondary criteria are considered to be desirable attributes of a potential site, but they are not imperative. Failure to meet a secondary criteria did therefore not necessarily mean a site would be omitted.



Table 4.1 Criteria used to filter National Land Use Database sites

Criteria	Reason
Primary Criteria	
Under 0.5ha in size	0.5 ha is considered the minimum size for a waste management facility
Within designated industrial land	Development on appropriately designated land would have a greater chance of a successfully obtaining planning permission.
Outside of SPAs, SACs, SSSIs, National Nature Reserves and Ramsar sites	To avoid any obvious conflict with international and national features of nature conservation importance.
Outside of a 200m buffer around Scheduled Ancient Monuments.	To avoid any obvious conflict with these structures.
Secondary Criteria	
Within Local Authority	Local Authority owned sites would remove any problems with land purchase where existing owners are reluctant to sell for developments which are not always considered positively by the public.
Outside of Sites of Nature Conservation Importance and Local Nature reserves	To avoid any obvious conflict with locally designated features of nature conservation importance.
Outside of Conservation Areas, Registered Parks and Gardens and on sites with no Listed Buildings.	To avoid any obvious conflicts with sites of historic importance.
Outside of the Heritage Coast and special landscape areas.	To avoid any obvious conflicts with areas of high landscape value.

## 4.3.2 The twenty one potential sites which were identified are:

- · Darlington: Forge Way;
- Darlington: former brickworks off Haughton Road;
- · Hartlepool: Units 11 and 12 Graythorp Industrial Estate;
- Hartlepool: Zinc Works Road
- Middlesbrough: Douglas House, off Marton Road;
- Middlesbrough: Hemlington (former hospital site);
- Middlesbrough: former Coburn Works, Dockside Road;
- Middlesbrough: Riverside Park, Barton Road;
- Middlesbrough: Riverside Park, off Statforth Road;
- Middlesbrough: Riverside Park, off Riverside Park Road;
- Middlesbrough: Riverside Park, off Forty Foot Road;
- · Middlesbrough: Riverside Park, River Court;



- Middlesbrough: Riverside Park, River Court (adjacent to above);
- Middlesbrough: Riverside Park, Simcox Court;
- Redcar and Cleveland: Ennis Road, Dormanstown;
- Redcar and Cleveland: Holden Close, Bolckow Industrial Estate;
- Redcar and Cleveland: John Boyle Close, South Tees Industrial Estate;
- Redcar and Cleveland: Puddlers Close, South Tees Industrial Estate;
- Stockton-on-Tees: the Black Path, Portrack Lane;
- Stockton-on-Tees: Parkfield Road; and
- Stockton-on-Tees: former Darchem works, Stillington
- 4.3.3 As the information from the National Landuse Data Base was from 2006, these sites were further examined to see whether they were still available for development, whether other proposals had been established on them or whether there were any other factors which would create problems for the development of a waste management proposal. The following sites were ruled out for the reasons below.
  - Darlington: Forge Way identified as having land stability issues on the site due to proximity to river bank;
  - Darlington: former brickworks off Haughton Road the site has poor access and is located in very close proximity to residential properties;
  - Hartlepool: Units 11 and 12, Graythorp Industrial Estate this land has already been included in the site allocation exercise in the submission by Youngs Recycling Group;
  - Hartlepool: land off Zinc Works Road although this land is still
    undeveloped and would benefit from good access and no sensitive
    neighbouring uses, the site is located adjacent to Hartlepool Nuclear Power
    Station. Given that the Hartlepool power station site has been short listed
    as a potential location for new nuclear power facilities, this land would be
    expected to house some of the new facilities. It has therefore been ruled
    out at this stage. Depending on what decisions are made regarding the
    power station, this land could become available in the future;
  - Middlesbrough: Riverside Park, Barton Road located within an area designated for high quality industrial/employment uses;
  - Middlesbrough: Riverside Park, behind Egglestone Court site is in close proximity to existing office units and is heavily planted;
  - Middlesbrough: Riverside Park, off Riverside Park Road (east of Teessauras Park) – developed;
  - Middlesbrough: Riverside Park, off Forty Foot Road existing leisure use;



- Middlesbrough: Riverside Park, Simcox Court developed;
- Middlesbrough: Douglas House, off Marton Road adjacent land uses of retail and residential would not be compatible with a waste management facility;
- Middlesbrough: Hemlington (former hospital site) allocated for prestige business use and is being promoted as a key regeneration site in Middlesbrough's LDF (Regeneration DPD);
- Middlesbrough: former Coburn Works, Dockside Road allocated as part of the Greater Middlehaven regeneration area in Middlesbrough's Regeneration DPD and a new waste management facility is unlikely to be acceptable;
- Redcar and Cleveland: Ennis Road, Dormanstown redeveloped as a bus depot;
- Redcar and Cleveland: Holden Close developed
- Redcar and Cleveland: Puddlers Close, South Tees Industrial Estate already within area of planning application for the South Tees Eco-Park;
- Stockton-on-Tees: the Black Path, Portrack Lane developed;
- Stockton-on-Tees: Parkfield Road used as part of new highway construction; and
- Stockton-on-Tees: former Darchem works, Stillington poor location in terms of proximity to waste arisings and related markets.

## 4.4 Assessment of Sites

- 4.4.1 This process left 3 potential sites and these were assessed, along with the submitted sites, using the assessment system detailed in Appendix B. This assessment was based on the advice provided in Planning Policy Statement 10, the policies in the preferred options of the Minerals and Waste Core Strategy DPD, positive locational criteria and localised constraints. The assessment did not seek to 'score' the sites to measure them against each other but rather to allow an indication of whether the development of each site would make a positive or negative contribution to each of the objectives in the assessment. In each case this allows a judgement to be made on how suitable each site would be for development.
- 4.4.2 The assessment matrices completed for each site are shown through tables 4.2 to 4.11.



Table 4.2 Anhydrite Mines, Billingham (Stockton-on-Tees)

#### Part I - Positive Criteria

Subject Area	Objectives	Indicators	Thresholds of Concern	Grading (A - E)	Rationale
Site Size	To ensure sufficient land is available for waste management facilities.	Site Area	Less than 0.5ha	В	Site area is 11ha.
Land Use	To maximise the use of brownfield land and redundant buildings.	Land previously developed and existing redundant buildings.		Α	Site is a brownfield site but there are no redundant buildings on the site
	2. To locate facilities within or adjacent to industrial areas.	Location of industrial areas.		A	Site located within a well established industrial area close to the River Tees, with a number of other industrial users surrounding the site.
Traffic and Transportation	To promote sites with good access to major junctions in road network.	Distance from primary route network.	>1 km from primary route network.	Α	Site is located within 1km of the A1046.

# Part II - Primary Constraints

Subject Area	Objectives	Indicators	Thresholds of Concern	Grading (A - E)	Rationale
	To avoid any development that would impact on sites of national importance.	SSSIs, RAMSAR sites, SPAs, SACs	Any sites within these areas.	А	No sites of national importance have been identified.
	To prevent development on sites or structures of national importance.	Scheduled Ancient Monuments (SAM).	Any sites located within 100m of a SAM.	Α	Site not located within 100m of any SAMs.
Cultural Heritage	To prevent adverse effects on Grade I Listed Buildings, Parks or Gardens	Grade I Listed Buildings/Historic Parks and Gardens	Any direct impacts.	А	No direct impacts – there are no Grade I Listed Buildings, Parks or Gardens, either on site or in close proximity to the site.

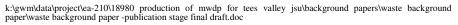




Table 4.2 Anhydrite Mines, Billingham (Stockton-on-Tees)

## Part II Cont. - Primary Constraints

Subject Area	Objectives	Indicators	Thresholds of Concern	Grading (A - E)	Rationale
	To prevent adverse effects on Conservation Areas	Conservation Areas	Any sites within, or directly adjacent to a Conservation Area.	А	Site is not within or directly adjacent to a conservation area
Health and Safety	To avoid development which could have an adverse effect on the staff and public's health or safety	Health and Safety Executive Consultation Zones	Any sites located within a HSE Consultation Zone	E	Site is located within a HSE Consultation Zone.
Landscape and Visual	To prevent adverse effects on the landscape	Heritage Coast	Any sites located within Heritage Coast	А	Site is not located within Heritage Coast

Subject Area	Objectives	Indicators	Thresholds of Concern	Grading (A - E)	Rationale	
Nature Conservation	To consider the effect of development on identified sites of county/local importance.	Local Nature Reserves (LNRs) and Sites of Nature Conservation Importance (SNCIs)	Any sites within or immediately adjacent to these areas	А	No sites have been identified within the site or immediately adjacent to the site.	
	To prevent adverse effects on Grade II* or II Listed Buildings, Parks or Gardens	Grade II and Grade II*Listed Buildings/ Historic Parks and Gardens.	Proximity of site to these designations	А	There are no Grade II* or Grade II Listed Buildings in close proximity to the site.	
	To prevent development on areas of identified archaeological interest	Areas of Archaeological Interest	Any sites within Areas of Archaeological Interest.	A	There are no areas of identified archaeological interest on site.	





Table 4.2 Anhydrite Mines, Billingham (Stockton-on-Tees)

Part III Cont Secondary Constraints								
Subject Area	Objectives	Indicators	Thresholds of Concern	Grading (A - E)	Rationale			
Landscape and Visual	To prevent adverse effects on the landscape	Special Landscape Areas or Areas of High Landscape Value.	Any sites within these areas.	А	Site not within Special Landscape Areas or Areas of High Landscape Value			
Amenity	To minimise potential detrimental impacts on people's amenity.	Location of sensitive land uses (e.g. residential, schools, hospitals).	Any site located within 100m of a sensitive land use.	А	The site is located in a well established industrial area and so sensitive land uses are located more than 100m away.			
Flood Risk:	To minimise chances of damage caused by flooding, or the increase in flood risk due to the development.	EA Flood Zones	Any sites within a Flood Zone	В	The site is not within an identified Flood Zone, but is located immediately adjacent to Flood Zones 2 and 3.			

Table 4.3 Billingham Bottoms (Stockton-on-Tees)

Part I - Positive	Part I - Positive Criteria								
Subject Area	Objectives	Indicators	Thresholds of Concern	Grading (A - E)	Rationale				
Site Size	To ensure sufficient land is available for waste management facilities.	Site Area	Less than 0.5ha	А	Site Area is 39ha				
Land Use	To maximise the use of brownfield land and redundant buildings.	Land previously developed and existing redundant buildings.		С	Site is brownfield but there is well established vegetation on the site and it is designated as a 'Green Wedge' in the Stockton Local Plan.				

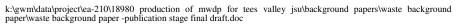




Table 4.3 Billingham Bottoms (Stockton-on-Tees)

#### Part I Cont. - Positive Criteria

Subject Area	Objectives	Indicators		Grading (A - E)	Rationale
	To locate facilities within or adjacent to industrial areas.	Location of industrial areas.		В	Site is located close to existing industrial areas.
Traffic and Transportation	To promote sites with good access to major junctions in road network.	Distance from primary route network.	>1 km from primary route network.	Α	Site is adjacent to the A19.

# Part II - Primary Constraints

Subject Area	Objectives	Indicators	Thresholds of Concern	Grading (A - E)	Rationale
Nature Conservation	To avoid any development that would impact on sites of national importance.	SSSIs, RAMSAR sites, SPAs, SACs	Any sites within these areas.	А	No sites of national importance have been identified.
	To prevent development on sites or structures of national importance.	Scheduled Ancient Monuments (SAM).	Any sites located within 100m of a SAM.	А	Site not located within 100m of any SAMs.
Cultural Heritage	To prevent adverse effects on Grade I Listed Buildings, Parks or Gardens	Grade I Listed Buildings/Historic Parks and Gardens	Any direct impacts.	В	No direct impacts - there are no Grade I Listed Buildings, Parks or Gardens, within 250m of the site, but one Grade I listed building is located within 1km.
	To prevent adverse effects on Conservation Areas	Conservation Areas	Any sites within, or directly adjacent to a Conservation Area.	А	Site is not within or directly adjacent to a conservation area

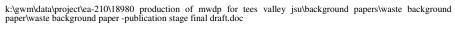




Table 4.3 Billingham Bottoms (Stockton-on-Tees)

## Part II Cont. - Primary Constraints

Subject Area	Objectives	Indicators		Grading (A - E)	Rationale
Health and Safety	To avoid development which could have an adverse effect on the staff and public's health or safety	Health and Safety Executive Consultation Zones	Any sites located within a HSE Consultation Zone	А	Site is not located within a HSE Consultation Zone.
Landscape and Visual	To prevent adverse effects on the landscape	Heritage Coast	Any sites within the Heritage Coast	А	Site is not located within Heritage Coast

Subject Area	Objectives	Indicators	Thresholds of Concern	Grading (A - E)	Rationale
Nature Conservation	To consider the effect of development on identified sites of county/local importance.	Local Nature Reserves (LNRs) and Sites of Nature Conservation Importance (SNCIs)	Any sites within or immediately adjacent to these areas	E	The site is adjacent to a SNCI and close to a LNR.
Cultural Heritage	To prevent adverse effects on Grade II* or II Listed Buildings, Parks or Gardens	Grade I and Grade II*Listed Buildings/ Historic Parks and Gardens.	Proximity of site to these designations	В	There are no Grade II* or Grade II Listed Buildings within 250m of the site, but two Grade II Listed Buildings are located within 1km.
	To prevent development on areas of identified archaeological interest	Areas of Archaeological Interest	Any sites within Areas of Archaeological Interest.	А	There are no areas of identified archaeological interest on site.
Landscape and Visual	To prevent adverse effects on the landscape	Special Landscape Areas or Areas of High Landscape Value.	Any sites within these areas.	А	Site not within Special Landscape Areas or Areas of High Landscape Value



Table 4.3 Billingham Bottoms (Stockton-on-Tees)

Part III Cont Secondary Constraints							
Subject Area	Objectives	Indicators	Thresholds of Concern	Grading (A - E)	Rationale		
Amenity	To minimise potential detrimental impacts on people's amenity.	Location of sensitive land uses (e.g. residential, schools, hospitals).	Any site located within 100m of a sensitive land use.	С	There are no sensitive land uses within 100m of the site but the land is part of a 'green wedge' designation which is in place to protect amenity and open space.		
Flood Risk:	To minimise chances of damage caused by flooding, or the increase in flood risk due to the development.	EA Flood Zones	Any sites within a Flood Zone	В	Part of the site is located within Flood Zone 2 but the majority is outside of the flood risk area.		

Table 4.4 New Road, Billingham (Stockton-on-Tees)

Part I - Positiv	Part I - Positive Criteria								
Subject Area	Objectives	Indicators	Thresholds of Concern	Grading (A - E)	Rationale				
Site Size	To ensure sufficient land is available for waste management facilities.	Site Area	Less than 0.5ha	А	Site area is 29ha				
Land Use	To maximise the use of brownfield land and redundant buildings.	Land previously developed and existing redundant buildings.		А	Site is brownfield but there are no redundant buildings on the site.				
	2. To locate facilities within or adjacent to industrial areas.	Location of industrial areas.		А	Site is located within an existing industrial area				
Traffic and Transportation	To promote sites with good access to major junctions in road network.	Distance from primary route network.	>1 km from primary route network.	А	Site is within 1km of the A1027.				

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Table 4.4 New Road, Billingham (Stockton-on-Tees)

Part II - Primary Constraints									
Subject Area	Objectives	Indicators	Thresholds of Concern	Grading (A - E)	Rationale				
Nature Conservation	To avoid any development that would impact on sites of national importance.	SSSIs, RAMSAR sites, SPAs, SACs	Any sites within these areas.	А	No sites of national importance have been identified.				
	2. To prevent development on sites or structures of national importance.	Scheduled Ancient Monuments (SAM).	Any sites located within 100m of a SAM.	Α	Site not located within 100m of any SAMs.				
Cultural Heritage	To prevent adverse effects on Grade I Listed Buildings, Parks or Gardens	Grade I Listed Buildings/Historic Parks and Gardens	Any direct impacts.	В	No direct impacts - there are no Grade I Listed Buildings, Parks or Gardens, within 250m of the site, but one Grade I listed building is located within 1km.				
	To prevent adverse effects on Conservation Areas	Conservation Areas	Any sites within, or directly adjacent to a Conservation Area.	А	Site is not within or directly adjacent to a conservation area				
Health and Safety	To avoid development which could have an adverse effect on the staff and public's health or safety	Health and Safety Executive Consultation Zones	Any sites located within a HSE Consultation Zone	E	Site is located within a HSE Consultation Zone.				
Landscape and Visual	To prevent adverse effects on the landscape	Heritage Coast	Any sites within the Heritage Coast	А	Site is not located within Heritage Coast				
Part III - Secon	dary Constraints								
Subject Area	Objectives	Indicators	Thresholds of Concern	Grading (A - E)	Rationale				
Nature Conservation	To consider the effect of development on identified sites of county/local importance.	Local Nature Reserves (LNRs) and Sites of Nature Conservation Importance (SNCIs)	Any sites within or immediately adjacent to these areas	А	No sites have been identified within the site or immediately adjacent to the site.				

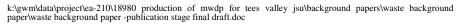


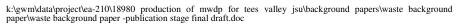


Table 4.4 New Road, Billingham (Stockton-on-Tees)

	T	1	1	1	T
Subject Area	Objectives	Indicators	Thresholds of Concern	Grading (A - E)	Rationale
Cultural Heritage	To prevent adverse effects on Grade II* or II Listed Buildings, Parks or Gardens	Grade I and Grade II*Listed Buildings/ Historic Parks and Gardens.	Proximity of site to these designations	В	There are no Grade II* or Grade II Listed Buildings within 250m of the site, but eight Grade II and one II* Listed Buildings are located within 1km.
	To prevent development on areas of identified archaeological interest	Areas of Archaeological Interest	Any sites within Areas of Archaeological Interest.	А	There are no areas of identified archaeological interest on site.
Landscape and Visual	To prevent adverse effects on the landscape	Special Landscape Areas or Areas of High Landscape Value.	Any sites within these areas.	А	Site not within Special Landscape Areas or Areas of High Landscape Value
Amenity	To minimise potential detrimental impacts on people's amenity.	Location of sensitive land uses (e.g. residential, schools, hospitals).	Any site located within 100m of a sensitive land use.	А	The site is located in a well established industrial area and so sensitive land uses are located more than 100m away.
Flood Risk:	To minimise chances of damage caused by flooding, or the increase in flood risk due to the development.	EA Flood Zones	Any sites within a Flood Zone	А	The site is not within an identified Flood Zone.

Table 4.5 Carlin Howe Farm, Dunsdale [construction and demolition recycling] (Redcar and Cleveland)

Part I - Positiv	e Criteria				
Subject Area	Objectives	Indicators	Thresholds of Concern	Grading (A - E)	Rationale
Site Size	To ensure sufficient land is available for waste management facilities.	Site Area	Less than 0.5ha	А	Site Area is 1ha
Land Use	To maximise the use of brownfield land and redundant buildings.	Land previously developed and existing redundant buildings.		D	Site is not a brownfield site and there are no redundant buildings on the site, although there is an existing waste management facility on the site.
	To locate facilities within or adjacent to industrial areas.	Location of industrial areas.		D	Site is an existing waste management facility but it is not located in an industrial area. Site surrounded by open greenfields.
Traffic and Transportation	To promote sites with good access to major junctions in road network.	Distance from primary route network.	>1 km from primary route network.	D	Site is located approximately 1.2km from the primary road network.
Part II - Prima	ry Constraints				
Subject Area	Objectives	Indicators	Thresholds of Concern	Grading (A - E)	Rationale
Nature Conservation	To avoid any development that would impact on sites of national importance.	SSSIs, RAMSAR sites, SPAs, SACs	Any sites within these areas.	A	No sites of national importance have been identified.
	To prevent development on sites or structures of national	Scheduled Ancient Monuments (SAM).	Any sites located within 100m of a SAM.	А	Site is not located within 100m of any SAMs.



importance.



Table 4.5 Carlin Howe Farm, Dunsdale [construction and demolition recycling] (Redcar and Cleveland)

Subject Area	Objectives	Indicators	Thresholds of Concern	Grading (A - E)	Rationale
Cultural Heritage	To prevent adverse effects on Grade I Listed Buildings, Parks or Gardens	Grade I Listed Buildings/Historic Parks and Gardens	Any direct impacts.	А	No direct impacts - thee are no Grade I Listed Buildings/Historic Parks and Gardens on site or in close proximity to the site.
	To prevent adverse effects on Conservation Areas	Conservation Areas	Any sites within, or directly adjacent to a Conservation Area.	А	Site does not lie within or directly adjacent to a conservation area.
Health and Safety	To avoid development which could have an adverse effect on the staff and public's health or safety	Health and Safety Executive Consultation Zones	Any sites located within a HSE Consultation Zone	А	Site is not within a Health and Safety Executive Consultation Zone.
Landscape and Visual	To prevent adverse effects on the landscape	Heritage Coast	Any sites located within Heritage Coast	А	Site is not located within Heritage Coast

Subject Area	Objectives	Indicators	Thresholds of Concern	Grading (A - E)	Rationale
Nature Conservation	To consider the effect of development on identified sites of county/local importance.	Local Nature Reserves (LNRs) and Sites of Nature Conservation Importance (SNCIs)	Any sites within or immediately adjacent to these areas	А	No sites have been identified within the site or immediately adjacent to the site.
Cultural Heritage	To prevent adverse effects on Grade II* or II Listed Buildings, Parks or Gardens	Grade II and Grade II*Listed Buildings/ Historic Parks and Gardens.	Proximity of site to these designations	С	There are no listed buildings within 250m of the site, although there are 5 Grade II Listed Buildings within 1km.

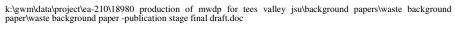




Table 4.5 Carlin Howe Farm, Dunsdale [construction and demolition recycling] (Redcar and Cleveland)

Subject Area	Objectives	Indicators	Thresholds of Concern	Grading (A - E)	Rationale	
	To prevent development on areas of identified archaeological interest	Areas of Archaeological Interest	Any sites within Areas of Archaeological Interest.	D	Previous archaeological examinations have been undertaken on the wider waste management site (presumably linked to the landfill works) and they revealed medieval ridge and furrow field patterns and the remains of a post medieval ironstone mine.	
Landscape and Visual	To prevent adverse effects on the landscape	Special Landscape Areas or Areas of High Landscape Value.	Any sites within these areas.	А	Site is not within a Special Landscape Area or Areas of High Landscape Value.	
Amenity	To minimise potential detrimental impacts on people's amenity.	Location of sensitive land uses (e.g. residential, schools, hospitals).	Any site located within 100m of a sensitive land use.	А	There are no sensitive users within 100m of the site. The farmhouse in close proximity to the site is unused as per the terms of the landfill planning permission.	
Flood Risk:	To minimise chances of damage caused by flooding, or the increase in flood risk due to the development.	EA Flood Zones	Any sites within a Flood Zone	A	The site is not within an area of Flood Risk.	



Table 4.6 Graythorp Industrial Estate (Hartlepool)

#### Part I - Positive Criteria

Subject Area	Objectives	Indicators	Thresholds of Concern	Grading (A - E)	Rationale		
Site Size	To ensure sufficient land is available for waste management facilities.	Site Area	Less than 0.5ha	А	Site Area is 4ha		
Land Use	To maximise the use of brownfield land and redundant buildings.	Land previously developed and existing redundant buildings.		А	Site is brownfield and there are existing buildings on site which can be re-used.		
	2. To locate facilities within or adjacent to industrial areas.	Location of industrial areas.		Α	The site is within an established industrial estate and there are other industrial uses in the wider area.		
Traffic and Transportation	To promote sites with good access to major junctions in road network.	Distance from primary route network.	>1 km from primary route network.	В	The site has good access onto the A178.		

## Part II - Primary Constraints

Subject Area	Objectives	Indicators	Thresholds of Concern	Grading (A - E)	Rationale
Nature Conservation	To avoid any development that would impact on sites of national importance.	SSSIs, RAMSAR sites, SPAs, SACs	Any sites within these areas.	А	No sites of national importance have been identified.
	To prevent development on sites or structures of national importance.	Scheduled Ancient Monuments (SAM).	Any sites located within 100m of a SAM.	Α	Site not located within 100m of any SAMs.
Cultural Heritage	To prevent adverse effects on Grade I Listed Buildings, Parks or Gardens	Grade I Listed Buildings/Historic Parks and Gardens	Any direct impacts.	А	No direct impacts - there are no Grade I Listed Buildings, Parks or Gardens, either on site or in close proximity to the site.
	To prevent adverse effects on Conservation Areas	Conservation Areas	Any sites within, or directly adjacent to a Conservation Area.	А	Site is not within or directly adjacent to a Conservation Area

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Table 4.6 Graythorp Industrial Estate (Hartlepool)

Part II Cont P	rimary Constraints				
Subject Area	Objectives	Indicators	Thresholds of Concern	Grading (A - E)	Rationale
Health and Safety	To avoid development which could have an adverse effect on the staff and public's health or safety	Health and Safety Executive Consultation Zones	Any sites located within a HSE Consultation Zone	D	Site located in a HSE consultation zone.
Landscape and Visual	To prevent adverse effects on the landscape	Heritage Coast	Any sites located within Heritage Coast	А	Site is not located within Heritage Coast
Part III - Secon	dary Constraints				
Subject Area	Objectives	Indicators	Thresholds of Concern	Grading (A - E)	Rationale
Nature Conservation	To consider the effect of development on identified sites of county/local importance.	Local Nature Reserves (LNRs) and Sites of Nature Conservation Importance (SNCIs)	Any sites within or immediately adjacent to these areas	А	No sites have been identified within the site or immediately adjacent to the site.
Cultural Heritage	To prevent adverse effects on Grade II* or II Listed Buildings, Parks or Gardens	Grade II and Grade II*Listed Buildings/ Historic Parks and Gardens.	Proximity of site to these designations	А	There are no Grade II* or Grade II Listed buildings in close proximity to the site.
	To prevent development on areas of identified archaeological interest	Areas of Archaeological Interest	Any sites within Areas of Archaeological Interest.	A	There are no areas of identified archaeological interest on the site.
Landscape and Visual	To prevent adverse effects on the landscape	Special Landscape Areas or Areas of High Landscape Value.	Any sites within these areas.	А	Site not within a Special Landscape Areas or Areas of High Landscape Value.
Amenity	To minimise potential detrimental impacts on people's amenity.	Location of sensitive land uses (e.g. residential, schools, hospitals).	Any site located within 100m of a sensitive land use.	А	Site is more than 100m away from any sensitive land users.
Flood Risk:	To minimise chances of damage caused by flooding, or the increase in flood risk due to the development.	EA Flood Zones 2 and 3	Any sites within a Flood Zone	E	Site is partly located within Flood Zones 2 and 3.

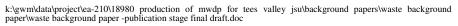




Table 4.7 Haverton Hill

## Part I - Positive Criteria

Subject Area	Objectives	Indicators	Thresholds of Concern	Grading (A - E)	Rationale
Site Size	To ensure sufficient land is available for waste management facilities.	Site Area	Less than 0.5ha	А	Site area is 6ha.
Land Use	To maximise the use of brownfield land and redundant buildings.	Land previously developed and existing redundant buildings.		А	Site is a brownfield site but there are no redundant buildings on the site.
	To locate facilities within or adjacent to industrial areas.	Location of industrial areas.		А	Site is located within a well established industrial area.
Traffic and Transportation	To promote sites with good access to major junctions in road network.	Distance from primary route network.	>1 km from primary route network.	Α	Site has direct access to the A1046.

# Part II - Primary Constraints

Subject Area	Objectives	Indicators	Thresholds of Concern	Grading (A - E)	Rationale
Nature Conservation	To avoid any development that would impact on sites of national importance.	SSSIs, RAMSAR sites, SPAs, SACs	Any sites within these areas.	Α	No sites of national importance have been identified.
	To prevent development on sites or structures of national importance.	Scheduled Ancient Monuments (SAM).	Any sites located within 100m of a SAM.	Α	Site not located within 100m of any SAMs.
Cultural Heritage	To prevent adverse effects on Grade I Listed Buildings, Parks or Gardens	Grade I Listed Buildings/Historic Parks and Gardens	Any direct impacts.	A	No direct impacts - there are no Grade I Listed Buildings, Parks or Gardens either on the site or in close proximity to the site.

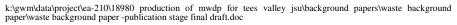




Table 4.7 Haverton Hill

Part II Cont Primary Constraints								
Subject Area	Objectives	Indicators	Thresholds of Concern	Grading (A - E)	Rationale			
	To prevent adverse effects on Conservation Areas	Conservation Areas	Any sites within, or directly adjacent to a Conservation Area.	А	Site is not within or directly adjacent to a conservation area.			
Health and Safety	To avoid development which could have an adverse effect on the staff and public's health or safety	Health and Safety Executive Consultation Zones	Any sites located within a HSE Consultation Zone	E	Site is located within a HSE Consultation Zone.			
Landscape and Visual	To prevent adverse effects on the landscape	Heritage Coast	Any sites located within Heritage Coast	А	Site is not located within Heritage Coast			
Part III - Secon	dary Constraints			•				
Subject Area	Objectives	Indicators	Thresholds of Concern	Grading (A - E)	Rationale			
Nature Conservation	To consider the effect of development on identified sites of county/local importance.	Local Nature Reserves (LNRs) and Sites of Nature Conservation Importance (SNCIs)	Any sites within or immediately adjacent to these areas	А	No sites have been identified within the site or immediately adjacent to the site.			
Cultural Heritage	To prevent adverse effects on Grade II* or II Listed Buildings, Parks or Gardens	Grade II and Grade II*Listed Buildings/ Historic Parks and Gardens.	Proximity of site to these designations	А	There are no Grade II8 or Grade II Listed Buildings in close proximity.			
	To prevent development on areas of identified archaeological interest	Areas of Archaeological Interest	Any sites within Areas of Archaeological Interest.	А	Site is not in an area identified as of archaeological interest.			

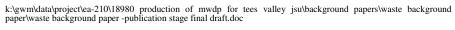




Table 4.7 Haverton Hill

Part III Cont Secondary Constraints								
Subject Area	Objectives	Indicators	Thresholds of Concern	Grading (A - E)	Rationale			
Amenity	To minimise potential detrimental impacts on people's amenity.	Location of sensitive land uses (e.g. residential, schools, hospitals).	Any site located within 100m of a sensitive land use.	А	The site is located within a well established industrial area and there are no sensitive users in close proximity to the site.			
Flood Risk:	To minimise chances of damage caused by flooding, or the increase in flood risk due to the development.	EA Flood Zones	Any sites within a Flood Zone	В	The site is not within an identified Flood Zone, but is located immediately adjacent to Flood Zones 2 and 3.			

Table 4.8 John Boyle Close, South Tees Industrial Estate, Redcar and Cleveland

Part I - Positive	Part I - Positive Criteria								
Subject Area	Objectives	Indicators	Thresholds of Concern	Grading (A - E)	Rationale				
Site Size	To ensure sufficient land is available for waste management facilities.	Site Area	Less than 0.5ha	Α	Site area is 3ha.				
Land Use	To maximise the use of brownfield land and redundant buildings.	Land previously developed and existing redundant buildings.		В	The site is brownfield land but there are no redundant buildings on the site.				
	2. To locate facilities within or adjacent to industrial areas.	Location of industrial areas.		А	The site is within an existing industrial area.				
Traffic and Transportation	To promote sites with good access to major junctions in road network.	Distance from primary route network.	>1 km from primary route network.	Α	The site is within 1km of the A66.				

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Table 4.8 John Boyle Close, South Tees Industrial Estate, Redcar and Cleveland

Part II - Primary Constraints									
Subject Area	Objectives	Indicators	Thresholds of Concern	Grading (A - E)	Rationale				
Nature Conservation	To avoid any development that would impact on sites of national importance.	SSSIs, RAMSAR sites, SPAs, SACs	Any sites within these areas.	А	No sites of national importance have been identified.				
	2. To prevent development on sites or structures of national importance.	Scheduled Ancient Monuments (SAM).	Any sites located within 100m of a SAM.	А	Site not located within 100m of any SAMs.				
Cultural Heritage	To prevent adverse effects on Grade I Listed Buildings, Parks or Gardens	Grade I Listed Buildings/Historic Parks and Gardens	Any direct impacts.	А	No direct impacts – there are no Grade I Listed Buildings, Parks or Gardens, either on site or in close proximity to the site.				
	To prevent adverse effects on Conservation Areas	Conservation Areas	Any sites within, or directly adjacent to a Conservation Area.	А	Site is not within or directly adjacent to a conservation area				
Health and Safety	To avoid development which could have an adverse effect on the staff and public's health or safety	Health and Safety Executive Consultation Zones	Any sites located within a HSE Consultation Zone	А	Site is located outside any HSE Consultation zones.				
Landscape and Visual	To prevent adverse effects on the landscape	Heritage Coast	Any sites located within Heritage Coast	А	Site is not located within Heritage Coast				
Part III - Secon	dary Constraints								
Subject Area	Objectives	Indicators	Thresholds of Concern	Grading (A - E)	Rationale				
Nature Conservation	To consider the effect of development on identified sites of county/local	Local Nature Reserves (LNRs) and Sites of Nature Conservation	Any sites within or immediately adjacent to	A	No sites have been identified within the site or immediately adjacent to the site.				

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Importance (SNCIs)

Table 4.8 John Boyle Close, South Tees Industrial Estate, Redcar and Cleveland

	T	T		,	_
Subject Area	Objectives	Indicators	Thresholds of Concern	Grading (A - E)	Rationale
Cultural Heritage	To prevent adverse effects on Grade II* or II Listed Buildings, Parks or Gardens	Grade I and Grade II*Listed Buildings/ Historic Parks and Gardens.	Proximity of site to these designations	В	There are no listed buildings within 250m of the site, but there are five Grade II buildings and one II* within 1km.
	To prevent development on areas of identified archaeological interest	Areas of Archaeological Interest	Any sites within Areas of Archaeological Interest.	А	There are no areas of identified archaeological interest on site.
Landscape and Visual	To prevent adverse effects on the landscape	Special Landscape Areas or Areas of High Landscape Value.	Any sites within these areas.	А	Site not within Special Landscape Areas or Areas of High Landscape Value
Amenity	To minimise potential detrimental impacts on people's amenity.	Location of sensitive land uses (e.g. residential, schools, hospitals).	Any site located within 100m of a sensitive land use.	А	The site is located in a well established industrial area and so sensitive land uses are located more than 100m away.
Flood Risk:	To minimise chances of damage caused by flooding, or the increase in flood risk due to the development.	EA Flood Zones	Any sites within a Flood Zone	А	The site is located outside of identified flood risk zones.

Table 4.9 Port Clarence

## Part I - Positive Criteria

Subject Area	Objectives	Indicators		Grading (A - E)	Rationale
Site Size	To ensure sufficient land is available for waste management facilities.	Site Area	Less than 0.5ha	А	The total Port Clarence site area is over 100ha, with a 16ha area of land available for the development of waste management facilities.
Land Use	To maximise the use of brownfield land and redundant buildings.	Land previously developed and existing redundant buildings.		А	The site is brownfield land although there are no redundant buildings on the site.
	To locate facilities within or adjacent to industrial areas.	Location of industrial areas.		А	Site is in a well established industrial area on Teesside.
Traffic and Transportation	To promote sites with good access to major junctions in road network.	Distance from primary route network.	>1 km from primary route network.	А	Site is located adjacent to the A178.

## Part II - Primary Constraints

Subject Area	Objectives	Indicators	Thresholds of Concern	Grading (A - E)	Rationale
Nature Conservation	To avoid any development that would impact on sites of national importance.	SSSIs, RAMSAR sites, SPAs, SACs	Any sites within these areas.	А	No sites of national importance have been identified.
	2. To prevent development on sites or structures of national importance.	Scheduled Ancient Monuments (SAM).	Any sites located within 100m of a SAM.	Α	Site not located within 100m of any SAMs.

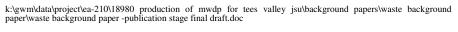




Table 4.9 Port Clarence

## Part II Cont. - Primary Constraints

Subject Area	Objectives	Indicators		Grading (A - E)	Rationale
Cultural Heritage	To prevent adverse effects on Grade I Listed Buildings, Parks or Gardens	Grade I Listed Buildings/Historic Parks and Gardens	Any direct impacts.	А	No direct impacts – no Grade I Listed Buildings/Historic Parks and Gardens either on the site or in close proximity to the site.
	To prevent adverse effects on Conservation Areas		Any sites within, or directly adjacent to a Conservation Area.	А	Site is not within or directly adjacent to a Conservation Area
Health and Safety	To avoid development which could have an adverse effect on the staff and public's health or safety	Health and Safety Executive Consultation Zones	Any sites located within a HSE Consultation Zone	E	Site is located within a HSE Consultation Zone.
Landscape and Visual	To prevent adverse effects on the landscape	Heritage Coast	Any sites located within Heritage Coast	Α	Site is not located within Heritage Coast

Subject Area	Objectives	Indicators	Thresholds of Concern	Grading (A - E)	Rationale
Nature Conservation	To consider the effect of development on identified sites of county/local importance.	Local Nature Reserves (LNRs) and Sites of Nature Conservation Importance (SNCIs)	Any sites within or immediately adjacent to these areas	А	No sites have identified within the site or immediately adjacent to the site.
Cultural Heritage	To prevent adverse effects on Grade II* or II Listed Buildings, Parks or Gardens	Grade II and Grade II*Listed Buildings/ Historic Parks and Gardens.	Proximity of site to these designations	А	There are no Grade II* or Grade II Listed Buildings in close proximity to the site.

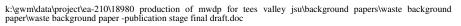




Table 4.9 Port Clarence

Subject Area	Objectives	Indicators	Thresholds of Concern	Grading (A - E)	Rationale
	To prevent development on areas of identified archaeological interest	Areas of Archaeological Interest	Any sites within Areas of Archaeological Interest.	А	There are no areas of identified archaeological interest on the site.
Landscape and Visual	To prevent adverse effects on the landscape	Special Landscape Areas or Areas of High Landscape Value.	Any sites within these areas.	Α	Site is not within a Special Landscape Area or areas of High Landscape.
Amenity	To minimise potential detrimental impacts on people's amenity.	Location of sensitive land uses (e.g. residential, schools, hospitals).	Any site located within 100m of a sensitive land use.		Site is located in a well established industrial area and sensitive land uses are located more than 100m away.
Flood Risk:	To minimise chances of damage caused by flooding, or the increase in flood risk due to the development.	EA Flood Zones	Any sites within a Flood Zone		Part of the north west corner of the site is within Flood Zone 3, but the majority is outside of the Flood Zones including all of the 16ha identified for development.

Table 4.9 Riverside Park - East

Part I - Positiv	e Criteria				
Subject Area	Objectives	Indicators	Thresholds of Concern	Grading (A - E)	Rationale
Site Size	To ensure sufficient land is available for waste management facilities.	Site Area	Less than 0.5ha	А	Site area is 3ha.
Land Use	To maximise the use of brownfield land and redundant buildings.	Land previously developed and existing redundant buildings.		А	The site is brownfield land but there are no redundant buildings on the site.
	To locate facilities within or adjacent to industrial areas.	Location of industrial areas.		А	The site is within an existing industrial area
Traffic and Transportation	To promote sites with good access to major junctions in road network.	Distance from primary route network.	>1 km from primary route network.	В	The site is just over 1km from the primary road network, but access to the primary network is good.
Part II - Primar	y Constraints				
Subject Area	Objectives	Indicators	Thresholds of Concern	Grading (A - E)	Rationale
Nature Conservation	To avoid any development that would impact on sites of national importance.	SSSIs, RAMSAR sites, SPAs, SACs	Any sites within these areas.	А	No sites of national importance have been identified.
	To prevent development on sites or structures of national importance.	Scheduled Ancient Monuments (SAM).	Any sites located within 100m of a SAM.	А	Site not located within 100m of any SAMs.

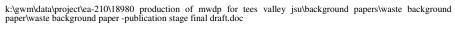




Table 4.9 Riverside Park - East

Part II Cont P	Part II Cont Primary Constraints								
Subject Area	Objectives	Indicators	Thresholds of Concern	Grading (A - E)	Rationale				
Cultural Heritage	To prevent adverse effects on Grade I Listed Buildings, Parks or Gardens	Grade I Listed Buildings/Historic Parks and Gardens	Any direct impacts.	А	No direct impacts – there are no Grade I Listed Buildings, Parks or Gardens, either on site or in close proximity to the site.				
	To prevent adverse effects on Conservation Areas	Conservation Areas	Any sites within, or directly adjacent to a Conservation Area.	А	Site is not within or directly adjacent to a conservation area				
Health and Safety	To avoid development which could have an adverse effect on the staff and public's health or safety	Health and Safety Executive Consultation Zones	Any sites located within a HSE Consultation Zone	А	Site is located outside any HSE Consultation zones.				
Landscape and Visual	To prevent adverse effects on the landscape	Heritage Coast	Any sites located within Heritage Coast	А	Site is not located within Heritage Coast				
Part III - Secon	dary Constraints								
Subject Area	Objectives	Indicators	Thresholds of Concern	Grading (A - E)	Rationale				
Nature Conservation	To consider the effect of development on identified sites of county/local importance.	Local Nature Reserves (LNRs) and Sites of Nature Conservation Importance (SNCIs)	Any sites within or immediately adjacent to these areas	D	The site is located close by a SNCI				
Cultural Heritage	To prevent adverse effects on Grade II* or II Listed Buildings, Parks or Gardens	Grade I and Grade II*Listed Buildings/ Historic Parks and Gardens.	Proximity of site to these designations	В	There are no listed buildings within 250m of the site but there is one Grade II and one II* listed buildings within 1km.				

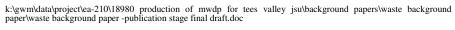




Table 4.9 Riverside Park - East

Part III Cont Secondary Constraints								
Subject Area	Objectives	Indicators	Thresholds of Concern	Grading (A - E)	Rationale			
	To prevent development on areas of identified archaeological interest	Areas of Archaeological Interest	Any sites within Areas of Archaeological Interest.	А	There are no areas of identified archaeological interest on site.			
Landscape and Visual	To prevent adverse effects on the landscape	Special Landscape Areas or Areas of High Landscape Value.	Any sites within these areas.	А	Site not within Special Landscape Areas or Areas of High Landscape Value			
Amenity	To minimise potential detrimental impacts on people's amenity.	Location of sensitive land uses (e.g. residential, schools, hospitals).	Any site located within 100m of a sensitive land use.	А	The site is located in a well established industrial area and so sensitive land uses are located more than 100m away.			
Flood Risk:	To minimise chances of damage caused by flooding, or the increase in flood risk due to the development.	EA Flood Zones	Any sites within a Flood Zone	В	The site is located outside of identified flood risk zones, although the River Tees (Flood Zone 3) is located immediately to the north.			

Table 4.10 Riverside Park - West

Part I - Positive Criteria						
Subject Area	Objectives	Indicators	Thresholds of Concern	Grading (A - E)	Rationale	
Site Size	To ensure sufficient land is available for waste management facilities.	Site Area	Less than 0.5ha	А	Site area is 3ha.	
Land Use	To maximise the use of brownfield land and redundant buildings.	Land previously developed and existing redundant buildings.		А	The site is brownfield land but there are no redundant buildings on the site.	

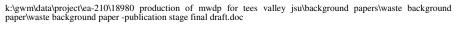




Table 4.10 Riverside Park - West

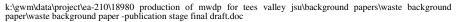
Part I Cont Positive Criteria						
Subject Area	Objectives	Indicators	Thresholds of Concern	Grading (A - E)	Rationale	
	To locate facilities within or adjacent to industrial areas.	Location of industrial areas.		А	The site is within an existing industrial area	
Traffic and Transportation	To promote sites with good access to major junctions in road network.	Distance from primary route network.	>1 km from primary route network.	В	The site is just over 1km from the primary road network, but access over this 1km is good.	
Part II - Primary	y Constraints					
Subject Area	Objectives	Indicators	Thresholds of Concern	Grading (A - E)	Rationale	
Nature Conservation	To avoid any development that would impact on sites of national importance.	SSSIs, RAMSAR sites, SPAs, SACs	Any sites within these areas.	A	No sites of national importance have been identified.	
	2. To prevent development on sites or structures of national importance.	Scheduled Ancient Monuments (SAM).	Any sites located within 100m of a SAM.	А	Site not located within 100m of any SAMs.	
Cultural Heritage	To prevent adverse effects on Grade I Listed Buildings, Parks or Gardens	Grade I Listed Buildings/Historic Parks and Gardens	Any direct impacts.	А	No direct impacts – there are no Grade I Listed Buildings, Parks or Gardens, either on site or in close proximity to the site.	
	To prevent adverse effects on Conservation Areas	Conservation Areas	Any sites within, or directly adjacent to a Conservation Area.	А	Site is not within or directly adjacent to a conservation area	
Health and Safety	To avoid development which could have an adverse effect on the staff and public's health or safety	Health and Safety Executive Consultation Zones	Any sites located within a HSE Consultation Zone	А	Site is located outside any HSE Consultation zones.	





Table 4.10 Riverside Park - West

#### Part II Cont. - Primary Constraints Subject Area **Objectives Indicators** Thresholds of Grading Rationale Concern (A - E) Α Heritage Coast Site is not located within Heritage Coast Landscape and To prevent adverse effects on the Any sites located within Heritage Coast Visual landscape Part III - Secondary Constraints **Subject Area Objectives** Indicators Thresholds of Grading Rationale Concern (A - E) D Nature To consider the effect of development Local Nature Reserves (LNRs) Any sites within or The site is located close by a SNCI and Sites of Nature Conservation Conservation on identified sites of county/local immediately adjacent to Importance (SNCIs) importance. these areas В Cultural Heritage To prevent adverse effects on Grade II Grade I and Grade II\*Listed Proximity of site to these There are no listed buildings within 250m of the site but there is one Grade II and one II\* or II Listed Buildings, Parks or Gardens Buildings/ Historic Parks and designations Gardens. listed buildings within 1km. To prevent development on areas of Areas of Archaeological Interest Any sites within Areas of Α There are no areas of identified archaeological interest on site. identified archaeological interest Archaeological Interest. Α Site not within Special Landscape Areas or Landscape and To prevent adverse effects on the Special Landscape Areas or Any sites within these Areas of High Landscape Value Areas of High Landscape Value. Visual landscape areas. To minimise potential detrimental Location of sensitive land uses Any site located within Α The site is located in a well established Amenity impacts on people's amenity. 100m of a sensitive land industrial area and so sensitive land uses (e.g. residential, schools, are located more than 100m away. hospitals). Flood Risk: To minimise chances of damage EA Flood Zones Any sites within a Flood В The site is located outside of identified flood caused by flooding, or the increase in Zone risk zones, although the River Tees (Flood



flood risk due to the development.



Zone 3) is located immediately to the north.

Table 4.11 South Tees Eco-Park

Part	-	Pas	itive	Crite	rıa

Subject Area	Objectives	Indicators	Thresholds of Concern	Grading (A - E)	Rationale
Site Size	To ensure sufficient land is available for waste management facilities.	Site Area	Less than 0.5ha	А	Site area is 27ha.
Land Use	To maximise the use of brownfield land and redundant buildings.	Land previously developed and existing redundant buildings.		А	Site is brownfield land although there are no redundant buildings on the site.
	2. To locate facilities within or adjacent to industrial areas.	Location of industrial areas.		Α	Site is located within a well established industrial area.
Traffic and Transportation	To promote sites with good access to major junctions in road network.	Distance from primary route network.	>1 km from primary route network.	Α	Site is located within 1km of the A66.

# Part II - Primary Constraints

Subject Area	Objectives	Indicators	Thresholds of Concern	Grading (A - E)	Rationale
Nature Conservation	To avoid any development that would impact on sites of national importance.	SSSIs, RAMSAR sites, SPAs, SACs	Any sites within these areas.	А	No sites of international or national importance on or adjacent to this site.
	2. To prevent development on sites or structures of national importance.	Scheduled Ancient Monuments (SAM).	Any sites located within 100m of a SAM.	Α	Site not located within 100m of any SAMs.
Cultural Heritage	To prevent adverse effects on Grade I Listed Buildings, Parks or Gardens	Grade I Listed Buildings/Historic Parks and Gardens	Any direct impacts.	А	No direct impacts - there are no Grade I Listed Buildings, Parks or Gardens, either on site or in close proximity to the site.

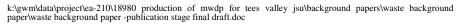




Table 4.11 South Tees Eco-Park

## Part II Cont. - Primary Constraints

Subject Area	Objectives	Indicators	Thresholds of Concern	Grading (A - E)	Rationale
	To prevent adverse effects on Conservation Areas	Conservation Areas	Any sites within, or directly adjacent to a Conservation Area.	А	Site not within or directly adjacent to a conservation area.
Health and Safety	To avoid development which could have an adverse effect on the staff and public's health or safety	Health and Safety Executive Consultation Zones	Any sites located within a HSE Consultation Zone	С	Part of the site is within a HSE consultation zone.
Landscape and Visual	To prevent adverse effects on the landscape	Heritage Coast	Any sites located within Heritage Coast	А	Site is not located within Heritage Coast

Subject Area	Objectives	Indicators	Thresholds of Concern	Grading (A - E)	Rationale
Nature Conservation	To consider the effect of development on identified sites of county/local importance.	Local Nature Reserves (LNRs) and Sites of Nature Conservation Importance (SNCIs)	Any sites within or immediately adjacent to these areas	А	No sites have been identified within the site or immediately adjacent to the site.
Cultural Heritage		Grade II and Grade II*Listed Buildings/ Historic Parks and Gardens.	Proximity of site to these designations	А	There are no Grade II* or II Listed Buildings in close proximity to the site.
	To prevent development on areas of identified archaeological interest	Areas of Archaeological Interest	Any sites within Areas of Archaeological Interest.	A	There are no areas of identified archaeological interest on site.

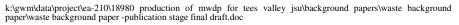




Table 4.11 South Tees Eco-Park

Subject Area	Objectives	Indicators	Thresholds of Concern	Grading (A - E)	Rationale		
Landscape and Visual	To prevent adverse effects on the landscape	Special Landscape Areas or Areas of High Landscape Value.	Any sites within these areas.	A	Site not within a Special Landscape Areas or Area of High Landscape Value.		
Amenity	To minimise potential detrimental impacts on people's amenity.	Location of sensitive land uses (e.g. residential, schools, hospitals).	Any site located within 100m of a sensitive land use.	В	There are no sensitive uses within 100m of the site, although there are a number of sensitive land uses just outside of the 100m boundary.		
Flood Risk:	To minimise chances of damage caused by flooding, or the increase in flood risk due to the development.	EA Flood Zones	Any sites within a Flood Zone	A	The site is not located within any identified Flood Zones.		



- 4.4.3 From the initial review of the sites, it can be seen that all of the sites considered have both positive and negative features. However, there are no sites for which it is immediately obvious that they would be inappropriate. Where sites have a negative assessment in one subject, this seems to be balanced by a positive assessment on another. For instance, those sites which are closest to nationally and internationally designated nature conservation sites (Haverton Hill and Graythorp) are also located further away from nationally important historic sites (Scheduled Ancient Monuments and Listed Buildings) and are also existing waste management sites. The Carlin Howe Farm site, which is the closest to local and national landscape designations, is the furthest away from the national and international nature conservation designations.
- 4.4.4 This being the case the issue of how likely the sites were to be developed was then considered. Comments made through the Steering Group were that the Local Authorities had experienced issues in previous planning documents where land had been allocated but never developed. From the comments made, this mainly seemed to be a result of allocating land which had not been part of a site submission or was not in the ownership of the local authorities or a relevant developer. As such a decision was therefore taken to give priority in the allocation process to those sites whose land ownership gave them a greater chance of delivery. For the allocation process, priority was therefore given to:
  - · Anhydrite Mine, Billingham;
  - Billingham Bottoms;
  - Carlin Howe Farm;
  - Graythorp Industrial Estate;
  - · Haverton Hill;
  - New Road, Billingham;
  - Port Clarence;
  - South Tees Eco-Park.
- 4.4.5 The proposed developments on each of the sites were then considered in more detail to examine how they would meet the capacity requirements identified for the plan period and meet the vision and objectives of the DPDs. The following sites were not allocated for the reasons detailed below:

## Anhydrite Mines, Billingham

4.4.6 NPL Estates made a submission at the Issues and Options stage relating to the use of the former anhydrite mines which lie beneath Billingham for the disposal of hazardous waste. The mines were operated by ICI until the 1970s and have been unused since then. There has been previous interest in using the mines for the storage of nuclear waste, but this proposal was dropped following significant public opposition in the 1980s.



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- 4.4.7 NPL Estate's proposals would see hazardous waste disposed of in an underground void. It is proposed that 2 million tonnes of waste would be disposed in the mines over a 20 year period. The proposals would see 5ha of the 400ha underground space utilised for waste disposal. The main waste material identified for disposal is ash and air purification residues (Air Pollution Control or APC residues) which are typically created from energy from waste or incineration processes.
- 4.4.8 The site was not put forward as an allocated site at the Preferred Options stage as the capacity requirements for hazardous waste were met through existing permitted sites and an allocation at Port Clarence. Port Clarence was put forward on the basis of the capacity it could offer and the fact that it offered recycling and recovery processes which would help move hazardous waste management up the waste hierarchy. In response to the Preferred Options report, NPL Estates made further representations to address the reasons given for not including the anhydrite mines as an allocated site in that report.
- 4.4.9 The representations made were that the proposal could not be compared to Port Clarence as the two sites would deal with differing waste streams and that there are no proven technologies for the treatment or processing of APC residues. The representation stated that the APC residues from Haverton Hill are currently exported to Cheshire where they are disposed of at another underground facility and their proposal would reduce the distance this material would need to be transported. The representation also stated that the site would be beneficial on a regional scale to deal with residues from other energy from waste or incineration facilities as this method of waste management becomes more popular as landfilling is reduced.
- 4.4.10 Since the Preferred Options report was published, there has been updated figures published on hazardous waste management in the Tees Valley and in addition, the site at Port Clarence has been granted planning permission for the facilities proposed there. Using the hazardous waste figures publicly available, there is currently no identified need to provide additional facilities for hazardous waste in the Tees Valley. The proposed policy in the Minerals and Waste Core Strategy is therefore to support the provision of hazardous waste management facilities which would move this hazardous waste management up the waste hierarchy.
- 4.4.11 It is acknowledged that it is difficult to treat or re-use APC residues but there are opportunities available to do this. The alkaline properties of these residues have meant they could be utilised for the treatment of acid wastes from the chemical industry. Although a number of the methods in which they could be used have been subject to increased restrictions in recent years (e.g. mixing pits) operators are developing amended processes to allow the continuation of these treatment methods<sup>12</sup>. In addition, research is ongoing

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<sup>&</sup>lt;sup>12</sup> Environment Agency Briefing Note: Development of Hazardous Waste Pre-Treatment Capacity. http://www.environment-agency.gov.uk/commondata/acrobat/briefing\_note\_1784426.pdf

into the treatment of APC residues through plasma technologies<sup>13</sup>. This process has been proven to convert the residues into a stable substance which can be used in the construction industry although at the present time this is still an unproven process on a commercial scale. The recent planning permission at Port Clarence does however allow the development of plasma treatment technology. Given the potential which exists for the treatment of APC residues, particularly given the chemical industries of the Tees Valley, it is felt the allocation of a disposal site would restrict the opportunities to move APC residue management up the waste hierarchy

- 4.4.12 If the APC residues are to be disposed of it is acknowledged that a facility at the anhydrite mines could remove the current situation where APC residues are transported to Cheshire for disposal. The reduction in traffic miles which this would bring about would be a more sustainable scenario. However there is no guarantee this would happen. SITA, who operate the energy from waste facility at Haverton Hill, have stated they have a contract to use the Cheshire facility for 'some years yet' and they can make no commitment to using the anhydrite mines should it become available. In addition, APC residues can also be stabilised, through mixing with other substances, and a material produced which could be disposed of at existing landfill sites in the Tees Valley. This approach would also remove the need to transport material to Cheshire for disposal. Given there is no guarantee the anhydrite mines would be able to utilise their primary source of materials, and there is potential for other disposal methods which could utilise existing facilities in the Tees Valley, it is not felt the allocation of the mines is justified for this reason.
- The Minerals and Waste Core Strategy takes the stance that its primary 4.4.13 responsibility is to provide capacity to deal with waste arising from the Tees Valley. It acknowledges the benefits which dealing with some waste streams on a regional or national basis can bring but states that where any proposals for such a level of waste management are forthcoming, it is the applicant/operator's responsibility to provide evidence of why there is a wider need and why the Tees Valley is the appropriate place to provide this capacity. This stance is unchanged from the Preferred Options stage. The evidence submitted by NPL Estates in support of the anhydrite mines only runs as far as stating it could take waste from Haverton Hill and other regional facilities which are expected to be developed. It provides no information on expected waste arisings or what the other regional facilities might be. As such it is not considered that a case for the anhydrite mines on a regional basis has been proven. It is also appropriate to note that the use of the anhydrite mines to provide a regional facility would cancel out some of the transport benefits gained from the cessation of exports to Cheshire.



<sup>&</sup>lt;sup>13</sup> DTI Briefing Note. Collaborative Research and Development: Waste Minimisation - Using thermal plasma technology to create a valuable product from hazardous waste. http://www.berr.gov.uk/files/file33251.pdf, downloaded May 2009.

<sup>&</sup>lt;sup>14</sup> Email from Corrina Scott, SITA. 16<sup>th</sup> June 2008

#### 4.4.14 Therefore on the basis of:

- The proposal would not move the management of APC residues up the waste hierarchy and the continuing development of treatment and recycling processes to deal with APC residues can provide opportunities to do this;
- There is no guarantee that NPL Estates would be able to utilise their proposed primary source of APC residues;
- Other disposal options are available in the Tees Valley through the stabilisation of APC residues and subsequent disposal in existing landfill sites; and
- No evidence being provided to support the claims that there will be a regional need for APC residue disposal facilities,

it is not considered appropriate to allocate the anhydrite mines as a waste disposal site.

#### **Billingham Bottoms**

- 4.4.15 Impetus Environmental Services and Scott Bros made a submission at the Preferred Options stage relating to the use of land at Billingham Bottoms for the development of a waste transfer facility and plasma gasification plant. The land is located adjacent to the A19, west of Haverton Hill and south of Billingham Beck and is also known as Norton Bottoms.
- 4.4.16 It is claimed that the site consists of unstable, brownfield land which is contaminated with gypsum slurry with part of the site occupied by a series of reed beds. Impetus and Scott Bros considered that the proposals would act as a major restoration scheme for the site and that around 100,000 tonnes of waste would be able to be dealt with per annum. The existing reed beds could be utilised to treat effluent arising from the works.
- 4.4.17 Although the site is claimed to be brownfield in the submission, it is designated as a green wedge in the Stockton-on-Tees Local Plan, and the Publication Draft of the Stockton-on-Tees Core Strategy proposed for this designation to continue (Policy CS10: 3ii Billingham Beck Valley). There is also a Site of Nature Conservation Interest running along the northern boundary and Local Nature Reserve to the north west.
- 4.4.18 No information was provided in the submission with regard to the type of waste which could be dealt with at the site or of the extent of land required. Given the nature of plasma gasification technology it is considered likely to be commercial and industrial waste or hazardous waste which would be dealt with.
- 4.4.19 Some of the site area saw planning permission granted in 2002 (application reference 02/1221/P) for a reclamation scheme which proposed that material previously landfilled/dumped at the site (including gypsum and inert materials) would be covered by up to 2m of soil. Discussions with Stockton-on-Tees



Borough Council have indicated that this work has not been completed. However, the site is progressively 'greening over' due to natural re-vegetation.

- 4.4.20 The green wedge designation is made on the basis of maintaining open spaces within the urban area to prevent built up areas from joining together and to improve the appearance of the area. These green wedges contain important wildlife habitats and can be used for outdoor recreation and leisure uses. The existing Local Plan states that uses considered appropriate in the green wedges are those which ensure their open aspect is maintained, such as sport, recreation, stables, farming and market gardening. The proposed use of the site for waste management activities would lead to the loss of this open space and its potential for recreation and leisure uses. The development would also have the effect of joining areas of built development around the A19 given the ongoing development occurring to the west of Portrack Industrial Estate.
- 4.4.21 The Site of Nature Conservation Importance and Local Nature Reserve designations are likely to be outside of the actual site boundary however they would be in close proximity to the operations taking place. There is therefore concern that waste management operations could lead to adverse effects on both of these areas and it would also affect the wildlife value of the green wedge land.
- 4.4.22 In terms of meeting the requirements for waste management capacity, for commercial and industrial waste there is sufficient capacity to provide for the requirements up to 2021 at the existing sites and other allocations being made and therefore there is no actual requirement for the capacity which would be provided by this site. With regard to hazardous waste, the proposals would provide additional treatment facilities which would help to reduce the amount of hazardous waste which is landfilled. However, the allocated site at Port Clarence, which already has planning permission, would provide a larger capacity for hazardous waste treatment and would be able to provide a plasma gasification system along with other treatment technologies.

#### 4.4.23 Therefore on the basis of:

- The designation of the land proposed for the Billingham Bottoms facility as a green wedge, with the aims of this designation being to maintain open space between built up areas;
- The proximity of ecological designations to the site, including a Site of Nature Conservation Interest and Local Nature Reserve;
- The fact the site has undergone a degree of natural re-vegetation in the period of time it has lain vacant; and
- There being no requirement for additional waste management capacity for commercial and industrial waste or for hazardous waste,

it is not considered appropriate to allocate Billingham Bottoms as a waste management site.



#### **Carlin Howe Farm**

- 4.4.24 SITA made a submission at the Issues and Options stage relating to the use of land at Carlin Howe Farm, Dunsdale for the development of a construction and demolition waste recycling facility. The land is located within SITA's existing waste management site at Carlin Howe Farm which also includes a landfill site and a household waste recycling centre. The site is located to the north of Dunsdale, approximately 1km north of Guisborough, in Redcar and Cleveland.
- 4.4.25 The proposal would see the development of crushing and screening plant and hardstanding areas for the storage of waste and processed material. The proposals would be able to manage around 100,000 tonnes of construction and demolition waste every year.
- 4.4.26 The site was included as an allocation in the Preferred Options document and three letters were received from local residents objecting to the allocation. These objections were made on the basis of traffic, noise, wind blown debris, the rural location and the permanent nature of the proposals. Further details of the objections were as follows:
  - Vehicles accessing the Carlin Howe Farm site use the B1269 road which is the main link between Guisborough and the Redcar area. As such it is a busy road which does not have a pavement or cycle lane giving rise to safety concerns from pedestrians and cyclists. The HGVs visiting the Carlin Howe Farm site add to the concerns, both in terms of safety concerns from pedestrians and also the fact that the entrance to the site is directly opposite two residential properties. HGVs standing on the middle of the B1269 waiting to enter the Carlin Howe Farm site make it difficult for the residents of these properties to join the public highway.
  - Residents have existing issues with the noise and wind blown pollution from the site, with the prevailing wind directing any problems straight to the residential properties nearby. Waste materials from the household waste recycling centre are regularly blown out of the containers and are deposited in the nearby residential properties. Concerns were raised that crushing and screening operations would increase the noise generation and also lead to problems with wind blown dust.
  - Objections were also made that the site is located within a rural location which is outside of the development limits for any of the nearby settlements. While there is less scope for finding alternative locations for landfill operations, the household waste recycling centre and the proposed construction and demolition waste recycling facility were considered to be more appropriate for industrial, urban locations.
- 4.4.27 The landfill operations are also a temporary development, albeit one which has a relatively long timescale. The proposed facility, along with the household waste recycling centre, could be permanent sites, meaning that any issues created would also be permanent.



- The allocation in the Preferred Options report was made on the basis that the 4.4.28 construction and demolition waste recycling facility would be temporary and linked to the timescale of the landfill operations. However, after receiving the objections and undertaking further site visits to examine the traffic and wind blown pollution it was felt the cumulative effects of the landfill, household waste recycling centre and construction and demolition waste recycling operations would be too great in this rural location. While the noise and wind blown pollution could be mitigated by appropriate site management measures, the flat, open landscape of the location means that this may not completely successful and these would always be an issue. The issues with traffic, particularly HGVs, could also be mitigated to some extent by improvement works in the public highway on the B1269. However, the length of road which may need to be improved and the disruption which may be created would bring a more urbanised feel in the rural area, which is considered to be inappropriate.
- 4.4.29 While the proposals would help to provide some of the identified capacity requirements for construction and demolition waste, the proposed solution in the Minerals and Waste DPDs, to use appropriate, existing minerals and waste sites where similar operations already occur and temporary operations on actual construction and demolition sites, is felt to provide sufficient scope to meeting the requirements and to be more sustainable.
- 4.4.30 Therefore on the basis of:
  - Traffic impacts on the local highway and surrounding residents;
  - Noise and wind blown pollution;
  - Cumulative impacts of operating alongside a landfill site and household waste recycling centre; and
  - The rural nature of the surrounding area,

it is not considered appropriate to allocate Carlin Howe Farm for construction and demolition waste recycling operations.

## 4.5 Meeting the Capacity Gap

4.5.1 The capacity requirements identified are therefore being met by the following sites and policies.



#### **Household Waste Recycling**

Table 4.12 Household waste recycling capacity gap (tonnes per year)

	Year	Existing Capacity	Target Tonnage	Difference	Policy Requirement
Recycling of Household waste	2010	1,007,939	93,318	914,621	0
	2016	1,007,939	110,073	897,866	0
	2021	1,007,939	126,006	881,933	0

4.5.2 There is no requirement identified for additional household waste recycling facilities from 2010 to 2021.

#### **Household Waste Composting**

Table 4.13 Household waste composting capacity gap (tonnes per year)

	Year	Existing Capacity	Target Tonnage	Difference	Policy Requirement
Composting of household waste	2010	25,999	41,926	-15,927	16,000
	2016	25,999	49,453	23,454	24,000
	2021	25,999	56,612	-30,613	31,000

4.5.3 Haverton Hill (policy MWP3) can accommodate composting facilities to provide capacity of 50,000 tonnes per annum. Policy MWP9 provides support for small scale composting facilities through out the Tees Valley and includes criteria based policies for assessing any such proposals which come forward. This approach is considered to provide a flexible approach to meeting the capacity requirements identified as if the proposal at Haverton Hill were not forthcoming, the capacity gap could be met by a number of small, scale and vice versa. If Haverton Hill were developed, and small, scale facilities are also progressed, the over provision of capacity which would result would further help to improve composting rates in the Tees Valley.



#### Municipal Solid and Commercial and Industrial Waste Recovery

Table 4.14 Municipal solid and commercial and industrial waste recovery capacity gap (tonnes per year)

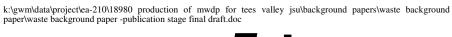
	Year	Existing Capacity	Target Tonnage	Difference	Policy Requirement
Recovery (Municipal solid waste and commercial and industrial waste)	2010	1,830,617	1,910,425	-79,808	80,000
	2016	1,813,862	1,865,991	-52,129	53,000
	2021	1,797,929	1,880,652	-82,723	83,000

4.5.4 MWP2 allocates land for 65,000 tonnes of capacity per annum at Graythorp Industrial Estate. Policy MWP6 for the South Tees Eco-Park supports the development of facilities to provide capacity of 450,000 tonnes per year for recovery of value from municipal solid and commercial and industrial waste. 100,000 tonnes of this amount relates to the provision of a household waste recycling centre to meet the requirement of policy MWC7. Of the remaining 350,000 tonnes, 300,000 tonnes relates to capacity contained within development which already has full planning permission but is not yet developed. These 300,000 tonnes were included in the waste calculations as existing capacity as the permission had already been granted at that time. 300,000 tonnes of the capacity in MWP6 therefore seeks to secure this 'existing capacity' and does not provide additional capacity to meet the capacity gap requirements identified. Other developments which have planning permission but are not yet developed (Haverton Hill, Port Clarence, New Road) were granted permission after the waste calculations and therefore were not contained within the 'existing capacity' section. allocations on these sites therefore provide capacity to meet the identified requirements, but they also 'secure' the remaining capacity in the planning permissions, hence why there appears to be a significant over provision. Any over provision which does result would help to further improve recycling and recovery rates in the Tees Valley thereby pushing waste management further up the waste hierarchy.

#### **Construction and Demolition Waste Recycling**

Table 4.15 Construction and demolition waste recycling capacity gap (tonnes per year)

Year	Estimated Arisings	Recovery Target (80%)	Existing Capacity	Capacity Gap	Policy Requirement
2015/16	1,480,000	1,184,000	484,500	-699,500	700,000
2020/21	1,594,000	1,275,200	484,500	-790,700	791,000





- 4.5.5 MWP5 allocates land for soil washing and recovery facilities to deal with 125,000 tonnes of construction and demolition waste per year.
- 4.5.6 MWP8 allocates land at existing minerals and waste sites (including those with planning permission but not yet operational) and also encourages the use of recycling facilities on operational construction and demolition sites. This is intended to provide a flexible and sustainable approach to the recycling of these materials as, in the case of minerals and waste sites, opportunities exist to use existing plant and these materials may already be being delivered. On operational construction and demolition sites these facilities will be able to either deal with either material at the point of production and/or provide recycled materials which can be used on site.

#### **Hazardous Waste Management**

- 4.5.7 133,000 tonnes of hazardous waste are landfilled in the Tees Valley each year and opportunities exist to provide additional management facilities to treat and process hazardous waste and reduce the amount which is landfilled
- 4.5.8 MWP5 allocates land to provide 173,000 tonnes per annum of hazardous waste treatment and 125,000 tonnes per annum of contaminated soil recovery. This would allow a significant amount of material to be treated and made available for re-use, thereby reducing the amount which is currently landfilled.

#### **Household Waste Recycling - Spatial Balance**

- 4.5.9 Two household waste recycling centres are required to address a spatial imbalance in the provision of such centres which exists in the south of Stockton Borough and around the boundary of Middlesbrough and Redcar and Cleveland Boroughs.
- 4.5.10 Policy MWP6 allocates land for the provision of a range of related waste management facilities, which includes a household waste recycling centre meeting the spatial requirement for such a facility near the boundary of Middlesbrough and Redcar and Cleveland in the South Tees area.
- 4.5.11 Policy MWP7 allocates 'areas of search' around plots of land in the Thornaby, Eaglescliffe and Preston-on-Tees areas within which a household waste recycling centre would be acceptable.

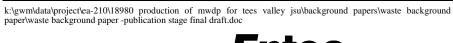




# Appendix A List of companies contacted at evidence gathering stage

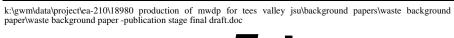
2 Pages

A&E Thompson
Abitibi Consolidated Recycling Europe
Alab Environmental
Augean Wastes
British Energy Generation Ltd
CL Prosser & Co Ltd
Cleveland Waste Paper
Corus
Foreman Recycling
Graphite Resources
J&B Recycling
J.W.S Recycling Ltd
J. Robert Campbell
Premier Group
R. Newcomb and Sons Limited
Scott Bros
SITA UK
SWS Ltd
Hanratty's
F Peart & Co Ltd
Koppers Ltd
Marshalls Mono Ltd
Veolia ES Onyx Ltd





Elementis Chromium
Tonks Recycling Centre
W&M Thompson
Wincanton
Interserve
NPL Estates

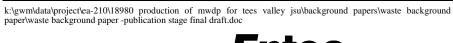




# Appendix B Glossary

### 4 Pages

Aggregates:	Minerals that are used in construction processes such as concrete manufacture and road making.
APC residues:	Air Pollution Control residues. Residual materials remaining following purification of ash or gas produced from power generation or incineration processes.
Autoclave:	A waste treatment process, where waste is heated under pressure to clean and separate the different materials.
Bring Sites	Waste Management Facilities where members of the public can 'bring' their waste to be sorted for subsequent recycling. These can range in size from household waste recycling centres down to the individual recycling bins which are often found in car parks.
Commercial and Industrial (C&I) Waste:	Waste which is produced from commercial companies, such as shops and banks, and from industrial processes such as manufacturing.
Composting:	The controlled decomposition of plant life to form compost, which can then be used to improve existing soils, or as soil replacement itself.
Construction and Demolition(C&D)Waste:	Waste that arises from construction activities like building works, and from the demolition of buildings and structures.
Department of Communities and Local Government (DCLG):	Central Government office which has responsibility for planning.
Department for Environment, Food and Rural Affairs (DEFRA):	Central Government office with responsibility for matters involving the environment, food production and rural areas.
Development Plan Documents (DPDs):	The Documents within a Local Development Framework which outline how planning will be managed in a particular area.
Disposal:	When waste is managed without any value being recovered from the waste, normally through landfill.
Eco-Park:	A name given to a cluster of businesses, including waste management facilities, which are located adjacent to each other and whose operations are related in terms of the materials they accept/produce.
Energy from Waste (EfW):	The name given to the energy recovery process where waste materials are used as fuel to generate electricity.
Energy Recovery:	Waste, or by products from the processing of waste, are used as a fuel to generate heat or electricity.
Environment:	All living and non-living things which occur naturally. Where the DPDs discuss the affect of development on the environment they are considering issues including (but not limited to): biodiversity, water resources, cultural heritage, landscape and visual, contaminated land, noise and air quality.





GIS:	Geographical Information System. Digital mapping system where different geographical based information for a particular area can be compared.
Government Office North East (GONE):	The representatives of the Central Government in the North East of England.
Hazardous Waste:	Waste which has specific properties which make it dangerous or harmful to human health or the environment.
HGV:	Heavy Goods Vehicle. Vehicles used for the transportation of heavy goods which weigh over 3.5 tonnes.
Household Waste Recycling Centre (HWRC):	Formerly known as Civic Amenity sites. A facility where residents of an area can deposit waste, which is then sent fro re-use, recycling, composting etc.
Infrastructure:	Basic physical and organisational structures needed for the operation of a society or enterprise, or the services and facilities necessary for an economy to function.
Internationally designated sites:	Sites designated for a nature conservation importance by either European regulations or international agreements (SPAs, SACs and Ramsar sites)
JMWMS:	Joint Municipal Waste Management Strategy; a management strategy focusing on waste collected by or on behalf the five Borough Councils in the Tees Valley.
Joint Strategy Unit (JSU):	See 'Tees Valley Joint Strategy Unit'
Landfill:	Where waste is disposed of by burial in the ground. Traditionally the most popular method of waste management in the UK.
Large Waste Management Sites:	In this DPD, large waste management sites are considered to be those over 1ha in size and which deal with at least 25,000 tonnes of waste per annum. Can include sites containing clusters of facilities.
Landfill allowance trading scheme (LATS)	A scheme which sets limits on the amount of municipal solid waste each local authority in the England. If an authority does not use their full allowance, they can trade the difference with other authorities to allow them to increase their allowance.
Local Development Frameworks (LDF):	A folder of documents which outlines how planning will be managed in a particular area.
Municipal Solid Waste (MSW):	Waste which is collected by Local Authorities and can include wastes from households, public litter bins and household waste recycling centres.
National Land Use Database:	Database of previously developed land which may be available for development.
Nuclear Waste:	Waste which contains radioactive elements and can come from sources including the medical profession and nuclear fuel production.
Office of the Deputy Prime Minister (ODPM):	Central Government office which formerly held responsibility for planning matters. Now replaced by the Department of Communities and Local Government.
Petrochemical:	Petrochemicals are chemical products made from raw materials of petroleum or other hydrocarbon origin.
Planning Policy Guidance (PPG):	National planning policy and guidance on a range of issues, published by central Government. They are being replaced by Planning Policy Statements, but remain valid until withdrawn.



Planning Policy Statements (PPS):	National planning policy on a range of issues, published by central Government.
Plasma gasification:	Waste management process where the waste is treated at very high temperatures (over 2,500 C) and is broken down into its elementary components.
Reclamation:	The process of restoring land following development (restoration) and the management of the restored land (aftercare).
Ramsar sites:	Ramsar sites are designated under the Convention on Wetlands of International Importance (held in Ramsar, Iran).
Recovery (of value):	The management of waste in a way which recovers value from the waste. Recovery incorporates re-use, recycling, composting and energy recovery. In this instance the term does not provide any implications in terms of the efficiency of energy produced.
Recycled Aggregates:	Materials used in construction processes which are sourced from previously used aggregates - such as demolition waste, tarmac highways planings or excavation materials.
Recycling:	The processing of materials found within waste streams into another form, which can then be used for a beneficial use.
Restoration:	The process of restoring developed land to its original state, or to another beneficial use.
Re-Use:	Where materials found in waste streams are re-used without the need for them to be re- processed into another form.
Regional Spatial Strategy (RSS):	Contains planning policies and guidance on a regional level. Formerly known as Regional Planning Guidance (RPG).
Small Waste Management Sites:	Waste management sites which are generally under 1ha in size and deal with less than 25,000 tonnes per annum.
SPA (Special Protection Area):	Areas designated for their importance as a habitat for rare (listed on Annex I to the EC Directive on the conservation of wild birds) and migratory birds within Europe.
Spatial Planning:	The combination of traditional land use planning with other policies and programmes which influence the nature of places and how they function and which are not capable of being delivered solely or mainly through the determination of planning permissions.
SSSI (Sites of Special Scientific Interest):	National suite of sites providing statutory protection for the best examples of the UK's flora, fauna, or geological or physio-graphical features.
Sub-Region:	The Tees Valley is a sub-region of the North East region, along with County Durham, Tyne and Wear and Northumberland.
Symbiotic:	In this context, symbiotic refers to the situation where a group of businesses are located in close proximity and have a close working relationship (e.g. by one business producing a material which is then used as a front end material in another business's operations).
Tees Valley:	The southern part of the North East region, consisting of the Boroughs of Darlington, Hartlepool, Middlesbrough, Redcar & Cleveland and Stockton.
Tees Valley Joint Strategy Unit:	An organisation which works with the five local authorities of the Tees Valley on strategic issues which have relevance across the whole area.



Waste Hierarchy:	The hierarchy ranks waste management methods according to how sustainable they are. National guidance states that waste management should be moved 'up' the hierarchy, towards the more sustainable methods.	
Waste Minimisation:	Where the amount of waste produced from a specific source is minimised. The need to manage this waste is therefore reduced.	
Waste Management Strategy:	Provide details on how waste will be managed in a particular area over a set period of time.	

