northumberland waste local plan

ADOPTED

December 2001

NORTHUMBERLAND
COUNTY COUNCIL

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1. INTRODUCTION

1.1 The Northumberland Waste Local Plan covers the entire County outside the National Park. Policies for waste management within the Park are included in the Northumberland National Park Local Plan and are complementary with the policies in this Local Plan. The Waste Local Plan describes the current arrangements for waste management, sets out the policy framework for dealing with future proposals over the period up to 2006, and assesses the need for new waste management facilities within the plan period.

1.2 A consultation draft of this plan was published in March 1997. Comments on the plan's contents were invited from parish and district councils, government bodies, industry, interest groups and the general public. All comments made during the consultation period were taken into account when preparing this revised plan for deposit. A Public Inquiry was held in November 1999 to consider objections to the plan. In December 2000 the County Council published Proposed Modifications to the plan in light of the Inspector's Report for comment. The plan was adopted without further modification in December 2001.

Purpose of the Plan

1.3 The aim of the Waste Local Plan is to strike the correct balance between the need to manage waste and the need to protect the environment and people's quality of life.

1.4 More specifically, the plan aims:

- to provide measures to protect the environment and people's quality of life from the adverse impact of the storage, treatment and disposal of waste;
- to encourage methods of waste management that have the least overall environmental impact;
- to identify existing capacities and to assess the need for new waste management facilities within the plan period;
- to provide a framework which allows for an adequate network of facilities to ensure the proper management of waste;
- to strike an appropriate balance between the different waste management options;
- to provide a detailed policy framework for assessing and controlling waste management developments; and
- to provide measures to minimise the environmental impact of waste management developments through agreed working practices.

Policy Context of the Plan

1.5 The Northumberland Waste Local Plan is a statutory local plan and part of the development plan for Northumberland. It has been prepared in accordance with the provisions of the Town and Country Planning Act 1990, as amended by the Planning and Compensation Act, 1991.

1.6 In preparing the Waste Local Plan the County Council has had regard to the established framework of policy and advice on waste management at the national, regional and local level. Government policy and advice on the planning aspects of waste management is set out in a number of documents including 'Waste Strategy 2000', the Government's strategy for sustainable waste management. More detailed government advice is provided by Planning Policy Guidance Notes (PPGs), in particular PPG 23 Planning and Pollution Control and PPG 10, Planning and Waste Management. These form an important basis for the local plan.

1.7 Regional planning guidance for the North East Region is set out in RPG 7, published in 1993 and covers the counties of Cleveland, Durham and Northumberland. This is currently being revised together with the Strategic Guidance for Tyne and Wear RPG 1, with a view to producing comprehensive guidance for the whole region.

1.8 At the County level, strategic policies are set out in the County Structure Plan (approved in May 1996) and this plan has been produced in the light of its contents. More detailed planning policies are contained in the District-wide Local Plans.

1.9 A significant proportion of waste arises from mineral workings and is returned to former mineral workings. These sites can also provide landfill sites for other wastes. Therefore, this plan takes account of the provisions of the adopted Northumberland Minerals Local Plan.

Role of Northumberland County Council

1.10 A two-tier system of local government operates in Northumberland. The County Council, as the Waste Disposal Authority (WDA), arranges for the management of waste which has been collected by the District Councils through the letting of contracts. The County Council also provides Civic Amenity Sites or Household Waste Recovery Centres where the public can deposit household waste items free of charge.

1.11 The County Council is the planning authority responsible for determining planning applications for development associated with the deposit, treatment, storage, transfer, processing and disposal of waste in the County. This Plan has been prepared in order to address the land-use implications of the waste management strategy as set out in the Northumberland Waste Management Plan and the emerging Municipal Waste Management Strategy being prepared jointly by the County Council and the District Councils.

Role of the Environment Agency

1.12 The Environment Agency has responsibility for licensing and monitoring the operation of these waste management facilities, registering carriers of waste, monitoring the movement of hazardous wastes and producing Strategic Waste Management Assessments.

Monitoring and Review

1.13 It will be important to monitor changes in circumstances which have a bearing on future waste management. These will include:

- changing European Union Directives and national and regional policies;
- changes in the amount and types of waste arising; changes in the technologies available for the treatment and disposal of waste; and
- changes in public and political attitudes, in particular those regarding environmental issues.

1.14 When it becomes apparent that the overall context has changed substantially, it will be necessary to review the policies and proposals in the plan to see whether changes are needed. In any case, it is anticipated that the local plan will be reviewed at least every five years.

Format of the Plan

1.15 The Plan consists of a Written Statement and Proposals Map. Larger scale inset maps have been produced to show particular areas in greater detail. The Written Statement contains the policies which will be used in considering and determining all waste-related planning applications outside the National Park. Each policy is accompanied by a justification explaining why the policy is necessary and what it is intended to achieve.

2. A STRATEGY FOR THE MANAGEMENT OF WASTE

Introduction

2.1 People, commerce and industry produce wastes which require treatment and disposal. This can give rise to detrimental impacts on people and the environment. It is therefore important that the waste produced is managed appropriately to minimise its adverse environmental consequences. The policy context for waste management is described in more detail in this chapter and, on this basis, a strategy for Northumberland has been developed.

European Context

2.2 The EC Framework Directive on Waste (91/692/EEC) sets a number of objectives for the management of waste which have been translated into national policy. Member states are required:

a) to encourage:

- the prevention or reduction of waste production and its harmfulness;
- the recovery of waste by means of recycling, re-use or reclamation or any other process to extract secondary raw materials and the use of waste as a source of energy; and

b) to ensure:

- that waste is recovered or disposed of without endangering human health and without harm to the environment;
- that an adequate and integrated network of waste disposal installations is established in order to enable waste to be disposed of in one of the nearest appropriate facilities.

2.3 The EC Packaging Directive, implemented in the UK by the Packaging Regulations 1997, has set targets for the recovery and recycling of packaging materials and products. The Regulations impose certain obligations on large businesses to reduce, over time, the amount of packaging that they use. The producer responsibility concept is being expanded to include batteries, end of life vehicles and waste electrical and electronic equipment.

2.4 The EC Integrated Pollution, Prevention and Control (IPPC) Directive (96/61/EC) will also have a major impact on waste management during the plan period. It requires member states to prevent or, where that is not possible, to reduce pollution from a range of industrial and other installations,

by means of integrated permitting processes based on the application of best available techniques.

2.5 The draft EC Directive on non-hazardous waste incineration will replace the two 1989 Directives on Municipal Waste incineration. This will require tighter controls on emissions from incinerators.

2.6 The EC Landfill Directive will require substantial changes to the way waste is managed in Northumberland. The main objectives of this Directive are to ensure high and consistent standards of landfill practice across the European Union, to stimulate recycling and recovery of waste and reduce emissions of methane. The Directive requires a stepped reduction in the quantities of biodegradable municipal waste going to landfill with targets being set for 2010, 2013 and 2020. A system of tradable permits is being established as a means of ensuring that targets are met.

National Context

2.7 The UK Strategy for Sustainable Development (January 1994) stresses the significance of combining economic growth with care for the environment in order to achieve sustainable development. The objectives of sustainable development for waste management policy are defined in this and in the government policy document 'Waste Strategy 2000':

- to reduce the amount of waste that society produces;
- to make best use of the waste that is produced;
- to choose waste management practices which minimise the risk of immediate and future environmental pollution and harm to human health; and
- to aim for regional self-sufficiency.

2.8 To help achieve these objectives, a hierarchy of waste management options has been established. Planning authorities are required to have regard to this hierarchy in drawing up their development plans. The options at the top of the hierarchy are more sustainable than those at the bottom:

- **reduction** - in the amount of waste produced;
- **re-use** - of objects so they do not enter the waste stream;
- **recovery** - recycling, composting, energy recovery;
- **disposal**.

At present, disposal is the most common form of waste management. The aim should be to move up the hierarchy, to more sustainable options.

2.9 The EU Landfill Directive, and the Government's Waste Strategy 2000, set out targets to assist in moving up the hierarchy. The land-use planning system can play an enabling role in meeting these targets by ensuring that land is available in the right locations to allow for development of facilities to achieve the targets. The targets contained in the Landfill Directive are to reduce the amount of biodegradable municipal waste going to landfill by 25% of the amount produced in 1995, by 2006. This rises to 50% by 2009 and 65% by 2016. In the UK these targets mean a step change in the way waste will be managed in the future and Waste Strategy 2000 sets out challenging targets:

- recover value from at least 40% of municipal waste and recycle or compost at least 25% of household waste by 2005

- by 2005 to reduce the amount of industrial and commercial waste sent to landfill to 85% of that landfilled by 1998.

2.10 The context for the determination of waste planning applications is set by the Town and Country Planning Acts. In particular, Section 54A of the Town and Country Planning Act 1990 emphasises the primacy of the development plan in the assessment of planning applications. It states that "determination shall be made in accordance with the plan unless material considerations indicate otherwise".

2.11 Policies and proposals throughout the plan have had regard, as appropriate, to national policy guidance set out in Planning Policy Guidance Notes (PPGs). PPG 10, Planning and Waste Management, published in September 1999, replaces sections of PPG 23, Planning and Pollution Control which deal with waste management. It sets out the four principles of waste management: the Best Practicable Environmental Option (BPEO); regional self-sufficiency; proximity principle; and the waste hierarchy. It also includes the general policy context and the criteria for the siting of waste facilities.

Regional Context

2.12 Government advice in PPG 10 and PPG 11, Regional Planning, seeks to strengthen planning for waste management at the regional level. Individual counties or districts cannot be considered in isolation because waste often crosses boundaries. In some circumstances, local options for the management of some types of waste may not be available. The Government wishes to see Regional Waste Strategies developed to form an integral part of Regional Planning Guidance.

2.13 The current Regional Planning Guidance for the North East seeks to ensure that waste local plans make provision for appropriate methods of waste management which will assist in achieving the objectives and targets of the Waste Strategy 2000.

Local Context

2.14 The County Council produced a Waste Management Plan in March 1996 which sets out the preferred waste management options for Northumberland, based on the national considerations outlined above and the local circumstances in the County. These are encapsulated in a waste management strategy for the County. This Waste Local Plan has had regard to this strategy and its resulting land-use requirements. The preferred options set out in the Waste Management Plan are:

(i) waste minimisation and re-use;

(ii) recycling and composting;

(iii) anaerobic digestion (following confirmation of its applicability in the UK); and

(iv) landfill (preferably with energy recovery).

The Waste Management Plan does not consider other options to be suitable for Northumberland. However, the Waste Management Plan indicates that, should a strategy be jointly developed with Newcastle-upon-Tyne and North Tyneside, energy from waste may be considered viable for those areas together with South East Northumberland.

2.15 The strategic planning context for the Waste Local Plan is set out in the approved Structure Plan, 1996. This considers that the majority of waste operations will be classed as major developments and, as such, will be subject to a detailed assessment to ensure that they have minimum adverse effects on the environment (Policies M1 and M2). Other waste developments will only be permitted where they do not adversely affect the environment or community (Policy M10). Policy M11 aims to encourage waste minimisation, recycling and the production of energy from waste. The Structure Plan is currently being reviewed.

2.16 A Municipal Waste Strategy has been produced jointly by the County and District Councils in Northumberland, in their capacity as Waste Disposal Authority and Waste Collection Authorities. The purposes of this strategy are:

- to consider all of the options available for the management of waste;
- to establish the appropriate mix of options for Northumberland in order to develop a fully integrated waste management system based upon the waste hierarchy; and
- to determine strategic locations for waste management facilities within the context of the policy framework contained in this plan.

The key objectives of the Northumberland Municipal Waste Strategy are to develop a waste management system that is affordable, meets future performance targets and complies with current and planned legislative requirements by seeking to:

- achieve the minimisation of waste arising and promotion of waste awareness;
- maximise recycling and composting; and
- recover energy from residual waste and maximise the diversion of waste from landfill disposal.

The Municipal Waste Management Strategy will therefore be an important consideration in the determination of planning applications for waste development.

Waste Local Plan Strategy

2.17 European and Government policy on the management of waste is to encourage a move from disposal by landfill to more sustainable options higher up the waste hierarchy. The landfill option currently dominates the management of waste in Northumberland with only 3.5% of household waste being recycled or composted. The County Council recognises that no single waste management option is more effective than any of the others for dealing with all waste on grounds of environmental impact, cost and acceptability to local communities. Government guidance set out in PPG 10 indicates that it is only through an integrated approach to waste management that an efficient overall system with high waste recovery levels can be achieved.

2.18 An integrated approach involves the consideration of a number of waste management options (materials recycling, composting, anaerobic digestion, energy from waste, landfill), any of which may be used. The extent to which an option will be appropriate will depend on the characteristics of the waste, the collection and transport systems, availability of facilities, the costs of collection and different forms of treatment and the environmental impacts of the different options.

2.19 The strategy for this local plan, which meets European and Government policy and is also sustainable, must, therefore, seek to develop an integrated approach to waste management and seek to facilitate and encourage the development of waste facilities which:

a) move waste management higher up the hierarchy of:
   - reduction
   - reuse
   - recovery (including firstly, recycling/composting and secondly energy recovery) and
   - safe and efficient disposal: (Policy S1);

b) enable the management and disposal of waste near to where it is generated (the proximity principle and regional self-sufficiency) (Policy S2); and

c) have less impact on the environment and local communities (Policy S3) to provide the combination of facilities and other waste management options which give the best balance between Environmental, Social and Economic needs. This balance is known as the Best Practicable Environmental Option (BPEO).

POLICY S1

In considering waste development proposals the County Council will have regard to a hierarchy of options in the following order of preference:

(i) reduction in the amount of waste produced;

(ii) reuse of waste without significant processing;

(iii) recovery of value from the waste and reduction of its volume by:

a) recycling of material and composting or land spreading

b) energy recovery

(iv) disposal of waste by landfill and incineration.

Proposals which move the management of waste up the hierarchy will be given favourable consideration in principle subject to the proposals also demonstrating that they represent the Best Practicable Environmental Option for that waste stream.

POLICY S2

The County Council will assess waste management proposals in the light of their contribution to the provision of an integrated and adequate network of waste management facilities to cater for wastes arising in the county, taking account of the proximity principle.

POLICY S3

Planning permission for waste management facilities will not be granted where there would be a significant adverse effect on local communities and/or the environment.

3. TYPE AND VOLUME OF WASTE TO BE MANAGED

Introduction

3.1 This chapter contains information on the amount and types of waste arising in the County, the movements of waste into and out of the County and the estimated future trends in the types and quantities of waste over the plan period. It is based mainly on information on waste arisings for the period 1995/96, contained in the Environment Agency's Waste Management Report (1995/96).

Definition

3.2 In line with the European Union Waste Framework Directive, the Environment Act, 1995 describes "waste" as: any substance or object which the holder discards or intends or is required to discard.

3.3 The United Kingdom produces approximately 400 million tonnes of waste each year. The majority of this is mining and quarrying waste and agricultural waste. Most of the remainder is "controlled waste" which is household, commercial and industrial waste as well as clinical and special waste. The type of waste referred to in this plan is controlled waste. There are, however, wastes outside the scope of this definition which are covered by other legislation such as The Radioactive Substances Act, 1993.

Controlled Waste arising in the County

3.4 Just less than 1 million tonnes of controlled wastes were produced within Northumberland in 1995/96.

Household Waste

3.5 Household waste is waste from domestic properties, residential and nursing homes, hospitals and educational establishments. Approximately 162,000 tonnes of household waste was produced in Northumberland County during 1998/99. This shows an increase of about 17% on the 1993 base figure. The amount of household waste being recycled had risen from 2470 tonnes in 1993 to just over 11,000 tonnes in 1998/99. However, the waste being recycled represents only 6.8% of the total household waste produced in the County. The remaining waste, approximately 150,000 tonnes, required disposal in landfill sites.

Table 3.1: Household Waste Collected, by District, in 1983, 1993 and 1998/99

	Alnwick	Berwick	Blyth Valley	Castle Morpeth	Tynedale	Wansbeck	Total
Waste Collected from Households (tonnes)							
1983	*13,100*	*9,630*	*31,400*	*15,900*	*18,790*	*20,290*	**109,110**
1993	*11,664*	*9,004*	*23,022*	*11,971*	*24,250*	*22,408*	**102,320**
1998/99	*13,883*	*12,631*	*30,097*	*19,927*	*23,246*	*25,241*	**125,025**
Waste Collected from Civic Amenity Sites (tonnes)							
1983	*800*	*2,000*	*6,500*	*3,400*	*4,000*	*1,500*	**18,200**
1993	*1,588*	*6,182*	*7,499*	*7,432*	*6,080*	*4,999*	**33,780**
1998/99	*1,719*	*1,847*	*9,696*	*44*	*3,925*	*8,348*	**25,579**
Waste Collected for Recycling (tonnes)							
1983	*na*	*na*	*na*	*na*	*na*	*na*	**400**
1993	*100*	*300*	*290*	*600*	*830*	*350*	**2,470**
1998/99	*112*	*443*	*514*	*6,162*	*1,393*	*36*	**11,101**

Source: Environment Agency and Northumberland County Council

Table 3.2: Materials Collected for Recycling in 1998/99, by District (tonnes)

	Glass	Card & Paper	Cans	Plastics	Textiles	Compost	Total
Alnwick	-	-	-	-	-	*112*	**112**
Berwick	*165*	*259*	*11*	-	*7*	-	**443**
Blyth Valley	-	*512*	-	-	*2*	-	**514**
Castle Morpeth	*905*	*2,923*	*76*	*31*	*40*	*2,187*	**6,162**
Tynedale	*458*	*865*	*21*	-	*49*	-	**1,393**
Wansbeck	-	-	*1*	-	*33*	*2*	**36**
County	-	-	*2338*	-	*9*	-	**2,441**
Total	**1529**	**4,559**	**2,446**	**31**	**138**	**2,301**	**11,101**

Source: District Councils

N.B. Figures may not sum due to rounding or different methods of calculation

Commercial Waste

3.6 Commercial waste is waste from any premises used for a trade or business or for the purpose of sport, recreation or entertainment. This is either collected by the district councils or by private contractors. The amount of waste produced in 1995/96 in Northumberland was just less than 64,000 tonnes. More than half of this was produced in the districts of Blyth Valley, Wansbeck and Castle Morpeth where about 60% of the population of Northumberland live.

Industrial Waste

3.7 For the purposes of these figures, industrial waste is waste from a factory or from any premises used for or in connection with: the provision of public transport, the public supply of utilities, and the provision to the public of postal or telecommunications services. In 1995/96 just less than 137,000 tonnes of industrial waste was produced within the County. Of this, 60% was in the more industrialised areas of Blyth Valley, Wansbeck and Castle Morpeth. As with commercial waste, over 50% of industrial waste arising in Northumberland is paper and cardboard packaging.

Power Station Ash

3.8 The burning of coal to generate electricity produces pulverised fuel ash and furnace bottom ash. Pulverised fuel ash (PFA) consists of finely divided non-combustible particles which are found in the flue gases arising from the combustion of coal. Furnace bottom ash (FBA) is a coarser material. Both PFA and FBA can by recycled for other purposes including secondary aggregates. The producers of this material are pursuing this option more and more, rather than just looking to disposal.

3.9 In 1996 there were two sites which generated power from coal in Northumberland, one operated by National Power at Blyth and one operated by Alcan at Lynemouth, both in Wansbeck District. Together, they produced about 327,000 tonnes of PFA and FBA in 1995/96. There is now only one power station in the County at Alcan.

Special Waste

3.10 Wastes are classed as "special" if they pose a particular threat to human health. The transportation of special waste must be accompanied by a consignment note which enables its movement and disposal to be monitored by the Environment Agency. In 1995/96 25,370 tonnes of special waste was produced in the County although 80% of this was exported for treatment or disposal elsewhere.

Clinical Waste

3.11 In 1995/96 just under 1,400 tonnes of clinical waste was produced in Northumberland, of which about 80% was from hospitals, nursing homes and similar establishments in the County; 11% was produced by veterinary and medical surgeries, with the remainder arising from human hygiene.

Construction and Demolition Waste

3.12 This is a type of industrial waste and is derived mainly from large scale civil engineering projects. It generally includes soils, hardcore and concrete. Construction and demolition waste is no longer regarded as inert with little risk to the environment, because waste from building sites may include a variety of potential contaminants such as asbestos, paints and plaster board. It is estimated that just over 190,000 tonnes of construction and demolition waste was produced within the County in 1995/96. The amount of waste produced is likely to fluctuate according to construction activity.

Sewage Sludge and Water Treatment Waste

3.13 The sewage treatment works in the County produced approximately 66,000 tonnes of sewage treatment waste in 1995/96, which is the equivalent of just over 3,000 tonnes of dry material. This was disposed of through landspreading or landfill (sea disposal will not be available after 1998).

3.14 Approximately 8,460 tonnes of water treatment sludge was produced in 1995/96, which represented about 400 tonnes of dry solid. This was disposed of by landfilling at a combination of sites run by the water company and other private sector operators within the County, and landspreading.

Non-Controlled Waste arising in the County

Mine and Quarry Waste

3.15 Waste arising from mine and quarrying operations is not controlled by the Environment Agency. However, the Government is currently considering the need to bring some categories of this type of waste under control in order to comply with the European Union Framework Directive on Waste.

3.16 In 1995/96 about 100 million tonnes of mine and quarry waste was generated in the County, mainly from opencast coal operations in Castle Morpeth. These wastes are predominantly used as backfill for the restoration of those sites.

Agricultural Waste

3.17 The Environmental Protection Act 1990 specifically excludes certain waste arisings from premises used for agricultural purposes. "Naturally" arising wastes from farming activities are not therefore controlled wastes. These include slurry, manure and silage effluent. Waste or pollution from the agricultural industry is controlled under various pieces of legislation, such as the Water Resources Act 1991, with statutory guidance issued by DEFRA. As with mine and quarry waste, the Government is considering including some categories of this type of waste into the remit of the Environment Agency. Approximately 1,000 tonnes of farm waste was disposed of to licensed landfills in the County in 1995/96. Agricultural operations also produce other waste types which are controlled, such as dairy wastes, fertilisers, pesticides and oils.

Cross County Movement of Waste

Waste exports

3.18 In percentage terms, the main types of waste exported from Northumberland are special and clinical wastes. This is because the County does not have the facilities to manage this type of waste. Around 80% of special waste produced is exported for treatment or disposal. Most of this is exported to County Durham or Tyne and Wear, although some does go further afield. Clinical waste is exported from the County (and indeed the region) although a small proportion does return for disposal to landfill following treatment.

3.19 A small proportion of household waste is exported out of the County, mainly to Brenkley on the Northumberland-Newcastle border. The Hexham waste transfer station is now operational and Tynedale's household waste is expected to go to Burnhills in Gateshead. It is difficult to predict whether this pattern will continue as it is dependent on the company which has the contract for disposing of the household waste, and where its sites are.

3.20 A proportion of commercial and industrial waste is exported. The scale of this and where it is exported to is dependent on the waste management companies that win contracts from commercial/industrial premises. Construction and demolition waste and power station ash tend to be managed within the County.

Waste imports

3.21 There are a number of landfill sites in Northumberland located adjacent to Tyne and Wear, in particular Seghill, which receives waste imported into the County for disposal from Tyne and Wear.

3.22 Much of the other waste imported into the County arises from construction, demolition and excavation works. An estimated 200,000 tonnes of this type

of waste per annum may be produced in Tyne and Wear and disposed of in landfill sites in Northumberland. Due to the lack of suitable facilities, only a small amount (just less than 7,000 tonnes in 1995/96) of special waste is being imported into the County for treatment.

Future Waste Arisings

3.23 The amount and composition of waste produced in Northumberland over the plan period is likely to change. This will stem from a number of factors, such as:

- the anticipated increases in the County's population;
- the anticipated increase in the number of dwellings in the County; changes in waste management practice;
- legislative changes and economic instruments; and
- changes in society's attitude to waste (e.g. more interest in reduction, re-use, recovery and greater acceptance of recycled products).

The one factor likely to provide the greatest stimulus to waste minimisation, re-use and recovery is legislative change. The landfill tax has the potential to substantially increase disposal costs for waste producers.

3.24 It is necessary to consider how the type and quantities of waste may change as this will influence the amount of land required for waste management purposes. It may also identify areas where the Waste Local Plan can assist in influencing waste management practices, to stimulate a movement up the waste hierarchy.

Household Waste

3.25 The Northumberland Waste Management Plan considers that the amount of household waste produced will be influenced by population changes or changes in the number of dwellings, recycling initiatives and use of wheeled bins (which is likely to increase the amount of waste requiring collection including recyclables, and reduce the amount taken to civic amenity sites). It concludes that, given the number of unknown factors involved, it is not possible to accurately predict the change in the amount of household waste requiring disposal over the next ten years. Nevertheless, it does provide some possible projections which can be used to calculate an estimate of the waste to be managed.

3.26 The more people in an area, the more waste is likely to be generated. Increases in population can therefore be used to estimate any increases in waste. However, it is considered that a more accurate reflection of waste production is based on dwellings rather than individuals. Increases in the

number of households were calculated as part of the preparation of the replacement Structure Plan and are used to calculate projected increases in waste arisings.

3.27 Table 3.3 sets out the projections for household waste arisings. This shows that between 1996 and 2006, approximately 1,700,000 tonnes of waste will be produced in Northumberland.

Table 3.3: **Projected quantities of Household Waste Arisings, 1996-2006**

District	Number of household spaces		Change	Waste Arising (tonnes)		Total Waste Arising (tonnes) *approximate figures
	1996[1]	2006[2]		1995/96[3]	2006[4]	1996-2006
Alnwick	14,263	15,345	1,082	14,073	15,000	171,000
Berwick	13,102	13,656	554	15,893	16,000	190,000
Blyth Valley	34,366	37,352	2,986	34,377	37,000	420,000
Castle Morpeth	20,639	22,426	1,787	26,053	28,000	316,000
Tynedale	24,676	26,160	1,484	26,812	28,000	323,000
Wansbeck	27,452	29,080	1,628	25,675	27,000	311,000
Total	**134,498**	**144,019**	**9,521**	**142,883**	**151,000**	**1,731,000**

Source: Northumberland County Council

[1] – Based on the 1991 Census

[2] – Based on Structure Plan Figures

[3] – Based on waste arisings, from the Environment Agency

[4] – Assuming 1 tonne of waste per household per annum

Commercial Waste

3.28 The level of commercial waste arising is closely related to the level of economic activity in the commercial sector which in turn is related to the general state of the economy and the proportion of the workforce employed in the commercial/retail sector. In line with national trends, the proportion of the County's workforce employed in this sector has increased. The Structure Plan strategy aims to strengthen the economic base of the County. This is likely to result in an expansion of the commercial sector and therefore the amount of waste produced. However, this may be balanced against increases in waste minimisation, re-use and recovery as costs of disposal increase and initiatives such as minimisation of packaging take effect. Almost half of the commercial waste produced consists of paper and

cardboard packaging, which has a high potential for recycling. Given that the commercial sector may expand with the potential to produce more waste, and that waste minimisation and recovery could also increase, it may be the case that the amount of commercial waste requiring disposal is unlikely to change significantly. Around 60-80,000 tonnes of commercial waste per annum are likely to be produced (600-800,000 tonnes between 1996 and 2006).

Industrial Waste

3.29 The main factors affecting the amount and composition of industrial waste arisings over the next ten years will include changes in the extent and nature of industrial activity, increases in disposal costs and changes in environmental legislation. The Structure Plan Strategy aims to ensure the establishment of additional industrial premises. However, as with commercial waste this may well be balanced by waste minimisation measures. An estimated 140,000 tonnes of industrial waste per annum could be produced (1,400,000 tonnes between 1996 and 2006).

Power Station Ash

3.30 The quantity of this waste may change during the plan period should capacity change or re-use of material increase. The current producer of this material (Alcan) has sufficient in-house capacity at present. Their future requirements are considered in Chapter 10.

Special Waste

3.31 Special waste may increase if the planned increase in investment in the chemical, pharmaceutical and electronic industries succeed. Special waste from the Alcan aluminium smelter may also increase if idle production capacity is restarted. Currently, the majority of special waste produced in the County is exported to specialised facilities elsewhere.

Clinical Waste

3.32 Following the closure of the two remaining hospital incinerators in 1995, clinical waste from the majority of medical establishments is directed to an incinerator outside the County. There is no reason to assume this will change during the plan period.

Construction and Demolition Waste

3.33 The amount of construction and demolition waste is governed by the level of activity in the construction industry. Economic growth is likely to see an

associated small increase in the quantity of this type of waste, balanced against the potential for increased recycling and the implications of the landfill tax. A considerable amount of construction and demolition waste is capable of being recycled.

Sewage Sludge and Water Treatment Waste

3.34 The implementation of the European Union's Urban Waste Water Treatment Directive and Bathing Waters Directive will result in greater quantities of sewage sludge being produced. The Directive also bans the disposal of sewage sludge to sea after 1998. This may result in additional waste requiring land disposal. However, a new treatment facility has been developed on Teesside, to accept sludge from the region. Sludge from new sewage treatment works will be transported to this regional facility. Chapter 9 expands on this issue.

Mine and Quarry Waste

3.35 Mineral extraction is expected to continue in Northumberland during the plan period at a similar level to that at present. Whilst future waste arisings are difficult to predict, it can be assumed that they also are likely to continue at a similar level to that at present over the next ten years. The vast majority of this waste does not leave the site of production as it is utilised in the mineral working for landscaping or restoration. At present, the waste from Ellington Colliery is used in sea defence works under licence from DEFRA. Should this situation change, land disposal may be required. Policy C9 of the Northumberland Minerals Local Plan addresses this issue. Proposals for the surface disposal of colliery spoil will be assessed against this policy.

Agricultural Waste

3.36 The reduction in agricultural activity in the County is expected to continue over the next few years and diversification into non-traditional agricultural practices is likely to become more widespread. A reduction in the amount of agricultural waste may occur over the next ten years, although this could be balanced against any increases as a result of some agricultural waste becoming "controlled waste".

Imports and Exports

3.37 Waste management facilities are licensed to accept a range of wastes irrespective of the place of their origin. Cross-boundary movement of waste is unavoidable. As disposal costs increase and smaller sites close to be replaced with fewer, larger sites, the transport of waste over longer distances will become more economical. When added to the possibility of integrated waste management schemes dealing with regional or sub-

regional waste, an increase in cross-county movement of waste may occur. However, this will be balanced against the need to pursue the proximity principle and regional self-sufficiency.

4. WASTE MANAGEMENT FACILITIES AND FUTURE REQUIREMENTS

Introduction

4.1 This chapter describes the current licensed waste management facilities in Northumberland.

Landfill sites

4.2 Landfilling is currently the major waste disposal option for the County. As Map 4.1 and Table 4.1 show, the 19 landfill sites in Northumberland handle a variety of different waste types.

4.3 The disposal of household and commercial waste in the County is dominated by the three operational landfill sites operated by SITA Ltd. These sites range in size from Seghill in Blyth Valley Borough with a licensed capacity of 350,000 tonnes per year, to the Harecrag Quarry site in Alnwick District with an annual licensed capacity of 75,000 tonnes.

4.4 Pulverised Fuel Ash and Furnace Bottom Ash produced at the power station site at Lynemouth are disposed of at sites adjacent to the power station and operated by Alcan. This site has an annual licensed capacity of about 200,000 tonnes.

4.5 The sites operated by the other waste disposal companies are licensed to accept mainly inert waste arising from construction, demolition and excavation. These include more than half the landfill sites in Northumberland which range in size from the Denwick site, near Alnwick, with an annual licensed capacity of 5,000 tonnes, to the Callerton site, near Ponteland, which is licensed to accept 250,000 tonnes per annum.

4.6 There are no landfill sites in the County accepting special wastes on a commercial basis. Alcan, however, operate a landfill site for the disposal of their own special waste at Lynemouth. This is licensed to accept about 22,000 tonnes of special waste per annum arising from the process of aluminium smelting.

Map 4.1: Location of Landfill Sites

Household / Commercial / Industrial Wastes

1. Harecrag
2. Seghill
3. Ellington Road

Commercial / Industrial Wastes

4. Merryshields Quarry

Industrial Wastes

5. Fontburn
6. Warkworth Treatment Works
7. Broadoak
8. Hollins Hill
9. Thornbrough Quarry
10. Alcan Ash Lagoons
11. Alcan Pot Linings
12. Blyth Power Station

Inert Wastes

13. Denwick Quarry
14. Howick Quarry
15. Marshall Meadows
16. Callerton
17. Hepscott Red House
18. Divethill Quarry
19. Bothal Barns

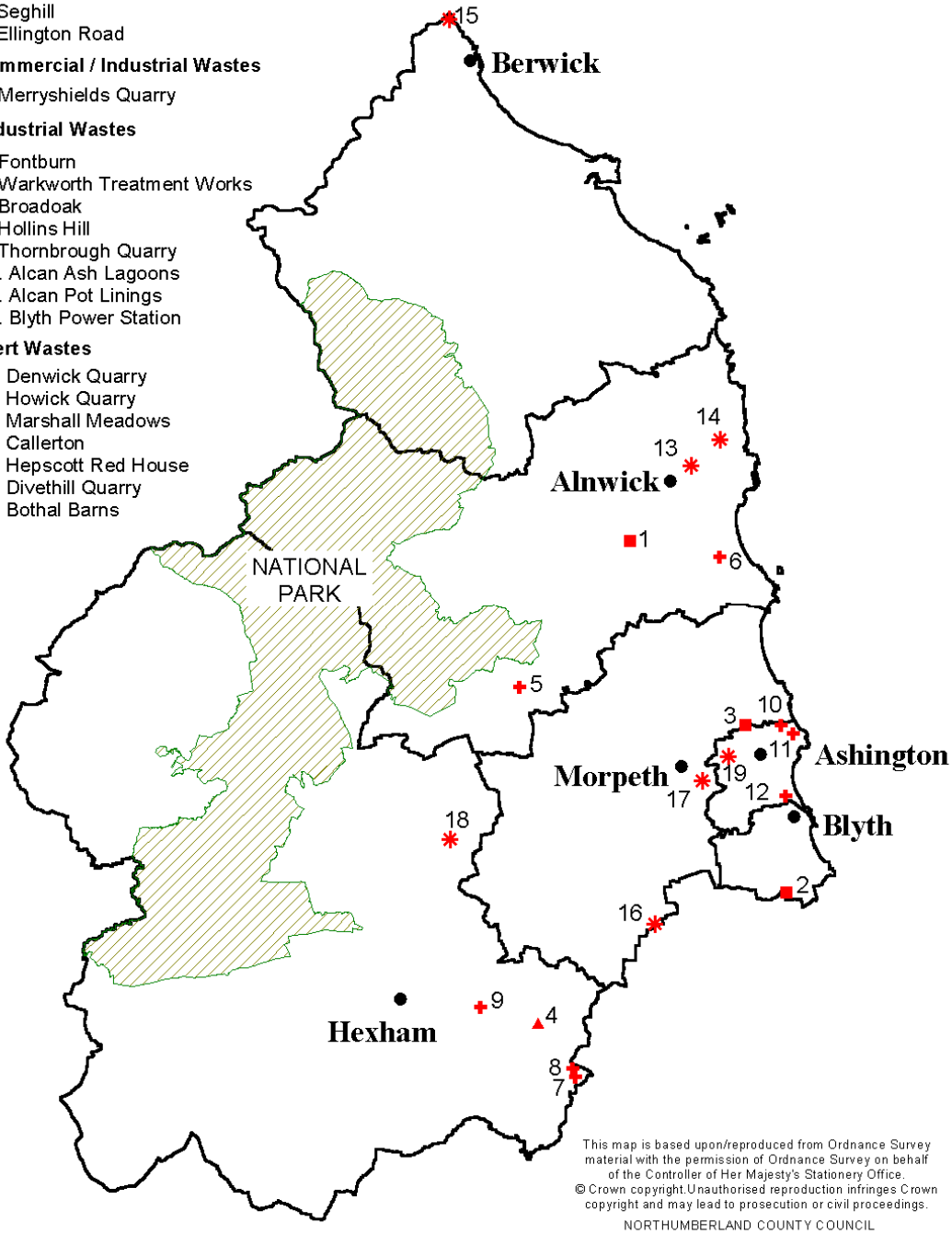

Table 4.1: Landfill Sites in Northumberland, by District (February 1999)

Site	Waste Type	Remaining Capacity	Annual Licensed Capacity (Cubic Metres)	Planning Permission Expiry
ALNWICK				
Denwick Quarry	Inert	20,000	5,000	1998
Howick Quarry*	Inert	200,000	75,000	2007
Harecrag	Household, Industrial, commercial	130,000	75,000	2008
Warkworth Water Treatment Works†	Industrial	5,000	5,000	-
Fontburn†	Industrial	20,000	5,000	-
BERWICK-UPON-TWEED				
Marshall Meadows	Inert	5,000	75,000	1999
BLYTH VALLEY				
Seghill	Household, Industrial, commercial	2,400,000	350,000	2014
CASTLE MORPETH				
Hepscott Red House	Inert	-	Licence Exemption	2000
Callerton	Inert	350,000	250,000	1999
TYNEDALE				
Divethill Quarry†	Inert	173,000	25,000	2010
Broadoak	Inert	60,000	72,000	2007
Hollings Hill	Industrial	1,500,000	124,800	2012
Thornbrough Quarry	Industrial	520,000	75,000	2006
Merryshields	Industrial, commercial	300,000	25,000	-
WANSBECK				
Bothal Barns	Inert	192,500	200,000	1998
Ellington Road	Household, Industrial, Commercial	2,200,000	200,000	2039
Blyth Power Station†	Industrial	200,000	499,200	2016
Alcan Ash Lagoon†	Industrial	300,000	200,000	2001
Alcan Pot Linings†	Special / industrial	75,000	22,020	-

Source: Environment Agency and Northumberland County Council

Notes: † - For the use of licence-holder only; * - Topsoils and subsoils only

Incinerators

4.7 There is only one licensed incinerator in Northumberland at the Percy Hunt Kennels in Alnwick. It is licensed to burn animal waste.

4.8 The two hospital incinerators in Prudhoe and Morpeth closed in October 1995, due to the new standards required by the Environmental Protection Act, 1990.

Transfer Stations

4.9 There are 17 waste transfer stations in the County. Ten of these are operated by utility companies mainly for their own waste. The remaining sites are permitted to accept a range of wastes. Household waste from Berwick-upon-Tweed Borough and Tynedale District is taken to the transfer stations at North Road, Berwick, and Bridge End, Hexham, respectively.

Scrapyards

4.10 There are 15 scrapyards in Northumberland licensed to process 32,100 tonnes of scrap materials, including ferrous and non-ferrous metals. In addition, there are two scrap yards which also operate as transfer stations.

Civic Amenity Sites

4.11 Until early 1998 a network of 15 Civic Amenity Sites was in place in the County. These are located at landfill sites or near the larger centres of population. The sites are operated by SITA under contract from the County Council. Due to a very difficult budget settlement for the year 1998/99, nine of these fifteen sites were closed on a temporary basis of which two are now closed permanently and are fully restored (Sisters, near Widdrington Station and West Woodburn). Of the nine sites which closed on a temporary basis in 1998, eight sites have subsequently reopened (Map 4.2).

Recycling

4.12 At present, there is little recycling of household, commercial or industrial waste taking place in Northumberland. It is estimated that over 5,000 tonnes (about 3.5%) of the County's household waste is currently being recycled, although the figure varies between the districts. Castle Morpeth Borough Council accounted for 73% of the waste recycled during 1995/96. A Materials Recycling Facility has recently been established at West Sleekburn to replace the Council’s facility at Tritlington. This receives the waste deposited at the Borough Council's mini recycling centres. In addition, a high percentage of recycling is undertaken on power station ash.

Map 4.2: Location of Civic Amenity Sites

Composting

4.13 The only commercial composting plant in Northumberland is at West Sleekburn which replaced the facility at Tritlington. In 1995/96, this was composting 1,549 tonnes. The final product is suitable for use as a soil conditioner.

Future Waste Management Requirements

4.14 An estimate of the amount of waste which is likely to be produced in Northumberland during the plan period was presented in Chapter 3. This needs to be compared with the waste management facilities currently operating in the County in order to identify any shortfalls which may have to be addressed.

4.15 It is estimated that 1.7 million tonnes of household waste will be produced in Northumberland between 1996 and 2006. At present there is not a significant amount of household waste imported into the County. In March 1996, the licensed capacity at landfill sites able to take this waste (Harecrag, Ellington Road and Seghill) was approximately 4.6 million cubic metres. Assuming a ratio of one tonne of waste to one cubic metre of capacity, there is sufficient capacity remaining, although not all of this would be available for household waste, and the amount of waste imported into the County from Tyne and Wear may increase.

4.16 Updated figures for these three sites indicate that site capacities have increased since March 1996. In March 1998, it was estimated that these capacities totalled 5.1 million cubic metres. The amount of household waste recovery is currently small - about 3.5% of the total produced in the County - but has the potential to increase substantially.

4.17 It is estimated that around 2 to 2.2 million tonnes of industrial and commercial waste will be produced in Northumberland between 1996 and 2006. The County also imports some of this waste for disposal. In March 1996, capacity at industrial/commercial only landfill sites was estimated to be 2.2 million cubic metres (supplemented by other sites which are restricted to the licence-holder's waste). In March 1998 this capacity was estimated to have risen slightly to 2.34 million cubic metres. Recovery of this type of waste is currently low in the County, but does have the potential to increase substantially.

4.18 In 1995/96, approximately 190,000 tonnes of construction/demolition waste was produced in Northumberland. The County also imports some of this waste for disposal. In March 1996, the capacities at inert only landfill sites amounted to 925,000 cubic metres (supplemented by one site which is restricted to the licence-holder's waste). By March 1998 this capacity was estimated to have fallen to approximately 800,000 cubic metres. There are two other inert waste landfill sites with planning permission. One is an

exempt site and information on capacities is therefore difficult to obtain. The other site, Howick Quarry, is licensed to take topsoils and subsoils only.

4.19 Special and clinical wastes are mainly dealt with outside the County at present due to the lack of facilities for treatment or disposal. Power station ash is dealt with at sites specific to this waste (see Chapter 10). Sewage sludge is dealt with mainly at facilities/sites operated by Northumbrian Water (see Chapter 9).

4.20 There continues to be a large remaining landfill capacity for all waste types other than construction and demolition waste. Landfill has predominantly been and continues to be the principal means of dealing with the County's waste. However, landfill is at the bottom of the waste hierarchy. The plan's strategy is to assist in moving waste management up the hierarchy, with more emphasis being given to the recovery options.

4.21 There is likely to be a need for additional waste management facilities which allow increased recovery from waste in the County to maintain an integrated and adequate network. The waste management picture is changing quite rapidly. This makes it more difficult for the plan to opt for a specific type of waste management facility for the County's waste. The plan, therefore, establishes a framework for each of the recovery options (recycling facilities; composting schemes; energy from waste plants) in Chapter 7, whilst Chapter 8 considers landfill and incineration without energy recovery.

5. ENVIRONMENTAL PROTECTION

Introduction

5.1 This chapter sets out the policies against which all applications for waste development in the County will be assessed. The purpose of these policies is to assess whether proposals would be acceptable in environmental terms.

Environmental Assessment

5.2 All planning applications for waste developments should contain a detailed description of the site and proposals, supported by an analysis of the likely environmental effects of the development. Where significant affects are anticipated, the Town and Country Planning Environmental Impact Assessment (England and Wales) Regulations 1999 require that an Environmental Impact Assessment (EIA) should be undertaken.

5.3 Environmental impact assessment is a technique for drawing together, in a systematic way, analysis and assessment of a project's environmental effects. This enables the identification and evaluation of likely effects before a decision on the proposal is made.

5.4 The Town and Country Planning Environmental Impact Assessment (England and Wales) Regulations 1999 came into force on 14 March 1999. They revoke and make amendments to the 1988 Regulations. All waste developments listed in Schedule 1 will require an EIA and include waste disposal installations for the incineration of non-hazardous waste with a capacity exceeding 100 tonnes per day and certain waste water treatment plants. Most waste developments will be defined as Schedule 2 projects where an EIA will be required if it is judged to have significant effects on the environment. The regulations set thresholds and criteria to assist in this assessment.

5.5 Pre-application discussions with the County Council are therefore advised to establish if an EIA is needed and to scope the issues to be addressed. In considering a planning application, the proposal will be initially assessed against the planning and environmental criteria set out in this chapter.

POLICY EP1

All proposals for waste developments will be required to be accompanied by an analysis of the environmental effects of the development and, where necessary, an Environmental Impact Assessment as prescribed by the Town and Country Planning Environmental Impact Assessment (England and Wales) Regulations 1999.

PLANNING AND ENVIRONMENTAL CRITERIA

5.6 The County Structure Plan sets out criteria against which proposals for waste development will be assessed. These are listed in Structure Plan Policy M2. This requires that major developments, including most waste developments, will only be permitted where the benefits clearly outweigh any potential environmental damage. The following sections develop and add to the environmental criteria listed in Structure Plan Policy M2.

Local Communities

5.7 The treatment and disposal of waste inevitably gives rise to some disturbance. Although most waste disposal sites are located in open countryside, their effects can still give rise to impacts. Local communities can be affected by visual intrusion, noise, dust, odour, vibration, litter, loss of mature landscapes and other features which contribute to the amenity and quality of life of the area. This can be made worse if an area has a concentration of such developments. It is more common for waste treatment facilities such as transfer stations, recycling plants and other waste management facilities involving built development to be located in urban areas. This type of location can bring the impacts of waste facilities much closer to sensitive land-uses.

5.8 Careful planning and good site management can ensure that adverse effects of operations are minimised. If such effects would have direct impacts on local communities and could not be ameliorated to an acceptable degree through mitigation measures, sensitive siting and design, careful management, or planning conditions, then the development will not be permitted.

POLICY EP2

Proposals for waste developments will only be permitted where surrounding land uses can be adequately safeguarded from unacceptable noise, dust, odour, visual impact, traffic or other loss of amenity.

Landscape

5.9 Some of the most attractive areas in the County have been afforded national designation and statutory protection. These include the National Park and two Areas of Outstanding Natural Beauty (AONB) which together cover about 30% of the land area of the County. Policies for waste development within the Park are included in the Northumberland National Park Local Plan.

5.10 AONBs are designated under the National Parks and Access to the Countryside Act 1949 as areas of outstanding landscape quality and the conservation of their natural beauty is in the national as well as local interest.

In Northumberland, the North Pennines and the North Northumberland Coast are designated as AONBs.

5.11 Government policy on development in AONBs is set out in PPG 7. It states that, in all cases, the environmental effects of new proposals will be a major consideration although it will also be appropriate to have regard to the economic and social well being of the area. However, it would normally be inconsistent with the aims of designation to permit the siting of major industrial developments in these areas. Only proven national interest and lack of alternative sites can justify an exception. The majority of waste developments will fall into this category. However, certain small scale waste developments may be acceptable if they are required for essential local needs. For example, small scale sewage treatment works may be required along the North Northumberland Coast to provide improved levels of treatment to sewage currently discharged into the North Sea, or small scale waste disposal facilities may be required on farms. In addition, small-scale recycling plants located within or adjacent to an existing mineral operation may be acceptable as these may not add significantly to the negative environmental impacts of the operation. In assessing whether such an operation is acceptable, account will be taken of its scale in relation to the mineral development, the type of material to be recycled; the surrounding land uses; any increase in environmental impacts including traffic, noise, dust, odour, visual intrusion; any implications for restoring the mineral working.

POLICY EP3

Proposals for waste developments, in the North Northumberland Coast and North Pennines Areas of Outstanding Natural Beauty will be subject to the most rigorous examination and only permitted where there are exceptional circumstances where it can be demonstrated that:

- **there is an overriding national need for the development which cannot be met from an alternative site; or**
- **there is an essential local need for small scale waste management facilities; and**
- **the natural beauty, wildlife and cultural heritage and quiet enjoyment of the area would not be adversely affected.**

5.12 There are many areas of Northumberland within the uplands and upland fringe which are not nationally designated, but which, nevertheless, comprise landscape units of a particularly high quality and as such are considered to be of County-wide importance. Such areas are identified in the County Structure Plan as Areas of High Landscape Value (AHLV) and are being defined in detail in district-wide local plans.

5.13 The fringes of the Northumberland National Park are included within the proposed AHLV and special consideration will be given to protecting the setting of the National Park from insensitively located waste development which could harm the natural beauty or character of the Park.

5.14 Certain types of waste developments will be located in urban areas and their impact on the landscape is likely to be minimal. However, landfill operations will take place in the open countryside and have the potential to impact on the landscape of the County. The significance of a waste development in landscape terms depends on a number of factors including the character and quality of the landscape directly affected, the value of the landscape in local terms, the presence of landscape features such as woodland, the nature of the development, the visibility of the development from surrounding areas, the duration of the development, the potential to screen the site and the likelihood of restoring the site to a high standard. Much of the Northumberland landscape is designated as high quality (AONBs and AHLVs). However, even the countryside which carries no special designation may well be valued by those who live and work there and by visitors. It is Government policy, emphasised in PPG 7 that the countryside should be safeguarded for its own sake and that non-renewable and natural resources should be afforded protection. In south-east Northumberland where most of the population of the County live, County Council policy seeks to upgrade the environment and protect the areas of unspoilt open countryside.

POLICY EP4

The assessment of proposals for waste developments will take into account their potential impact on the landscape, both during and after working. This will include:

- **the quality, character, local distinctiveness and value of the landscape;**
- **the visual prominence of the development in the landscape;**
- **the potential loss or gain of particular landscape features including the prospect for the removal of past dereliction and the opportunity to improve the landscape;**
- **the need for special protection to be afforded to the setting of the National Park and Areas of Outstanding Natural Beauty, and to avoid any development which would have a significant adverse affect on the special character and qualities of these areas.**

Green Belt

5.15 Parts of Castle Morpeth and Tynedale districts are defined as Green Belt. PPG 2 explains that the fundamental aim of Green Belt policy is to prevent urban sprawl by keeping land permanently open. It is also recognised that Green Belts have a positive role to play in providing access to the open countryside for the urban population and in retaining attractive landscapes near to where people live. The general policies controlling development in the countryside apply in Green Belts but there is, in addition, a general presumption against inappropriate development within them. The Green Belt in Northumberland is shown on the Proposals Map.

5.16 PPG 2 starts from the premise that new buildings associated with waste developments in Green Belts are inappropriate development. However, a specific proposal may be classed as appropriate if it maintains openness and does not conflict with the purposes of including land in Green Belts. Existing waste developments in the Green Belt such as water and sewage treatment works may require additional development to improve the quality of treatment in line with current legislative requirements. Such development may be appropriate provided it can be achieved by infilling, would maintain openness and would not conflict with the purposes of including land in the Green Belt. If the proposal does not meet these criteria, very special circumstances will be required to justify it. These may include an overriding need to carry out development to meet other legislative requirements; an overriding need to site the facility in that location to satisfy the proximity principle and lack of alternatives.

5.17 Some waste facilities, in particular composting, can make use of existing buildings. This would be acceptable provided that the openness of the landscape is maintained and the visual amenities of the Green Belt are not compromised. In assessing this, account will be taken of the general scale of the proposals, any reconstruction or extensions required and the use of surrounding land in terms of storage areas, hardstanding, and boundary walls.

5.18 The disposal of waste in the voids created by mineral extraction is often used as a means of reclaiming such sites (Chapter 11 of this plan sets out guidance on the reclamation of sites). Mineral extraction and their subsequent reclamation through landfill may be acceptable development in Green Belts. Landraising may also be appropriate in certain circumstances, such as removing dereliction. In all cases, proposals should not conflict with the purposes of Green Belts, and should maintain the openness of the landscape. In addition, high environmental standards and high standards of reclamation will be required. Account will be taken of the contribution which any reclamation proposals will make to the objectives for the use of land within Green Belts.

POLICY EP5

Proposals for waste developments involving the construction of new built development within the Green Belt will not be permitted, unless;

- **they would maintain the openness of the landscape and would not conflict with the purposes of including land in Green Belts; or**
- **very special circumstances exist to justify them proceeding.**

POLICY EP6

Proposals for waste developments involving the reuse of buildings within the Green Belt will only be permitted where:

- **the buildings are of permanent and substantial construction;**
- **the buildings are capable of conversion without major or complete reconstruction;**
- **the form, bulk and general design of the proposals are not detrimental to the visual amenities of the Green Belt;**
- **they do not have a significantly greater impact than the present use on the openness of the landscape or on the purposes of including land in Green Belts.**

POLICY EP7

Proposals for the landfilling of waste within the Green Belt will only be permitted where they would maintain the openness of the landscape and would not conflict with the purposes of including land in Green Belts, and

- **they are required to restore mineral sites; or**
- **they would remove derelict or degraded land; or**
- **in the case of landraising, they would be restored to an acceptable landform.**

In assessing proposals, account will be taken of the extent to which reclamation will contribute to the achievement of objectives for the use of land in Green Belts.

Re-use of buildings in the open countryside

5.19 Planning Policy Guidance Note 7 ' The Countryside - Environmental Quality and Economic and Social Development' advises that the re-use and adaptation of existing rural buildings, outside the Green Belt, can have a role in meeting the development needs of rural areas. Where small scale waste management facilities are required in rural areas, the re-use of existing buildings may be acceptable provided that certain criteria are met, as set out in Policy EP8.

POLICY EP8

Proposals for waste development involving the re-use, or adaptation, of existing buildings in open countryside will only be permitted where:

- **the waste development is small scale;**
- **the buildings are of permanent and substantial construction;**
- **the buildings are capable of conversion without major or complete reconstruction and the proposal would not adversely affect the character of the building;**
- **the proposal is reasonably located close to the source of the waste;**
- **the form, bulk and general design of the proposal can be satisfactorily assimilated into the landscape; and**
- **there are no other planning objections, which cannot be overcome by the imposition of conditions, which would otherwise outweigh the advantages of re-use.**

Nature Conservation

5.20 Waste developments can often conflict with the aims of conserving important natural elements of the environment. The nature conservation interest of the County is exemplified by the number of areas which are recognised as being of international importance. The Irthinghead Mires, Holburn Lake and Moss and the coastal edge and inter-tidal areas around Lindisfarne are designated as wetlands of international importance under the Ramsar convention, whilst part of Lindisfarne, Holburn Lake and Moss, the Farne Islands and Coquet Island are designated as Special Protection Areas under the European Directive on Wild Birds. In addition, a number of sites have been identified as candidate Special Areas of Conservation under the Habitats Directive. Further sites of international importance may be recognised during the plan period. Candidate Special Areas of Conservation have been identified as the Berwickshire and North Northumberland Coast, part of the Border Mires, Newham Fen, North Northumberland Dunes, North Pennine Dales

Meadows, and the Tyne and Allen river gravels. The Northumberland Coast is identified as a proposed Special Protection Area and proposed Ramsar Site.

5.21 Special Protection Areas (SPAs), under the EC Conservation of Wild Birds Directive 1979, give protection to habitats used by species listed in Annex I of the Directive, and by regularly occurring migratory species. Special Areas of Conservation (SACs), under the EC Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora, give protection to natural habitats and habitats of species listed in Annexes I and II of the Directive. Some of these species and habitats are at particular risk and are identified as priority species and habitats. The protection given to SACs under the Habitats Directive is extended to cover SPAs. The Birds Directive and the Habitats Directive require the establishment of a series of sites, the Natura 2000 series. This network of SPAs and SACs will represent the best nature conservation sites in Europe. Member States are committed to maintaining the coherence of this network by providing the strongest possible protection for these sites. Policy EP8 aims to afford such protection by stating that only imperative reasons of over-riding public interest and lack of alternatives sites can justify waste developments which would adversely affect such sites. In such instances compensatory measures must be undertaken to ensure that, overall, the habitats or species of European importance affected by the proposal are in no way diminished.

5.22 The plan area also contains numerous nationally important areas of nature conservation and geological interest, including over 80 Sites of Special Scientific Interest (SSSI). Internationally important sites and those of national importance will receive the highest level of protection and this protection will apply to any further nature conservation sites which may be identified during the life of the plan.

5.23 The network of habitats also comprises regionally and locally important nature conservation sites. These include Sites of Nature Conservation Importance (SNCIs), Regionally Important Geological/Geomorphological Sites, (RIGS), Local Nature Reserves and areas of ancient semi-natural woodland. Countryside features, which because of their linear or continuous structure or their function as stepping stones from one habitat to another, are particularly important to ensure the maintenance of the current range and diversity of our flora, fauna, geological and land form features and the survival of important species. Examples include rivers, river banks, hedgerows, ponds and small woods. All these areas must be protected wherever possible. The various nature conservation designations are shown in Table 5.1.

Table 5.1: Nature Conservation Designations

Importance	Site Designation and Explanation	UK Statutory Designation
Sites of *International* Importance	**Ramsar Sites** listed under the Convention on Wetlands of International Importance	SSSI; Ramsar
	Special Protection Areas (SPAs) to be classified under the EC Directive on the Conservation of Wild Birds	SSSI; SPA
	Special Areas of Conservation (SACs) to be designated under the EC Directive on the Conservation of Natural Habitats and of Wild Fauna and Flora (the Habitats Directive)	SSSI; SAC
	Natura 2000 a coherent community-wide network of SACs and SPAs	
Sites of *National* Importance	**National Nature Reserves (NNRs)** declared under section 19 of the National Parks and Access to the Countryside Act 1949 or section 35 of the Wildlife and Countryside Act 1981	SSSI; NNR
	Sites of Special Scientific Interest (SSSIs) notified under section 28 of the Wildlife and Countryside Act 1981	SSSI
	Nature Conservation Review Sites (NCR) and Geological Conservation Review Sites (GCR) SSSIs which are of a particular national importance	SSSI
Sites of *Regional or Local* Importance	**Local Nature Reserves (LNRs)** designated by local authorities under section 21 of the National Parks and Access to the Countryside Act 1949	LNR
	Non-statutory Nature Reserves established and managed by a variety of public and private bodies e.g. county wildlife trusts, Royal Society for the Protection of Birds	-
	Sites of Nature Conservation Importance Sites of Importance for Nature Conservation or equivalent. These are usually adopted by local authorities for planning purposes. The name and status of this type of site varies considerably	-
	Ancient Semi-Natural Woodland Sites defined in the Inventory of Ancient Woodlands	-
	Regionally Important Geological/Geomorphological Sites (RIGS) Non-statutory site of regional importance recognised by English Nature and Local Authorities	-

5.24 It is recognised that development, such as waste disposal beyond the boundary of the designated site, can have an effect on the designated site itself. This may result from alteration to the water table or drainage patterns, pollution or disturbance from site operations, machinery or traffic. Therefore, in assessing development proposals, account shall be taken of these indirect effects.

5.25 Where planning permission for waste development is granted, planning conditions and/or planning obligations will, where appropriate, be used to secure appropriate operation, restoration and after-care of sites to limit any damage to nature conservation interests to an acceptable level. Where damage is unavoidable, the developer will be required to provide replacement habitats and features. However, new areas are not an equivalent substitute for existing habitats. The County Council will liaise closely with English Nature and appropriate nature conservation organisations.

POLICY EP9

Proposals for waste developments will not be permitted where they would adversely affect, either directly or indirectly, sites of International Nature Conservation importance unless there are imperative reasons of overriding public interest and there is no alternative site. Where the site hosts a priority habitat or species, planning permission will only be granted where the development is necessary for reasons of human health or public safety or for beneficial consequences of primary importance for nature conservation.

Where development does proceed, it may be subject to planning conditions or where appropriate a planning obligation may be sought to secure compensatory measures necessary to maintain the overall coherence of Natura 2000.

POLICY EP10

Waste developments which would adversely affect, directly or indirectly, sites of special scientific interest will not be permitted unless, following the most rigorous examination, it can be demonstrated that the reasons for the waste development clearly outweigh the value of the site and no suitable alternative is available. Account will also be taken of any detrimental effect on the intrinsic nature conservation value of the national network of such sites. Where the site is also a National Nature Reserve or is identified under the Nature Conservation Review or Geological Conservation Review, additional regard will be paid to the particular importance of the site.

POLICY EP11

Waste developments which would adversely affect the integrity of sites of regional or local importance for nature conservation or protected species and their habitats will not be permitted unless, following careful consideration of the proposals, it can be demonstrated that the need for the waste development outweighs the intrinsic nature conservation value of the site and no suitable alternative site is available.

POLICY EP12

Where the County Council decides to grant permission for a waste development which is likely to adversely affect any site of nature conservation importance, conditions will be imposed requiring the developer to include measures to conserve the nature conservation value of the site or, where damage is unavoidable, to provide adequate replacement habitat and features.

Cultural Heritage

5.26 Northumberland contains a rich heritage of features of architectural, historic or archaeological interest, including Conservation Areas, Listed Buildings, Historic Parks and Gardens, Scheduled Ancient Monuments, Battlefield Sites, other archaeological sites and historic landscapes. Over 15,000 archaeological sites and historic features are known, of which 7,600 are so far registered on the County Sites and Monuments Record. Over 800 of these are Scheduled Ancient Monuments and this figure is likely to increase following a survey currently being carried out by English Heritage. The Hadrian's Wall Military Zone is a World Heritage Site. It is essential that sites and buildings of importance should be protected from waste developments which would irreparably damage them or destroy their settings.

5.27 Most waste developments involving disposal take place in the open countryside. However, such developments can still impact on the cultural heritage, notably archaeological sites, isolated buildings in the countryside and views of historic skylines. Some waste developments such as treatment facilities, recycling operations and other operations involving built development may take place in urban areas, with the potential to affect Listed Buildings and Conservation Areas.

5.28 Features of national and international importance will receive the highest level of protection. Sites and buildings of local and regional archaeological and historic importance must also be protected wherever possible. Where such areas are affected by proposals for waste developments, a judgement will be made concerning the relative importance of the historical feature and the need for the development. This will take into account the availability of

alternative sites and the degree to which the development can be designed to minimise damage to such areas.

POLICY EP13

There is a presumption in favour of the preservation of Hadrian's Wall. Waste developments will not be permitted where they would adversely affect Hadrian's Wall and its setting as defined on the Proposals Map.

POLICY EP14

There will be a presumption in favour of the preservation of scheduled ancient monuments and nationally important archaeological sites. Waste developments which would adversely affect these sites or their settings will not be permitted. Proposals which would adversely affect regionally important archaeological sites will only be permitted where the need for the development outweighs the importance of retaining the site unaltered and no alternative site is available.

POLICY EP15

There will be a presumption in favour of the preservation of listed buildings. Proposals for waste developments which would result in demolition of, damage to or will detract from listed buildings or their settings will not be permitted unless it can be demonstrated that the need for the development outweighs the importance of retaining the building in its unaltered form and no alternative site is available.

POLICY EP16

Waste developments which would be detrimental to the special character or appearance of Conservation Areas will not be permitted.

5.29 Where proposals for a waste development would affect an area containing sites of known or potential archaeological importance, the operator will be required to provide information in the form of an archaeological assessment. If this assessment indicates that important archaeological remains may exist, a field evaluation may be necessary. The general presumption will be in favour of *in situ* preservation of archaeological remains but, where this is not possible, the emphasis will be on making adequate provision for sites to be appropriately recorded and published.

5.30 In order to minimise future conflict and unnecessary expense, it is important that applicants discuss their preliminary plans with the planning authority at

an early stage, to establish the likely archaeological sensitivity of their proposed area.

POLICY EP17

Where proposals for waste developments affect sites of known or potential archaeological importance or where the relative importance and/or extent of such a site is unclear, the developer will be required to provide further information in the form of an archaeological assessment and where appropriate an evaluation. Where the County Council decides to grant permission for a waste development which will affect sites known to contain archaeological remains, and preservation in situ is not appropriate, such permission will be subject to a condition and, where appropriate, a planning obligation may be sought, to ensure the developer makes provision for the excavation and recording of the remains and publication of the findings.

Agriculture

5.31 Agriculture is the dominant land use in Northumberland, accounting for over 80% of the total land area of the County. Nevertheless, best and most versatile agricultural land, which comprises Grades 1, 2 and 3a under the DEFRA System of Agricultural Land Classification is scarce in Northumberland. No Grade 1 land has been identified to date, and only 3.2% is indicated as Grade 2 on the Provisional Agricultural Land Classification Maps for the County. Government Policy, as set out by PPG 7, is that the best and most versatile agricultural land should be protected as a national resource for future generations and that considerable weight should be given to protecting such land against development.

5.32 Much of Northumberland's waste will continue to be disposed of by landfilling in voids created by former mineral workings. The location of mineral workings and subsequent landfill is determined by the geology of the County. Minerals can only be worked where they occur and so there is not the same flexibility or choice of location as is the case for other types of development. Landraising is not limited in location to the same extent as landfilling in mineral voids. Waste facilities involving built development are also not so limited in choice of location, and are rarely located in open countryside.

5.33 It is important to resist waste developments on high quality agricultural land, whilst land of lower quality is available. Consequently, where development on this type of land involves landfilling or landraising, care should be taken to ensure that the land will be restored to its original agricultural quality. Unless such proposals can demonstrate that restoration to this standard is achievable then development will not be permitted on best and most versatile land unless there is no other suitable land.

5.34 The County Council will also take into account the impact of the loss of agricultural land on the viability of a farm unit. This is particularly important in the upland areas where the loss of better quality land in the valley bottoms may put out of use a large area of hill grazing. There is a significant relationship between stock rearing on the uplands and 'fattening' on the better quality land in the lowland areas.

POLICY EP18

The assessment of proposals for waste developments will take into account their impact on agriculture including the effect on land quality and farm structure and, where relevant, the prospects for reclamation to at least equivalent land quality. Proposals for landfill/landraising which affect the best and most versatile agricultural land (grade 1, 2 and 3a) will not be permitted unless:

- **it can be demonstrated that there is an overriding need for the development which could not be met from an alternative site; and**
- **it can be demonstrated that the land would be reclaimed without loss of its agricultural quality.**

Tourism and Recreation

5.35 Tourism makes an important and increasing contribution to the County's economy. The Structure Plan recognises that it is Northumberland's natural and historic assets which are the main attractions to tourists and day visitors. It is, therefore, important not to detract from these assets.

5.36 Waste disposal operations can provide an opportunity to enhance the environment through the reclamation and restoration of derelict land. Examples include increased woodland and hedgerow planting, the creation and management of water and nature conservation areas, improvement in land quality, the provision of recreation facilities, and other community benefits. Where such benefits are proposed they will be taken into account in assessing applications.

5.37 The countryside is used for informal recreation activities, such as walking, picnicking and visiting features of historic interest, as well as more active pursuits such as climbing, cycling and pony trekking. Waste developments in the open countryside, especially disposal sites where operations tend to take place outside, have the potential to detract from the enjoyment of such activities through visual intrusion, traffic generation, odour, disturbance from noise and their effect on public rights of way. Where existing rights of way cannot be retained, a suitable alternative route must be identified and dedicated by the developer.

POLICY EP19

The assessment of proposals for waste development will take into account their impact on tourism and recreation including after uses that would sustain those activities. Where proposals are permitted, existing public rights of way must be safeguarded wherever practicable. Otherwise, a suitable alternative route must be provided either by temporary diversion or dedication by the developer before development takes place.

Local Economy

5.38 Society produces wastes which require treatment and disposal, and national guidance advocates that waste is managed close to the point at which it is generated (the proximity principle). New waste management facilities will therefore need to be located within the County. The impacts of such facilities on the local economy will be felt in a number of different ways. Positive impacts include the creation or maintenance of jobs and associated indirect effects through the purchase of goods and services. Such impacts will be taken into account in assessing proposals. It is also necessary, however, to consider the impact of waste developments on other areas of the economy; the effect on efforts to promote the County as a location for inward investment and the effect on existing employment centres. For example, it would be inappropriate to locate waste management facilities in locations where they would have an adverse effect on sensitive users such as food manufacturers or pharmaceutical plants, or on modern industrial estates or business parks.

POLICY EP20

The assessment of proposals for waste developments will take into account their impact on the local economy, including jobs created or maintained, and the effect on other local businesses and inward investment.

Transport

5.39 A major concern with many waste developments is the transport of materials by road. As well as the wider effects of atmospheric pollution, the use of heavy goods vehicles for the transport of waste causes serious disruption and danger to affected communities and damage to the road network. In considering proposals for waste developments, the suitability of the local road network will be assessed. In order to reduce the environmental impact of heavy traffic, proposals for new waste developments should not transport material along minor roads which would cause unacceptable disturbance to local communities and the environment. This is important as larger waste disposal sites can generate a significant number of lorry movements a day. Certain types of waste facility, notably incinerators, require large volumes of

waste to make them an economic proposition. This would result in large numbers of vehicle movements. The County Council will seek to secure agreements with applicants in line with current guidance to ensure the use of approved lorry routes and will require operators to carry out highway strengthening and improvements before granting planning permission, where these are necessary considered to be necessary as a result of the waste proposal.

5.40 Other means of transport such as rail or water can be less damaging and County Council policies seek to ensure that heavy freight traffic will be handled by rail wherever possible. Proposals for waste developments should explore the feasibility of transporting waste by means other than the public road networks. Where this is practicable it will be regarded as a positive factor in the assessment of applications and suitable conditions will be imposed.

POLICY EP21

Proposals to use alternative means of transport to road will be regarded as a positive factor in determining applications for waste developments. The assessment of proposals will consider whether the waste can be brought to the site by means other than road transport. Where alternative methods are not possible account will be taken of the suitability of the road network to accommodate traffic; the routeing of traffic to avoid settlements; and the effect on highway safety, highway maintenance and the environment.

Water Resources

5.41 The Environment Agency is concerned with the possible impact of waste developments on water resources, flood defence, conservation interests and the potential problem of surface and groundwater pollution. One of the main concerns with waste disposal through landfill is the potential for the leachate generated to pollute groundwater and surface waters. Other waste facilities which involve the storage of waste can also have implications for water pollution. Runoff from sites can cause pollution if allowed to drain into the river systems. Waste disposal may result in the raising of ground levels. If this is done within a floodplain it may increase the risk of flooding elsewhere. Developments in areas which are at risk from flooding must be carefully considered because of the potential for pollution that this can cause.

POLICY EP22

The assessment of proposals for waste developments will take into account their effect on existing ground water levels, water abstraction, flood risk, and ground and surface water quality and the adequacy of measures which are put forward to mitigate any adverse effects. Planning permission will only be granted if the development presents no unacceptable risk to the surface or ground water environment and

in particular, water courses, and there would be no unacceptable risk of flooding to the development or elsewhere.

Operators' Proposals

5.42 The way in which a waste management facility is managed is crucial in environmental terms. Even if a site is acceptable in principle it can be made unacceptable by poor operating standards. Each operational and restored site is a company's shop window allowing the County Council to assess whether future proposals are likely to be operated and restored to an acceptable standard. The Government White Paper, 'This Common Inheritance', states that "operators must take account of best environmental practice and aim to be good neighbours".

5.43 Many operational matters will be dealt with by the Environment Agency at the waste management licensing stage. The role of the Agency is to prevent or minimise the effect of pollution of the environment, which it undertakes through the issue of licences with appropriate conditions. Government advice is that duplication between the waste regulatory role of the Environment Agency and the land use planning role of the Waste Planning Authority should be avoided. Matters relating to pollution are the responsibility of the Agency but other operational issues such as control of noise, dust, smoke and fumes, lorry numbers and routes, hours or operation, access, design, landscaping, standards of restoration and aftercare and final land-use are planning issues. The County Council works closely with the Environment Agency to ensure that the planning and regulatory functions are complementary.

POLICY EP23

The assessment of proposals for waste developments will take into account the operator's environmental performance. Permission will only be granted where the operator's proposals for the management, operation, restoration and after-care of the site are acceptable to the Waste Planning Authority.

Community and Environmental Benefits

5.44 Even after the inclusion of mitigation measures and the appropriate use of planning conditions, negative impacts are frequently experienced by the local community from waste developments. The County Council may therefore seek to negotiate community or environmental benefits in respect of such applications, for example to offset the loss of, or impact on any amenity or environmental resource present on the site prior to the development. Benefits will be sought only where they are necessary to the grant of planning permission, where they have a direct relationship to the development and are required to meet the needs arising from the development itself. Benefits may be sought either in the form of payment or

by the direct provision of facilities and will be secured through an agreement under section 106 of the Town and Country Planning Act 1990 between the developer and the Waste Planning Authority. The extent of the benefits will take place in parallel with discussions on the technical planning aspect of applications.

5.45 Members of the local community may identify the effects of a proposed development on their community through the consultation process and, where relevant, these effects will be considered as part of the technical assessment of the proposal. Any negotiations on planning obligations will include the identification of any related community or environmental benefits to remedy or compensate for the negative impacts of the scheme.

POLICY EP24

Where appropriate and necessary to the grant of planning permission, the County Council will seek to negotiate with waste operators, community or environmental benefits which are both fairly and reasonably related to the proposals and commensurate with the likely impact and scale of development.

6. WASTE MINIMISATION AND RE-USE

6.1 Waste minimisation is at the top of the hierarchy and is central to national policy on waste. It relates to two kinds of waste reduction. Firstly, reducing the quantity of solid waste that is produced and which would otherwise need to be processed or disposed of by one of the other options in the hierarchy and secondly, reducing the degree of hazard represented by such waste.

6.2 Waste minimisation is beginning to feature more prominently in the management systems of companies. This is mainly because of the cost savings which can be made in terms of managing the waste which is produced as well as cost of inputs to the production process. Better product design can also minimise waste through, for example, reducing packaging or designing longer lasting products or products which can be re-used or recycled. Consumers can also assist in waste minimisation by adopting more sustainable consumption patterns such as buying products with minimal packaging and not disposing of goods before the end of their useful life.

6.3 Because of the threat posed to human health and the environment by hazardous wastes, it is important that their quantities in waste arisings are minimised. This generally takes the form of regulations which restrict or prohibit harmful materials, such as asbestos or CFCs. These controls emanate from Government and are generally implemented by the pollution control regimes rather than the land-use planning system.

6.4 Re-using the waste which is produced is the second level of the hierarchy. It involves putting an item to another use after its original function has been fulfilled. It differs from recycling in that no processing is required, so it is considered as more sustainable. Re-use can take two forms. The first is where products are designed to be used a number of times before becoming obsolete, for example, re-useable milk bottles or re-useable transit packaging. The second is where new uses are found for items once they have served their original purpose, for example, plastic carrier bags used as bin liners.

6.5 The main advantage of minimisation and re-use is the savings in environmental and other costs associated with production, including raw materials, transport and processing. It also avoids or reduces the environmental impacts of waste disposal.

6.6 The Government is committed to reducing the amount of waste produced and intends to set a target for it in 1998. To help waste producers contribute to this, the Government intends to promote various strategies, focusing on disseminating information and advice, improving information databases, and commissioning research.

6.7 The County Council has no legislative powers to require waste producers to minimise or re-use the waste they generate. It is very much up to organisations and individuals to change their current practices in order to

minimise and re-use waste. Many of these will be in-house initiatives with few, if any, land use requirements. The County Council can have a positive impact on waste minimisation and re-use by ensuring that its own practices respect the hierarchy of waste management options and by encouraging and educating other waste producers to do the same. One project which the County Council has initiated is the development of the Northumbrian Waste Minimisation Club. In partnership with the Environment Agency and a number of local businesses the Club will encourage companies to incorporate waste minimisation into their operations in order to promote sustainable development. The Club has attracted European grant aid to support a feasibility study.

6.8 Encouragement and education are not functions that a land use plan can address directly. However, there may be cases where modifications or extensions to existing facilities are needed to incorporate reduction and re-use initiatives. A sympathetic approach to such development will be taken.

POLICY WM1

Proposals for developments which are required for the purposes of minimising or re-using waste will be permitted, provided that they conform to other policies in the development plan.

7. RECOVERING WASTE

Introduction

7.1 Recovery of materials from the waste stream to reduce the proportion of wastes requiring final disposal is the third level of the waste hierarchy. It is really the first level which the land use planning system can become directly involved with as most recovery operations require land or buildings. One of the advantages of recovering wastes from the waste stream is that it reduces the amount of waste going to landfill, thus prolonging the capacity of existing landfills for waste which cannot be dealt with in any other way. It also means that the amount of land given over to landfill can be reduced. The strategy to achieve more waste recovery in Northumberland, as set out in the Northumberland Waste Management Plan, concentrates increasing recycling and composting.

7.2 The waste hierarchy considers that recovering energy from waste should also be classed at this level. This includes utilising the methane gas produced from landfill sites and incineration with energy recovery. The National Waste Strategy explains that none of the recovery options should automatically be preferred to any other as this will depend on the Best Practicable Environmental Option for a particular waste stream. It states that an integrated approach, where each option contributes to the overall recovery of waste will usually be the preferred practice.

7.3 This Chapter provides a framework for facilitating proposals for recycling and composting and recovering energy from waste through incineration. Utilising landfill gas is set out in Chapter 8. It also sets out criteria to assess whether such proposals are acceptable, as it is recognised that, although these waste management options are more sustainable, they do have their own set of impacts which must be taken into account in order to protect people's quality of life and the environment of Northumberland.

Recycling

Introduction

7.4 Recycling involves processing waste to produce a usable raw material or product. Like any process, recycling has an impact on the environment. This includes impacts from the associated traffic, noise and dust from the operation, and visual intrusion, especially if waste is deposited in the open. The markets for recycled products can be unstable. This is an important consideration, as recycling is most sustainable when the products replace goods made from primary resources. In general however, recycling provides clear benefits over production from primary sources. These include conserving natural resources, energy savings and reducing the demand for landfill sites.

7.5 For these reasons, recycling has been given a high priority in national policy. The target of recycling (or composting) 25% of household waste by 2005 has been set. Although no specific targets have been set for recycling commercial or industrial waste, other strands of national policy will impinge upon them, such as increased use of alternative materials for aggregate uses and the landfill tax.

Recycling in Northumberland

7.6 Significant opportunities exist to increase the proportion of household waste which is recycled. However, there are economic and technical barriers to recycling schemes which explain why the recycling rate is currently so low. These relate to the large, mainly rural, nature of the County, with its low population density, and the distance that the waste is from the major recycling operators. These factors mean that large-scale recycling of household waste is not economic in many parts of the County, although the introduction of the landfill tax may reverse this position. Opportunities also exist to increase recycling of commercial and industrial waste. However, commercial waste faces similar problems to household waste. Industrial waste recycling tends to be more economic for larger companies, but in Northumberland there are relatively few large companies and a large number of small companies. There are no figures available for the quantities of commercial or industrial waste currently recycled in Northumberland.

7.7 These economic barriers may explain why investment in recycling facilities is, generally, not extensive.

Household Waste

Introduction

7.8 Recycling household waste relies on separating the recyclable element (glass, metal cans, paper and plastic) and collecting it. There are two main methods of collection - Bring Systems and Kerbside Collection.

7.9 Bring Systems involve free standing containers placed at specific locations where the public can deposit a variety of materials from glass bottles to textiles. These vary in size from small facilities in car parks to larger facilities on their own site collecting a wider range of material. The main advantage of this system is the availability of relatively clean materials amenable to further processing. However, the maximum rate of recovery is calculated to be around 15% of available household waste.

7.10 Kerbside Collection involves house-to-house collections of separated recyclables. The main advantage of this system is that up to 30% recovery rates are achievable. The major disadvantage is the high cost involved.

7.11 Once recyclables have been collected they are either sent straight to a merchant, if already adequately sorted, or to an interim facility for further treatment. These interim facilities are commonly known as material recycling facilities (MRFs). These range from a group of large purpose-built buildings dealing with a range of materials to small existing or converted buildings dealing with a few materials.

Household Waste Recycling in Northumberland

7.12 Household waste recycling in Northumberland is currently low. The District Councils' Recycling Plans identify increases in Bring Systems (and encouragement to home composting) as the main means of increasing recycling. This is mainly due to the high costs of implementing the Kerbside Collection System, exacerbated by the low population density of the County. A summary of each of the District's Recycling Plan proposals which require land is set out below:

- ALNWICK – To provide, maintain and monitor sites in the three main towns of Alnwick, Amble and Rothbury to enable specialised recycling companies to locate suitable equipment to recycle materials deposited by residents.

- BERWICK-UPON-TWEED – To provide 30 mini-recycling centres. The material will be delivered to a local recycling contractor for sorting, collection and onward transmission.

- BLYTH VALLEY – To provide 25 neighbourhood-based bring facilities in addition to the four existing centralised bring facilities. They will comprise six containers for glass, metal cans, textiles and newspapers. The material will be transported to the central depot in Wansbeck for separation and storage.

- CASTLE MORPETH - To provide 40 neighbourhood recycling sites, each containing three glass banks, one metal cans bank and one paper bank, with the possibility of including one for textiles and plastics at a later date. The material is transported to a central depot in Wansbeck where separation, sorting and storage take place. A composting scheme is also in place.

- TYNEDALE – To establish an itinerant waste bank system and provide 50 new mini-bank recycling centres, giving one per 500 dwellings, for glass, metal cans, paper/cardboard and ultimately textiles and plastic. A central compound will be required for the storage, sorting and baling of waste prior to transfer to a reclamation plant. Home composting will be promoted.

- WANSBECK – To re-site the larger recycling banks to provide four major recycling centres in large car parks serving major commercial centres or supermarket car parks, with an increase the number of modular recycling centres from 8 to 10 and the establishment of local collection centres. The materials collected will be expanded from glass, aluminium cans and textiles to also include steel cans, paper and plastic. The materials deposited at these facilities are taken to a central depot in the district for storage and separation. Home composting will be promoted.

7.13 The Recycling Plans were produced during 1992/93. There has been a move towards implementing the Plan's proposals, although this has been dependent on finance being forthcoming. For example, all the recycling centres in Castle Morpeth Borough now provide for the full range of materials. A Kerbside Collection system operates in part of the District for paper and the compostable fraction of the waste stream.

7.14 "Bring Systems" are likely to be the most commonly used method of household waste recycling in the short term. This will have land-use impacts and these are addressed below.

7.15 It is generally preferable for the recycling facilities associated with "Bring Systems" to be located close to where the waste is produced. This makes them more accessible and therefore more usable, and reduces the length of transport journeys. The best way of achieving this is to establish a hierarchy of sites based on mini-recycling centres, civic amenity sites and material recycling facilities.

Mini-recycling Centres

7.16 Mini-recycling centres (container banks) are proposed by the District Councils as waste collection authorities, in their Recycling Plans (see paragraph 7.12). These generally comprise free-standing container banks for individuals to deliver glass, cans, paper and textiles.

Impacts and Land-Use Requirements

7.17 Mini-recycling Centres need to be convenient for people to visit. This is normally done by locating them in areas where they can be visited as part of another trip, for example near to shops, in car parks or civic amenity sites. However, even such a small-scale recycling development can cause impacts during the process of filling or emptying, and care needs to be taken to ensure their location does not cause disruption to adjacent land-uses.

7.18 In assessing whether proposals can be satisfactorily located, account will be taken of the visual impact of the banks based on their location, size and prominence; the disturbance likely to nearby sensitive land uses during filling and emptying; and any traffic implications, particularly any possibility of congestion. The District Recycling Plans show that there is a commitment to provide such facilities in locations which are considered most suitable and to ensure that there are sufficient numbers to serve the population. This will go some way towards meeting the target set in the National Waste Strategy of providing easily accessible recycling facilities for 80% of households 2000.

7.19 To assist with this provision, local planning authorities should seek to ensure that major new developments, which will attract large numbers of people, provide recycling facilities. This would include large shopping developments, housing developments, and major recreational and leisure facilities.

POLICY RE1

Proposals for mini-recycling centres will be permitted if they make a contribution to the establishment of an accessible network of centres, as identified for example in the Northumberland Waste Management Strategy or in the Recycling Plans of District Councils; provided that they do not adversely affect surrounding land uses and the traffic generated can be satisfactorily accommodated. In assessing this, account will be taken of the potential for noise, odour, visual intrusion, disturbance from traffic and possible mitigation measures.

Civic Amenity Sites (Household Waste Recovery Centres)

7.20 A civic amenity site, or household waste recovery centre, is a facility at which householders can deposit items of household waste free of charge. They are provided by the County Council, as waste disposal authority. They could also be provided by the private sector. A network of civic amenity sites is already in place in the County. These are generally well related to the population, providing a good framework for establishing recycling facilities. A further advantage is the opportunity provided for sorting the waste, making recycling easier. Until early 1998 a network of 15 civic amenity sites was in place in the County. Due to a very difficult budget settlement for the year 1998/99 nine of these fifteen sites were closed on a temporary basis, two of which (Sisters, near Widdrington Station and West Woodburn) have now closed permanently. Despite the temporary closure of some civic amenity sites, the County Council remains committed to identifying the resources to enable a suitable network of sites to be provided. Of the nine sites which closed on a temporary basis in 1998, eight have subsequently reopened.

Impacts and Land-Use Requirements

7.21 Civic amenity sites do not require large sites. They need to be located close to the main centres of population. However, because of their impacts, locations need to be carefully selected.

7.22 One of the greatest impacts is from the traffic delivering items to them. Most trips made to civic amenity sites will be by car. Care needs to be taken to ensure that the access is suitable. The types of waste generally disposed of are large, bulky but relatively innocuous materials. Green waste is also deposited. There is still the potential for odours, although this is limited. Proposals should seek to minimise visual impact, by careful choice of location or through landscaping measures. Although they provide an opportunity for recycling, much of the waste deposited is taken for final disposal. There would be environmental advantages, in terms of reduced traffic movements, if civic amenity sites were developed adjacent or close to landfill sites or transfer stations.

POLICY RE2

Proposals for additional civic amenity sites will be permitted provided that:

- **they can be satisfactorily located within or adjacent to a landfill site or transfer station or other location close to the source of waste and well served by the transport network; and**
- **they provide facilities for the recycling of waste; and**
- **they can be adequately screened.**

In assessing whether proposals can be satisfactorily accommodated, account will be taken of:

- **the contribution they would make towards the establishment of an accessible network of sites, especially in the rural areas;**
- **traffic volumes and the adequacy of the road network;**
- **the nature of surrounding land uses;**
- **the potential for noise, odour, visual intrusion and possible mitigation measures; and**
- **any increase in environmental impacts which would result.**

Material Recycling Facilities

7.23 A material recycling facility (MRF) acts as an interim facility where collected waste can be sorted, washed, stored or bulked-up (storing the material until a larger quantity is obtained). MRFs also have the potential to add value to materials recovered, for example by the granulation of recovered plastics or the pre-treatment of timber wastes. They can use purpose built buildings or make use of existing buildings.

7.24 Northumberland has one materials recycling facility located at West Sleekburn in Wansbeck. It receives the waste deposited in mini-recycling centres and source separated municipal waste. Although already sorted to a degree, further sorting, bailing and bulking-up of the paper, metal cans, plastics and glass is undertaken. The materials are then stored until a sufficient load has been collected for onward transport to recycling companies. Other Districts also make use of this MRF for some of the waste taken to their mini-recycling centres.

7.25 To help make recycling more economic (through achieving economies of scale), and therefore increase the amount of recycling undertaken, additional

MRFs are required in the County. Although some of the Districts have indicated a need for such developments, in particular Tynedale, their development is dependent on finance being available for recycling. So far, this has not been forthcoming.

Impacts and Land-Use Requirements

7.26 The land and buildings required depends on the size of the facility, which, in turn, depends on the amount and types of waste being brought in and the treatment being undertaken. Proposals which may come forward in the plan period are likely to be either small scale facilities, the size of a small factory unit taking waste from 2 to 3 Districts, or a larger sub-regional facility serving a wider area.

7.27 MRFs can require a large number of deliveries and collections of material, although the scale of operations likely in Northumberland will not generate the same number as in other areas. In the absence of suitable rail connections, this will be by road. They may also involve some heavy mobile machinery which could be used inside or outside, and conveyors and baling equipment. The main impacts will stem from the lorries, noise from the lorries and the actual process at the MRF and visual intrusion from any outside activities or the buildings associated with the MRF.

7.28 Because of these impacts, it is generally appropriate for MRFs to be developed in industrial areas, although such locations will still be carefully assessed, in particular against Policy EP20 and paragraph 5.38. In addition, because operations will be required to take place in buildings to reduce impacts, the development will have the appearance of a factory or warehouse. Alternatively there would be environmental advantages, in terms of reduced traffic movements, if MRFs were developed adjacent or close to civic amenity sites, waste transfer stations, or landfill sites. In the case of landfill sites, the MRF would have to be removed on completion of the landfill operation, to avoid the establishment of free-standing industrial units in the open countryside.

POLICY RE3

Proposals for material recycling facilities will be permitted on an industrial site or adjacent to a civic amenity site, waste transfer station or landfill site, if it makes a contribution to the establishment of an accessible network of facilities as identified as identified for example in the Northumberland Waste Management Strategy or in the Recycling Plans of District Councils; provided that it can be satisfactorily located; and sorting, processing and, where appropriate, storage, takes place within covered premises.

In assessing whether proposals can be satisfactorily accommodated, account will be taken of:

- **type and volume of waste;**

- **traffic volumes and the adequacy of the road network;**
- **the nature of surrounding land uses;**
- **the potential for noise, dust and odour, and possible mitigation measures;**
- **the potential for visual intrusion, in particular the height of any outdoor storage, and screening measures; and**
- **any increase in environmental impacts which would result.**

In the case of MRFs on landfill sites, permission will only be granted for the life of the landfill operation.

Industrial and Commercial Waste

Introduction

7.29 Industry is a major producer of waste, much of which has the potential to be recycled. It is common practice for industry to recycle waste within their production process. Such in-house recycling will generally not have land-use implications as it is built into the production process. However, there may be cases where land is required to enable an industry to recycle waste produced.

7.30 There is currently no national target for the recycling of commercial waste, although Producer Responsibility requirements for packaging mean that companies will have to reassess the facilities needed for the recycling of packaging. Commercial waste often comprises those waste materials which are most easily recycled, such as paper and packaging. In addition, commercial waste often contains a higher proportion of one waste type, thus making recycling easier. There are, therefore, opportunities for recycling this type of waste.

Industrial and Commercial Waste Recycling in Northumberland

7.31 Industry is a large producer of waste in Northumberland. Industrial waste accounted for 16% of the total waste produced in 1993. This rises to 44% if special and building/construction waste is included. Much of this waste has the potential to be recycled. This falls into three categories:

1. recovery of various chemicals such as solvents, for re-use;
2. material reprocessing (e.g. paper, board, metal);
3. materials used to recover heat or used as secondary fuel supplements.

7.32 The Waste Management Plan found that the main barriers to recycling are lack of collectors, lack of capacity to sort and store such wastes prior to collection, the economics of the process and contamination. This Plan cannot address all of these issues, but where they have land use implications, they are considered in the policies.

7.33 Many industries have traditionally sought to recycle suitable waste material in-house. This is often built into the industrial process and may not require additional land or planning permission in some cases. However, there is potential to recycle more industrial waste, in particular paper, board, plastics and aluminium. Additional facilities may be required to assist this, either at the industrial unit itself or at an outside recycling facility.

7.34 Commercial waste accounted for 7% of the total amount of waste produced in Northumberland in 1995/96. Almost half of this consisted of paper or card, which can be easily recycled. Although easily recycled, such materials often have little or no economic value. When added to the large number of small outlets and the large area of the County, collection of the material for recycling tends to be uneconomical. Recycling of commercial waste may therefore be quite low. However, as the costs of disposal increase, commercial interests may look to recycling more.

Impacts and Land-Use Requirements

7.35 Where recycling of industrial and commercial waste is proposed, it is preferable that this happens close to where the waste is produced in order to reduce the number and distance of transport movements. This could be adjacent to a factory or commercial centre. The benefits of reduced transport would have to be balanced against the potential impacts which such facilities may have on surrounding land uses in terms of noise, dust, visual intrusion and odour. If this type of location is not appropriate, then facilities should be located on industrial sites which are well served by the transport network. This is because recycling has similar impacts to an industrial process, in particular noise, dust, odour, visual intrusion and the potential for large volumes of traffic. However, the suitability of this type of location will still be carefully assessed, to ensure that these facilities do not have an adverse impact on surrounding land uses and development of the industrial site is not prejudiced. The requirements of Policy EP20 and paragraph 5.38 are particularly relevant.

POLICY RE4

Proposals for the recycling of industrial waste and commercial waste will be permitted, provided that the facilities can be satisfactorily located at or adjacent to the source of the waste or on an industrial site.

In assessing whether proposals can be satisfactorily accommodated, account will be taken of:

- **the volumes and type of material to be recycled;**
- **the nature of the surrounding land uses;**
- **the potential for noise, dust and odour and possible mitigation measures;**
- **the potential for visual intrusion in particular the height of any outdoor storage, and screening measures;**
- **traffic volumes and the adequacy of the road network; and**
- **any increase in environmental impacts which would result.**

Construction and Demolition Waste

7.36 Construction and demolition waste (now classed as industrial waste) accounted for the largest proportion of waste produced in Northumberland in 1993 (27%), although this had decreased in 1995/96. Opportunities do exist to increase the recycling of this material. However, at present they are virtually excluded from construction contracts which would be a large market for them to serve. This is because such projects specify high grade materials. However, there is demand for this waste at landfills as cover material, for the construction of site roads and for site restoration.

Impacts and Land-Use Requirements

7.37 Recycling this type of waste generally involves crushing operations which can result in noise and dust. There is the potential to establish recycling facilities at construction/demolition sites, which has the benefit of reducing transport movements and containing the impacts on one site. As construction/demolition sites are not permanent land-uses, the construction/demolition activities which produce the waste that can be recycled, cease at some point and another use of land emerges. It is generally inappropriate for the recycling to continue as the source of the waste has gone and it may be incompatible with the new use. In these cases the recycling facility may be appropriate, provided that it is removed on completion of the construction/demolition operation. An alternative may be to locate such facilities at landfill sites which accept that type of waste, or mineral working sites, provided that the recycling operation is removed on completion of the landfill or mineral development. Care should be taken to avoid prolonging the life of the mineral or landfill operation by introducing the recycling development. Consideration will be given to the implications for achieving restoration of the site within a reasonable timescale together with the benefits which recycling may bring.

7.38 There may be a need for more permanent recycling facilities. Such facilities should be located on industrial sites which are well served by the transport network. However, the suitability of this type of location will still be carefully

assessed, to ensure that these facilities do not have an adverse impact on surrounding land uses, and development of the industrial site is not prejudiced. The requirements of Policy EP20 and paragraph 5.38 are particularly relevant.

POLICY RE5

Proposals for the recycling of construction/demolition waste will be permitted, provided that they are:

- **within or adjacent to a landfill site which accepts the type of waste to be recycled, for the life of the related disposal operation; or**
- **within or adjacent to a mineral working site for the life of that mineral operation; or**
- **at a demolition/construction project, for the life of that project; or**
- **on industrial land used for or allocated to business uses which because of their nature require a location where they will not impact adversely on surrounding land-uses.**

In assessing whether proposals can be satisfactorily accommodated, account will be taken of:

- **the volumes and type of material to be recycled;**
- **the nature of surrounding land-uses:**
- **the potential for noise, dust and odour and possible mitigation measures;**
- **the potential for visual intrusion, in particular the height of any outdoor storage, and screening measures;**
- **traffic volumes and the adequacy of the road network;**
- **any increase in environmental impacts which would result; and**
- **any implications for restoring the existing landfill or mineral site.**

Composting

Introduction

7.39 Waste composting is the aerobic processing of biologically degradable organic wastes, such as garden or kitchen waste, to produce an end-product (compost) which can be applied to land to improve soil structure and enrich the nutrient content of soil. Composting is carried out at different levels, from individual households to large-scale commercial facilities operated by local authorities or private companies.

7.40 Composting can offer benefits for the waste disposal process by removing organic waste from final landfill, so reducing methane emissions and the threat of groundwater pollution. The end product can be used as a substitute for peat, although its quality is dependent upon the nature of the wastes used. Composting can have environmental impacts, notably odour, liquid effluent, transport and vermin, although those impacts will depend upon the nature of the wastes used and the standards of operational practice.

Composting in Northumberland

7.41 There is one composting facility in Northumberland at West Sleekburn in Wansbeck District. A further site within Ellington Road landfill site, near Ashington, has planning permission for a composting facility. The Government encourages composting as a waste management option and this is reflected in the Waste Management Plan which identifies composting as a preferred option for reducing the amount of waste going to final disposal during the plan period. The District Recycling Plans include home composting schemes as a significant element in achieving the 25% recovery target. This type of composting does not come within the control of the land-use planning system. To achieve significant increases in recovery, larger scale composting operations will be needed in the form of central composting facilities. This is also recognised in the National Waste Strategy, which sets a target for all waste disposal authorities to cost and consider the potential for establishing central composting schemes. In line with this, Northumberland County Council commissioned a feasibility study into the setting up of a county-wide composting scheme. This concluded that a central facility in the south east of the County would be most appropriate. Proposals for additional facilities may well come forward during the plan period.

Impacts and Land-Use Requirements

7.42 In terms of built development, a composting facility generally comprises a hardstanding area upon which the waste reception, shredding and composting activities are undertaken, a series of bays where screened compost is stored prior to bagging, and some form of office accommodation. Large-scale schemes may involve the process being undertaken in an enclosed industrial-type building.

7.43 Even a fairly small composting facility can give rise to impacts on local communities or the environment, due to the nature of the process. Composting breaks down organic waste, which is an odorous process. This process is normally undertaken outside, in windrows, with the material being turned every so often. Odours can arise if the process is not properly controlled. Visual intrusion can result, although the built development and area of open land associated with the scale of composting facility possible in Northumberland is unlikely to give rise to significant visual impacts. Water pollution can be a potential problem, especially from surface run-offs. Such a use can generate a large number of lorry movements, with the associated impacts this brings.

7.44 It will, generally, be acceptable for new composting facilities to be located at landfill sites which accept the wastes used in the composting process. This will ensure that the adverse environmental consequences, particularly in terms of odours, liquid effluent, transport and vermin, are limited. Alternatively, sites in the open countryside, such as sites associated with existing farmyard development, existing buildings, redundant agricultural premises, airfields or colliery sites may be acceptable, provided that the proposal can be assimilated into the landscape, and the highway network, can satisfactorily accommodate the traffic generated. In addition, care needs to be taken to ensure that the number and length of transport journeys are not increased significantly. Such locations should not therefore be too remote from the source of the waste or the markets for the finished product. Large-scale composting schemes have the potential to generate more intense impacts in terms of odour, groundwater pollution, visual impact, traffic, noise and vermin. It maybe appropriate to locate facilities which are industrial in nature on industrial land, provided that there would be an adverse impact on surrounding land uses and the development of surrounding industrial areas is not prejudiced. The requirements of Policy EP20 and paragraph 5.38 are particularly relevant. Account will be taken of measures to reduce impacts such as enclosure of materials and the use of bio-filters.

7.45 In assessing whether the proposed facility can be satisfactorily accommodated in an area, particular account will be taken of the need to safeguard local communities from unacceptable noise, dust, odour or other emissions, pests, vermin, or other loss of amenity. These problems can arise if the composting facility is not managed to a high standard and properly controlled. The assessment of the operator's proposals for the management and operation of the facility will therefore be rigorous. Of utmost importance is a co-ordinated approach between the waste planning authority and the District Council Environment Health departments in assessing proposals and monitoring operational sites.

POLICY RE6

Proposals for waste composting facilities will be permitted provided that they make a valuable contribution to the establishment of an accessible network of facilities as identified for example in the Northumberland Waste Management Strategy or in the Recycling Plans of District Councils and they can satisfactorily located;

- **within or adjacent to landfill sites which accept the type of waste to be composted; or**

- **within an existing farm complex or make use of existing buildings in the open countryside, are reasonably located close to the source of the waste, and the traffic generated can be satisfactorily accommodated; or**

- **in very special circumstances (and other than in the circumstances outlined above) in the open countryside provided they can be satisfactorily assimilated into the landscape, are reasonably located close to the source of the waste and the traffic generated can be satisfactorily accommodated; or**

- **on industrial land used for or allocated to business uses which because of their nature require a location where they will not impact adversely on surrounding land-uses.**

In assessing whether proposals can be satisfactorily accommodated, account will be taken of:

- **the type and volume of waste;**

- **the traffic volumes and the adequacy of the road or rail network;**

- **the nature of surrounding land-uses;**

- **the need to safeguard local communities from unacceptable noise, dust, odour or other emissions, pests, vermin, or other loss of amenity;**

- **the potential for visual intrusion, in particular the height of any odour storage, and screening measures;**

- **any increase in environmental impacts which would result; and**

- **the operator's proposals for the management, operation, restoration and after-care of the site.**

ENERGY FROM WASTE

Introduction

7.46 Obtaining energy from waste can be achieved through burning it at high temperatures and recovering the heat for a beneficial purpose. This may be to provide steam or hot water for industrial or domestic users or for electricity generation. The incineration of waste can be a controversial issue. This centres on the potential environmental problems, perceived or otherwise, of the emissions to the atmosphere. In 1989, two EC Directives introduced the first major EU-wide initiatives to raise environmental standards for waste incineration. These Directives and UK legislation required all new incineration plant to comply with strict limits for dust, acidic gases and heavy metal emissions. Further tightening of EU-wide incineration emission limits is proposed with a new Directive likely to come into effect in 2000 and all current and proposed plant will have to comply with this. The Royal Commission on Environmental Pollution, in its 17th report, accepted that modern incinerators/energy from waste plants operate to much higher standards and strongly advocated the increased use of incineration with energy recovery for the disposal of controlled waste. The control of pollution regime is operated and enforced by the Environment Agency and works in parallel with the planning regime.

7.47 Recovering energy from waste offers certain advantages, for example: it reduces the volume of waste for final disposal by about 90%; it is the Best Practical Environmental Option for certain waste types such as toxic, inflammable and infectious wastes; it converts organic wastes to biologically less active forms; and can produce a significant amount of generated electricity and heat. Opportunities for energy from waste have improved as a result of changes in the electricity market. The most important of these is the Non-Fossil Fuel Obligation (NFFO), which allows the Secretary of State to require regional electricity companies to contract to buy a specified amount of electricity from renewable energy sources, including energy from waste.

7.48 Energy from waste plants will require long-term contracts with large guaranteed volumes of waste to make operations viable and offset the high initial capital outlay. This may restrict the choice of future waste management options unless the plant is considered as part of an integrated waste management strategy. There is concern that building a large plant, which optimises economies of scale, will decrease the amount of waste which is recycled. Energy from waste plants, therefore, need to be sized to take account of likely achievements in recycling, composting etc. Evidence from other European countries shows that energy from waste schemes can be combined with high recycling and composting rates. Metals can be removed and recycled (before or after incineration) and removal of organic waste for composting increases the calorific value of the remaining waste.

7.49 Energy from waste is used for a range of waste types, but most commonly for household waste and to reduce the hazard of clinical waste and certain special wastes. Incinerators dealing with the latter two waste types tend to

be restricted to that particular waste stream, and may not involve energy recovery. Incineration without energy recovery is covered in Chapter 8.

7.50 The Waste Management Plan did not identify an energy from waste plant as a preferred option because, at that time, it was not considered to be an economically viable option given the relatively small amount of waste produced in Northumberland. It does state that there may be the potential, in the longer term, for the sharing of a plant between the urban areas in the south-east of the County and the metropolitan boroughs of Newcastle-upon-Tyne and North Tyneside in Tyne and Wear.

7.51 As the cost of landfill continues to rise due to the effects of landfill tax and the imposition of increasingly stringent environmental standards, the possibility of energy from waste becoming a viable option increases. This plan, therefore, sets out a planning framework for assessing a plant capable of taking waste from Northumberland and parts of Tyne and Wear.

7.52 The County Structure Plan sets out the County's strategic policies on waste management. Policy M11 aims to encourage proposals for recycling, measures to minimise waste and the production of energy from waste, subject to criteria set out in Policy M10.

7.53 Energy from waste plants are likely to be either large scale facilities taking over 100 tonnes of waste (household, industrial and commercial) per day from a number of different locations, or smaller facilities dealing with an individual waste stream at the premises where the waste is produced.

Impacts and Land-Use Requirements of Large-Scale Energy from Waste Plants

7.54 Energy from waste plants require large volumes of waste to be economic, generating large volumes of road traffic if alternative transport modes are unavailable. To minimise transport distances they should be located close to the source of the waste. This will usually mean urban areas. It is, in effect, an industrial process. It requires a large land take of up to 8 hectares, can have a significant visual impact due to the large buildings and chimney and has the potential to generate noise, emissions and odour. There can be implications for airports in the vicinity due to the height of the chimney. This suggests that industrial areas containing special industrial uses are the most suitable location. These are usually located in urban areas, but away from residential and other sensitive land-uses and are, generally, well served by transport routes. However, the suitability of this type of location must be carefully assessed, as energy from waste plants may be incompatible with business parks or "clean industries". It is, therefore, important to ensure that proposals do not have an adverse impact on surrounding land-uses and the development of the industrial site is not prejudiced. The requirements of Policy EP20 and paragraph 5.38 are particularly relevant. High standards of design and landscaping will be required because of the visual prominence of the plant, particularly the tall chimney.

7.55 It is recognised that there may be a need to build a sub-regional energy from waste facility to serve the needs of Northumberland, North Tyneside and Newcastle-upon-Tyne. Such a facility needs to be located close to the areas which generate the waste and where links to the national grid can be obtained, and sites will need to be considered in all three local authority areas. Should there be a proposal for an energy from waste plant in Northumberland, it should be located within the south east of the County to minimise the transportation of waste. The most appropriate location for large scale industrial development is in the Cambois Industrial Area. The County Structure Plan and Wansbeck District Local Plan define a zone of economic opportunity in the Cambois area within which smaller areas are allocated for industrial development. There are a number of industrial areas within the zone with potential to accommodate an energy from waste plant, although not all those allocated for industrial development will be suitable. Consideration will be given to the impact of the proposal on the wider regeneration of the area and in particular on attracting inward investment to the area.

POLICY RE7

Proposals for large scale energy from waste plants will be permitted provided that:

- **the benefits of the proposal (including any that may result from advances in technology) clearly outweigh any potential environmental damage which may result; and**
- **there is a demonstrable need for the facility in this location following an assessment of alternative sites and the proposal does not conflict with other policies in this Local Plan; and**
- **the proposal contributes to an integrated scheme or network of waste management facilities and is well located in relation to waste generation patterns; and**
- **the plant is sited in an appropriate industrial or redundant industrial location; and**
- **the plant would not significantly adversely affect residential areas and other industrial areas in terms of visual intrusion, noise and other emissions; and**
- **the plant would not significantly adversely affect, either directly or indirectly, landscape character, nature conservation and heritage interests; and**
- **waste can be brought to the site by means other than road transport, or where alternative methods are not possible, a**

dedicated road connection to the primary road network or an agreement on improving the local road network is provided; and

- **the site access can satisfactorily accommodate the traffic generated without adverse impact on local communities; and**

- **all treatment and processing activities are housed within the building and the design of the building contributes positively to the overall environment; and**

- **all structures required for connection to the national grid are located to minimise their impact on the environment and any power cables required are placed underground, where appropriate; and**

- **the proposal includes landscaping measures and measures for the creation of habitats which will contribute to the improvement of the environment in the area; and**

- **the proposal is accompanied by an Environmental Statement and includes measures to minimise impact on the environment.**

Impacts and Land-Use Requirements of Small-Scale Energy from Waste Plants

7.56 Smaller plants dealing with an individual waste stream, such as industrial or hospital waste, should be located at the premises where the waste is produced. Nevertheless, the proposal will need to be carefully assessed to ensure that there is no adverse impact on residential areas, other surrounding land uses or landscape and conservation interests. High standards of design and landscaping will be required because of the visual prominence of the plants.

POLICY RE8

Proposals for small scale energy from waste plants will be permitted where:

- **they are located at the premises where the waste is produced; and**

- **the plant would not significantly adversely affect residential areas and other surrounding land uses in terms of visual intrusion, noise and other emissions; and**

- **the plant would not significantly adversely affect, either directly or indirectly, landscape character, nature conservation and heritage interests; and**

- **all treatment and processing activities are housed within the building and the design of the building contributes positively to the overall environment; and**

- **all structures required for connection to the national grid are located to minimise their impact on the environment and any power cables required are placed underground where appropriate; and**

- **where appropriate, the proposal includes landscaping measures and measures for creation of habitats which will contribute to the improvement of the environment in the area; and**

- **the proposal complies fully with other relevant policies in the Waste Local Plan.**

8. DISPOSAL

Introduction

8.1 Disposal is at the bottom of the waste hierarchy and is the option which should be considered last when deciding how to manage waste. It comprises landfill and incineration without energy recovery, although utilising landfill gas is also considered in this Chapter. Landfill is the controlled deposit of waste to land and it normally involves the filling of voids created by mineral extraction or other hollow land. It can also involve the deposit of waste above ground level. This is known as landraising.

8.2 Chapter 7 discussed the options available to Northumberland for reducing the amount of waste requiring final disposal. The recovery options will play a part in reducing the amount of waste going for final disposal but these will not be sufficient to completely remove the need for disposal in Northumberland.

8.3 This situation is common throughout the country, and is recognised by national policy. The National Waste Strategy points out that it will continue to be necessary to dispose of large volumes of waste in the distant future and it cannot "foresee a time when the need for disposal can be completely avoided". In addition to being required to manage the waste which cannot realistically be re-used or recovered, landfill may remain the Best Practicable Environmental Option for certain waste streams, and will be required to dispose of the residues from other waste management options such as the solid residues from energy from waste plants, which cannot be dealt with any other way.

Landfill

Introduction

8.4 Even though landfill is an option at the bottom of the hierarchy, it can still offer advantages. These include its ability to accept a wide range of waste types, its use as a means of restoring mineral voids and the potential to use the gas generated as a source of fuel for heat or power generation. The main disadvantages of landfill are its potential to generate pollution through the gas and leachate produced and, as with other waste management options, the potential to create nuisance through noise, odour, dust, traffic and visual intrusion.

8.5 The National Waste Strategy stresses how important it is to develop a strategy for landfill which:

- minimises the risk of environmental damage;

- avoids today's landfill practices causing environmental problems in the future;
- makes optimum use of suitable void space; and
- maintains pressure towards waste minimisation.

Some of these, notably the first two, will fall to the pollution control regimes to consider. However, the land use planning system can exert some influence over them by guiding the location of new sites and ensuring proposals are environmentally acceptable. The policies for landfill developments set out in this chapter aim to do this.

Landfill in Northumberland

8.6 Landfilling is currently the major waste disposal option for the County. As stated in paragraph 8.2, it will continue to play a role in the County over the plan period, because the waste reduction methods cannot completely remove the need for final disposal. An additional advantage that it has for Northumberland is that it is well suited to relatively small amounts of waste produced over a large area. Table 4.1 sets out details of the current landfill sites.

8.7 Having accepted that landfilling of waste will continue during the plan period, the aim should be to make it as environmentally acceptable as possible. Steps to achieve this have already been initiated, and are likely to result in a fundamental change in the current network of sites in the County. Increasingly stringent standards have been imposed on landfill operations to ensure they are operated in an environmentally acceptable way. These have been imposed by the land-use planning system and by the controls imposed through waste management legislation. The number of small sites with low rates of input is likely to fall significantly due to the relatively high level of expenditure required to meet these new environmental standards. Some sites will reach their capacity before the end of the plan period. It is likely that waste will be diverted to fewer, but larger sites, which are able to justify the large investment required to prepare, operate, restore and provide after-care to the standards now set.

8.8 Because of these stringent standards, the Waste Management Plan considers that landfilling can remain an environmentally acceptable option for Northumberland over the next ten years.

Future Landfill Development in Northumberland

8.9 Taking account of the national targets for landfill reduction and trends within the industry, the strategy for future landfill development involves concentrating activities at fewer but larger sites, well placed to serve the population of the County, whilst being appropriately located to minimise

disturbance to local communities and the environment. The advantages of this approach are that the larger sites are more likely to be operated in an environmentally acceptable way and what disturbance there is will be limited to fewer areas. It will also provide the opportunity for a gradual reduction in landfill capacity, as waste reduction methods become more effective and the effects of waste minimisation and re-use are felt. The main disadvantage of this approach is the potential to increase the length of transport journeys.

8.10 To implement this strategy, three existing landfill sites at **Seghill, Ellington Road** and **Harecrag** have been identified as the sites where future activity should be concentrated (Inset Maps 1-3). These sites have been chosen because of their ability to meet the requirements of the strategy. That is:

- Landfill operations are already committed there, they are suitably located for that type of operation in terms of surrounding land uses and mitigation measures are already in place;
- They are able to take biodegradable and non-biodegradable wastes (household, commercial, industrial and inert wastes);
- They have reasonable capacities remaining (see Table 4.1); and
- They are well related to the main sources of waste, including good transport routes between the sources and the sites.

8.11 Future disposal activity should be concentrated at these three sites.

Seghill

8.12 At existing waste inputs, Seghill landfill site has a remaining life of 8 years. Any extension to this site is likely to be achieved by a vertical extension rather than increasing the site's lateral boundaries. In order to achieve optimum final restoration contours for the site and an improved final landform it is likely that a planning application will be submitted by the operators in the early part of the plan period. Such a planning application should address the following issues:

- visual impact of the proposal;
- impact on the Green Belt, paying particular attention to the provisions of Policy EP7;
- impact of the proposal on local communities; and
- impact of lorry movements.

Ellington Road

8.13 At existing waste inputs, the remaining tipping life of Ellington Road landfill site is longer than that at Seghill and extends well beyond the Plan period.

Initiatives for the expansion of recycling schemes, composting schemes and energy from waste are likely to impact on the amount of waste going to landfill and could lengthen the life of a site. However, the closure of the Harecrag landfill site will mean that additional waste will be redirected to the Ellington Road site. The Municipal Waste Strategy being produced jointly by the County and District Councils will consider all the options available for the management of waste and establish the appropriate mix of options for Northumberland in order to develop a fully integrated waste management system. The outcome of this strategy, together with information on how waste recovery schemes will impact on the amount of waste going to landfill, will inform the assessment of when an extension to Ellington Road landfill site may be required. Any extension to this site should be achieved by a vertical extension and in order to obtain optimum final restoration contours for the site it may be beneficial to design and begin to implement a scheme within the plan period. However, such a planning application should provide evidence to show how it contributes to an integrated scheme or network of waste management facilities and include proposals to minimise the visual and other environmental effects of the proposal.

Harecrag

8.14 Tipping at Harecrag takes place within an old whinstone quarry. The existing planning permission provides for the quarry to be filled only partially. Any extension to this site should be achieved by vertical extension to allow the formation of appropriate restoration gradients and create an improved final landform. Such an extension would lengthen the life of the site by up to 4 years allowing it to continue to serve the Districts in the north of the county and reduce the need for longer traffic movements.

8.15 Proposals for landfilling at these three sites will still have to demonstrate that there will be no significant adverse effects on local communities or the environment and will have to comply with other relevant policies in the Plan.

POLICY DP1

Proposals to provide additional landfill capacity at the strategic sites of Seghill, Ellington Road and Harecrag will be permitted, provided that there are no significant adverse effects on local communities or the environment, the proposal complies with other relevant policies in the plan and contributes to an integrated scheme or network of waste management facilities.

8.16 Apart from these three strategic sites there is further landfill capacity at ten other sites in the County. These sites take a variety of waste types and serve the more rural parts of the County. There may be need for additional landfill capacity for household, industrial, commercial or construction and demolition waste. However, proposals for landfill development will only be approved where there is a demonstrable need for the site which cannot be met from an existing site, including those in neighbouring local authority

areas. This serves several purposes: It will ensure that optimum use is made of existing void space; limit the void space available in an attempt to stimulate a move up the waste hierarchy; and ensure better management of resources in the interests of sustainable development.

8.17 In assessing whether there is a need for a site, account will be taken of the contribution which would be made to: the establishment of an adequate and integrated network of waste management facilities; the achievement of regional self-sufficiency; and the Proximity Principle. It is recognised that landfill proposals can give rise to positive factors. Such benefits can include the reclamation of voids created by mineral extraction, or the improvement of degraded or derelict land. These advantages are recognised and landfill sites may be approved if benefits to the area in which they are proposed were to result.

8.18 It is, generally, preferable to extend existing sites rather than allow operations to develop on Greenfield sites. Extensions to an existing operation would only be acceptable if the operation is suitably located and the extension would cause no significant adverse effect on local communities or the environment.

8.19 Inactive wastes, such as soil, bricks, and concrete, have a low pollution potential, and can, therefore, often be landfilled without giving rise to the main problems associated with the disposal of biodegradable waste. This type of material also has the potential for re-use or recycling and this should be undertaken whenever possible. However, there will be occasions where it is necessary to dispose of such material. It is important that such sites are available locally in order to reduce transport. To this end, the need for a site will be assessed on the contribution which it can make to the area in which it is to be located in terms of disposal, including other local authority areas. Any benefits which may result, such as the reclamation of mineral extraction voids or the improvement of degraded or derelict land, will also be taken into account.

POLICY DP2

Proposals for landfill sites to dispose of biodegradable wastes outside the areas identified in policy DP 1 will not be permitted unless:

- **there is a demonstrable need for the site which cannot be met from an existing site, or the site would produce benefits for the area in which it is located; and**

- **there are no significant adverse effects on local communities or the environment.**

POLICY DP3

Proposals for the disposal of inactive wastes will only be permitted where the waste cannot practicably be re-used or recycled, and:

- **there is a demonstrable need for the site which cannot be met from an existing site in the local area; or**
- **the site would produce benefits for the area in which it is located; and**
- **there are no significant adverse effects on local communities or the environment.**

Energy Recovery from Landfill

8.20 Methane is the second most important greenhouse gas after carbon dioxide and is produced during the biodegradation of organic waste. Energy can be generated from the methane produced by landfill sites. The main advantage of this process is that much of the methane produced is utilised positively rather than being released to the atmosphere. It can take many years to recover the methane from a landfill site. Nevertheless, sustainable waste management means making the best use of the waste produced and minimising its pollution. Utilising landfill gas for energy generation would contribute to this, although the County Council does consider that it remains secondary to the disposal of waste and control of landfill gas. The process generally comprises gas conditioning equipment, extraction pumps, a flare stack, pipeworks and valves, control and monitoring equipment, and gas engines. Despite its advantage, the process can give rise to impacts, in particular noise and visual impact, although these can be insignificant if landfill operations are still continuing at the site. Proposals for the generation of energy from landfill gas will, therefore, be supported provided that there are no significant adverse effects on local communities or the environment.

POLICY DP4

Proposals for energy generation from landfill gas will be permitted provided that there would not be a significant adverse effect on local communities, the environment or the final restoration of the site.

Transfer Stations

Introduction

8.21 Waste transfer stations are sites where collection vehicles can bring waste so that it can be compacted, bulked up or baled prior to transport to a landfill site. They can be used for a variety of wastes but are generally used for household and construction/demolition wastes. They are often used where

there is no appropriate landfill site near to centres of population. Waste can be transferred from small collection vehicles to bulk waste vehicles at a convenient location.

8.22 The main advantage of transfer stations is the opportunity they provide to introduce an element of segregation and recycling. They can assist in reducing the number of landfill sites required, but this may result in longer transport distances. The other disadvantage relates to the need to locate them close to the source of the waste. If not operated correctly, litter, odour and visual impact can result. They can also involve large numbers of lorry movements.

Transfer Stations in Northumberland

8.23 There is likely to be a move towards fewer but larger landfill sites in Northumberland (see paragraph 8.9). Associated with this will be a need for transfer stations in order to minimise vehicle movements. That is, instead of collection vehicles travelling to more distant landfill sites, they will transport waste to a nearby transfer station, where the waste will be bulked-up and transported to a landfill site by larger, but fewer, lorries. This trend can already be seen in the County. The landfill site serving the Borough of Berwick-upon-Tweed (Linkhamdean) closed in June 1996. Rather than develop a new landfill site, the waste operator that has the contract for disposing of the County's household waste, has developed a transfer station on North Road Industrial Estate, Berwick. The Borough's waste is taken to the transfer station, is bulked up and then transported to Harecrag landfill site. A similar situation has occurred in Tynedale. Frankham landfill site has closed and the District's waste is taken to a transfer station in Hexham for onward transport to a landfill site in Gateshead.

Impact and Land-Use Requirements

8.24 A typical transfer station incorporates a covered reception hall where collection vehicles discharge their loads. Waste is loaded into compactors which compress the waste into closed containers. Filled containers are then loaded onto bulk haulage vehicles for transport to the landfill site. Some of the smaller transfer stations for industrial and construction waste are less sophisticated, transferring wastes in open compounds from small to large skips prior to transfer to final disposal facilities.

8.25 Like all waste management facilities, transfer stations have the potential to give rise to adverse effects on the surrounding area. They generate large numbers of lorry movements with the associated noise and pollution. They may involve waste storage which can give rise to odours (if biodegradable waste is involved) and visual impact. The actual operations undertaken can be noisy. The potential significance of these impacts is increased by the fact that transfer stations need to be located close to the source of the waste, and are, therefore, usually on industrial estates in urban areas.

8.26 The advantage of transfer stations is that the operations depositing the waste (storing, sorting, bulking-up, loading for onward transport) can be done inside a building similar to many other industrial units. A transfer station receiving household, commercial and industrial waste from a sub area of a rural County like Northumberland is likely to require a site which is equivalent to a small- to medium-sized industrial unit. Smaller transfer stations receiving only one type of waste, such as construction waste, will require smaller sites. The degree of the impacts can, therefore, be reduced substantially to that associated with other industrial facilities. It is therefore expected that all operations will be fully enclosed. Lorry movements and the impact of the building itself will remain, but careful site selection and high standards of design and landscaping will minimise this.

8.27 Because of the processes undertaken, the type and size of site and buildings required and the volumes of traffic, transfer stations should be located on industrial sites which are well served by the primary road network, as such sites are near to urban areas, yet are separate from residential and other sensitive land-uses. Such locations will still be carefully assessed. The requirements of Policy EP20 and paragraph 5.38 are particularly relevant.

POLICY DP5

Proposals for transfer stations will be permitted provided that they can be satisfactorily located on an industrial site and:

- **the highway network and the access can satisfactorily accommodate the traffic generated; and**
- **all operations take place within appropriately designed buildings.**

In assessing whether proposals can be satisfactorily accommodated, account will be taken of:

- **the type and volume of waste;**
- **the nature of the surrounding land-uses;**
- **the potential for noise, dust and odour and possible mitigation measures;**
- **the potential for visual intrusion, and screening measures.**
- **any increase in environmental impacts which would result.**

Incineration without energy recovery

8.28 Incineration without energy recovery may be the Best Practical Environmental Option for certain waste types such as toxic, inflammable, veterinary or infectious wastes, which should not be landfilled.

Incineration in Northumberland

8.29 There is only one licensed incinerator in Northumberland at the Percy Hunt Kennels in Alnwick which is licensed to burn animal waste. Two hospital incinerators at Prudhoe and Morpeth closed in 1995 due to the new standards required by the Environmental Protection Act 1990.

Impacts

8.27 An incinerator is an industrial process which can have a significant visual impact and has the potential to generate traffic, noise, dust emissions and odour. There can be implications for airports in the vicinity due to the height of the chimney. Incineration without waste recovery is likely to be restricted to particular waste streams (clinical or special waste). Because of its position at the bottom of the waste hierarchy, proposals for incineration without energy recovery should be allowed only in exceptional circumstances, where it can be demonstrated that this method represents the Best Practicable Environmental Option for a particular waste stream. Where possible, small incinerators, dealing with an individual waste stream, should be located at the premises where the waste is produced. Otherwise, industrial areas containing specialised industrial uses are the most suitable location. However, the suitability of this type of location still needs careful consideration, as incinerators may be incompatible with business parks or clean industries. It is therefore important to ensure that proposals do not have an adverse impact on surrounding land-uses and the development of the industrial site is not prejudiced. The requirements of Policy EP20 and paragraph 5.38 are particularly relevant. In either location high standards of design and landscaping will be required because of the visual prominence, especially the tall chimney required.

POLICY DP6

Proposals for the incineration of waste without energy recovery will not be permitted other than in exceptional circumstances where it is demonstrated that it is the Best Practicable Environmental Option for a particular waste stream; and

- **the benefits of the proposal clearly outweigh any potential environmental damage which may result; and**
- **it is located at the premises where the waste is produced, or on an industrial estate where the majority of the site is used by potentially polluting development; and**

- **it would not significantly adversely affect residential areas and other industrial areas in terms of visual intrusion, noise and other emissions; and**

- **it would not significantly adversely affect, either directly or indirectly, landscape character, nature conservation and heritage interests; and**

- **waste can be brought to the site by means other than road transport, or where alternative methods are not possible, a dedicated road connection to the primary road network or an agreement on improving the local road network is provided; and**

- **the site access can satisfactorily accommodate the traffic generated without adverse impact on local communities; and**

- **the proposal includes landscaping measures and measures for the creation of habitats which will contribute to the improvement of the environment in the area; and**

- **the proposal includes measures to minimise impact on the environment and complies fully with other relevant policies in the Waste Local Plan.**

9. SEWAGE TREATMENT AND DISPOSAL

Introduction

9.1 Sewage (waste water) is produced from domestic, commercial and industrial premises. It is transported, most commonly by pipelines, to sewage treatment works. Sewage treatment produces two by-products: a final effluent which can be returned to watercourses and sewage sludge which requires disposal.

9.2 Environmental impacts can result from the discharge of inadequately treated sewage, the actual treatment process, the discharge of treated effluent and the treatment and disposal of sewage sludge. The discharge of sewage and effluent into watercourses is not the responsibility of the land-use planning system. It falls to the pollution control regime, through the Environment Agency. The planning system can exert an influence over sewage treatment works and the disposal of sewage sludge, as both require land. It is these two elements which are considered in this chapter.

9.3 The framework governing sewage treatment and disposal stems from the European Union (EU). The Urban Waste Water Treatment Directive (91/271/EEC) and the Bathing Water Directive (76/160/EEC) provide guidance and set out requirements for dealing with sewage. The Urban Waste Water Treatment Regulations 1994 implement the provisions of the Directives in the UK.

9.4 The effect of these Directives and Regulations is to require the water companies to meet higher treatment and discharge consent standards from sewage treatment works by the end of 2005. This may result in a need for new sewage treatment works, or additional/improved facilities at existing treatment works to enable higher treatment standards to be achieved. However, where the discharge is to a High Natural Dispersion Area (which would include Northumberland's coastline), this may involve only primary treatment, provided that there is no adverse effect on the environment. Where evidence shows that there would be an adverse effect, then secondary treatment would be required. In addition, the Urban Waste Water Treatment Directive required the dumping of sewage sludge at sea to cease by the end of 1998. All sewage sludge is now treated or disposed of on land.

9.5 The County Council is concerned about primary only levels of treatment, and is pursuing options with Northumbrian Water and the Environment Agency to try and secure secondary treatment as soon as possible.

Sewage Treatment

9.6 Sewage is treated at sewage treatment works to remove grit and other solids, faecal and organic solids, and dissolved and suspended organic material. Three levels of treatment can be undertaken at treatment works.

Primary treatment removes the bulk of the solids. Secondary treatment involves biological methods to remove more of the solids and to oxidise organic matter. Tertiary treatment further reduces solids, organic matter, nutrients and pathogens.

9.7 Sewage treatments works are necessary developments if this particular waste type is to be managed properly. However, they are often seen as "bad neighbour" developments, mainly because of their potential impacts. Odour and visual intrusion are the main effects, although the works can be screened and odour control measures can be put in place.

Sewage Sludge Disposal

9.8 Sewage sludge is a thick putrescible, odorous liquid containing around 4% solid matter. Most sludge is treated before disposal to reduce its water content (dewatering), to remove objectionable characteristics and recover energy. One of the most common forms of doing this is through anaerobic digestion (see Chapter 10).

Disposal to Land

9.9 Both the Urban Waste Water Treatment Directive and the National Waste Strategy consider that sewage sludge should be re-used wherever possible. The Government's view is that landspreading, which is the controlled spreading of sludge on agricultural land as a fertiliser, is the Best Practicable Environmental Option for the disposal of sewage sludge. Nationally, about 50% of the sludge produced is disposed of this way. In most cases this method of disposal is not subject to planning control, but it is the responsibility of DEFRA, in an advisory capacity, and the Environment Agency. In particular, these bodies monitor the build up of heavy metals on land spread with sludge, to ensure that its application remains beneficial to the land.

Disposal through Incineration

9.10 An incinerator to burn sewage sludge would be subject to planning control as well as additional controls exerted by the Environment Agency under the Environmental Protection Act 1990. It has the advantage of producing energy, which can be harnessed to heat and power the treatment works, or can be sold to the National Grid. It also has several disadvantages, which are discussed in Chapter 7.

Disposal to Landfill

9.11 This is a widely used method of disposing of sewage sludge. The sludge is used to assist the reaction process at co-disposal landfill sites. However,

there is a limit to the quality of sludge which can be dealt with this way due to the difficulty in handling such material and the problems of odour. The landfilling of sewage sludge is subject to the same advantages and disadvantages discussed in Chapter 8.

Sewage Treatment and Disposal in Northumberland

9.12 Responsibility for sewage treatment and disposal in the Northern region lies with Northumbrian Water. A regional strategy has been developed to deal with both treatment and disposal in order to meet the requirements of the Urban Waste Water Treatment Directive, the Bathing Waters Directive and the Urban Waste Water Treatment Regulations 1994. A regional sludge drying plant is being developed at Bran Sands in Teesside. Drying the sludge, by using hot air or steam, releases most of the water content and pasteurises the sludge, ensuring the end product is safe to handle. It is intended that the plant will produce pellets from the dried sludge, with potential markets, which include agriculture, horticulture, forestry, land reclamation, fuel production and the production of construction materials. The first stage of this plant was operational in 1998 and the second in 2000.

9.13 Throughout Northumberland there are currently just over 150 sewage treatment facilities operated by Northumbrian Water Ltd. These range from large works serving a large catchment area to septic tanks serving isolated rural communities.

9.14 The requirements to upgrade the levels of treatment and discharges also apply to Northumberland's treatment works. This will necessitate the development of two new sewage treatment works, located at Amble and Cambois. Both have received planning permission. The intention is to have primary treatment at these sites, although sufficient land has been granted planning permission in the event of secondary treatment being required.

9.15 In addition, several existing sewage treatment works may require upgrading during the plan period to allow for additional treatment. Such works, if developed on existing operational land, may not require planning permission as they may be covered by the water industry's substantial permitted development rights. Where developments do require planning permission, the planning application should include details of any proposals which are permitted development as background information, to enable the County Council to consider the proposal comprehensively.

9.16 Treatment levels at the treatment works in the County may be liable to change over the plan period as a result of changes to legislation or factors influencing treatment requirements. There may, therefore, be a need for further developments to improve treatment standards or to allow for increased treatment capacity.

POLICY SE1

Proposals for new sewage and waste water treatment works, or extensions to existing treatment works, will be permitted, provided that they are required to improve the treatment of sewage and waste water or discharge standards or to provide increased treatment capacity, and can be located without significant adverse effects on local communities or the environment.

9.17 A framework is also required for the minor facilities associated with treatment, such as pumping stations, and the smaller private facilities, such as those developed in association with new housing or industrial developments. Such facilities may be necessary to ensure, or assist with, the adequate treatment of sewage. However, care still needs to be taken to ensure that these developments do not give rise to adverse effects on local communities or the environment.

POLICY SE2

Proposals for minor sewage treatment facilities will be permitted, provided that the nature and scale of the proposals are appropriate to the development they are required to serve, and they can be located without significant adverse effects on local communities and the environment. Proposals for small private sewage treatment plants within sewered areas will be discouraged.

9.18 In 1995/96, approximately 66,000 tonnes of sewage treatment waste was produced in Northumberland, which equates to 3,300 tonnes of dry material. Half of this was disposed of to land. In line with national guidance, landspreading is likely to retain a large role in Northumberland, especially for the treatment works in the rural areas of the County. As this method of disposal lies mainly outside the control of the land-use planning system, it is not considered in this Plan.

9.19 The remaining sludge now goes to landfill sites, as disposal at sea ceased by 1998. Landfill sites in the County which are licensed to accept sewage sludge are Harecrag, Merryshields and Seghill. Landfill requirements for sewage sludge are taken account of under the general disposal chapter (Chapter 8).

9.20 As a result of the higher levels of waste water treatment required under the Waste Water Treatment Regulations, the amount of sewage sludge produced within Northumberland is expected to approximately double. The disposal of sludge through landspreading will still play an important role in the County, but most of the additional sludge generated will, depending upon circumstances, need to be disposed of to landfill or to the Regional Waste Treatment Centre on Teesside (Bran Sands).

9.21 Northumberland has no facilities for the incineration of sewage sludge. It does not form part of Northumbrian Water's strategy for Northumberland, as the County produces insufficient quantities to make it a viable option. Should a proposal come forward, it would be considered under the general incineration policies (Policies RE7, RE8 or DP6).

9.22 The strategy for the disposal of Northumberland's sludge forms part of the overall regional strategy. Sludge from any new treatment works in Northumberland will be taken by road to Howdon on Tyneside to be loaded onto a ship, which will then take the sludge by sea to the Bran Sands plant on Teesside. It is Northumbrian Water's current intention that sludge generated at existing works will continue to be treated on site before being disposed of to landfill or, in some cases, landspreading. However, circumstances may change and methods of disposal will therefore be kept under review.

Mine Water

9.23 When a deep mine is closed and the pumps turned off, there is the potential for the mine to fill, overflow and cause severe pollution in nearby rivers. In such a situation there may be a need to construct a treatment plant to treat the polluted water. Any such proposal would be considered against Policy SE1.

10. OTHER WASTE ISSUES

Introduction

10.1 This chapter deals with a number of other waste management facilities or issues which do not readily fall into the other chapters.

Scrapyards

Introduction

10.2 Scrapyards are facilities where scrap metal (including motor vehicles) are stored, dismantled and crushed before being sold on for other uses, or for landfill. They can provide an opportunity for recycling initiatives to take place. However, they are generally viewed as "bad neighbour" developments, giving rise to complaints from nearby residents.

Scrapyards in Northumberland

10.3 Northumberland currently has 17 scrapyards, including two which can also operate as transfer stations. The majority of these are located in the south east of the county.

Impacts and Land-Use Requirements

10.4 Despite their potential for recycling, scrapyards can generate impacts which need to be taken into account when locating such developments. These stem from the nature of the waste material and the processes undertaken on site. The visual impact of these sites can be quite significant as the vehicles are stored in the open. Large numbers of vehicles are generally stockpiled at any one time. The processes at the site, in particular crushing, give rise to noise. Dust can also be generated. There is also the potential for pollution, such as that from waste oils. Under waste licensing requirements, sites have to take precautions to prevent pollution.

10.5 New sites should be accommodated on industrial sites, as such sites are, generally, separate from sensitive land-uses, such as residential areas. In addition, these sites are located in urban areas, which is beneficial, as scrapyards are more appropriate for urban rather than rural locations. However, the suitability of this type of location will still be carefully assessed, as scrapyards can be incompatible with business parks and "clean industries". It is, therefore, important to ensure that proposals do not have an adverse impact on surrounding land-uses and development of the industrial site is not prejudiced. The requirements of Policy EP20 and paragraph 5.38 are particularly relevant.

POLICY OW1

Proposals for scrapyards will be permitted only if they can be satisfactorily located on an industrial site. In assessing whether proposals can be satisfactorily located, account will be taken of:

- **the nature of the surrounding land-uses;**
- **the height of outdoor storage;**
- **landscaping and/or screening measures proposed;**
- **the potential for environmental impacts and possible mitigation measures;**
- **traffic volumes and the adequacy of the road network; and**
- **any increase in environmental impacts which would result.**

Power Station Ash

Introduction

10.6 When coal is burned in power stations, about 15% by weight of the original coal remains as ash. Pulverised fuel ash (PFA) consists of fine particles, carried out of the furnace as flue gases. Furnace bottom ash (FBA), a much coarser material, is retained in the furnace.

10.7 Both PFA and FBA require management because of the large volumes generated. Much of the material produced is sold on for another use, often in place of primary mineral resources. The most common outlets are: as a concrete mix ingredient or as a constituent blend of cement; structural fill in road building and construction; a constituent of building blocks; and lightweight aggregates for use in concrete. The PFA and FBA which is not reused is generally disposed of to landfill. Because of the quantities of waste, and its continuous production, dedicated or mono-disposal landfill sites are normally established for the plant. The ash can either be pumped as a slurry to lagoons or conditioned with water and transported by conveyor belts or by road and rail and mechanically spread on the site. The ash is classed as an inert material. There is a potential for dust blow from storage areas, although this can be controlled.

Power Station Ash in Northumberland

10.8 Northumberland currently has one coal-fired electricity power station operated by Alcan at Lynemouth.

10.9 Alcan currently uses lagoons to store the ash which cannot be re-used. The final phase of a four phase lagoon is being used. This last phase commenced in 1994 and was granted planning permission for five years. This present phase of the operation has been granted permission for a further vertical extension from 1999.

10.10 The company has increased its efforts to secure markets for the ash rather than disposing of it. A specialist company, Ash Resources, has been employed to market the ash. Markets for the ash already exist, for example, as a replacement for concrete for uses such as road schemes, block paving and filling mine shafts. There is a drive to develop new markets such as in sea defences, landscaping, and as a raw material for other industrial processes. If the markets for reusing the ash can be developed further, it will reduce the need for landfill space. If it expands significantly, there may be a need to remove the ash which has already been deposited in the lagoons, so extending the life of the existing site further. Re-using waste is at the higher end of the waste hierarchy and fits in with the County Council's strategy. Reusing PFA and FBA, will therefore, be encouraged and supported. However, some of the earlier lagoons have been restored and it may not be desirable for these restored areas to be disturbed again. The County Council would prefer such activities to concentrate on the lagoons currently in use or which have not yet been restored.

10.12 At present the markets for re-using the ash are limited, but it is possible that new markets will emerge in the future. Additional capacity for storing the ash is likely to be required in the plan period. A site for this should be located close to the smelter/power station complex to reduce the need to transport the material and to contain the impacts of the operation. There will still be the potential for the operation to create impacts on surrounding land-uses and account will need to be taken of the potential adverse effects, such as noise, dust and visual intrusion.

POLICY OW2

An additional lagoon to store ash from the Alcan Power Station will be permitted only if it can be satisfactorily located within the smelter/power station complex. In assessing whether it can be satisfactorily accommodated, account will be taken of:

- **the potential for noise and dust and possible mitigation measures; and**
- **the potential for visual intrusion, in particular the height of the material, and screening measures.**

Special Wastes

Introduction

10.13 Wastes are classed as "special" if they pose a particular threat to human health. They are controlled by their own set of regulations, over and above the control exerted over other types of waste. There are various options available for the management of special wastes. This normally includes some form of pre-treatment to reduce the hazard, so that the waste can be

safely landfilled. Some of the pre-treatment methods also reduce the quantities of the waste.

10.14 One of the most common methods for treating special waste is incineration. It reduces the hazard in the waste and the residues can then be landfilled. This is subject to the same advantages and disadvantages for incineration as discussed in Chapters 7 and 8.

10.15 Various chemical and biological processes are available for the treatment of special waste. Biological methods rely upon bacteria and other micro-organisms to break the waste down into less hazardous material. Chemical treatment includes: neutralisation, which can treat acid and alkali wastes; and oxidation, which involves the addition of an oxidising agent to convert a hazardous waste into an innocuous form. Solidification immobilises the hazardous waste so that it is resistant to chemical or biological degradation and, therefore, suitable for disposal to landfill. These are industrial-type processes and can, therefore, be located in industrial areas.

10.16 Hazardous wastes can sometimes be disposed of straight to landfill. This is done in co-disposal sites, where hazardous wastes are jointly disposed of with other wastes in such a manner that physical, chemical and biological processes are encouraged to break the particularly polluting material down. However, the proposed EU Landfill Directive, if implemented, would prohibit the establishment of new sites for the joint disposal of hazardous and non-hazardous wastes.

Special Wastes in Northumberland

10.17 A very small proportion of waste generated in Northumberland is classed as special. Approximately 80% of these wastes were disposed of or recovered outside the County in 1995/96. There is one hazardous waste incinerator in the county, currently processing only small amounts of waste. There is a special waste storage facility in Blyth Valley and one special waste landfill site, an in-house facility for the Alcan's smelter. If production capacity at Alcan's smelter is increased, there may be a requirement to increase landfill capacity for the resulting special waste. However, this will not be necessary until the latter part of the plan period, or beyond, and can be addressed in the review of the plan, if required.

10.18 Due to the small quantities of special waste produced in the County and the cost of establishing treatment facilities for such wastes, it is unlikely that a proposal to treat special waste would come forward during the plan period. However, it cannot be ruled out and a framework is needed to guide proposals. Proposals for the incineration of special wastes will be assessed against Policies RE8 and DP6. Chemical and biological treatment processes are types of industrial processes, and can be located at suitable industrial areas, provided that there are no adverse impacts on surrounding land-uses and development of the industrial site would not be prejudiced. In this regard, the requirements of Policy EP20 and paragraph 5.38 are particularly

relevant. Proposals for landfilling special wastes cannot be ruled out, especially if production capacity does increase at Alcan's smelter.

POLICY OW3

Proposals for the treatment of special waste will not be permitted unless they reduce the degree of hazard of the waste and they can be satisfactorily located on an industrial site. Proposals for the disposal of special waste will not be permitted unless there is a need for the site and it can be satisfactorily located.

In assessing whether a site can be satisfactorily accommodated, account will be taken of:

- **the nature of surrounding land-uses;**
- **the potential for noise, dust and odour and possible mitigation measures;**
- **the potential for visual intrusion, including any outdoor storage of material and screening measures proposed;**
- **the potential for risk or hazard to local communities or the environment;**
- **traffic volumes and the adequacy of the road network; and**
- **any increase in environmental impacts which would result.**

Anaerobic Digestion

Introduction

10.19 Anaerobic digestion deals with similar wastes to composting and produces a similar end product, but the process itself is different. Anaerobic digestion is the bacterial fermentation (breaking down) of organic waste in warm, oxygen free conditions. The process converts complex organic molecules into a gas comprising methane and carbon dioxide, leaving liquid and solid residues.

10.20 As with all waste management options, anaerobic digestion has advantages and disadvantages. It produces a usable product, compost and liquid fertiliser, and the gas can be used as a source of power and heat. Digestion does not substantially reduce the volume of wastes treated but does make them less odorous and can remove harmful elements, thus widening the options for after-use and disposal. It relies on the sorting and separation of waste, but this can allow for recycling to be built in. An important point for Northumberland is that it can be viable on a relatively small quantity of

waste. Although used to treat sewage sludge and farm slurry, it is not yet used extensively in Britain for other organic wastes

Anaerobic Digestion in Northumberland

10.21 Having balanced the advantages and disadvantages, the Waste Management Plan identified anaerobic digestion as a longer term option for Northumberland. It is, therefore, unlikely to contribute significantly in the plan period to reducing the amount of waste going to final disposal, especially as the process does not substantially reduce volumes. It is not proposed to identify a specific site for a digestion plant, however, the land-use implications need to be considered and a framework put in place in the event of a proposal coming forward sooner than expected.

Impacts and Land-Use Requirements

10.22 A typical digestion plant comprises waste pre-treatment equipment such as facilities to separate out the organic content (if mixed waste is being digested), a digester tank, buildings to house ancillary equipment such as a generator, a gas storage tank and a flare stack, with associated pipework, for burning off surplus gas. Plants which use sewage sludge or farm slurry require post-digestion facilities to treat the resulting liquors. The largest elements of the plant are the digester which can range in height from 8 to 15 metres depending on the throughput of waste, and the flare stack which ranges from 3 to 10 metres in height, depending on the diameter.

10.23 Because of the equipment associated with anaerobic digestion, there is the potential for visual intrusion. This is more pertinent to larger operations rather than the small-scale plants associated with individual farms or sewage treatment works. The process, by its very nature, is odorous. The odour can come from: waste storage bays; the sorting and mixing plant; the digester, which, although sealed during use, will release odours when opened to allow cleaning; the digested material, which, although much less odorous than raw organic waste, can still give off unpleasant smells. The process gives off air emissions, although these are generally minor. Waste will have to be transported to the plants, with the associated impacts of noise, vibration and pollution.

10.24 In order to minimise transport, it is advantageous if digestion plants are located close to where the waste is produced. This is feasible for digestion plants for farm slurry and sewage sludge as the small-scale digesters used for this type of waste can normally be satisfactorily accommodated within, or in close proximity to, the existing complexes. It is not so suitable for proposals for more general organic waste, as these will be larger, and raise more complex siting issues. In these cases, existing landfill sites or waste transfer stations can provide the most acceptable sites, as waste is being taken there anyway and the effects of waste management will already have been assessed and found acceptable. Industrial sites may also be acceptable locations provided that there would not be an adverse impact on

surrounding land-uses and development of the industrial site is not prejudiced. In this regard, the requirements of Policy EP20 and paragraph 5.38 are particularly relevant. In assessing whether an anaerobic digestion plant can be satisfactorily accommodated in these locations, account will be taken of any increase in environmental impacts which would arise, including traffic. Particular attention will be given to any potential odour effects and the mitigation measures proposed.

POLICY OW4

Proposals for anaerobic digestion plants for farm slurry or sewage sludge will only be permitted where they can be satisfactorily located within or in close proximity to the existing farm complex or waste water treatment works to which they relate.

Proposals for anaerobic digestion plants for other waste will only be permitted where they can be satisfactorily located adjacent to an existing landfill site or waste transfer station, or on an industrial site.

In assessing whether proposals can be satisfactorily accommodated account will be taken of:

- **type and volume of waste;**
- **the nature of the surrounding land-uses;**
- **the potential for noise, dust and odour, and possible mitigation measures;**
- **the potential for visual intrusion, in particular the height of any outdoor storage, and screening measures; and**
- **any increase in environmental impacts which would result.**

Refuse Derived Fuel

Introduction

10.26 Household and commercial waste can be mechanically sorted into its separate fractions, including that part which is combustible and can be used as a refuse derived fuel (RDF). The major environmental benefit of RDF is that the energy value of the waste can be recovered and it can be used as an alternative to fossil fuels. In addition, the production of RDF can complement materials recycling schemes, including glass and metals which can be removed from the waste stream before it is delivered to the plant or at the plant itself.

10.27 Despite these advantages, production facilities have experienced difficulties. The production of RDF requires considerable investment in plant and equipment. This, in addition to marketing and technical problems in using the product as an alternative to fuel, have resulted in half of the plants built nationally since the 1970s closing down.

Refuse-Derived Fuel in Northumberland

10.28 There are no RDF plants in Northumberland. The nearest facility was the Byker Plant in Newcastle-upon-Tyne. It is unlikely that a plant would be developed in the County due to the small quantities of waste produced and the lack of potential RDF users. The Northumberland Waste Management Plan has not identified this as an option for Northumberland.

10.29 Should a proposal be received for an RDF plant, it will be assessed against Policy RE7 and other relevant policies of the Plan.

Harbour Facilities for oil disposal

10.30 The North Sea has been designated as a "Special Area" under the MARPOL Convention (prohibiting the discharging of waste oil from vessels). This means that from 1 February 1999 there will be a complete ban on shipping traffic discharging even small quantities of oil in the North Sea. Consequently, it is likely that North Sea harbours will need to consider the provision of facilities for oil disposal. Details of what will need to be provided will be contained in the forthcoming EU Directive on Shore Reception Facilities for Ship Generated Waste.

10.31 The planning issues to be considered will be similar to those for special wastes, although there may be special considerations relating to harbour use. Should a proposal be received for oil disposal facilities it will be assessed against Policy OW3 and other relevant policies of the plan.

Colliery Spoil Disposal

10.32 Colliery spoil is made up of waste shales and clays removed from the coal during processing. Waste rock is also produced from cutting new underground roadways and other development work.

10.33 The Northumberland Minerals Local Plan sets out the County's policy for the disposal of colliery spoil. It explains that the colliery spoil from the small drift mines in the County is backfilled underground. This practice reduces the environmental impact of mining as the spoil does not need to be transported and tipped. Wherever possible, therefore, this should be the preferred method of disposing of colliery spoil.

10.34 Colliery spoil from Ellington Colliery has been disposed of by means of tipping on to the foreshore at Lynemouth for many years. In February 1994 Ellington Colliery closed and tipping ceased. Subsequently, considerable problems of coastal erosion were experienced close to Alcan Power Station. Emergency defence works have been carried out providing protection for the power station itself, but it has become clear that if disposal on the foreshore were to cease, the coal stocking grounds and reclaim facilities for the Alcan Power Station would be threatened by sea inundation.

10.35 Following the reopening of Ellington Colliery, a scheme has been agreed whereby the spoil is tipped and compacted as a coastal protection measure. This use of colliery spoil for coastal protection purposes is regulated by DEFRA on an annual licence basis under the Food and Environment Protection Act 1985. The licence requires that the operator should make reasonable efforts to identify and seek approvals for alternative uses or disposal options for the minestone. The requirement reflects the government's intention to bring to an end the practice of colliery spoil disposal on beaches and into the sea.

10.36 The operator has commissioned a study to evaluate the options for spoil disposal at Ellington Colliery. The options for spoil disposal include land-based disposal in close proximity to Ellington South/Bewick Drift, land-based disposal at remote locations (mineral workings), underground storage, use as a secondary aggregate, use in coastal improvement works and the continued use in coastal protection.

10.37 The County Council recognises the importance of ensuring an environmentally acceptable means of disposal for the colliery spoil from Ellington Colliery and supports the need for a study to fully evaluate the environmental and financial implications of all the alternative spoil disposal options.

10.38 Should a planning application come forward for the land-based disposal of colliery spoil it will be assessed against Policy C10 of the Northumberland Minerals Local Plan.

11. RECLAMATION

Introduction

11.1 Reclamation includes both restoration and after-care. Restoration refers to the operation resulting in the replacement of subsoil, topsoil or soil-making material. Aftercare describes the steps necessary to bring the restored land up to the required standard for its proposed after-use. Reclamation also includes events which take place before and during operations such as the correct stripping and protection of soils.

11.2 Waste management facilities can be divided into two types, those involving built development of a permanent nature and those where operations make use of land for a temporary period, following which the land can be returned to its previous use or a new use can be established. Restoration, aftercare and after-use are not really relevant to those facilities involving permanent built development such as transfer stations and incinerators etc. They are more pertinent to transient operations such as landfilling of waste.

11.3 Over the last ten to twenty years, standards of reclamation have improved in response to pressure from environmental groups, public concern, an effective use of planning controls, new and improved technology and changing attitudes in the waste industry itself. Advice in Minerals Planning Guidance Note 7, 'Reclamation of Mineral Workings', reinforces the importance of reclamation of mineral sites. It states that "if there is a serious doubt whether satisfactory reclamation can be achieved at a particular site, then there must also be a doubt whether permission for mineral working should be given". This can equally be applied to landfill operations.

General Principles

11.4 It is essential that waste disposal operations (both landfill and landraising) and reclamation are properly designed at the planning application stage to ensure that both are technically and economically feasible, and their impact can be fully assessed. There are a number of factors which are common to most reclamation schemes, regardless of which after-use is proposed. These are considered below.

Phasing

11.5 Phasing is particularly relevant for landraising, which normally involves the use of previously undisturbed land. In such cases, reclamation should be phased to minimise the area of land taken out of beneficial use at any one time and to ensure reclamation is achieved as quickly as possible. Landraising can have an adverse impact on an otherwise undisturbed landscape, especially in terms of visual impact. A key consideration in determining the acceptability of landraising schemes is the relationship of the

resultant landform to the surrounding landform. It is, therefore, important that full reclamation details are submitted at the outset. Because of the nature of the waste disposal operation and the potential effects following cessation (gas and leachate generation), it is important to have full reclamation details at the outset.

Soils

11.6 For after-uses requiring the growth of vegetation, effective site reclamation will depend on the appropriate identification and management of soil resources prior to and during operations as well as in the later stages of restoration and after-care. This is especially the case for topsoil and where an agricultural after-use is proposed. If soils are mishandled, damaged or lost, the standard of reclamation is likely to be prejudiced and difficult to rectify.

11.7 For proposals to infill mineral voids with waste, many of the following issues will have been taken account of in the mineral extraction permission. If mineral operations ceased some time ago, there may be little soil remaining on site, so much of this section will not be relevant.

11.8 Prior to development commencing a detailed soil survey will be required to identify soil types, profiles and depths. Once operations commence, topsoils, subsoils and overburden should be stripped, stored and replaced separately. Soils may need to be stripped separately, according to their texture, with a very high standard of care needed in the case of higher quality soils. These operations should only be carried out in dry weather conditions when the soil is sufficiently dry and friable to prevent compaction and damage.

11.9 Where soils have to be stored the mounds should be designed to minimise damage to soil structure, seeded and kept weed free. Alternatively, soils can be stripped and respread in progressive restoration. As the soils are only handled once, this will result in less damage than if double handling occurs. However, it should be ensured that progressive restoration does not result in the inversion or inappropriate mixing of higher quality soils. Where soils are absent or insufficient, it may be possible to create adequate soil-making materials from fill, silt or overburden. Any soils that are present should be concentrated in areas where they are most needed.

Imported Soils and Soil-making Materials

11.10 There can often be opportunities for the beneficial use of imported soils or soil-making materials for the reclamation of landfill sites, particularly where there is a shortfall of existing soils (e.g. on poorer quality land, or where disused quarry voids are being infilled). However, the use of such imported material to create the final soil profile should be the subject of an approved strategy, and dependent on appropriate tests being carried out. This is to

ensure that their use does not result in the spread of soil-borne plant or animal diseases and toxicity.

Landscape Issues

11.11 It is important to address landscape issues well before a planning application is submitted to allow a full landscape assessment to be carried out. This will help to ensure that the quality and character of the reclaimed site will be of a high standard, the site will be assimilated into the surrounding landscape and will be compatible with the proposed after-use. This is especially important for landraising proposals. Landraising tends to have a greater visual impact as all activity is above ground and the engineered shape can appear artificial, causing a permanent change in the landscape.

11.12 Reclamation schemes should include a landscape assessment which provides an understanding of the current landscape character of the site and how it relates to the landscape of surrounding areas. It should identify the visibility of the site from all major surrounding viewpoints and identify features or areas within or adjacent to the site, that should be conserved, enhanced or reinstated as part of the reclamation scheme. This may include ancient woodlands, historic parks and gardens and important hedgerows. Reclamation proposals should also take into account the timescale of the operation, as the landscape fabric of the surrounding areas can change considerably over the lifetime of a site.

11.13 Screening and landscaping measures designed to reduce visual impact during waste disposal operations can also contribute to the final reclamation scheme, by helping to merge the site back into the surrounding landscape.

Surcharging

11.14 Following cessation of tipping, landfill sites tend to settle, particularly in the case of domestic and certain industrial type wastes, which decompose or undergo other chemical and physical changes through time. Planning applications should therefore be accompanied by both "Pre-Settlement and Post-Settlement" landform plans, indicating the extent of such settlement, based on best practicable estimates. However, settlement can be uneven (differential) over the site, resulting in dips and small hollows appearing some time after restoration. Where such undulations are liable to create wetness problems, particularly on flatter land, or otherwise restrict the use of agricultural machinery, it may be necessary to carry out further remedial works by regrading or infilling. In some instances it may be advisable to partially restore the site and then wait 3 to 4 years before completing the restoration, to allow for uneven settlement. However, in other situations, such settlement can in fact be beneficial in landscape terms by the creation of a more varied landform, and no further remedial works may be necessary.

AFTER-CARE

11.15 Planning authorities have the power to impose "After-care Conditions" on all waste planning consents where reclamation is to agriculture, forestry or amenity. The purpose of the after-care requirement is to help ensure that newly restored land is properly treated during the first few critical years to ensure it is reclaimed to a satisfactory standard.

11.16 An operator may submit an after-care scheme for approval by the County Council, or the planning permission will contain conditions specifying the steps to be taken following restoration. After compliance with the restoration condition an after-care scheme should cover the management of the land for a period of 5 years, or such other maximum period, as may be prescribed. This can include planting, cultivation, and treatment with fertilisers, irrigation and drainage. It can also include measures designed to control leachate and landfill gas although this is now normally done by the waste management license. In some circumstances it may be appropriate to extend the period of recuperative management of all or part of the site. This may be applicable at sites where it is necessary to establish forestry, amenity woodland or a scheme to establish nature conservation after-uses. Some schemes may need to wait for adjoining land to be restored. Where appropriate the County Council will seek a planning obligation to extend the after-care period.

11.17 MPG 7 gives advice on how to monitor progress during the after-care period. In particular, it is essential that the site operator consults the County Council, at least annually, on the way in which after-care conditions are being complied with. This should be done by the operator producing annual after-care reports, which record work undertaken and setting out a detailed after-care programme for the forthcoming year. The County Council will consult the appropriate agency, such as DEFRA or the Forestry Commission, on these reports and arrange an after-care site meeting to review progress.

AFTER-USE

11.18 The term "after-use" is used to mean the ultimate use after waste disposal operations. The choice of after-use may be influenced by a number of factors, such as:

- the present characteristics of the site and the surrounding area;
- planning policies for the area;
- the nature and scale of the waste disposal proposals, including proposed systems for gas and leachate control and capping; and
- economic considerations, including the prospects for its future long-term viability, and the interests of landowners and occupiers affected.

11.19 Reclaiming landfill sites to flat agricultural fields has tended to be the practice in the past. This can be attributed to the nature of the operation and the effect this may have on the after-uses. Techniques have improved for both landfill operations and reclamation, and more imaginative schemes are now possible. In addition, advice from DEFRA and DETR is now that reclaimed sites should have minimum 'post-settlement' gradients to promote effective drainage, rather than flat landforms. After-use options include agriculture, woodland, nature conservation, and, less commonly, recreation and built development. It is, therefore, essential that the after-use is determined at the planning application stage. Firstly, because each after-use will have its own physical requirements which must be assessed before operations commence and secondly, there must be clear evidence that the proposed after-use will be properly implemented and managed in the long-term. Any proposal to vary the after-use should be submitted prior to the commencement of restoration, to ensure the physical characteristics appropriate to each after-use are satisfactorily restored.

Agricultural After-use

11.20 High standards of reclamation which support productive grassland, agriculture or arable cropping are possible. Most landfill operations are reclaimed at least in part to an agricultural after-use. In general, where high quality agricultural land is taken for landfill operations, it is particularly important that restoration and after-care preserve the long-term potential of the land as a national agricultural resource. Government policy seeks also to encourage the diversification of the rural economy where this will not result in the significant loss of high quality agricultural land. Therefore, whilst agriculture remains the most appropriate after-use for many sites, other uses such as forestry or amenity may be considered on land which was originally in agricultural use.

11.21 For all landfill sites being reclaimed to agriculture, and on land being reclaimed to ensure that it retains its longer term potential as a high quality agricultural resource, DEFRA has a statutory role in advising on restoration and after-care conditions. The planning application should be accompanied by a detailed scheme which will demonstrate that the land will be restored to a standard which is at least that of its previous agricultural quality. Important factors for consideration in reclaiming land to agriculture include landfill gas controls, leachate controls and adequate depth of soil (or soil making material over the tipped material).

11.22 Agricultural after-use schemes present important opportunities to redress some of the environmental damage caused by modern agricultural practices. Where possible such schemes should re-introduce features associated with Northumberland's traditional landscape, including hedgerows, stone walls and small copses. The actual measures need to be compatible with agricultural production and the long-term aspirations of the landowners.

Woodland After-use

11.23 There has been a shift in emphasis in agricultural policy from maximising production towards farm diversification and a general awareness of the landscape and environmental value of woodlands. Productive woodlands can combine timber production with recreation, nature conservation value and visual amenity.

11.24 Reclaimed landfill sites can provide opportunities for tree planting and it is possible to do this on the areas which have been tipped, provided there are adequate landfill gas and leachate controls and an adequate depth of soil or soil making materials. If tree planting is to be undertaken, a loose-tipped cover of soils or soil making materials of at least 1.5 metres should be left over the tipped material in order to meet the best practice standards described in Forestry Commission Bulletin 110. This would leave sufficient material for tree planting (which requires a minimum of 1 metre) and also for drainage systems (a minimum of 1.2 metres required), taking into account any settlement. Care needs to be taken in selecting the tree species due to the dry nature of the material they would be planted in. Tree planting is also possible on the areas of the site where tipping has not taken place. The Forestry Commission has a statutory role in advising on proposals to reclaim land for forestry after-use.

11.25 Woodland will not always be an appropriate after-use, but, generally, the County Council wishes to encourage the planting of woodland, in particular broadleaved species, which will improve and enhance the landscape. More specifically woodland planting is encouraged in appropriate locations within the area covered by the Greening for Growth project. This is a County Council led initiative aiming to improve the landscape of the coalfield area of south east Northumberland.

Amenity After-use

11.26 Landfill sites can be used for a wide range of amenity uses from formal sports to nature conservation, so long as

- problems associated with the generation of landfill gases have been adequately dealt with;
- soil (or soil-making materials) of adequate depth has been provided over the tipped material; and
- water quality is assured.

Other factors relevant to amenity after-uses are set out below.

11.27 Mineral excavations can provide valuable wildlife habitats. Many landfill operations take place in the voids created by mineral extraction. Where nature conservation is the proposed after-use, it may be appropriate to retain part of the quarry face or floor to assist in colonisation. This would mean

tipping being undertaken to a lower level or in parts of the quarry only. A number of other factors need to be taken into account when considering the suitability of nature conservation as an after-use, these include:

1. New habitats should be appropriate to the site and its context.

2. Opportunities to extend and enhance existing habitats in the area, or known to occur previously.

3. Establishing links and stepping stones between existing habitats, for example by features such as hedgerows and rough verges.

4. Opportunities to diversify the types of habitat in an area.

5. Opportunities to provide a recreational or educational reserve.

11.28 There are opportunities for recreational after-uses for reclaimed landfill sites, provided that the site is suitably located for the proposed use and the scheme is properly designed and makes suitable provision for the long-term management of the site. The requirements for recreational facilities will be determined in District Local Plans and any proposals for recreational after-use should be consistent with Local Plan policies and the District Sport and Recreational Strategy.

Built Development After-use

11.29 Reclamation of landfill sites for built development, such as housing, industry and retail is technically feasible, provided it is compatible with other planning policies in the area. However, such after-uses are not normally proposed for reclaimed landfill sites due to the potential for gas generation.

POLICY R1

Proposals for landfill developments (including landraising) will only be permitted where proper provision has been made for the reclamation of the site as soon as practicable to a condition suitable for the identified after-use. This will include:

- **an assessment of the existing landscape value (including the contribution made by its ecology) and a practicable scheme showing how the reclaimed site will be assimilated into the landscape;**

- **details of phasing, filling, landforms, drainage, pollution prevention measures, management of soils and landscaping;**

- **arrangements for the effective after-care of sites;**

and where appropriate:

- **progressive reclamation;**

- **measures to enhance the environment such as the retention or creation of woodland, hedgerows, landscape features, wildlife habitats geological exposures and rights of way; and**

- **financial provision for the proper reclamation of the site.**

12. SITE MANAGEMENT AND OPERATIONS: CODE OF PRACTICE

Introduction

12.1 The impact of waste management can be considerably reduced by good site management and operational practice. The County Council will seek to ensure that waste management facilities are operated in the least intrusive way to minimise disturbance, and, where appropriate, are reclaimed to a beneficial and appropriate after-use. The Environment Agency also has powers to monitor and control the day-to-day operation of waste management facilities and enforce the conditions imposed on waste licences. This chapter, however, concentrates on controls which are imposed by conditional planning permissions and obligations, and other powers available under planning legislation.

12.2 The ways in which problems associated with waste management facilities can be reduced is considered. The satisfactory operation (and reclamation in some cases) of waste management facilities will be a major consideration when applications are considered. Conditions covering these matters will be attached to planning permissions. Where there are matters which have an important bearing on the development, but which lie outside the scope of planning conditions, the County Council will seek to negotiate planning obligations with the applicant and, where appropriate, other interested parties, to restrict or regulate the development or use of land, using the powers contained in Section 106 of the 1990 Town and Country Planning Act.

12.3 New legislation, government advice and technological advances are likely to mean that the methods of achieving the best possible operational standards will continue to develop and improve. This chapter, therefore, outlines the principles which the County Council will have regard to and sets them out as a Code of Practice.

POLICY SM1

To secure the acceptable operation and reclamation of waste management facilities, the County Council will seek to ensure that the operation of facilities is carried out in accordance with the planning conditions and, where appropriate and subject to the circumstances of each case, the waste local plan code of practice. Where necessary, the County Council will seek to conclude planning obligations to control waste operations, their reclamation, after-use and subsequent management.

CODE OF PRACTICE

Information in Support of Planning Applications

12.4 The implications of managing waste can be wide ranging. Applicants are, therefore, required to include full details of their proposals so that the implications of the planning application can be identified and thoroughly examined before a decision is taken. Information normally required by the County Council in support of planning applications for waste management facilities is set out in Table 12.1. The information required and the level of detail will vary between proposals, given the range of waste management facilities possible. However, Table 12.1 acts as a general guide to the type of information which the County Council may require. Where significant environment effects are anticipated, an environmental assessment will be required (see Chapter 5).

12.5 Prior to the submission of an application, applicants are encouraged to discuss their proposals with the County Council and, where appropriate, with other statutory bodies. Such pre-application discussions can enable early identification of potential constraints and prevent waste of time and expense by the developer. They should also help to speed up the processing of the planning application. Information normally required by the County Council in support of waste planning applications is set out in Waste Management Paper 26 and Table 12.1 below.

Table 12.1: Information required in support of planning applications

1. For landfill proposals, details of the site and geology including:

- the current land-use and land form;
- the quality, characteristics and extent of soil resources for restoration;
- depth of water table;
- the direction of groundwater flow and, where appropriate, the linkages to surface water;
- geology of the site; and
- ground stability, in appropriate circumstances.

2. Operational details, in particular:

- the nature of the proposed development;
- the type and quantities of waste to be treated or disposed of and estimated life of the operation;
- the source of the waste material;
- transport considerations;
- the method of operation (for landfill proposals, this should include depth, direction, phasing and restoration);
- means of services such as power, water supply and disposal of surface/waste water; and
- the layout of the site including access, location of stockpiled material, design and location of plant and buildings;

3. Justification for the proposal, including:

- where appropriate, the need for the development;
- employment and other economic implications of the proposal;
- where appropriate, e.g. in an Environmental Statement, the consideration of alternative sites;
- consideration of national, regional and local planning policies.

4. Measures to protect local amenity, including:

- minimisation of pollution and environmental disturbance such as noise, dust, odour vibration, smoke and fumes;
- screening and landscaping.

5. An assessment of the impact of the development on the environment and measures taken to eliminate or minimise these effects, including impact on:

- the landscape and features of ecological importance including any trees to be felled;
- archaeological remains and features of architectural or historic importance and historic landscapes;
- agricultural interests;
- public rights of way;
- water resources;
- nature conservation interests, including the presence of protected species.

6. Where relevant details of site reclamation and intended after-uses, including:

- pre-settlement and anticipated post-settlement levels;
- timing and phasing of restoration;
- design and layout of gas and leachate interception and monitoring systems;
- after-care proposals; and
- details of after-uses.

Visual Impact

12.6 The visual impact of operations can be reduced in a number of ways, this includes:

- Careful site location which respects existing topography and features of importance, or existing built development e.g. ridgelines, woodlands, hedgerows and stone walls etc. Proposals should include measures to retain, protect and manage such features where appropriate.
- A method of operations, and direction if appropriate, which takes account of views into the site and is chosen as the least intrusive.
- Phased working and progressive restoration which minimises the amount of land being used at any one time.
- Careful siting and layout of plant, buildings, and haul roads, and the actual stockpiles of waste.
- A high standard of design for any built development which complements the surrounding environment.

- Screening measures, such as tree and shrub planting, earth mounds which are grassed and kept free from pernicious weeds, fencing. Where developments are planned over a long timescale, advance tree planting should be carried out to soften and assist in screening future operations.

- The creation of a site entrance that is clean, tidy, well-signposted and sympathetic to the local environment.

Operational Impact

12.7 In order to reduce the impact of waste management on the environment and local communities, measures should be adopted to control the hours of operation, lorry numbers, lorry routes, noise, dust, smoke, fumes, odour, litter, leachate and landfill gas.

Hours of Operation

12.8 Whereas operational activity may be acceptable during daytime hours, noise, lights and heavy traffic would be unacceptable to affected communities during the night and at weekends. Conditions will therefore normally be imposed to restrict operational hours. However, it is difficult to set out standard times because of the varied nature of both waste management facilities and the location where they may be sited. For example, a recycling facility located in a built-up area may require more restrictive hours of operation than a landfill site in the open countryside far removed from any properties.

Lorry Numbers and Routes

12.9 The number of lorries arriving and leaving a site is often the most environmentally disturbing feature of a waste management facility, potentially affecting communities both locally and further afield along the traffic route. The number of lorries, therefore, needs to be controlled and monitored. Planning conditions or legal agreements will be sought to influence, as far as it is possible, the routes to be taken by heavy lorries. Local traffic management schemes may also be required. In addition, agreements will be sought to ensure the use of agreed lorry routes.

Noise

12.10 Sources of noise include heavy vehicles and equipment, such as the lorries depositing the waste, machines for processing the waste, warning sirens. Planning applications should identify the noise sources, including plant, and any noise-sensitive properties which may be affected. They will also need to

demonstrate the current background noise level and set out what measures will be taken to keep noise from the operation to acceptable levels. Such measures include:

- the fitting and maintenance of silencers;
- the housing and cladding of fixed plant and machinery;
- careful siting of fixed plant in relation to the topography, surrounding land-uses and prevailing wind direction;
- the maintenance of an acceptable distance between the operation and noise-sensitive land-uses. The precise distance which will be acceptable will vary according to individual site characteristics;
- the use of acoustic fencing or baffle mounds;
- the layout of operations, such as one way vehicle movements so as to reduce the noise made by reversing vehicles and warning bleepers; and
- the use of remote sensors to eliminate the use of reversing bleepers.

12.11 These measures may be included as planning conditions depending on: the proximity of noise-sensitive properties and characteristics of the site; the existing ambient noise levels; the predicted noise arising from the proposed development; and the proposed hours of working and duration of particular activities. Planning conditions will normally include maximum noise limits, based on advice from the Environmental Health Officer. In appropriate cases operators will be required to monitor and report noise levels.

Dust, Smoke and Fumes

12.12 Dust is generated from any processing machinery, haul roads and the movement of soils. This is exacerbated during dry and windy weather.

12.13 Planning applications should identify measures which will be taken to reduce dust, smoke and fumes. These may include:

- appropriate siting and design of plant, buildings and haul road, taking into account wind direction;
- plant (or specified parts of its) to be enclosed within a dust-proof building fitted with dust extraction and filtration equipment which will be well maintained;
- internal haul roads, plant and storage areas to be swept regularly and areas with dust creating potential to be dampened during dry weather;

- siting dust-generating operations away from sensitive areas;
- permanent routes to be surfaced with concrete or tarmac and kept free of dust; and
- vehicles to be routed through wheel and body washing equipment before leaving the site.

12.14 In appropriate cases operators will be required to monitor dust arisings from the site. Planning conditions may also include a requirement for assessment, monitoring and reporting of ambient dust levels outside the site and to temporarily cease operations during dry and/or windy weather in order to prevent the transmission of dust to areas outside the site.

Odours

12.15 Waste management facilities have the potential to generate unpleasant odours, in particular those which handle biodegradable wastes. The odours stem from the actual waste and its movement; from any processing undertaken (e.g. composting) and from any biological process which occurs naturally (e.g. biodegradation).

12.16 It is difficult to completely eradicate odours from most waste management facilities (those handling inert waste being perhaps the exception). However, it can be reduced by careful operations such as:

- avoiding the storage of waste for long periods; and
- processing waste in enclosed areas (for landfill, where this is not possible, deposited waste should be covered with inert material at the end of each working day).

Planning applications should set out any odour control measures which are proposed.

Litter

12.17 Litter can be produced if the waste is not carefully handled when moved. It can make an operation look unsightly, exacerbating any visual impact it may have, or even negating any measures taken to reduce visual impact. If picked up by the wind, it can cause a nuisance to surrounding land-uses. Planning applications should set out any litter control measures which are proposed, such as litter screens and measures to remove it if it does arise.

Birds

12.18 Birds are attracted to waste management sites, in particular landfill operations where the waste is out in the open. This can present a nuisance to surrounding land-uses and waste management proposals should include details of any bird control measures. In particular, where waste management sites are in the vicinity of an airport, any birds attracted to the site can present a danger to aircraft through "bird strikes". Those proposals falling within an 8 mile radius of safeguarded airports should include details of any bird control measures.

Water

12.19 One of the most significant adverse environmental effects of landfill developments is the production of leachate. If not properly controlled, leachate has the potential to contaminate underlying groundwater. Other waste management facilities also have the potential to pollute surface and groundwater. In addition, waste operations, particularly landfilling, can present a flood risk, through the raising of ground levels or impeding the flow of water. The Environment Agency has extensive powers to protect water resources and its requirements will be taken into account in planning applications and in imposing conditions.

Access Design

12.20 Access roads to new sites will be expected to be designed to a high standard on the advice from the County Highways Authority, or in the case of trunk roads, the Department of Transport. The access may be designed to prevent lorries leaving in a certain direction where this would cause a danger to other road users or where the route is prohibited through a lorry routeing agreement.

12.21 Where necessary, the granting of planning permission will be conditional on an agreement for road improvements, modifications and/or maintenance. Such an agreement could include road widening, strengthening, provision of passing places and improvement of road junctions.

Public Rights of Way

12.22 Structure Plan policy aims to maintain the network of public rights of way in the County. Where a proposed waste development would result in the temporary or permanent loss of a public right of way, the operator will be required to provide an alternative and should endeavour to ensure that the alternative is of at least equivalent function, interest and quality.

MONITORING AND ENFORCEMENT

12.23 The performance of operators in complying with conditions attached to planning permissions, and general standards of working will be closely monitored. Reports of unauthorised development and breaches of planning conditions will be investigated.

12.24 Where breaches of planning control or other problems arise, resolution will normally be sought by negotiation and agreement in the first instance. In this connection, the establishment of local liaison committees can provide an important link between operators and local communities, and will be supported. Where necessary, action will be taken to enforce planning conditions and obligations using the powers available under planning legislation. In the case of unauthorised waste development, action will be taken to bring it under planning control.

GLOSSARY

After-care - Steps necessary to bring restored land up to the required standard for agriculture, forestry or amenity use.

AHLV - Area of High Landscape Value as defined in district-wide local plans.

AONB - Area of Outstanding Natural Beauty

Bad Neighbour Development - A term applied to those developments considered to be incompatible with residential and other sensitive land-uses due to them being offensive or causing a nuisance.

Best Practicable Environmental Option (BPEO) - This is the outcome of a systematic process which establishes, for a given set of objectives, the option that provides the most benefit or least damage to the environment as a whole, at acceptable costs, in the short term and long term.

Biodegradable Waste - Waste which can be broken down into simpler chemical forms by biological processes. These wastes give off methane or other gas and have the potential to pollute groundwater.

General Development Order (GDO) - This Order provides a detailed list of types of development which do not require express planning permission, i.e. are "permitted development".

High Natural Dispersion Areas - Estuaries or coastal waters where the discharge from sewage treatment works will not have an adverse effect because of the volume and flow of water.

Landfilling - The disposal of waste by its permanent deposition in or on the ground, by the filling of man-made voids or similar features, or the construction of land forms above ground level (often referred to as landraising).

Local communities, landscape character, nature conservation and heritage interests - In addition to their literal meaning, the inclusion of these terms in a policy implies that, where appropriate, Policies EP2, 3, 4, 8-11, 12-17 will also apply.

MPG - Mineral Planning Guidance Note issued by the Government.

Non-Biodegradable Waste - These are wastes which do not contain any organic matter or chemicals, do not therefore give off any methane or other gases and do not have the potential to pollute ground water.

Planning Conditions - Conditions attached to a planning permission for the purpose of regulating the development.

Planning Obligations - A planning agreement which may be bilateral or unilateral regarding the use or development of land.

PPG - Planning Policy Guidance Note issued by the Government.

Reclamation - Operations associated with the landfilling of wastes designed to return the area to an acceptable environmental state whether for the resumption of the former land-use or for a new use. It includes restoration, after-care, soil handling and contouring operations.

RIGS - Regionally Important Geological and Geomorphological Sites.

RPG - Regional Planning Guidance Note

Section 106 Agreement - A legal agreement between the local planning authority and any person interested in land in their area, for the purpose of restricting or regulating the development or use of the land, under Section 106 of the Town and Country Planning Act 1990.

SNCI - Site of Nature Conservation Importance.

SSSI (Site of Special Scientific Interest) - An area of land of special interest by reason of any of its flora, fauna, geological or physical features. English Nature is responsible for the selection of SSSIs.

Surcharging - The addition of waste material to a landfill site above approved final levels to allow for calculated settlement of waste.

Sustainable Development - Development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

Waste - Any substance which constitutes: a scrap material; effluent or other unwanted surplus substance arising from the application of any process; and any substance or article which requires to be disposed of as being broken, worn out, contaminated or otherwise spoiled.

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