

**T H E
Essex and Southend
W A S T E
Local
P L A N**

Adopted September 2001

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1.0 INTRODUCTION

- 1.1 This is the Essex and Southend Waste Local Plan (short title 'The Waste Plan' and referred to below as 'WP' or 'the Plan') and is a joint Plan of Essex County Council and Southend Unitary Authority, collectively referred to as the Waste Planning Authorities (WPA). It follows on from the First Consultation Draft of May 1996, the Second Consultation Draft of December 1997 and the Deposit Draft of November 1998. The Deposit Draft was examined at a Local Plan Inquiry which took place during November 1999 and January 2000. The Inspector's report of July 2000 made recommendations which have generally resulted in modifications to the original Deposit Draft.
- 1.2 The main issues addressed are:
- the contribution the WP makes to the aims of optimising the reduction, re-use, recycling and composting of all wastes but especially household waste;
 - compliance with revised regional guidance : 'Revised Waste Advice - a sustainable waste planning strategy for the South-East 1995 – 2010' SERP 160, SERPLAN, March 1997;
 - provisions for waste disposal by landfill;
 - the identification of specific sites for waste management facilities in addition to the potential landfill sites and criteria against which applications for further facilities would be considered;
 - policies to guide consideration of planning applications.
- 1.3 This Plan is produced by the WPA pursuant to Section 38 of the Town and Country Planning Act 1990. The Plan must 'have regard to' (paragraph 33 Planning Policy Guidance 10 (PPG 10): 'Planning and Waste Management'), the waste disposal plan (Section 50 Environmental Protection Act 1990). However, no such waste disposal plan exists for Essex or Southend. The WP is therefore based on the Revised Waste Advice and Regional waste surveys to provide a quantitative basis to the Plan. All proposals must, where appropriate, have regard to the policies of this Waste Plan, other Local Plans (produced by District Councils and the Minerals Local Plan produced by the County Council) and the Structure Plan. All these documents are collectively known as, and referred to in the WP Policies, as 'the development plan'.
- 1.4 The area of the Plan is the administrative County of Essex and the area of the Southend Unitary Authority . The Plan period insofar as it relates to the Regional Advice in terms of waste quantities and landfill figures is 1997 - 2010 inclusive. The timescale for implementation of the Plan's proposals (eg some of the preferred waste management sites), may be outside this period owing to the uncertainties surrounding specific processes and the timing of when facilities may be needed. However, because of long lead times provision needs to be made now. This longer-term view is encouraged in PPG 12.

1.5 The Plan sets out the 'waste policies' of the WPA, to be read in conjunction with the adopted Replacement Structure Plan (2001) which is a joint Plan of Essex and Southend Authorities. The WP is intended to be a comprehensive document on waste management planning in Essex and Southend. District Council Local Plans do not include policies on waste management planning but may be relevant on associated topics. 'Waste management' is the term given to the many processes for handling, or disposal of waste. This Plan (like PPG 10, paragraph 3) relates primarily to the management of 'controlled waste', but also includes provision for inert waste. 'Waste' is subdivided into inert and non-inert, inert being mainly construction/demolition waste and soils, non-inert being commercial and household waste and including clinical waste and sewage sludge. Further detail on waste types is given in Chapter 5.

1.6 Objective:

Consistent with the aims of sustainable development to achieve a balance between:

- minimising waste by recycling/composting and other means;
- making adequate provision of necessary waste management facilities; and
- safeguarding the environment of Essex, and the quality of life of its residents.

1.7 In respect of their administrative areas, Essex County Council and Southend Unitary Authority both have two statutory functions in the field of waste management:

Waste Planning Authority (WPA);
Waste Disposal Authority (WDA).

From the 1 April 1996 the Council ceased to be the Waste Regulation Authority, those powers passing to the Environment Agency - an independent agency of Central Government.

1.8 The Waste Disposal Authority is responsible for disposal of Municipal Solid Waste (MSW) arising in its area. District Councils, currently 12 in Essex, and Unitary Authorities are Waste Collection Authorities (WCAs) responsible for collecting household waste and disposing of it at sites, in accordance with contracts arranged by the WDA through competitive tendering process. The landfill sites are operated by commercial waste management companies. District Councils and Unitary Authorities must also produce waste recycling plans (Section 49 of the Environmental Protection Act 1990). In May 1998, following its assumption of Unitary Authority status from 1 April 1998, Southend formally requested that because of the strategic nature of waste management the Waste Plan should be a joint Plan covering Southend and Essex.

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- 1.9 The WDA also provide 'Civic Amenity Sites' (currently 26 in Essex and Southend) where waste is brought by householders for recycling where possible or for disposal in bulk. These sites are operated by commercial waste management companies under contract to the WDA.
- 1.10 In April 1999 the WDAs and WCAs agreed to a statement of intent, entitled 'Working Together', to aim for a minimum of 40% recycling/composting of household waste by the end of 2004, and seeking to achieve a minimum 60% by 2007. Progress will be reviewed and a detailed plan for dealing with the residual waste will be developed by the WDA/WCSs in October 2001.
- 1.11 The WPA are responsible for the preparation of the Waste Plan, and for decisions on planning applications for waste management proposals. The WPA have these statutory functions because waste management is a strategic, county-wide issue which is not limited by district boundaries. Thurrock became a Unitary Authority from April 1998 but is likely to adopt the generic policies of the WP until their own Unitary Plan is prepared which includes waste management as a topic.
- 1.12 Section 38 of the Town and Country Planning Act 1990, as amended by the Planning and Compensation Act 1991 (Schedule 4 and paragraph 17) in 1992, and the Waste Management Licensing Regulations (Schedule 4) 1994, require the WPA to produce 'waste policies' in a 'waste local plan' (or to include them in a Minerals Local Plan). Essex CC adopted a Minerals Plan in November 1996 and is therefore producing a separate waste local plan, jointly with Southend UA.
- 1.13 New guidance in the form of PPG 10: 'Planning and Waste Management' (September 1999) provides the current advice on the content of a waste local plan and supersedes parts of PPG23 'Planning and Pollution Control' (1994). Paragraph 33 requires WPAs to '... identify existing waste management sites with capacity for the future and, where practicable, new or extended sites to make adequate future provision of waste management facilities. . . Identification of specific sites for development is the best way that the planning system can make provision for future waste management facilities.' Paragraph 34 emphasises that in identifying preferred locations, regard must be had to local and regional requirements and other planning considerations, such as, '... protection of the environment and the community, the BPEO, the proximity principle and regional self-sufficiency.' In addition, WPAs '... should not seek to prohibit the development of particular types of waste facility unless they are confident that adequate alternative facilities will be available in their area. They should recognise that, whilst it can be valuable to set targets for the various waste management options, there is no guarantee that these will always be met.'
- 1.14 Section 50 of the Environmental Protection Act 1990, which required the Authorities to produce a waste disposal plan dealing with quantities of waste, has now been repealed. The basis for quantification in the WP is provided by Regional Advice and surveys as explained in 1.4 above.

- 1.15 A Project Brief was approved by Essex CC's Environment Committee in October 1992 as the starting point for production of the Plan. It set out the WPAs objectives for waste management, approved by Environment Committee in June 1992, introduced some of the issues to be considered and laid down a programme for the Plan's preparation. A Waste Disposal Statement, approved by the Environment Committee in March 1993, contained current data on waste management (as at 31 December 1992) and provided a basic factual background for production of the WP. In January 1994 an Issues Paper was published describing matters to be considered and responding to the consultation on draft Regional Guidance. In December 1994 a Draft Strategy was published and was the subject of consultation. The response was subsequently considered.
- 1.16 These background documents have been a part of the preparation process not just for the WP, but as a means of focusing attention on:
- the changing nature of waste management;
 - the Regional context;
 - the influence of London;
 - the need to address fully waste management as a major planning issue.

Essex and Southend Waste Management: the key issues

- 1.17 Waste planning must be seen in the Regional context. The basic strategy for the South East Region is for Counties to manage their own waste and to make provision for the importation of a proportion of London's waste. Clearly, the capital cannot currently manage all of its own waste within its boundaries. One of the problems facing the Region is how that waste from London is to be equitably apportioned to the surrounding Counties in the short to medium term, until London fully manages its own waste in accordance with the Regional Advice.
- 1.18 Traditional patterns of disposal have resulted in about half of London's exported waste coming to Essex for landfill. One of the main aims of the revised Regional Advice (SERPLAN SERP 160) is to share that burden more fairly around surrounding Counties in the South East. This has the effect that, for the Plan period, Essex Southend and Thurrock need to make provision for about 12% of London's exported waste. Post 2005 London is expected to halve its current export of waste to the region and increasingly manage its own waste. Post 2010 London is expected to limit exports to residues only.
- 1.19 Facilities and capacity for landfill are declining. Many of the principle landfill sites are reaching capacity. Voids formed by mineral working and which require restoration have been a traditional receptacle for waste but there is an appreciable reduction in the creation of new voids, due to changing policies for mineral supply, environmental constraints and economic circumstances.

- 1.20 For the future, the Government's hierarchy of waste management heralds new directions for waste management which should see the amount of waste decline (through reduction, recycling etc). In addition, new (or improved) technology can replace landfill as the principal means of managing waste. Waste is a resource, not just a problem and, for example, can be used as a raw material for new products, as a compost medium and to provide energy. Movement of waste management up the hierarchy, including a transition away from landfill towards new forms of treatment, is a central strategy of the Plan. The national strategy 'Waste Strategy 2000', reinforces the concept of Best Practicable Environmental Option (BPEO) as '...the option that provides the most benefits or the least damage to the environment as a whole, at acceptable cost, in the long term as well as the short term.' This is a key concept in formulating proposals in this Plan and in the control of waste development.

Purpose

- 1.21 The WP seeks to provide a framework and strategy for waste management in Essex and Southend and make suitable provision for the management of waste in the area within the plan period. However the WPAs role is to guide and control development, essentially carried out by the private sector. As WDA, Essex and Southend are also instrumental in awarding contracts for disposal of Municipal Solid Waste (MSW, primarily 'household waste'). The WP is not a 'waste management plan'. The Waste Disposal Authorities and Waste Collection Authorities are developing a 'waste contract strategy' (see the reference to the 'Working Together' statement in paragraph 1.10 above), including maximum practicable waste diversion) to guide their decisions in awarding future contracts for the management of Essex and Southend household waste. The household waste 'contract strategy' and award of contracts, which will have regard to Best Practicable Environmental Option (BPEO), is referred to in 3.18 below. There will be a presumption against incineration until the targets for household waste recycling (as currently set out in the Working Together Statement), have been given adequate opportunity to be tested, and the reference to BPEO in Policy W7G should be so interpreted. However, it would be unworkable for a planning policy to be specifically tied to the Working Together document or its targets, which may change over time in the light of experience and practicality.
- 1.22 To be realised, this strategy needs provision to be made for specific sites for waste management facilities. Several such sites were identified in the Second Consultation Draft (December 1997). There is no intention to prescribe the nature of the process possible on each site. Much more information would be required, including environment impact assessment where appropriate, and this can only be considered in principle and detail when proposals are made at the planning application stage.

Content

- 1.23 The National and Regional framework is described below.

- 1.24 The Environmental Appraisal is a key and integral element in the development plan. This was a feature of the First Consultation Draft. Above all, future waste management must be 'sustainable', and the policies of the Plan need to be assessed. This is a distinct process from the Environmental Impact Assessment (EIA) which may be required when detailed proposals are made the subject of planning applications. The guidelines for development control, decisions taken on planning applications which will in part implement the Plan, are set out below and provisions for monitoring and review are described in Chapter 12.
- 1.25 The description of waste streams is detailed in Chapter 5, waste minimisation and recycling is dealt with in Chapter 6. Waste processing and recovery is set out in Chapter 7.

2.0 POLICY FRAMEWORK

Introduction

- 2.1 The opening section of the WP has already made reference to the Regional context for waste management in Essex and Southend. The influence of London, and the historic patterns of waste being exported from the capital to the surrounding counties, makes the South-East Region the starting point for a waste strategy. The South East Regional Planning Conference (SERPLAN) has published:
- 'Waste - its Reduction, Re-use and Disposal – Regional Waste Planning guidelines' (RPC 2266, 1992);
 - 'Advice on Planning for Waste Reduction, Treatment and Disposal in the South-East 1994-2005' (RPC 2700, 1994);
 - 'Revised Waste Planning Advice: A Sustainable Waste Planning Strategy for the South East 1996 – 2010' (SERP 160 March 1997);
- 2.2 Of more general importance are the Government's policies for waste management, for example the target to recycle or compost 25% of all household waste by 2005. Policies and guidance are set out in the Government Documents:
- 'This Common Inheritance' (1990);
 - 'Sustainable Development, the UK Strategy' (1994);
 - 'Waste Strategy 2000: England and Wales' (Parts 1 & 2), (2000).
 - RPG9: Regional Planning Guidance for the South-East (March 2001).
- 2.3 Other relevant Government policy documents on the subject of waste management planning include:
- Circular 17/89: 'Landfill Sites, Development Control'
 - Circular 17/91: 'Water Industry Investment, Planning Considerations'
 - Thames Gateway Planning Framework (RPG 9a) (1995)
 - PPG 23: 'Planning and Pollution Control' (1994)

- 'Sustainable Development - the UK Strategy' (1994)
- Guidelines for Aggregates Provision in England (MPG 6) (1994)
- Guidelines for Peat Provision in England including the place of alternative materials (MPG 13) (1995)
- PPG 10: 'Planning and Waste Management' (1999)

More technical matters are dealt with in a series of

- Waste Management Papers

2.4 European Union (EU) legislation of direct relevance includes:

- The Framework Directive on Waste (75/442/EEC) as amended by 91/156/EEC and 91/692/EEC;
- the Hazardous Waste Directive (91/689/EEC);
- Landfill Directive (1999/31/EC);
- the Groundwater Directive (80/68/EEC);
- the EIA Directive (85/337/EEC 97/11/EC);
- Urban Waste Water Directive (91/27/EEC);
- Bathing Water Directive (70/160/EC);
- the Air Framework Directive (84/360/EEC);
- the Municipal Waste Incineration Plant Directive (89/369/EEC);
- the Integrated Pollution Prevention and Control Directive (96/61/EC).

2.5 It is not a function of the Plan to provide a comprehensive or detailed guide to every statute, policy guidance or advice on waste management. The Plan is not a technical nor descriptive document on every aspect of waste management. It makes reference to such technical or detailed matters when necessary if they affect the strategy, provision or assumptions of the Plan. The WP refers to important parts or themes of EU, National and Regional policy where they directly affect its key functions, for example in Chapter 11 which deals with Environmental Appraisal.

European Framework

2.6 The most significant Directive that applies to the control and disposal of wastes is the substantially revised and amended Council Directive 75/442/EEC - Waste Framework. The Directive contains a number of objectives that must be implemented either through a system of permits for the disposal and recovery of waste and/or through waste management plans. These objectives are contained within Articles 3, 4, 5 and 7 of Council Directive 75/442/EEC.

2.7 Article 3 of the Directive is in part implemented through Development Plans. Articles 4 and 7 are in part implemented through Development Plans and planning permissions for waste disposal and recovery developments. Article 5 is in part implemented through Development Plans and planning permissions for waste disposal developments.

- 2.8 The objectives contained within the Articles of the Council Directive 75/442/EEC form the basis for the waste hierarchy in National policy and guidance.

Waste Hierarchy

- 2.9 The concept of the waste hierarchy emerged in 'This Common Inheritance' (1990) at paragraph 14.77:

- minimising waste at source;
- recycling as much as possible;
- stricter controls over waste to be disposed of.

- 2.10 The theme continues in the national strategy, 'Waste Strategy 2000'. In Part 2 of the Strategy, Chapter 3 defines the waste hierarchy thus:

'The waste hierarchy is a conceptual framework, which acts as a guide to the framework that should be considered when assessing BPEO. It can also be a useful presentational tool for delivering a complex message in a comparatively simple and accessible way:

- the most effective environmental solution is often to reduce the generation of waste – reduction;
- products and materials can sometimes be used again, for the same or a different purpose – re-use;
- value can often be recovered from waste, through recycling, composting or energy recovered;
- only if none of the above offer an appropriate solution should waste be disposed of.'

- 2.11 Paragraph 3.7 of 'Waste Strategy 2000' (Part 2), cautions against the use of the waste hierarchy as a rigid guide with regard to BPEO:

'The waste hierarchy provides a theoretical framework which should be used as a guide for ranking the waste management options being considered as part of the BPEO assessment' such that 'For different materials, different options are likely to prove more environmentally effective and economically affordable. Thus BPEO for a waste stream is likely to be a mix of different waste management methods.'

BPEO is addressed more fully in Chapter 3 of this Plan.

Reducing Landfill

- 2.12 The Landfill Directive (1999/31/EC) requires that biodegradable municipal waste going to landfill must be reduced to 35% of the 1995 level by 2020. It also requires measures to be taken in order that only waste that has been subject to treatment (as defined in the Directive) is landfilled. The document 'Waste Strategy 2000' proposes the following targets for the management of municipal waste (at paras 2.35, 236 and 2.38 of Part 1):

- by 2005, to recover value from 40% of municipal waste, to include recycling or composting at least 25% of household waste;
- by 2010, to recover value from 45% of municipal waste, to include recycling or composting at least 30% of household waste;
- by 2015, to recover value from 67% of municipal waste, to include recycling or composting at least 33% of household waste.

- 2.13 The Landfill Tax was introduced in October 1996 as part of the Government's strategy to reduce reliance on landfill as the UK's primary means of waste management. When it was introduced the rate for active wastes was £7/tonne and £2/tonne for inactive wastes. The April 1999 budget increased the rate for active wastes to £10/tonne with a further commitment to annual increases of £1/tonne up to a review in 2004.
- 2.14 In Essex the introduction of this tax effectively doubled the gate price for the disposal of active wastes. The long-term effect will be to make other methods of waste management more cost-effective relative to landfill, encouraging more sustainable practices towards the higher end of the waste hierarchy.

Targets

- 2.15 The Government's targets for waste reduction are set out in Waste Strategy 2000 (see 2.12 above and Table 6.1 below). Most will have the effect of reducing the amount of waste currently going to landfill. The Waste Minimisation Act 1998 empowers local authorities to implement measures and incur expenditure with a view to minimising the generation of controlled waste.

Sustainability

- 2.16 The 1994 Government publication 'Sustainable Development: The UK Strategy' was published in part in response to Agenda 21 of the 1992 Earth Summit in Rio de Janeiro., and begins with:

'a widely quoted definition of this concept [sustainability] is - development that meets the needs of the present without compromising the ability of future generations to meet their own needs.'

This is reiterated and developed in the current strategy for sustainable development, 'A Better Quality of Life' (1999), which outlines the four key elements of the Government's approach to sustainable development:

- effective protection of the environment;
- prudent use of natural resources;
- social progress which meets the need of everyone; and
- high and stable levels of economic growth and employment.

- 2.17 'Waste Strategy 2000' builds upon the principles of the broader sustainable development strategy, identifying the challenges for waste management. At the heart of sustainable waste management is:

- tackling the amount of waste produced by breaking the link between economic growth and waste production; and
- putting waste which is produced to good use through substantial increases in re-use, recycling, composting and recovery of energy. (Paragraph 2.7, Part 1)

The Polluter Pays Principle

2.18 The principle that environmental costs should be borne by those responsible for any environmental damage, was explored in the consultation paper 'Making Waste work' (1995). One of the major issues for waste was the distortion of the market by the relatively cheap cost of landfill. This has largely been redressed by the Landfill Tax (paragraphs 2.13 and 2.14 above) which:

'...was designed to promote the polluter pays principle by increasing the cost of landfill to reflect its environmental costs, and to promote a more sustainable approach to waste management in which less waste is produced and more is recovered or recycled.'

(Waste Strategy 2000 (Part 2), paragraph 5.97).

2.19 The national strategy extends this principle by proposing sectoral producer responsibility initiatives that encourage industry to take greater responsibility for their products once they enter the waste stream.

The Proximity Principle

2.20 PPG 10 (Box 1) states that, in accordance with the proximity principle,

'Waste should generally be managed as near as possible to its place of production, because transporting waste itself has an environmental impact.'

2.21 The proximity principle is an important tool for delivering regional self-sufficiency. PPG 10 requires that:

'Most waste should be treated or disposed of within the region in which it is produced.'

When considered in conjunction with the waste hierarchy and BPEO, the principles of proximity and self-sufficiency will help to deliver the most sustainable waste management option

2.22 Government produces guidance for each UK region. 'Regional Planning Guidance For the South-East' (RPG9) (2001) is the current document relating to Essex and Southend, covering the period up to 2016. The implications of the guidance are considered below.

London and South-East Regional Planning Conference (SERPLAN)

- 2.23 In March 2001 the Government published 'Draft Regional Planning Guidance for the South East: (See attached) Policy INF3 of this document is:

Policy INF3

Adequate provision should be made for the management of the Region's waste within its own boundaries wherever possible. Waste Planning Authorities should aim to make provision for a sufficient range and number of facilities for the re-use, recovery and disposal of waste that will need to be managed within their areas. Every effort should be made to minimise waste.

- A. Until such time as targets for the management of waste at the regional level can be adopted, the following national targets should be used:
- i. to recycle or compost at least 25% of household waste by 2005, 30% by 2010 and 33% by 2015;
 - ii. to recycle 17% of municipal waste by 2003 and at least 33% by 2015; and
 - iii. by 2005, to reduce the amount of industrial and commercial waste going to landfill to 85% of 1998 levels.
- B. Unitary development plans and waste local plans should:
- i. identify sites for waste treatment and disposal facilities having regard to the Best Practicable Environmental Option (BPEO), the waste hierarchy, the proximity principle and the regional self-sufficiency principle as advised in PPG10 (Planning and Waste Management); and
 - ii. integrate sites for waste treatment and disposal with rail and water-based transport systems wherever possible and where this is consistent with the proximity principle.
- C. In addition:
- i. local authorities should continue to collaborate with the waste industries and relevant agencies to actively promote waste minimisation and management processes such as re-use, recycling, incineration, energy recovery, composting and others in order to reduce the amount of waste produced and the amount of waste disposed of by landfill; and
 - ii. a more integrated approach to waste management is required, with sufficient flexibility to enable full consideration of alternative and innovative waste management options. For example, recycling and

composting schemes can provide an integrated, sustainable and cost effective means of managing waste locally.

- D. In reviewing this guidance, the Regional Planning Bodies and the Mayor of London will need to undertake further work to develop regional targets for waste management in the light of national waste management objectives and regional technical advice. They should also assess the need for regionally significant facilities for the management of waste.

2.24 The SERPLAN Revised Advice (SERP 160, March 1997) (see paragraph 2.1 above) has a period of 1996 to 2010 inclusive, and this almost coincides with the WP period. The essence of the Advice is that each County in the South East Region:

- (i) makes provision to achieve self-sufficiency in inert waste disposal and in providing reduction, treatment and disposal facilities for non-inert wastes;
- (ii) makes provision for a proportion of London's exported waste based on availability of surplus void, and by 2010 London is expected to manage all of its own waste though exporting residues

The Structure Plan

2.25 The WP is required to conform with the Structure Plan. The original Essex Structure Plan was approved by the Secretary of State in 1982. In 1992 the First Alteration was approved and the Explanatory Memorandum (July 1992) contains all the policies carried forward from the original, the additional/revised policies, and supporting text. There are 7 waste management policies in the First Alteration, including some dating from the 1982 original Structure Plan.

2.26 The Second Alteration was adopted in 1995. This is a change to the First Alteration only in some policies as the Explanatory Memorandum (January 1995) sets out. Waste Management was not affected.

2.27 A Deposit Draft of the Replacement Structure Plan jointly prepared by Essex CC and Southend UA was published in February 1998 and an Examination in Public was held in June-July 1999. The report of the EiP Panel followed in December of that year and schedule of proposed modifications was published in March 2000. The Replacement Structure Plan was adopted in April 2001. It is intended that the WP will be a comprehensive document for waste planning. The Replacement Structure Plan includes the broad strategic issues and policies.

Conclusion

2.28 This Chapter of the WP has sought to provide an overview of the policy background as it directly affects the subject of waste management planning.

- 2.29 The policy framework occasionally extends into other Chapters, where appropriate. Reading this Chapter is no substitute for detailed study of the source documents if required. Lack of specific reference to a policy element should not infer lack of importance
- 2.30 The policy framework is wide and diverse, yet it is essential that the WP reflects and conforms with the substantive ingredients: EU, National, Regional and County based.

3.0 THE STRATEGY FOR ESSEX AND SOUTHEND

Introduction

- 3.1 The WP incorporates the essential elements of the policy background and framework to produce a detailed strategy to provide clear guidance (and encouragement) for satisfactory waste management in Essex and Southend for the Plan period.
- 3.2 The Plan cannot itself deliver the system of facilities and initiatives which will meet the objective of making satisfactory waste management provision, whilst protecting the environment. It will provide the proper framework for that to happen. However the Plan is based upon some assumptions, detailed below, about reduction, re-use and recycling/composting and the reduction of imported wastes in accordance with the Regional Advice so that quantities of waste requiring major provision through the planning system can be arrived at. It is assumed that by 2010 Essex will have ceased importing London's waste (except residues that cannot be dealt with in any other way). The Plan is also based on the assumption that by 2010 an average of 40% of all current waste amounts will either be reduced, re-used, recycled or composted, as a minimum. In April 1999 the WDAs and WCAs agreed to a statement of intent, entitled 'Working Together', to aim for a minimum of 40% recycling/composting of household waste by the end of 2004, seeking to achieve a minimum 60% by 2007, reviewing progress and developing a detailed plan for residual waste in October 2001.

The Hierarchy

- 3.3 The WP fully endorses the principle of the waste hierarchy as detailed in paragraph 2.10 above. The waste hierarchy acts as a guide to the framework that should be considered when assessing the Best Practicable Environmental Option (BPEO). This is explained further at paragraphs 3.18-3.19 below.
- 3.4 It is recognised that the planning framework - the preparation of the development plan and the consideration of planning applications - has limitations in the application of this strategy. Some activities can be 'encouraged' in a general way, others can be planned for and controlled in a more defined way. For example the encouragement given to, and reliance placed on, a reduction of waste (eg by less packaging) is outside the formal framework of the Plan. Recycling can be encouraged in a general way, but it is a specific planning function to deal with applications for recycling facilities.

Sites for waste management facilities and landfill sites are specifically proposed in the WP to provide clear guidance when applications for planning permission are submitted and to encourage provision of perhaps controversial but nonetheless necessary facilities.

Reduction/Reuse

- 3.5 Although these options are at the top of the hierarchy, they are generally beyond the scope of this plan. The responsibility for taking steps to minimise waste entering the waste stream lies with all of us - with individuals, companies, Government, Essex CC and Southend UA as Waste Disposal Authorities (WDA) and the District/Unitary Councils as Waste Collection Authorities (WCA) – as well as with planning authorities

Recycling and Composting

- 3.6 Many facilities have already been established in Essex and Southend, in some cases by a more flexible application of traditional planning control. For example, recycling has been permitted at mineral sites where it produces an alternative product to virgin material, and at landfill sites where it offers a last chance to recover usable material before final disposal. Open composting has been permitted in rural locations and re-use of redundant rural buildings offers other opportunities. Policies of the Plan reinforce this flexibility. The preferred waste management locations will enable the provision, where appropriate, of integrated facilities which include recycling and composting as seen in modern European examples. The Plan also sets criteria for identifying additional sites for small-scale waste management, the need for which may arise from implementing the 'Working Together' strategy (see policy W4B).

Recovery

- 3.7 For the waste that does enter the waste stream, and which falls within the planning system, the WP strategy is firstly to maximise opportunity for waste management facilities for recycling and composting (see paragraph 3.6), and secondly to provide for energy recovery from the remaining waste stream.
- 3.8 In order to maximise opportunity it may be necessary to re-examine traditional planning policies to see, for example, if some waste management facilities can satisfactorily be sited outside urban areas without compromising protection of the countryside. There is, of course, a dilemma - in finding ways to accommodate facilities outside the urban areas (to widen the choice of sites and minimise impact on residential amenity), the 'proximity principle' of minimising the distance between source and treatment may be compromised. The WP, and the application of its policies, must seek to balance many competing forces.
- 3.9 After waste production has been minimised, and all that which enters the waste stream which can be recycled, composted etc, has been removed, there remains a significant amount to be treated. Next in the hierarchy is the principle of energy recovery. This is achieved in a variety of ways and the

Plan does not intend to be prescriptive. New and emerging technology has an important role to play, not only in relation to incineration, which is the traditional means of energy recovery from large volumes of waste, but also more modern methods such as anaerobic digestion and pyrolysis. Energy can also be recovered from landfill gas. Recycling and composting together with energy recovery methods and landfill (see below) must be on the scale necessary to handle the large volumes of waste generated in Essex and Southend.

- 3.10 It is essential that the WP not only makes satisfactory provision for waste management in the short to medium term, but goes on to look at the end of the Plan period (2010) and beyond. Provision of waste management facilities on the necessary scale will take time. For example 'industrial' waste management processes such as EfW incineration have lead times of at least 5 to 10 years from inception to operation. The WPAs will strongly encourage development at the waste management locations identified in the Plan which contributes significantly to the strategy for waste management in Essex and Southend.
- 3.11 The First Consultation Draft of the WP, set out the criteria for the location of waste management sites, subsequently refined by Environment Committee in January 1997. Proposals for specific sites were included in the Second Consultation Draft after examining over fifty sites and consulting widely. There were many objections to those sites and the consultation period was extended specifically for District Councils to consider the matter and suggest alternatives. None came forward.
- 3.12 The final version of the Plan now proposes sites for waste management facilities strategically located across the Plan area together with criteria for the identification of additional sites. Such proposals are unlikely to be implemented in the early part of the Plan period, but will gradually replace landfill as it declines in the County. The facilities are necessary to service the waste management needs of Essex and Southend only: London is expected to develop its own facilities and other counties are expected to be self-sufficient in terms of provision of their own waste management facilities.

Landfill

- 3.13 The Government's hierarchy of waste management puts landfill at the bottom. SERPLAN's 1994 Advice (RPC 2700) says 'Landfill as a waste disposal method should be regarded as a last resort' (paragraph 1.15). The Revised Advice (SERP 160, 1997) says:

'1.3 Landfill continues to be filled at a faster rate than is being created. For a more sustainable approach, a radical change in practice will be required to reduce the quantity of waste going to landfill, through minimisation, re-use, recycling and treatment. That change in approach will enable the husbanding of remaining landfill, which will be required in the long term for the disposal of residues and untreatable wastes.'

- 1.4 RPC 2700 identified availability of landfill as the basis for waste management planning. In recognising the place of landfill at the bottom of the waste hierarchy and the need for a sustainable strategy, the Revised Advice emphasises the role of methods and facilities for the diversion of waste away from landfill.”
- 3.14 The WP’s approach to landfill is explained in chapter 9. Landfill for its own sake, or landraising beyond what is required for restoration, is unacceptable unless a need can be demonstrated consistently with policies W3A, W3B and W3C. Landfill can be environmentally unacceptable and there are serious doubts about its ability to be sustainable (ie that a site can be filled, restored and rendered free of harm without compromising the interests of future generations).
- 3.15 Landfill, historically and currently, is the predominant method of waste disposal nationally, regionally and in Essex. The current contribution of recycling and composting is minimal. The impact of waste reduction (eg reduction of packaging) has yet to be experienced. There is little EfW incineration capacity in the Region and none in Essex or Southend. The early part of the plan period is likely to be dominated by landfill. Although the strategy is to do everything possible to reduce the amount of waste going to landfill, the WP must make a realistic provision for landfill capacity. It is recognised that diversion from landfill is likely to increase waste management costs, including those of the WDA and WCAs, but as landfill becomes physically more scarce it will inevitably be more expensive, even without the fiscal intervention of the Landfill Tax.
- 3.16 Landfill capacity is not an inexhaustible resource and with continued filling the amount of available void in the County will decline steadily, but will not be replaced by substantial new sites created by mineral extraction. Whatever the future demand for aggregates, and currently production in Essex is just over half of what it was at its peak in the 1980’s, Government Policy in MPG6 is to seek alternative sources of supply away from local land-won sand and gravel.
- 3.17 SERPLAN’s Advice provides quantified guidance on the amount of landfill required up to 2010 to provide a sufficient resource for making a contribution to county and regional needs. This results in a figure for ‘old’ Essex which includes Thurrock UA, now excluded from the proposals for the WP. However, the realistic availability of landfill capacity in Thurrock UA is material and has been calculated based on known data (details are given in Appendix 12), deducted from the ‘old’ Essex requirement to provide a basis for landfill provision in the WP.

Best Practicable Environmental Option

- 3.18 References to the waste hierarchy and Best Practicable Environmental Option(BPEO) have been made in paragraphs 1.20, 2.10 -2.12 and 3.3 above. Waste Strategy 2000 defines BPEO as:

‘the outcome of a systematic and consultative decision-making procedure which emphasises the protection and conservation of the environment across land, air and water. The BPEO procedure establishes, for a given set of objectives, the option that provides the most benefits or the least damage to the environment as a whole, at acceptable cost, in the long term as well as in the short term.’

(Paragraph 3.4 of Waste Strategy 2000 Part 2).

The WP adopts the principles of the hierarchy as a guide but has implicitly applied the principles of BPEO in forming the strategy while recognising the dominance of landfill in the Plan area whilst voidspace remains. The strategy:

- provides the planning opportunities for reduction, re-use, recycling and composting to manage increasing amounts of waste, on a variety of sites which meet the criteria in the Plan;
- quantifies landfill needs in accordance with Regional Advice (SERP 160), identifies sites which need restoration and will add to the landfill provision;
- identifies sites suitable for a range of waste management uses (subject to the other policies of this Plan) and criteria for identifying additional sites to meet waste management needs as the proportion going to landfill is reduced;
- envisages that the identified waste management sites can, in any event, be the location for processes at the upper end of the hierarchy.

3.19 Planning applications on the identified waste management sites will need to demonstrate how they relate to the considerations set out in policy W3A below. Proposals on these sites will also generally have to demonstrate that they satisfy need (as defined in policies W3B and W3C). In reality proposals for managing household waste are most likely to be made in association with a draft contract developed out of the ‘household waste contract strategy’ being developed by the Essex Authorities, to make provision for locally generated household waste. There may be opportunities for joint ventures with adjoining Authorities where this is mutually beneficial and this could justify being an exception to the ‘self sufficiency’ principle to be considered in the context of BPEO at the planning application stage. The mix of facilities on the site and how the proposal fits in with the overall waste disposal contract strategy, including availability of alternative facilities, will be the subject of pre-application discussions between developer, the WDA, the WPA and Environment Agency. Consultation on the application may also lead to modifications to the scheme. The ‘waste hierarchy is a national policy definition, as currently articulated in ‘Waste Strategy 2000’ and as set out in paragraph 2.10 above.

W3A THE WPAS WILL:

1. IN DETERMINING PLANNING APPLICATIONS AND IN ALL CONSIDERATION OF WASTE MANAGEMENT PROPOSALS HAVE REGARD TO THE FOLLOWING PRINCIPLES:

- **CONSISTENCY WITH THE GOALS AND PRINCIPLES OF SUSTAINABLE DEVELOPMENT;**
 - **WHETHER THE PROPOSAL REPRESENTS THE BEST PRACTICABLE ENVIRONMENTAL OPTION FOR THE PARTICULAR WASTE STREAM AND AT THAT LOCATION;**
 - **WHETHER THE PROPOSAL WOULD CONFLICT WITH OTHER OPTIONS FURTHER UP THE WASTE HIERARCHY;**
 - **CONFORMITY WITH THE PROXIMITY PRINCIPLE;**
- 2. IN CONSIDERING PROPOSALS FOR MANAGING WASTE AND IN WORKING WITH THE WDAs, WCAs AND INDUSTRIAL AND COMMERCIAL ORGANISATIONS, PROMOTE WASTE REDUCTION, RE-USE OF WASTE, WASTE RECYCLING/COMPOSTING, ENERGY RECOVERY FROM WASTE AND WASTE DISPOSAL IN THAT ORDER OF PRIORITY;**
- 3. IDENTIFY SPECIFIC LOCATIONS AND AREAS OF SEARCH FOR WASTE MANAGEMENT FACILITIES, PLANNING CRITERIA FOR THE LOCATION OF ADDITIONAL FACILITIES, AND EXISTING AND POTENTIAL LANDFILL SITES, WHICH TOGETHER ENABLE ADEQUATE PROVISION TO BE MADE FOR ESSEX, SOUTHEND AND REGIONAL WASTE MANAGEMENT NEEDS AS DEFINED IN POLICIES W3B AND W3C.**

The Regional Context

- 3.20 The Revised Advice (SERP 160, March 1997), detailed at paragraph 2.24 above, quantifies waste arisings for the period 1996 - 2010 for London and each county, and details how much waste is expected to be recycled etc. From that amount each county, and London, is expected to make a specified provision for waste to be diverted from landfill to other forms of management. For that waste remaining, the Advice goes on to identify what the landfill void space was (as at March 1995 - from the SEWRAC survey RAC 300), and thus for some counties calculates a surplus of landfill void. These surpluses are added to provide a Regional total, the amount of London's exported waste is then divided as a proportion of that, and this proportion is applied to each county's surplus to provide a 'regional contribution' figure. Most figures, and for landfill in particular, are expressed as million cubic metres (mcm) which matches waste quantities with volumes of void. Conversion figures have been agreed for tonnes (t) to cubic metres.
- 3.21 This 1995 base date has been updated by the 1996 Survey conducted by the Environment Agency. The Second Consultation Draft of the WP incorporated this end of 1996 data to provide the basis for the 1997 - 2010 plan period. Adjustments to the Regional Advice figures have been made where appropriate.

Assumptions

- 3.22 The Advice makes assumptions for the South East Region, and these are the assumptions which are relied upon for the WP and its proposals, even though they should be regarded as minimum targets:
- (a) Waste requiring some form of management will be reduced, relative to the 1987 - 1995 average by the following percentages:

	at 2000	at 2005	at 2010
Type A	30%	40%	50%
B	15%	25%	35%
C	15%	20%	30%

Source: Table 1 SERP 160

Note: these percentages incorporate reduction, re-use, recycling and composting.

- (b) Existing and committed waste treatment capacity (non-landfill) is as follows (mcm), without provision for any new capacity:

	1996	<i>volume diverted from landfill 1996-2005</i>	<i>addit capacity after 2000</i>	<i>volume diverted per 5 year period after 2000</i>
ROSE	0.281	0.893	1.409	7.032
London	1.150	4.888	0.000	4.888
SE total	1.431	5.781	1.409	11.920

Source : Table 2 SERP 160

- (c) Household waste generation (mainly Type C waste) is assumed to be 0.5 t per person per annum, for the purposes of (a) above.
- (d) Types A (inert) and B (commercial) waste will be produced at the average rate from the 1987 - 1995 surveys, for the purposes of (a) above.
- (e) Conversion figures are per cubic metre: 1.5 t for A waste, 0.8 t for B/C waste.
- (f) For all methods of landfill diversion there will be a residue of 15% by volume requiring disposal to non-inert landfill, this amount is included in the landfill figures.
- 3.23 The Advice is based upon a more equitable distribution of London's exported waste to other counties in the Region which have already recorded, in the 1995 Survey, that they have surplus void space. The future amount of waste disposal in Essex will be guided by the framework of the Advice and the strategy of the WP rather than by the assumption that past amounts can be projected forward.

- 3.24 Historically, disposal in Essex of waste from outside the County has been substantial. Most of this has come from London, but other counties (principally Kent) have sent their waste to Essex. More of London's waste has been disposed of in the County than that arising in Essex; nearly half of London's total exported waste has come to Essex for disposal. The thrust of the 1997 Regional Advice (SERP 160) is firstly to distribute that waste more evenly throughout the South-East (and Essex is expected to receive some 12% of London's exported waste in the period up to 2010 rather than the historic levels of up to 50%); secondly a longer term solution is for London to treat its own waste, merely exporting residues that cannot be dealt with in any other way. Other Counties must make full provision for their own waste.
- 3.25 Beyond 2010 Essex and Southend will not make provision (landfill, incineration capacity etc) to accept any of London's untreated waste, although the landfilling of some residues may continue and will be considered in a future review of the WP. London is expected to develop its own facilities and procedures for management of its own waste making adequate allowance for the lead times for such sites coming on stream in accordance with the Regional advice. Thus in accordance with the principle of County self-sufficiency, the aim that London will manage its own waste (in ways which will avoid exporting untreated waste) and the proximity principle (where waste should be managed close to its point of arising), new waste management facilities in Essex and Southend should, for proper planning reasons including conformity with regional strategy (SERP 160, 1997) and the proximity principle, be permitted only to meet a need arising in Essex and Southend. One way to achieve that will be to seek obligations (currently covered by Section 106 of the Town and Country Planning Act 1990) from developers when proposals come forward. There will be a continuing need for landfill capacity for some of London's waste, but this will be limited in accordance with regional advice.

W3B FOR THE PLAN PERIOD (1997 - 2010) PROVISION IS MADE FOR LANDFILL OF A PROPORTION OF LONDON'S WASTE IN ACCORDANCE WITH REGIONAL ADVICE (CURRENTLY SERPLAN SERP 160 AND RPG9). BEYOND 2005 PROVISION WILL BE MADE FOR A REDUCED AMOUNT OF LONDON'S WASTE. BEYOND 2010 PROVISION WILL ONLY BE MADE FOR SOME OF LONDON'S PRE-TREATED WASTE RESIDUES, AT A LEVEL TO BE DETERMINED IN A REVIEW OF THIS PLAN.

Need for Waste Development

- 3.26 PPG23 para 3.15 advises that applicants do not normally have to prove the need for their proposed development. However for waste management proposals in Essex and Southend, it is considered that there is a special case, for all but small-scale development, for permitting new facilities only where a need is shown within the Plan area. This is subject to policy W3B

(regional provision) for landfill, and to policy W5A which applies the principle of regional self-sufficiency to proposals to manage special wastes. This will ensure that Essex and Southend satisfy regional advice in providing for the equivalent of their own needs, without attracting waste from a wider area on a scale contrary to the proximity principle. Such a policy should be applied flexibly where waste movement across the county boundary would be mutually beneficial to both authorities and satisfy the proximity principle. Most waste developments cause some environmental harm which would have to be outweighed by a case of need. An exception would be made if such harm were outweighed by other benefits. Policy W3C applies accordingly.

W3C SUBJECT TO POLICY W3B IN THE CASE OF LANDFILL AND TO POLICY W5A IN THE CASE OF SPECIAL WASTES, SIGNIFICANT WASTE MANAGEMENT DEVELOPMENTS (WITH A CAPACITY OVER 25,000 TONNES PER ANNUM) WILL ONLY BE PERMITTED WHEN A NEED FOR THE FACILITY (IN ACCORDANCE WITH THE PRINCIPLES ESTABLISHED IN POLICY W3A) HAS BEEN DEMONSTRATED FOR WASTE ARISING IN ESSEX AND SOUTHEND. IN THE CASE OF NON-LANDFILL PROPOSALS WITH AN ANNUAL CAPACITY OVER 50,000 TONNES PER ANNUM, RESTRICTIONS WILL BE IMPOSED, AS PART OF ANY PLANNING PERMISSION GRANTED, TO RESTRICT THE SOURCE OF WASTE TO THAT ARISING IN THE PLAN AREA. EXCEPTIONS MAY BE MADE IN THE FOLLOWING CIRCUMSTANCES:

- **WHERE THE PROPOSAL WOULD ACHIEVE OTHER BENEFITS THAT WOULD OUTWEIGH ANY HARM CAUSED;**
- **WHERE MEETING A CROSS-BOUNDARY NEED WOULD SATISFY THE PROXIMITY PRINCIPLE AND BE MUTUALLY ACCEPTABLE TO BOTH WPAs;**
- **IN THE CASE OF LANDFILL, WHERE IT IS SHOWN TO BE NECESSARY TO ACHIEVE SATISFACTORY RESTORATION.**

Requirements

3.27 SERP 160 quantifies waste amounts of 'old' Essex, that is Essex including Thurrock and Southend. This is taken forward in this Plan in chapter 9 where adjustments are made as far as possible for the exclusion of Thurrock from the Plan area. It is possible to disaggregate landfill voids and Appendix 12 provides guidance on voidspace in Thurrock. The first review of this Plan will take this on board along with estimates of 'new' Essex (that is, Essex and Southend) waste arisings now becoming available from the Environment Agency, to relate landfill requirements more accurately to the Plan area. This will also require agreement on the apportionment of provision for London between 'new' Essex and Thurrock. Pending this, the following analysis is taken from tables 4C and 5C of the regional advice (SERP 160) for the period 1996-2010 for 'old' Essex:

- 28.4 mcm of non-inert waste will be generated in the Plan area of which:
- 5.1 mcm will be managed by reduction, recycling etc

- 17.0 mcm will be landfilled
 - 6.3 mcm will be managed by other means.
 - In addition provision must be made for managing 9.4 mcm of London's exported non-inert waste, which effectively means landfill capacity because measures to reduce waste within London have already been assumed.
 - From this, the non-inert landfill provision required for 'old' Essex 1996-2010 is 26.4 mcm. To this must be added 11.7 mcm for inert waste (also derived from SERP 160), giving a total of 38.1 mcm of waste.
- 3.28 It is now possible to update the starting date by a year because new survey data is available. This will reduce the required provision because waste disposed of in 1996 can be discounted from the total figure given in the Advice. Thus the 6.4 mcm of waste landfilled in 1996 reduces the provision for 1997-2010 to 31.7 mcm.
- 3.29 Importantly, the Advice assumes that in the Plan area provision should be made by 2010 to manage 6.3 mcm of waste by means other than landfill in addition to the waste reduction by recycling and other means already subsumed in the 5.1 mcm figure in para 3.27 above. It is vital to appreciate that estimates of waste management provision in this Plan assume that this will be achieved. The 'Working Together' strategy and the policies of the Plan enabling the provision of new waste management sites are the response to that guidance.
- 3.30 Prior to the publication of the Regional Advice there was no prescribed method of quantifying 'need', although the matter arose at various Planning Inquiries and was assessed in Secretary of State decisions. The new approach of the Regional Advice is for self-sufficiency and to provide for London's waste across the Region where identified void is available. Past disposal rates cannot dictate quantification of 'need' to provide future facilities. Clearly the notion of a continued 'landbank' of void space would be to protect landfill (at the bottom of the hierarchy) ignore the principle of a restoration led strategy and would therefore be indefensible. It could even result in holes being dug principally to provide void space without regard to the 'need' for the minerals.

Landfill Void In the WP

- 3.31 The approach of the Regional Advice is to quantify that amount of waste which will require disposal after arisings have reduced as much as possible by recycling, incineration etc. The strategy of the WP is to identify those sites which require restoration by landfill, in most cases already committed by planning permission (but not by licence such that they remain outside the category of sites with full permission). The voidspace of these sites also provides for the quantities of waste expected in the Advice, ie these Preferred Sites satisfy 'need' for landfill capacity.
- 3.32 The WP is based upon the period 1997 to 2010 inclusive (14 years); 2010 being the convenient end date which matches the Advice. It is now possible

to incorporate figures current up to the beginning of 1997 based on the Environment Agency’s survey, but this requires an adjustment to the Advice figures for the year of 1996.

- 3.33 The position for void space at the beginning of 1997 must be assessed to quantify the amount needed to be identified in the WP (beyond current permitted void), to accommodate the calculated waste going to landfill in the period up to the end of 2010. This assessment of required void space is made after assumed reductions of waste have been deducted from current disposals. The following table adjusts the position for “old” Essex, which included Thurrock for which further adjustments are made in Chapter 9.

Table 3.1: Voidspace required in old Essex (including Thurrock) – mcm		
	Inert	Non-inert
Waste requiring landfill in Revised Advice (Tables 4C, 5C SERP 160) 1996 - 2010	11.70	26.40
Waste landfilled in 1996 (deducted)	1.36	5.06
Advice adjusted for period 1997-2010	10.34	21.34

- 3.34 These figures are volumes of waste not total volumes of void at sites. Sites with permission for non-inert waste will accommodate a proportion of inert waste. In the past that may have been a higher proportion than in the future. The reasons why the proportion may decline include: landfill costs rising, sites being conserved for the more valuable wastes, landfill void becoming more scarce, contracted volumes for sites squeezing out ad-hoc tipping of inert wastes, and new artificial means of cover. The WP has assumed that ‘non-inert’ site voids will accommodate 10% of inert waste.

Landfill Provision

- 3.35 Chapter 9 assesses current permitted void and makes quantified site specific proposals for additional void. It is essential that Essex and Southend make satisfactory provision for their own waste by securing some of the proposed voidspace and this principle is addressed in Policy W3C above. This is in accordance with the proximity principle and the substance of Regional Advice. Furthermore void intended for non-inert waste must be reserved for that purpose.

W3D THE VOID AT ALL SITES INTENDED FOR NON-INERT WASTE SHOULD BE RESERVED FOR THAT TYPE OF WASTE (APART FROM SITE ENGINEERING REQUIREMENTS). WHERE APPROPRIATE, RESTRICTIONS WILL BE IMPOSED TO ACHIEVE THIS AIM AS PART OF ANY PLANNING PERMISSION.

Environmental Assessment

- 3.36 Sites identified in this Plan have not been the subject of Environmental Impact Assessment. It is the responsibility of the developer, where

appropriate, to provide a report which is considered by the WPA at the planning application stage. Nothing in this Plan prevents full consideration of any of the sites - landfill and other waste management sites - and rejection of any proposal which cannot meet stringent environmental standards.

- 3.37 An environmental statement will need to accompany a planning application where the proposed development is of a type listed in the Schedule 1 to the Town and Country Planning (Environmental Impact Assessment) Regulations 1999 or is a type listed in Schedule 2 and likely to have significant environmental effects by virtue of its nature, size or location. For any given proposal, the more environmentally sensitive the location the more likely it is that the environmental effects will be significant and that environmental impact assessment will be warranted before planning permission may be granted. The assessment includes the individual and cumulative effects of energy recovery operations on air quality, traffic generation, noise, visual intrusion and the current and future land uses in the surrounding area.
- 3.38 Schedule 1 developments include:- integrated chemical installations, installations for the final disposal of radioactive waste and the incineration or chemical treatment of special waste.
- 3.39 Schedule 2 developments include:- minerals extraction (mining waste/buried PFA), installations for the disposal or incineration of non-hazardous controlled waste and waste water treatment plants.
- 3.40 The aim of an environmental statement will be to provide a full and systematic account of a development's likely effects on the environment, including those which are subject to pollution controls, and the measures envisaged to avoid, reduce or remedy significant adverse effects. Where the application falls within the scope of the Regulations, planning permission may not be granted unless the information contained in the environmental statement has been taken into consideration, together with any representations made by a statutory consultee or any other person. This information will determine whether planning permission should be granted in the light of any likely adverse environmental effects and if approved the appropriate conditions and steps required to reduce any such adverse effects. Conditions must, however, relate to planning matters and not fall within the remit of the pollution control authority.

4.0 CHAPTER 4 ENVIRONMENTAL PROTECTION

Introduction

- 4.1 This chapter sets out the framework of existing protection applicable to waste development in the Plan area. It also provides a commentary on the application and other general considerations that should influence the location and design of new waste development. Where appropriate, new policies are introduced or there are cross-references to new policies in other chapters. The chapter is split up into the following subject areas:

- General protection of the countryside;
- Restoration of mineral workings;
- Protection of landscape agriculture, nature conservation and archaeology;
- Protection of residential areas;
- Geology and hydrology;
- Pollution;
- Air pollution;
- Water pollution; and
- Noise pollution.
- Highways

General Protection of the Countryside

- 4.2 Government Guidance in PPG2 and PPG7, and policies C2 and C5 of the Replacement Structure Plan provide general protection to the countryside from new development including new waste development. The policies are quoted in Appendix 5.
- 4.3 About 32% of the Plan area is within the Metropolitan Green Belt, surrounding several existing towns and villages. The precise boundary of the Green Belt is defined in District and Borough Local Plans, but it is bounded approximately by the A1060, the A130 and the River Crouch.
- 4.4 To enable the stated purposes and objectives to be achieved, PPG2 has introduced a general ‘presumption against inappropriate development’, which it defines as development that is harmful to the Green Belt. This presumption can only be overridden in cases where there are ‘very special circumstances to justify inappropriate development’.
- 4.5 PPG2 [Paragraph 3.12] states that engineering operations are inappropriate “unless they maintain openness and do not conflict with the purposes of including land in the Green Belt”. Paragraph 3.11, says that mineral extraction need not be inappropriate development in the Green Belt despite their temporary nature. It is recognised that minerals can only be worked where they occur. Proposals for restoration of former mineral workings are concomitant and may be considered to amount to ‘very special circumstances’. Restoration using fill material that results in enhancement of the landscape or improve derelict land is considered to support the Green Belt objectives.
- 4.6 Policy C5 of the Replacement Structure Plan provides similar protection for rural areas outside the Green Belt but relates to all types of development. Proposals for waste development are contrary to this policy unless they satisfy the ‘compatibility’ criteria it contains.
- 4.7 Landraising proposals, that is filling to levels beyond those essential to achieve a good standard of restoration, are unlikely to be appropriate development in the Green Belt. The County Council has rejected five planning applications for landraising in the Green Belt. For all them it was considered that very special circumstances had not been demonstrated and

on the three that went to appeal the Inspectors and Secretary of State (where involved) supported this position. Chapter 9 sets out the policy for controlling land-raising throughout the Plan area.

- 4.8 Waste transfer, recycling, composting and other forms of waste management are not normally acceptable in the open countryside if they require the erection of new buildings, nor would such development generally be appropriate in the Green Belt. However as Government guidance indicates (in particular PPG7 para 3.14 and PPG10 para A51), there are potential opportunities in rural areas for waste-related development. Suitable locations might include existing or proposed industrial areas, re-use of existing buildings or hard-surfaced areas, degraded or contaminated land, or (for the life of the site) existing quarries and landfill sites. Small scale development on rural sites, such as for composting or recycling, can provide employment and useful diversification for the rural economy as well as contributing to meeting waste management needs. All such provision must be subject to acceptable access and compliance with other relevant planning requirements. Policy for waste management development in rural and other locations is contained in chapters 7 and 8 of this Plan.
- 4.9 In the context of the above guidance it is considered that proposals for waste development in rural buildings would not be in conflict with Replacement Structure Plan policies C2 or RE2. Paragraph 3.10 of PPG2 requires that local planning authorities include policies on re-use of buildings in the Green Belt, having regard to Annex D thereof. This topic is taken up in policy W8C (see chapter 8), in the context of guidance in PPG2 and PPG7

Restoration of Mineral Workings

- 4.10 Landfill is a traditional method of restoration of workings and in some cases can be a means to a more beneficial afteruse than could be achieved with 'low level' restoration, PPG7 and the Waste Management Papers (WMPs) outline those characteristics of voids that will affect its suitability for filling and for what categories of waste. Most voids are capable of accommodating inert material.

Protection of Landscape, Agriculture, Nature Conservation and Archaeology

- 4.11 A proposal for waste development that accords with the policies referred to above also would need to be considered against the policies of the Replacement Structure Plan that are intended to protect the area's natural resources. These are set out in full in Appendix 5. The Structure Plan policies provide for the protection of important landscape, nature conservation, agricultural and archaeological designations. Policy W10E (see chapter 10) requires satisfactory provision to be made concerning the effect on such areas
- 4.12 The SSSI designation is a provision of the Wildlife and Countryside Act 1981 (as amended) (section 28). It is given to land containing flora and fauna, geological or physiographical features of national or international importance.

There are 75 SSSIs in the Plan area. Special measures apply to planning applications that may affect SSSIs of international importance (see PPG9 Nature Conservation)

- 4.13 It is unlikely that mineral voids which contain SSSIs or parts of SSSIs could ever be completely filled. It is also considered that via the site selection process for waste deposition any new sites should be guided to land away from areas that would cause significant harm to the nature conservation interest of SSSIs or potential SPAs.
- 4.14 A Site of Importance for Nature Conservation (SINC) can be designated by the County Council or District and Borough Councils. District and Borough Councils also have powers to designate Local Nature Reserves and Regionally Important Geological and Geomorphological Sites (RIGSs).

Protection of residential areas

- 4.15 The WP extends protection to residential areas for all forms of waste related development. DoE Circular 17/89 states that proposals for landfill sites within 250 metres of other development require special attention, in close consultation with the licensing authority, in relation to the possible migration of landfill gas (Paragraph 11). This matter is taken up in policy W10D. Protection of residential amenity is also a criterion of other policies and proposals of this Plan, including policy W10E

Geology and Hydrology

- 4.16 Geological information and hydrological information given in this Plan or used in its preparation is based on the best information available to the WPA and is not necessarily exhaustive. The responsibility for determining the extent and effects of any geological and hydrological constraints remains that of the developer (PPG 14 paragraph 27). Useful information may be obtained from the British Geological Survey (BGS).
- 4.17 Ground water is contained within the Chalk aquifer and sands and gravels above the London Clay Formation . There are also some perched aquifers within various types of deposits.
- 4.18 Areas where hydrological sources may be at greatest risk are indicated by the Environment Agency's Groundwater Vulnerability Maps. The Plan area is covered by map sheets 32, 33 and 40, which show that these areas are generally around the outcropping Chalk in the north and south of the County . They are indicated as being Major Aquifer H1 to U and II zones.

- 4.19 Whilst geological hazards are of a relatively low order in Essex, they may cause some engineering problems. Such problems can apply to any waste-related development but are a particular concern for waste disposal projects. Consequently there should be no new permissions for the deposition of waste, or any waste development, in the deposits of geological hazard areas, without a detailed pre-application stability report for the development area.

Pollution

- 4.20 In the context of the Government's commitment to sustainable development there needs to be increased protection. PPG23 advises that when formulating policies local authorities should take account of the extent to which developments will be subject to pollution control. It emphasises that the planning system should not duplicate the statutory controls of other bodies but should focus on whether the development itself is an acceptable use of land rather than on the control of the processes or substances themselves. (paragraph 1.33 and 1.34)
- 4.21 PPG23 also acknowledges that some matters will be relevant to both pollution control authorisation or licensing, as well as being considerations to take account of in planning decisions. The weight to be attached to these matters ' . . . will depend on the scope of the pollution control system in each particular case'. [paragraph 1.34].

Air Pollution

- 4.22 There are two systems in place to prevent and minimise air pollution. 'Integrated Pollution Control' (IPC) is now the responsibility of the Environment Agency. Local Authority Air Pollution Control (LAAPC) is administered by the environmental health departments of district and borough councils, which also have to enforce the Clean Air Act 1993 in respect of smoke, dust and grit. Some local authorities will monitor for breaches of EU directives on air quality standards in respect of certain pollutants when they implement the new 'Air Quality Management Areas'.
- 4.23 PPG10 and PPG23 outline the relationship of these controls with the planning system. Planning authorities must ' . . . focus on any potential for pollution, but only to the extent that it may affect the current and future uses of land.' (PPG 23, paragraph 1.9). On receipt of an application for a waste development that is likely to emit substances into the air, the WPA will ascertain the potential for a proposed waste development to pollute the air by consulting the relevant district or borough council. The Environment Agency will be consulted on most waste proposals. These bodies would thus have an opportunity to raise objections to such applications if the level of risk is deemed to be unacceptably high and incapable of being reduced by modifying the proposals or imposing conditions. PPG23 implies that such objections must be upheld by the WPAs, which 'should not seek to substitute their own judgement on pollution control issues for that of the bodies with the relevant expertise and the statutory responsibility for that control.' (paragraph 1.34).

Water Pollution and Flood Control

- 4.24 Protection of ground and surface waters, and prevention of flood risk, are jointly the responsibility of the WPAs and the Environment Agency. Advice on this relationship is contained in PPG23.
- 4.25 Landfilling in a floodplain can preclude certain types of flood alleviation works and the filling of established wet pits may reduce their flood attenuation capacity. Landfilling and land-raising operations in floodplain areas may adversely affect the storage and conveyance of a floodplain and so increase the risk of flooding. This is in addition to the possible adverse effect of such development on the nature conservation, amenity and recreational value of river corridors, lakes, ponds and wetlands as noted elsewhere in this Plan and in the Structure Plan. The following policy will apply:

W4A WASTE MANAGEMENT DEVELOPMENT WILL ONLY BE PERMITTED WHERE:

- **THERE WOULD NOT BE AN UNACCEPTABLE RISK OF FLOODING ON SITE OR ELSEWHERE AS A RESULT OF IMPEDIMENT TO THE FLOW OR STORAGE OF SURFACE WATER;**
- **THERE WOULD NOT BE AN ADVERSE EFFECT ON THE WATER ENVIRONMENT AS A RESULT OF SURFACE WATER RUNOFF;**
- **EXISTING AND PROPOSED FLOOD DEFENCES ARE PROTECTED AND THERE IS NO INTERFERENCE WITH THE ABILITY OF RESPONSIBLE BODIES TO CARRY OUT FLOOD DEFENCE WORKS AND MAINTENANCE.**

- 4.26 Surface and groundwater resources are susceptible to pollution from leachate and run-off from waste management facilities. In addition the backfilling of voids with impermeable material may interfere with natural groundwater paths and recharge. Any disposal of waste within floodplain areas will generally have to be restricted to inert waste only. The following policy will apply:

W4B WASTE MANAGEMENT DEVELOPMENT WILL ONLY BE PERMITTED WHERE THERE WOULD NOT BE AN UNACCEPTABLE RISK TO THE QUALITY OF SURFACE AND GROUNDWATERS OR OF IMPEDIMENT TO GROUNDWATER FLOW.

Noise Pollution

- 4.27 When determining any proposal for waste development that is likely to generate noise the WPA will have regard to PPG24, 'Planning and Noise' (1994), and in the case of development on pits, to MPG11, 'Control of Noise at Surface Mineral Workings' (1993).

Highways

- 4.28 Policy T7 of the Replacement Structure Plan (see Appendix 5). defines a functional hierarchy for the county's roads:
- Motorway
 - Strategic Trunk/Non Trunk Route
 - Regional Route
 - County/Urban Distributor
 - Secondary Distributor
 - Local Roads
 - Access Roads
- 4.29 The location of significant waste development will not generally be acceptable on Secondary Distributors and below in this hierarchy. Other proposals must demonstrate that the highway system which serves the site is adequate for the types and volumes of vehicles involved. Where necessary a traffic impact assessment will be required, in accordance with Structure Plan policy T3.
- 4.30 MLP3 sets out the types of access that would be required for new mineral workings. It is considered that a similar policy is appropriate for waste management proposals. In addition many waste management facilities will be located within existing industrial areas which are assumed to have satisfactory access.
- 4.31 Transport of waste by rail or water has environmental benefits and is in accordance with principles of sustainable development. It is encouraged in policy W4C on that basis. However in practice opportunities for rail or water transport of waste in Essex and Southend are likely to be limited.

- W4C**
- 1. ACCESS FOR WASTE MANAGEMENT SITES WILL NORMALLY BE BY A SHORT LENGTH OF EXISTING ROAD TO THE MAIN HIGHWAY NETWORK CONSISTING OF REGIONAL ROUTES AND COUNTY/URBAN DISTRIBUTORS IDENTIFIED IN THE STRUCTURE PLAN , VIA A SUITABLE EXISTING JUNCTION, IMPROVED IF REQUIRED, TO THE SATISFACTION OF THE HIGHWAY AUTHORITY.**
 - 2. EXCEPTIONALLY, PROPOSALS FOR NEW ACCESS DIRECT TO THE MAIN HIGHWAY NETWORK MAY BE ACCEPTED WHERE NO OPPORTUNITY EXISTS FOR USING A SUITABLE EXISTING ACCESS OR JUNCTION, AND WHERE IT CAN BE CONSTRUCTED IN ACCORDANCE WITH THE COUNTY COUNCIL'S HIGHWAY STANDARDS.**
 - 3. WHERE ACCESS TO THE MAIN HIGHWAY NETWORK IS NOT FEASIBLE, ACCESS ONTO ANOTHER ROAD BEFORE GAINING ACCESS ONTO THE NETWORK MAY BE ACCEPTED IF, IN THE OPINION OF THE WPA HAVING REGARD TO THE SCALE OF DEVELOPMENT, THE CAPACITY OF THE ROAD IS ADEQUATE AND THERE WOULD BE NO UNDUE IMPACT ON ROAD SAFETY OR THE ENVIRONMENT.**
 - 4. PROPOSALS FOR RAIL OR WATER TRANSPORT OF WASTE WILL BE ENCOURAGED SUBJECT TO COMPLIANCE WITH OTHER POLICIES OF THIS PLAN.**

5.0 WASTE STREAMS

Introduction

- 5.1** This chapter establishes the main different waste streams and the volumes of each arising in Essex and Southend per annum. Waste types are defined by SEWRAC/ SERPLAN for use in the Waste Monitoring Surveys, now conducted by the Environment Agency.
- 5.2** Type A includes wastes which are inert and includes topsoil, subsoil, brickwork, concrete, stone, clay, sand, silica, glass, ceramics and weathered tar coated stone. In Essex and Southend, Type A waste arisings average 1.193 mt per annum. However the total level of inert waste arisings is likely to be more than this as some of this material is re-used at source, such as demolition waste which is crushed and used on site and other inert material goes to unlicensed sites or is used in landscaping projects. The bulk of Type A waste which enters the waste stream is currently landfilled. There is potential for greater use of these materials as a source of secondary aggregate.

- 5.3 Type B and C wastes are classed as non-inert materials. Type B wastes are defined as materials which, in bulk, may decompose slowly, but in their deposited form are only slightly soluble in water, such as non hazardous industrial and commercial waste, plastics, wood and paper. In Essex and Southend Type B arisings average 0.728 mt per annum. Type B waste which is predominantly commercial and industrial is usually collected and disposed of by the private sector. This category of waste will vary widely in composition according to the nature of the industry within the locality. Much processing waste eg metal and paper off-cuts is already recycled since the constant supply and homogenous nature of the material make this viable.
- 5.4 Type C materials may decompose rapidly and may contain soluble matter which could cause pollution if allowed to enter the ground or surface water systems, such as domestic waste, certain non-hazardous wastes and sewage sludge. In Essex and Southend Type C waste arisings amount to 0.753 mt per annum. Type C waste is predominantly household and some commercial waste collected by the Waste Collection Authorities and disposed of by the Waste Disposal Authority. Whilst household wastes contain a wide variety of materials its overall composition is fairly constant. Most Type C waste is currently landfilled.
- 5.5 Under the Environment Act 1995, Section 92, the Environment Agency will be required to prepare a national strategy containing policies in relation to the recovery and disposal of waste. 'Waste Strategy 2000' details specific waste streams, including tyres, batteries, oils, green wastes, metals and construction wastes. It identifies, where appropriate, specific targets and methods for treating them as well as progress in improving the management of selected individual streams. The various alternative methods and required facilities for the handling, recovery and disposal of Type A, B & C wastes are dealt with in chapters 6,7,8 & 9.
- 5.6 A consultation draft of a new classification system has been published, which has the broad effect of classifying Type A as Category 1, Types B and C combine into Category 2. When this classification process is finalised it is likely to be reflected in Regional guidance.
- 5.7 In addition to the three original categories A, B, C, there is a fourth, hazardous wastes which are discussed below. A complete list of the types of material included within each category can be found in Appendix 3. Appendices 6 and 7 list all the current licensed waste handling and disposal facilities within the Plan area.

Hazardous wastes

- 5.8 **Special and Difficult Wastes:**
There are a number of 'special' wastes which require specialist treatment and storage facilities due to their toxicity or inherent danger, and 'difficult' wastes which are less toxic but need special site engineering and management. 'Hazardous' and 'special' wastes are now collectively known as 'special wastes' as defined in the Environment Agency's 1996 Survey. Whilst this may have some significance for the Agency's licensing, 'special'

and 'difficult' wastes are treated together in the Plan. Special and difficult waste is defined in Appendix 3. Some incinerator residues are classed as special waste and policy W5A would apply to proposals for their treatment and disposal.

- 5.9 Essex is a net importer of Special and Difficult Wastes from all areas of the United Kingdom. Within 'old' Essex the following was landfilled in 1996: 100,000 tonnes of Special Waste and 159,000 tonnes of Difficult Waste. In the case of both waste types only a small amount arose from the Plan area. Much came from outside the South-East and Eastern Regions. The Plan does not make provision to maintain current levels of imported special or difficult wastes and intends that provision should generally be made in accordance with the principle of regional self-sufficiency.
- 5.10 Co-disposal of hazardous and non-inert waste takes place at one landfill site in the Plan area (Pitsea) under the terms of the existing licensing regime for the site, and amounts of special and difficult wastes permitted annually are restricted. Changes resulting from the EU Landfill Directive are likely to prevent this process from continuing beyond the short to medium term. Although essentially a matter for licensing, it is unlikely that further planning permission will be sought for co-disposal landfill within the Plan area. Whatever the outcome of the Directive, existing commitments provide for any co-disposal needs for the foreseeable future.

Nuclear Waste

- 5.11 The geology of the Plan area does not permit the disposal and containment of nuclear waste at any level. Nuclear waste generated by Bradwell Power Station is already disposed of outside of the County. The WPA will seek to ensure that nuclear wastes are disposed of and/or reprocessed at appropriate national facilities.

W5A PROPOSALS FOR FACILITIES TO REDUCE THE QUANTITY OF AND TO MANAGE DIFFICULT AND SPECIAL WASTES USING APPROPRIATE TECHNOLOGIES WILL BE JUDGED ON THEIR MERITS, AGAINST THE CRITERIA AND POLICIES STATED IN THE DEVELOPMENT PLAN, AND HAVING REGARD TO ALTERNATIVE PROVISION WITHIN THE EASTERN OR SOUTH EAST REGIONS. PERMISSION FOR NUCLEAR OR RADIOACTIVE WASTE DISPOSAL (EXCEPT LOW LEVEL CLINICAL WASTE) WILL NOT BE GRANTED.

Agricultural Waste

- 5.12 The majority of the 250 million tonnes of agricultural wastes produced in the UK per annum consist of manure, slurry, silage effluent and crop residues, all of which are organic. Much of this waste is dealt with by the industry itself mostly by spreading the material on agricultural land as a soil improver. The agricultural industry also produces a quantity of industrial waste such as packaging, scrap machinery etc.

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- 5.13 The agricultural industry has become increasingly aware of the potential for energy recovery from some of its waste products. Wood, straw and other crop residues, poultry litter and farm slurries are now being utilised as energy sources. Incentives for using these wastes are coming from several sources, including legislation which prevents traditional practises such as stubble burning and limiting nitrate applications, and the effects of rising fuel costs.
- 5.14 The disposal of waste from large-scale livestock units is an increasing problem for the industry, however, much of this waste can be exploited either directly or indirectly as a fuel. Poultry litter has been successfully used to fire boiler units on farms which provide space heating.
- 5.15 Much intensive livestock production waste is too wet to incinerate, however, it is suitable for anaerobic digestion. Many farms have invested in such units and the biogas produced is used for a variety of purposes such as farm and domestic heating, electricity generation and grain drying. Solids extracted from the digester effluent are composted for use as a soil improver whilst the remaining liquid can be used as a liquid fertiliser. Where planning permission is required for livestock units the District Planning Authority, to whom the application is made, should require facilities for waste disposal to be an integral part of the scheme.

Clinical Waste

- 5.16 Clinical waste includes human and animal tissue, blood, excreta, drugs, swabs and syringes and amounts to between 200,000 and 400,000 tonnes a year in the UK. Clinical waste includes wastes from both the healthcare sector and similar materials found in the household waste stream. Most healthcare risk waste is incinerated.
- 5.17 Hospital incinerators are now regulated under the Local Authority Air Pollution Control system, established by Part I of the Environmental Protection Act 1990, which required them to meet strict new emission standards by October 1995. As a result, most of the 800 or so former units in the UK have closed down. These old units will be replaced by a smaller number of larger units, each serving several medical institutions and each with their own on site waste storage facilities. Currently there are no clinical incinerators operating in Essex or Southend and most clinical waste arising within the Plan area is exported to appropriate treatment facilities elsewhere.

W5B SUBJECT TO COMPLIANCE WITH OTHER RELEVANT POLICIES OF THIS PLAN, PROPOSALS FOR FACILITIES TO MANAGE CLINICAL WASTE WILL GENERALLY BE ACCEPTABLE WITHIN APPROPRIATE LOCATIONS AS DEFINED IN POLICY W8B AND MAY ALSO BE CONSIDERED APPROPRIATE AS PART OF A HOSPITAL COMPLEX.

Sewage Treatment

- 5.18 The treatment of sewage within the Plan area is dealt with by Anglian Water Services Ltd and Thames Water Utilities Ltd. The process treats sewage at integrated sites, with only a small amount of residue - sewage sludge - to dispose of.

- 5.19 The treatment of sewage includes a three-stage process: preliminary treatment (fine screening and grit removal), primary settlement, and a secondary biological stage. The biological stage is based on either filtration or an activated process. Sewage treatment works vary considerably in scale but will normally involve settlement and treatment tanks, pumping equipment and other structures. Obviously there is a requirement for treatment works to be reasonably well related to the population it is to serve. However there is also a requirement for outfalls to watercourses to disperse treated effluent. Screening and grit removal also generates small quantities of solid waste which goes to landfill.
- 5.20 Other processes incorporated within treatment works include various sludge treatment processes, such as anaerobic digestion which occurs at several of Anglian Water's sites. In addition, some sites have dewatering plants, centrifuges or plate presses that are used to produce 'cake'. The sludge cake and liquid residue is now recycled and utilised as an agricultural soil improver, and to enhance the quality of cover for restored landfill sites. Consequently less sludge is disposed of and more is recycled.
- 5.21 The main method of sludge management within that part of the Plan area covered by Thames Water Utilities, is disposal to agricultural land. A majority of the waste arising within Essex and Southend is therefore recycled. A small proportion of waste (13.6% in 1994/95), was disposed of at sea but the practice ceased in December 1998.
- 5.22 The future treatment arrangements within Essex and Southend mainly affect changes to the current methods used by Anglian Water. The sewage sludge dispersed to sea (under the appropriate licence issued by the Ministry of Agriculture Fisheries and Food), was from Tilbury Sewage Treatment Works. This ceased in December 1998 with the implementation of the EU 'Urban Waste Treatment Directive'. This Directive may give rise to a considerable increase in the amount of sludge disposed of to agricultural land or managed using alternative recycling processes..
- 5.23 Higher environmental standards for discharges to watercourses and the sea will inevitably lead to a greater volume of sludge requiring management by other means. It will therefore be necessary to find acceptable alternative disposal methods for sewerage biosolids (sludge).

W5C PROPOSALS FOR NEW OR EXTENDED SEWAGE TREATMENT WORKS MAY BE LOCATED IN RURAL AREAS. ALL PROPOSALS WILL BE REQUIRED TO MAKE PROVISION FOR ODOUR CONTROL, AN ACCEPTABLE STANDARD OF VISUAL APPEARANCE AND LANDSCAPING, AND (WHERE APPROPRIATE) ACCESS ARRANGEMENTS WHICH MEET POLICY W4C. PROVISION FOR THE RECYCLING OF SLUDGE TO PRODUCE BENEFICIAL END PRODUCTS WILL BE SOUGHT WHERE APPROPRIATE INCLUDING PROPOSALS FOR THE CO-TREATMENT OF SLUDGE WITH OTHER WASTES, SUBJECT TO ENVIRONMENTAL SAFEGUARDS REGARDING ON-SITE STORAGE OF THE PRODUCT. ALL PROPOSALS WILL BE SUBJECT TO THE RELEVANT CRITERIA CONTAINED ELSEWHERE IN THE

DEVELOPMENT PLAN, IN PARTICULAR THE CONSIDERATIONS SET OUT IN POLICY W10E.

6.0 WASTE MINIMISATION AND RECYCLING

Introduction

- 6.1 This Chapter seeks to look at the background and address the potential contribution in quantitative terms of alternative waste management techniques for the waste streams referred to in Chapter 5. The national and regional policy guidance concerning these alternative waste management options are identified and the potential for Essex and Southend to achieve the Governments numerous targets and the methods available. The following Chapters develop the alternative waste management options available in the context of their planning implications, as well as setting out policies for the development of these alternatives.
- 6.2 The alternative waste options are identified according to the Government's waste hierarchy as set out in Chapter 2. The areas concerned within this chapter are the following:
- Waste minimisation/ reduction
 - Re-use
 - Recycling
 - Composting
 - Energy recovery
- 6.3 The nature of these waste management options has been set out within Chapter 2 and need to be developed within the Plan period in order to meet Government targets. The development of the appropriate waste options will make an increasing contribution to the management and treatment of waste, thus alleviating the pressures on future waste disposal (such as a shortage of landfill void), and should be promoted where they comply with the policies of this Plan.

National and Regional Guidance

- 6.4 'Waste Strategy 2000' sets out the national policy framework for waste management. Together with PPG 10: 'Planning and Waste Management', the strategy implements the requirements of the Framework Directive on waste, and associated directives, for member states to produce waste management plans. The Strategy sets targets for the sustainable management of various waste streams with regard to BPEO, the proximity principle and the waste hierarchy, and the requirements of the Landfill Directive and the Packaging and Packaging Waste Directive.
- 6.5 'Waste Strategy 2000' sets out several targets to be achieved within and beyond the Plan period. The intention of the targets (as summarised below in Table 6.1) include minimising waste generation and increasing the level of waste recovery by recycling and composting and recovering value. The targets identified concentrate on the main waste arisings, principally inert and non-inert waste.

Waste Recycling Plans

- 6.6 Waste Collection Authorities are required to prepare Waste Recycling Plans under Section 49 of the Environmental Protection Act 1990. The household waste targets (Table 6.1), primarily concentrate on public sector Waste Collection Authorities for promoting and providing bring systems (ie bottle banks) or kerbside collection. The WDA can also influence the levels of recycling and composting through promoting activities and providing sorted materials from Civic Amenity sites. The WPA and all the Districts and Boroughs have committed themselves to pursuing high diversion rates for household waste through the 'Working Together' statement of intent (see paragraph 1.10)
- 6.7 The composting targets also concentrate on the public sector to actively promote these facilities. In addition to developing the supply of composting, MPG13 also seeks to develop the use of non-peat media as soil improvers, which includes waste derived compost. Market acceptance for resources from composters and anaerobic digestors is currently problematic with concerns over potential contaminants within the material. Better quality control, the drive to develop alternatives to naturally arising material (eg peat), and greater acceptance of a 'new' compost should overcome these problems.

Recycling Credits

- 6.8 A major influence for the WCAs and WDA to achieve the various recycling and composting targets is the provision of 'Recycling Credits' (Supplementary Credit Approvals). The Credits assist in 'off setting' the cost differential between recycling (high cost activity) and landfill (cheapest disposal option). The Credits provide a mechanism for the WDA to pass on to household waste recyclers (principally WCAs) the savings gained from final disposal and collection costs, as a result of recycling.

Inert Waste

- 6.9 The materials included within the definition of inert waste are set out in Appendix 3 and include: demolition and construction waste, topsoil, subsoil and road planings. Some of these materials have the potential to be used as alternative aggregates in the form of secondary and recycled aggregates. The level of inert waste arisings is not fully known due to re-use at source. For example, demolition waste is frequently used for low-grade bulk fill on site and for other construction engineering. As a result the material does not leave the site and is not therefore recorded. The 1996 survey indicates that 1.26 mt of inert waste arises in "old" Essex, although 2.03 mt (includes imports) was disposed of. Much of this waste has the potential to be recycled as secondary aggregates.

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Table 6.1 National Waste Reduction, Reuse and Recovery Targets

<u>Waste</u>	<u>Target</u>	<u>Year</u>	<u>Source</u>
Municipal/ Household	Recover value from 40% (including 25% recycle/compost)	by 2005	WS 2000 (Pt.1) P2.35/2.38
	Recover value from 45% (including 50% recycle/compost)	by 2010	WS 2000 (Pt.1) P2.35/2.38
	Recover value from 67% including 33% recycle/compost)	by 2015	WS 2000 (Pt.1) P2.35/2.38
Industrial/ Commercial	Reduce amount landfilled to 85% of that landfilled in 1998	by 2005	WS 2000 (Pt.1) P3.48
	75% of Local Authorities should actively promote composting	by 2000	MPG13, P40
	40% of market for soil improvers and growing media to be supplied by non-peat materials (including Waste derived compost)	by 2005	MPG13, P40
Inerts	Increased use of secondary/recycled material in England: 40 mtpa and 55 mtpa	By 2001 & 2006	MPG6, P41
Landfill	EU Landfill Directive (with Government's agreed derogations): Reduce biodegradable municipal waste landfilled to 75% of that produced in 1995.	By 2010	WS 2000 (Pt.1) P1.7
	Reduce biodegradable municipal waste landfilled to 50% of that produced in 1995	By 2013	WS 2000 (Pt.1) P1.7
	Reduce biodegradable municipal waste landfilled to 35% of that produced in 1995	By 2020	WS 2000 (Pt.1) P1.7
	Ban co-disposal of hazardous and non-hazardous wastes, and require separate landfills for hazardous, non-hazardous and inert wastes.		WS 2000 (Pt.1) P1.8
	Ban landfill of tyres.	By 2003 (whole) By 2006 (shredded)	WS 2000 (Pt.1) P1.8
	Ban landfill of liquid wastes, infectious clinical waste and certain types of hazardous waste (eg. explosives, highly flammable).	All by 2001	WS 2000 (Pt.1) P1.8
Packaging Waste	EU Directive on Packaging and Packaging Waste: Recover 50-65% of all packaging waste of which 24 - 45% must be recycled (minimum of 15% for each material).	End of June 2001	WS 2000 (Pt.2) P7.4

Sources: Waste Strategy 2000 (WS 2000), MPG13, MPG6.

- 6.10 The Essex Minerals Local Plan (MLP) recognises the importance of secondary aggregates and their contribution towards the Regional supply of aggregates. The MLP provides a policy on these materials to be processed by screening and crushing and used as alternatives to sand and gravel.

Business and Industry

- 6.11 The Government has introduced several initiatives and challenges to businesses and industry to develop their own environmental policies and responsibilities with regard to packaging waste (summarised in Table 6.1 above). These are two fold, firstly reducing the level of waste generated from the production process (ie process waste) and secondly the recovery of post consumer waste (ie product waste).
- 6.12 The 'process' waste targets within Table 6.1 relate to the development of environmental management in which industry can assess it's environmental impact and formulate policies and strategies to reduce this impact. The international standard for environmental management systems, ISO 14001, together with the European Eco-Management and Audit Scheme (EMAS) are increasingly seen as valuable tools. The EMAS involves companies preparing and periodically publishing an environmental statement recording their environmental performance, ie monitoring their performance.
- 6.13 The 'product' waste, Table 6.1 identifies the European Union's packaging recovery target. The Government has subsequently passed the target as a challenge to industry in the form of Producer Responsibility, in which industry is to prepare a plan to reduce the quantity of consumer waste. The Producer Responsibility Group (a national organisation) has responded to the challenge with a number of targets concentrating on packaging waste a major component of waste arisings (approximately 20% of household waste and 7% if commercial and industrial waste).
- 6.14 The reduction of packaging waste also involves industry making materials more suitable for recycling as well as using increasing proportions of recycled materials in the production of goods. For example the Newspaper Industry is to increase the recycled content of newsprint from 54% in 1999 to:
- 60% by the end of 2001;
 - 65% by the end of 2003; and
 - 70% by the end of 2006.
- (Waste Strategy 2000, Part, paragraph 3.19)
- 6.15 The Producer Responsibility concept develops the 'polluter pays' principle, such that commerce and industry are responsible for the products they produce, which ultimately become waste and should therefore become more responsible for the recovery of value from these materials. Thus the producers are to work together to develop and pay for schemes that allow part of the waste to be re-used or recycled. Allocation has been made within sections 93-95 of the Environment Act 1995 to introduce standards and criteria for producer responsibility if the proposals by the Producer Responsibility Group prove to be insufficient or ineffective.

Local Authorities

- 6.16 The public sector predominantly collect Type C waste through the District Waste Collection Authority and this is disposed by the Waste Disposal Authority. The waste mainly consists of household waste (Municipal Solid Waste - MSW) and some commercial waste as well as that waste collected at the WDAs Civic Amenity sites. The respective roles of the WDA and the WCA differ considerably to those of the WPA, with the disposal and collection authorities being actively involved in the operational and management aspects in collecting and disposing of household waste and setting targets for recycling and composting of household waste.
- 6.17 The WCA is responsible for arranging the collection of household waste and the preparation of a Waste Recycling Plan (WRP) as required under Section 49 of the Environmental Protection Act 1990. The WCAs are thus in a position to influence the level of recycling through the introduction of initiatives for example the siting of bring systems (eg bottle banks), or the introduction of kerbside collection (ie separation of waste by householders) or allocating households with home composting bins to encourage the composting of garden waste. To date all WCAs within the Plan area have prepared their WRPs, and proposals are being implemented.
- 6.18 The WDA can influence the methods used for the disposal / treatment of that waste collected by the WCAs through:
- long term waste management contracts;
 - the development of alternative management methods to landfill;
 - the allocation of recycling credits; and
 - the operation of the Civic Amenity sites, where waste can be separated and passed on for recycling as well as disposal.
- 6.19 The majority of Type C waste arising in the Plan area is in the form of MSW. It is estimated that at present approximately 95% of MSW is disposed of by landfill and only 5% of waste is recycled. However, recycling performance is showing marked improvement recently, with a Plan area recycling rate of some 18% of household waste, most of which is achieved at civic amenity sites.

Demand For Recycled Materials

- 6.20 The demand for recyclable material requires the materials to be available for consumption as a raw material as part of a production process. As such industry has several requirements on the nature of the materials collected for recycling. These are:
- Clean, and uncontaminated material;
 - A regular supply and infrastructure.
- 6.21 Within the Plan area, the number of companies developing a market by collecting, sorting and/or recycling these materials is increasing as is the range of collection methods. This includes the collection sorting and packaging of recyclables to be used by a third party, eg. newspaper mills.

As the private sector increases its level of involvement in the collection of recyclables, whether for their own recycling / re-use or to sort according to the requirements of a third party, the levels of recycling should continue to develop.

- 6.22 Within the Plan area the level of recycling has risen annually for the last four years as local authority initiatives are developed and the benefits of recycling credits are recouped. There is, however, a need to build on this success and further increase the volume of waste recycled if the 'Working Together' targets are to be achieved (see paragraph 1.10).

Integrated Waste Management

- 6.23 Waste reduction and recycling initiatives (eg home composting) are generally outside planning control but this Plan should play its part in enabling the provision of the waste management facilities needed at appropriate locations. There should be a co-ordinated approach, involving all the parties concerned. The Plan assumes an average reduction/recycling/composting level of 40% of past average volumes, by 2010. This level of recycling is consistent with Government and Regional policy guidance, but it is felt to be realistic if proactive policies are pursued by Government, the Waste Disposal Authority and District Council as Recycling Authorities.

- 6.24 Chapter 3 sets out the strategy for waste management and treatment within the Plan area. The strategy is in accordance with the Regional Advice which identifies the level of waste arisings and imports to be disposed by landfill over the Advice period. In addition to this, the Plan is required to make provision for the development of alternative waste management options other than landfill. These alternatives need to be developed in order to meet the forecast waste reduction and recovery identified within the Advice. It is important that these methods of disposal / treatment are developed in order to meet the Government's targets, and to move up the hierarchy away from disposal to landfill, which is the last resort.

- 6.25 Essex and Southend will continue to develop methods to reduce waste generation within their own organisations.

W6A THE WPAs WILL SEEK TO WORK WITH WDAs/WCAs TO SUPPORT AND PROMOTE PUBLIC, PRIVATE AND VOLUNTARY SECTOR INITIATIVES TO REDUCE, RE-USE AND RECYCLE WASTE ARISING IN AN ENVIRONMENTALLY ACCEPTABLE MANNER IN ACCORDANCE WITH THE POLICIES WITHIN THIS PLAN.

7.0 PROCESSING AND RECOVERY

Introduction

- 7.1 This Chapter outlines the processes involved, together with appropriate policies which encourage these alternatives, and ensure they are exploited to their maximum potential, whilst seeking to protect the environment.

Composting

- 7.2 Composting is an aerobic bio-degradation process carried out by bacteria in warm, well ventilated conditions. The process breaks down organic material to produce carbon dioxide, water, a stabilised organic humus containing valuable plant nutrient and heat. Composting waste can achieve a high degree of stabilisation in 10 weeks however the process can take as long as 26 weeks. Once the aerobic process is complete a further 6 week period to stabilise the compost may be required. Composting is a suitable treatment for agricultural wastes, sewage sludge and the putrescible organic fraction of MSW including paper.
- 7.3 The speed of process is dependent on temperature, which for a time needs to be in excess of 55°C for effective pathogen and weed kill. Moisture content needs to be controlled and should be in the range of 55% to 65% by weight. Throughout the process the composting waste must be well aerated to ensure a good supply of oxygen is available. Inadequate temperature or moisture control is likely to result in a poorly stabilised product. Waste needs to be broken down to a particle size of less than 50 mm prior to composting to provide adequate surface area for microbial attack. A good mix of soft green matter and woody material is required to allow air to circulate and, therefore, there needs to be a careful selection of wastes to ensure a good mix and to ensure the waste is not contaminated with inorganic material.
- 7.4 Composting therefore would be appropriate for use as part of an integrated waste management system where the compostable fraction of MSW is concentrated and contaminants removed and dealt with using appropriate methods. Composting whole refuse is unlikely to produce a usable product as a proportion of MSW is inorganic and would contaminate the final product. Co-composting MSW and sewage sludge may be a possibility. Alternatively householders could be required to separate out kitchen and garden wastes, which are collected by a separate kerbside collection. This could then be composted with garden wastes collected at civic amenity sites and park wastes.
- 7.5 Three methods of composting have been developed:
- windrowing in which the waste is placed in elongated lines approximately 2-3 metres in height and 6 metres across the base, the waste is then mechanically turned periodically to aerate the composting waste;
 - forced aeration systems either by blowing air or vacuum induction which aerates the windrows; and
 - in-vessel composting using an enclosed reactor system which allows greater control over temperature, moisture content and rate of aeration.

Basic equipment required for any composting scheme would be a shredder, plant to aerate the compost, either a purpose built machine or a tractor with a loading shovel, and screening equipment for the finished product.

7.6 Composting schemes also lend themselves to a range of management regimes. Community composting schemes provide facilities for the co-operative collection and composting of organic wastes. Resources such as local authority grants are pooled by a community group to purchase the equipment needed to shred and compost MSW and garden wastes arising in neighbourhood, village or housing estate. Composting can also be carried out on a domestic scale within a garden. This is currently encouraged by some local authorities and has several advantages:

- it deals with the putrescible fraction of MSW removing it from the waste stream altogether;
- there is a reduction in transport costs since the weight and volume of waste collected is reduced; it gives the householder a useful soil improver; and
- there is no requirement to find a market for the end product.

The success of home composting schemes is dependent upon an intensive promotion and educational campaign to teach householders what can be composted.

7.7 Humus produced by composting has the potential for use as a soil improver and/or growing medium as a peat substitute. There are potential problems for compost producers given the variability of compostable material which presents difficulties in meeting quality standards required by the higher value horticultural and retail markets. Retailers and users of waste-derived composts are concerned with cost, reliability, contaminants such as glass, of the plastics and chemical residues, consistency, performance, safety, appearance and odour. To meet the requirements horticultural and retail markets there needs to be consistent standard of production. Much research has gone into potential horticultural uses for compost, but lower grade uses such as in landscaping and land restoration may be the only uses for all but the highest quality products. A potentially huge and largely untapped agricultural market for this product exists.

Advantages:

- low initial cost to get established;
- suitable for small scale applications;
- can be used as a peat substitute ie as a growing medium or soil improver;
- home composting removes waste from waste stream;
- large potential market.

Disadvantages:

- if green waste is not collected separately residues may be contaminated with heavy metals, residual glass, plastics & other materials which may reduce its utility as a soil conditioner;
- the windrow method can produce odours;
- potentially polluting liquid effluent is produced;

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- home composting depends on interest and a pro recycling attitude from the general public therefore is unlikely to deal with all compostable material.

Planning Issues:

- needs to be close to the source of the waste;
- proximity of the market for the humus produced;
- the size and number vehicular movements;
- noise especially from shredding machinery;
- large accessible areas of hard surface, covered, suitably drained and away from the public nose should the process turn anaerobic. Disused airfields or areas within landfill sites may be a possibility;
- may involve a large building, in Holland plants have included fermenting halls 150 by 30 metres.

W7A PROPOSALS FOR INDOOR WASTE COMPOSTING FACILITIES WILL BE SUPPORTED AT THE FOLLOWING LOCATIONS:

- **THE WASTE MANAGEMENT LOCATIONS IDENTIFIED IN SCHEDULE 1 (SUBJECT TO POLICY W8A);**
- **OTHER LOCATIONS (SUBJECT TO POLICIES W8B AND W8C); OR**
- **IN ASSOCIATION WITH OTHER WASTE MANAGEMENT DEVELOPMENT;**

PROVIDED THE DEVELOPMENT COMPLIES WITH OTHER RELEVANT POLICIES OF THIS PLAN.

W7B PROPOSALS FOR OUTDOOR WASTE COMPOSTING FACILITIES WILL BE SUPPORTED, IN ADDITION TO LOCATIONS COMPLYING WITH POLICY W7A, AT SITES WITHIN THE RURAL AREA AT THE FOLLOWING LOCATIONS:

- **EXISTING AREAS OF HARDSTANDING;**
- **IN ASSOCIATION WITH OTHER WASTE MANAGEMENT DEVELOPMENT;**
- **AT SEWAGE TREATMENT WORKS;**
- **WHERE THE COMPOST IS TO BE USED AS PART OF A RECLAMATION PROCESS ON ADJOINING LAND;**
- **CURRENT MINERAL WORKING AND LANDFILL SITES, PROVIDED THE USE CEASES PRIOR TO THE PERMITTED COMPLETION DATE OF THE SITE (UNLESS AN EXTENSION OF TIME TO RETAIN SUCH FACILITIES IS PERMITTED);**
- **DESPOILED AND PREVIOUSLY DEVELOPED LAND;**

PROVIDED, IN ALL CASES, THE DEVELOPMENT COMPLIES WITH OTHER RELEVANT POLICIES OF THIS PLAN, AND IN PARTICULAR IS NOT DETRIMENTAL TO THE AMENITY OF ANY NEARBY RESIDENTIAL AREA OR HARMFUL TO THE CHARACTER OF THE RURAL AREA.

Anaerobic Digestion

- 7.8 Anaerobic digestion (AD) is a bio-degradation process carried out by bacteria which require warm, oxygen-free conditions. The process breaks down organic materials to produce an inflammable gas typically comprised of 65% methane, 35% carbon dioxide and some trace elements including hydrogen sulphide, liquid residues rich in nitrogen and a comparatively stable solid waste. Typically anaerobic digestion results in 100-200 cubic metres of biogas per tonne of organic waste digested. In suitable conditions the process can be completed in 2-3 weeks, however a further period of aerobic decomposition is likely to be required to destroy any harmful microbial by-products.
- 7.9 The speed of the process is determined by temperature, moisture content and the composition of the feed material. The rate at which the feedstock breaks down through microbiological action increases with temperature, up to an optimum, and the survival rate of pathogens, such as salmonella, reduces. Therefore temperature controls are necessary to maintain optimum conditions, usually 35°C or 55°C. Although moisture control is not as critical as it is with composting, control of moisture and matching its range with the engineering design of the plant is still essential. Anaerobic digestion of wastes with a moisture content of around 90% have been successful. Some European plants have shown that wastes with a moisture content of around 60% can be digested without leaving free water. Thus the process also offers the opportunity of co-digestion of wastes such as combining suitable liquid effluents with the organic fraction of the waste to produce low solid content paste which could be pumped using existing designs of plant and provide an additional disposal method.
- 7.10 Anaerobic digestion is suitable for treating sewage sludge and currently takes place at larger sewage works in Essex. Farm slurry, silage (silage effluent), and municipal solid waste with a high organic content (ie kitchen, garden and paper wastes) are also suitable for treatment by anaerobic digestion.
- 7.11 There are a range of different technologies which have been used for anaerobic digestion, however they all require some form of pre-processing. This can range from simply mixing wastes and increasing surface area to speed up the digestion process, to advanced waste separation. Figures from WMP28, and a more recent survey by Essex authorities, suggest that some 60-65% of MSW may be suitable for biological degradation. PPG22: 'Renewable Energy', (Paragraph 6 of Annex on Anaerobic Digestion) states '...digestion of MSW is currently uneconomic and there is no obvious market for the digestate.' Since that was published in 1993, there has been increasing interest in this technique in Europe. It is still untried on a large scale in the UK, but several plants are now under development. The greater the level of waste treatment and separation, the higher the quality of digestate achieved and the greater the options for end uses for the digestate.

- 7.12 By its very nature anaerobic digestion is an industrial process. Plants range in from the relatively small to sizeable industrial buildings (Anaerobic Digestion Annex in PPG22 gives some figures on scale). Typical throughput capacities range from 5,000 - 50,000 tpa. Anaerobic digestion always requires an engineered vessel, a digester tank, to ensure oxygen is excluded. The tank is usually circular or ovoid in shape and can be up to 15 metres in height. It can be partially located below ground, which has the advantage of added heat insulation. Tanks and areas for waste reception are usually bunded to prevent pollution from accidental discharges of spilled wastes. In addition to the digestion tank some form of waste pre-treatment facility is required to ensure contents are mixed thoroughly, either mechanically or by pumping gas through it.
- 7.13 If MSW is to be digested then it may also be necessary to separate the organic from the inorganic fraction. Also required are buildings to store ancillary equipment, a biogas storage tank to collect and store gas drawn from the top of the digester, a flare stack; these can be as high as 10 metres, and associated pipework to burn off surplus gas. Flues can be enclosed in open topped cylinder for concealment of the flame. Gas may need to be treated necessitating additional plant such as filters and demisters. If sewage sludge or farm slurry is used then post digestion equipment to treat residue liquids is required. When heavy metals and other toxins are removed from MSW, it is possible to complete the stabilisation of the AD solids by composting, which will require an open area. The treated product can be used as a soil conditioner or an organic mulch used in land reclamation. If heavy metals and toxins are present in the digestate then it may need to go for disposal in landfill. This may also be the only option for the digestate if markets, cannot be found for it. However proper management of the process should avoid this problem.
- 7.14 The biogas produced by digestion contains approximately 25% of the energy content of the waste and can be collected and utilised in a number of ways. Biogas can be used to fuel specially adapted internal combustion engines or turbines to generate electricity. Alternatively it can be simply burned and the heat used to supply a district heating scheme. There may be opportunities for combined heat power schemes with larger digesters. Biogas has also been used to power a range of industrial applications such as drying sewage sludge, heating the digester and powering associated machinery, or even once cleaned and bottled, powering vehicles.
- 7.15 Anaerobic digestion has various potential roles within an overall waste strategy. Plants can be a stand alone facility designed to treat unprocessed MSW. Such plants will produce a poor quality digestate which has a limited value, consequently the bulk of its income will have to come from a high gate fee and energy sales. Alternatively, digestate plants could form part of a larger facility, such as a MRF or an incinerator, which treats a variety of wastes, with the organic fraction being separated out for digestion. Such plants will produce a better quality digestate with potential uses as a soil improver. Anaerobic digestion also has the potential for co-digestion of wastes such as sewage, food processing residues, the organic fraction of MSW and farm wastes. Combining wastes can give better digestion results

and may make digestion plants viable in areas where solely treating one type of waste would not otherwise be viable.

Advantages:

- potential for good control of the process and potential pollutants;
- gas can be utilised as an energy source both externally and within the process itself;
- digestate liquor can be used as a nitrogen-rich fertiliser;
- digestate can be marketed provided the process is properly controlled.

Disadvantages:

- potential for water pollution;
- large capital investment required to provide sufficient capacity to cope with a significant proportion of the County's methanogenic wastes;
- little overall reduction in the volume of waste if it cannot be marketed.

Planning Issues:

- AD treatment plants process the waste under tightly controlled conditions therefore there is a requirement for plant and equipment which is industrial in appearance. This includes a flue for gas treatment and effluent treatment;
- plant needs to be sited near to the source of the waste and if surplus heat is to be used to supply a district heating scheme the plant needs to be located close to built development. If electricity generation is an option then some form of connection with the grid will be needed;
- gas can produce odours from waste input storage bays, sorting and mixing plant, digester (when opened for cleaning), digestate draw off and dewatering plant;
- noise can be emitted from engines and generators, gas blowers and traffic.

W7C THE WPAS WILL SEEK TO WORK WITH WDAS/WCAS TO PROVIDE AND SUPPORT COMPOSTING SCHEMES AND ANAEROBIC DIGESTION FACILITIES AS A METHOD OF TREATING PUTRESCIBLE WASTE MATERIALS AND WITH THE AIM OF PRODUCING A SOIL IMPROVER OR GROWING MEDIUM AND, WHERE POSSIBLE, RECOVERING ENERGY. PROPOSALS FOR ANAEROBIC DIGESTION FACILITIES WILL BE SUPPORTED AT THE FOLLOWING LOCATIONS:

- **THE WASTE MANAGEMENT LOCATIONS IDENTIFIED IN SCHEDULE 1 (SUBJECT TO POLICY W8A);**
- **OTHER LOCATIONS, SUBJECT TO POLICIES W8B AND W8C**
- **IN ASSOCIATION WITH OTHER WASTE MANAGEMENT DEVELOPMENT;**

- **IN ASSOCIATION WITH SEWAGE TREATMENT WORKS AND INTENSIVE LIVESTOCK UNITS;**
- **AS PART OF DISTRICT HEATING SCHEMES;**

PROVIDED THE DEVELOPMENT COMPLIES WITH ALL OTHER RELEVANT POLICIES OF THIS PLAN.

Inert Waste Recycling

- 7.16 A range of materials which are currently destined for landfill can be recycled and utilised as substitutes for primary aggregates. These materials include construction and demolition wastes such as crushed concrete and asphalt road planings, mineral wastes, and industrial wastes such as pulverised fuel ash (PFA) and blast furnace slag. Demolition wastes offer the best scope for secondary aggregate supply in the Plan area as they are widely spread across the area and therefore their use is not inhibited by excessive transport costs. With the exception of PFA, few of the other possible alternatives occur in sufficient quantities within close proximity of the Plan area to make their use economically viable.
- 7.17 Recycling these materials can involve the use of screening plant to recover materials from the waste stream, processing to ensure an homogenous product (this could include size reduction by crushing and removal of contaminants by screening), and possible further treatment to make the recycled material suitable for its new use. Some of the removed contaminants such as soil and metal may themselves be suitable for recycling or reuse. Recycling aggregate is by its very nature, an industrial operation. It is inherently noisy, dusty and visually intrusive and therefore requires suitable suppression measures to be implemented. In addition, these operations will normally generate a considerable number of large goods vehicle movements.
- 7.18 Mobile concrete crushing plants are frequently used on large demolition sites where materials are recycled for use in the redevelopment of the site or sold and taken direct to another project. Siting crushers on demolition sites has the advantages of avoiding double handling and unnecessary lorry journeys but is really only feasible on large projects where space permits the material to be sorted, crushed and stored prior to re-use or distribution. The use of recycling plant as part of a demolition or maintenance project is permitted development under Schedule 2, Part 4, Class A of the GPDO 1995.
- 7.19 In addition to demolition materials other materials can be recycled in situ, for example in Holland equipment has been developed which lifts, processes and relays road surfaces in one operation thereby saving considerable numbers of vehicle movements
- 7.20 The majority of material crushed on demolition sites however, will only be roughly crushed. Recycling to produce a graded aggregate substitute requires a much more sophisticated crushing plant than the normal mobile plant and consequently a large volume of input material is required to justify the additional capital expenditure. Fixed sites are therefore also required so

that material from a range of sources can be drawn upon. Due to their industrial nature, aggregate recycling centres are best located on industrial estates where large volumes of heavy goods vehicle movements and a level of environmental disturbance can be accommodated without adverse impacts. In addition, industrial estates are generally well related to urban areas with good highway connections and will be near to sources of recyclable materials and their potential market. Some industrial estates would therefore provide an appropriate location for permanent recycling plants.

- 7.21 There are, however, also advantages in locating a crusher within an operational waste landfill site. A large quantity of recyclable waste materials generated by civil engineering and construction works is currently disposed of in landfill. Much of this material is mixed with other wastes and may therefore only constitute part of a load. Such a mixed load may not be welcomed on a permanent concrete crusher site. Although these materials could be screened out, the transport costs involved in taking loads for sorting (with part loads going for recycling and part for disposal) may be prohibitive and, therefore, the whole load is consigned to landfill and the recyclable material is lost. Thus there is scope for static or mobile concrete crushers to be located within the existing site area of an operational landfill site in order that incoming waste materials can be sorted and any suitable materials recycled as a secondary aggregate. Where the waste stream does not contain sufficient recyclable material to make a crusher an economically viable option, a mobile concrete crusher could be utilised on a number of landfill sites, for a limited period in any one year, once sufficient materials had been recovered and stored. Policy 5 of the Minerals Local Plan states that aggregate recycling plants may be acceptable on mineral workings and waste disposal sites where it can be demonstrated that the use will not cause unacceptable environmental conditions and traffic problems. There are, however, disadvantages as suitable incoming waste materials would have to be stockpiled, both before and after processing, and could be unsightly. There would be additional lorry movements generated by vehicles collecting the crushed material. Removing material from waste destined for landfill would also have implications in terms of the timescale for restoration of the site. Thus land damaged by mineral working may not be restored in the shortest possible time, which has been an objective in the past.
- 7.22 One of the biggest barriers to recycling aggregate has been the lack of any specifications or standards for these materials. Consequently the market has been restricted as the construction industry has been unable to utilise these materials if a particular specification is required. In addition there has also been a reluctance to use recycled materials if primary aggregate is available. The Government is currently researching the material specification requirements for certain activities including alternative materials for road construction which would increase the potential use of alternative materials.
- 7.23 Power station ashes have been sold to the construction industry primarily as a block making aggregate, although other uses include lightweight

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aggregate and as part of cement manufacture. PFA generated by Tilbury Power Station has been used in Essex for block manufacture.

Advantages:

- recovery of material which feeds directly into the aggregate supply thus reducing the landtake for primary aggregate production;
- can reduce overall traffic generation if carried out on a redevelopment site;
- on a landfill site offers the last chance opportunity to recover materials.

Disadvantages:

- removing material from the waste stream may delay restoration of mineral workings;
- dust, noise and visual intrusion can be a problem;
- concrete crushing on a landfill site can lead to an increase in vehicular movements;
- Storage of materials may be unsightly.

Planning Issues:

- where plant is permitted on mineral or waste sites, temporary permission aligned to the approved timescale of the main site is required;
- the difficulties of preventing waste being processed that was not destined for the landfill operation are recognised - but the advantages of encouraging recycling make this an acceptable risk;
- access policy (W4C above) must be observed.

W7D PROPOSALS FOR INERT WASTE RECYCLING FACILITIES WILL BE SUPPORTED AT THE FOLLOWING LOCATIONS:

- **THE WASTE MANAGEMENT LOCATIONS IDENTIFIED IN SCHEDULE 1 (SUBJECT TO POLICY W8A);**
- **INDUSTRIAL LOCATIONS AS DEFINED IN POLICY W8B;**
- **IN ASSOCIATION WITH OTHER WASTE MANAGEMENT DEVELOPMENT;**
- **CURRENT MINERAL WORKING AND LANDFILL SITES, PROVIDED THE DEVELOPMENT DOES NOT UNDULY PREJUDICE THE AGREED RESTORATION TIMESCALE FOR THE SITE AND THE USE CEASES PRIOR TO THE PERMITTED COMPLETION DATE OF THE SITE (UNLESS AN EXTENSION OF TIME TO RETAIN SUCH FACILITIES IS PERMITTED);**
- **DEMOLITION AND CONSTRUCTION SITES WHERE THE SPOIL IS TO BE USED IN THE PROJECT ITSELF**

PROVIDED THE DEVELOPMENT COMPLIES WITH ALL OTHER RELEVANT POLICIES OF THIS PLAN; AND, IN PARTICULAR, DOES NOT CAUSE UNACCEPTABLE HARM TO THE ENVIRONMENT OR RESIDENTIAL AMENITY BY VIRTUE OF NOISE, DUST OR HEAVY TRAFFIC.

Materials Recovery Facilities

- 7.24 As part of an overall waste strategy facilities are required for the sorting, separation, bulking up and onward transportation of the various elements of the waste stream. Such facilities allow for the recovery of materials from the waste stream for reuse, recycling, bio-degradation or incineration. The recycling industry is becoming more sophisticated and increasingly demanding clean uncontaminated material from recovery systems. Thus the possibility of carrying out recycling is partially dependent upon uncontaminated products being available in sufficient quantities, on a regular and reliable basis. Successful recycling schemes are therefore dependent upon establishing a proper collection and processing infrastructure. Material Recovery Facilities (MRFs) not only facilitate the recovery of materials for recycling but also separation of the organic fraction for biological degradation. The separated unusable wastes can then be bulked up for final disposal, either by incineration or landfill. Pre-processing can also serve to increase the overall calorific content of wastes destined for incineration by removing the non-, or poorly combustible elements to produce a Refuse Derived Fuel.
- 7.25 MRFs, by virtue of their design and function, are industrial in nature. They range in size from small scale facilities sorting a limited scope of materials, to purpose built facilities handling 100,000 tonnes of waste per annum and sorting in excess of 30 different types of materials. The method of waste collection has a significant effect on the design and size of MRFs. Separate collection of different waste streams (at the kerbside in the case of household waste) incurs higher costs at source but enables MRFs to operate more efficiently and potentially to produce higher grades of product for the recyclables market.
- 7.26 To avoid the potential litter/odour problems the Waste Management Licensing Authority are likely to require anything other than inert waste materials to be handled entirely under cover. MRFs will require a building of sufficient size to accommodate a large tipping hall for the deposit and loading of materials. Accommodation will also be required for a range of equipment to wash, sort, grade, crush and bale materials as well as storage facilities for recovered materials, skips and vehicles.
- 7.27 MRFs need to have a degree of flexibility built into their design such that different ranges of materials can be sorted at different times as required to meet the recyclables markets which are prone to wild fluctuations. MRFs also should be capable of handling wastes from a variety of sources including household.
- 7.28 In addition to specialist MRFs there is a need for additional facilities strategically located to assimilate usable quantities of waste for treatment. Such bulking up facilities serve a number of roles if properly located. As well as supplying MRFs, they can reduce transport costs by allowing larger vehicles to be used to transport wastes over larger distances and free up specialist collection vehicles.

- 7.29 Civic amenity sites originally established to receive bulky household and garden wastes now also provide an opportunity to collect household source separated wastes. Indeed civic amenity sites have been identified as useful sources of organic wastes for bio-degradation. Wastes collected at civic amenity sites could easily be fed into a MRF to be assimilated with wastes from other sources. In 1999/2000 civic amenity sites contributed some 10% of the overall 18% recycling rate in the Plan area.
- 7.30 As more local authorities seek to increase recycling to meet Government targets, either by kerbside collection or 'bring systems', there will be an increasing requirement for a network of MRFs and waste transfer capacity to ensure that collected materials are sorted and supplied to the reprocessing industry.

Advantages:

- can make a significant contribution to re-use and recovery of material from waste, but only if priority is given to quality of product and development of markets;
- Civic Amenity sites can be a valuable supply of source separated wastes.

Disadvantages:

- limited volume reduction unless markets are found for the materials;
- may locally increase vehicular movements;
- impacts on the locality similar to any other industrial process.

Planning Issues:

- network of MRFs is required if recycling is to make any significant impact;
- strategic location is important if an effective network of facilities is to be established;
- needs careful location as noise, vehicular movements, dust, odours, hours of operation may harm local amenity.

W7E TO FACILITATE THE EFFICIENT COLLECTION AND RECOVERY OF MATERIALS FROM THE WASTE STREAM, IN ACCORDANCE WITH POLICY W3A, THE WPAS WILL SEEK TO WORK WITH THE WDAS/WCAS TO FACILITATE THE PROVISION OF:

- **DEVELOPMENT ASSOCIATED WITH THE SOURCE SEPARATION OF WASTES;**
- **MATERIAL RECOVERY FACILITIES (MRFS);**
- **WASTE RECYCLING CENTRES;**
- **CIVIC AMENITY SITES;**
- **BULKING-UP FACILITIES AND WASTE TRANSFER STATIONS.**

PROPOSALS FOR SUCH DEVELOPMENT WILL BE SUPPORTED AT THE FOLLOWING LOCATIONS:

- **THE WASTE MANAGEMENT LOCATIONS IDENTIFIED IN SCHEDULE 1 (SUBJECT TO POLICY W8A);**
- **OTHER LOCATIONS (SUBJECT TO POLICIES W8B AND W8C);**
- **IN ASSOCIATION WITH OTHER WASTE MANAGEMENT DEVELOPMENT;**
- **SMALL SCALE FACILITIES MAY BE PERMITTED AT CURRENT LANDFILL SITES, PROVIDED THE DEVELOPMENT DOES NOT UNDULY PREJUDICE THE AGREED RESTORATION TIMESCALE FOR THE SITE AND THE USE CEASES PRIOR TO THE PERMITTED COMPLETION DATE OF THE SITE (UNLESS AN EXTENSION OF TIME TO RETAIN SUCH FACILITIES IS PERMITTED)**

PROVIDED THE DEVELOPMENT COMPLIES WITH OTHER RELEVANT POLICIES OF THIS PLAN.

Scrap yards

- 7.31 Scrap yards are essentially recovery and bulking up facilities which concentrate on metals providing a high quality feedstock to the smelting industry. There is already a well established infrastructure, for recovering metals with smaller scrap metal yards collecting and supplying main dealers. There are three principal sources of scrap metal: wastes from industrial and manufacturing process such as off-cuts and stampings; scrap and obsolete plant including ships, railway equipment and vehicles; and light scrap from post consumer goods
- 7.32 Scrap yards will sort the scrap to remove high value non ferrous metals principally aluminium, copper, zinc, lead, tin and nickel which are bulked into standard classes of material. Large items are broken down using processes such as cutting, compacting and fragmentising, each producing a particular grade of scrap metal for reuse.
- 7.33 Fragmentiser plants utilise a hammer mill to break up bulky scrap which is then sorted to produce a metal rich stream, a metal poor residue mainly consisting of plastics, wood, and fabrics and sludges from emission control units. The metal rich stream can be further sorted into ferrous and non ferrous by density or magnetic separation techniques. The residue is usually landfilled, however it is likely to contain materials such as asbestos, lead, zinc and cadmium, which may require special controls. The industry is investigating the incineration of this residue as an option to reduce bulk. However the introduction of the concept of recyclability by manufacturers into product design might eventually be developed to a stage where the fragmentation of mixed scrap wastes is no longer required.
- 7.34 Vehicle breakers/dismantling yards have traditionally been unsightly open-air facilities, subject to few environmental controls. Reclamation and recycling of second hand parts has generally been on an ad hoc basis, with the public stripping the parts they require and the shell eventually being crushed and sent for recycling. More recently, with greater environmental controls being imposed on scrap yards together with changes in vehicle design which allow for greater recovery of all component parts, more

sophisticated vehicle dismantling facilities have been established. These facilities systematically strip vehicles for parts which are either sold over the counter to trade or the public. Alternatively second hand parts are sent to specialist facilities for reconditioning. The shell is then shredded and separated out into ferrous and non ferrous metals. The residue can be further processed to reclaim plastics, glass and rubber or go for incineration. These more modern facilities require workshop and storage space in addition to metal processing and sorting equipment.

- 7.35 By reason of their noisy, unsightly and industrial character, scrap yards and vehicle breakers are regarded as bad neighbour developments and will require careful siting within industrial areas.

Advantages:

- allow for the efficient recovery of metals for recycling;
- bulking up can reduce the overall number of vehicular movements.

Disadvantages:

- may locally increase vehicular movements;
- impact on the locality including dust, noise and visual amenity especially as outside storage is likely to be involved.

Planning Issues

- require careful consideration of location as noise, vehicular movements, dust, odours, hours of operation may harm local amenity;
- smaller facilities could possibly be accommodated as part of a larger waste management facility.

W7F SCRAP YARDS AND VEHICLE DISMANTLING FACILITIES WILL ONLY BE PERMITTED WITHIN INDUSTRIAL LOCATIONS AS DEFINED IN POLICY W8B.

Energy from Waste Incineration

- 7.36 This is the burning of waste as a renewable energy to produce energy for electricity and/or heat in the form of a district heating system. The processes involved may include either a mass burn technique or a fluidised bed technique. In the light of concern expressed during the last consultation phase, it is important to be clear about the Plan's position with regard to incineration. The Plan neither supports nor opposes incineration but recognises in line with Government and Regional guidance, that it may play a part in the mix of waste management solutions. Concerns about incineration centre partly around flue emissions. Any proposal cannot be implemented without authorisation from the Environment Agency under the Environmental Protection Act 1990, and must meet stringent national standards. As PPG23 advises, the planning system should not be operated so as to duplicate controls which are the statutory responsibility of other

bodies, and must assume that the pollution control regime will operate effectively (paras 1.3 and 1.33). The Plan Authorities as Waste Disposal Authorities have the opportunity to consider their position on incineration as part of the contract strategy for waste management but would need advice on practicality and cost implications before reaching decisions on contracts.

- 7.37 Incineration without energy recovery would be placed at the bottom of the hierarchy. Except in specialised cases (perhaps clinical waste incineration or incineration of cattle under the Over Thirty Months Scheme), incineration without energy recovery would not be acceptable in the Plan area.
- 7.38 Incineration of waste gives rise to understandable public concerns, particularly regarding emissions to air, visual impact, lorry traffic and disposal of residues. These are matters which must be properly addressed when detailed proposals come forward as planning applications. The WPA does not rule out energy from waste incineration as a matter of policy, but it does intend to impose constraints over permitting such plants, having regard to whether any proposal would be the BPEO and its position in the waste hierarchy. In doing so it will have regard to controls which are the responsibility of the Environment Agency (eg safety of emissions). Nevertheless, such facilities have a potential role as part of an integrated strategy for waste management, for dealing with large amounts of waste.
- 7.39 Any sites which included EfW incinerators would therefore be expected to provide facilities for a range of waste management options on an integrated basis. Any proposal for EfW incineration in the medium to long term, to deal with large quantities of waste, would be considered against its compatibility with the strategy to first reduce waste and introduce measures at higher levels of the waste hierarchy. However, if there were to be over-reliance on waste reduction, and over-ambitious targets failed to be reached, then a shortfall in waste management capacity could only be provided after a substantial lead time - resulting in pressure for additional landfill/landraising in the short term.
- 7.40 EfW incinerators are substantial structures (eg. flues can reach 100m or more in height) which can be built on compact sites (2-3 ha) attracting high numbers of large goods vehicle movements.
- 7.41 Proper siting is fundamental if impacts are to be minimised. For example access to the main road system is essential. No plant could operate without satisfying stringent standards required by legislation - both EU and UK, which must be met through design and operation in order to obtain and keep the Environment Agency licence.
- 7.42 The bulk of the structure, its perceived 'bad neighbour' characteristics (whether or not valid) and the input of waste by large goods vehicles (and removal of residue for landfill), make it necessary to adopt a flexible attitude to siting. A location outside urban or built-up areas may have to be accepted to avoid undue proximity to residential areas, especially if sites can be found which satisfy other criteria but are already in a 'brownfield' use.

- 7.43 A recently commissioned site in Lewisham (South-East London combined Heat and Power - SELCHP), has a capacity of some 0.4 mt pa. It operates on a mass-burn technique. An alternative is known as fluidised-bed technology which can facilitate smaller, yet still economic capacities. Such a technology may, however, require increased pre-sorting of the waste input. There is little experience of this technique in the UK
- 7.44 It may be assumed that unit cost reduces as plant capacity increases although there are obvious disadvantages with very large plants serving wide areas, for example the long distance transportation of waste from source to plant contrary to the proximity principle. Smaller local plants may be more desirable, to reduce scale and travel costs, but they can be assumed to result in higher unit costs of disposal and be collectively less efficient in power generation. This situation may change as a result of technical innovation
- 7.45 The Plan area is part urban and part rural such that it is inevitable that those areas with a low population density cannot realistically support a facility of their own. Waste would have to be collected and transported longer distances to reach the point of disposal. There could be benefits in locally bulking-up loads from collection vehicles at waste transfer stations, to travel more economically to more remote disposal sites. This is a matter for detailed calculation for those entering into contracts.

Advantages:

- proven method capable of handling large volumes of waste, reducing the volume of waste for final disposal;
- a renewable source of energy, which uses waste as a resource to generate power (and perhaps provide heating), yielding 5 times greater useful energy per tonne of refuse than energy recovery from landfill and reducing generation from fossil fuels;
- can be part of an integrated site for waste management including facilities for front end recycling, composting and back end materials recovery;
- provides the ability to plan long term for the future practical provision for waste management as an alternative to landfill.

Disadvantages:

- perceived risk of flue emissions;
- generation of heavy lorry traffic;
- ash residues have to be disposed of, some of which would be special waste;
- noise from engines, generators and traffic;
- large fixed plant with high capital cost;
- could divert some of the waste stream away from recycling and because of scale, future choice is restricted once a plant is in operation;
- local visual impact of a major site will be high;
- costs are generally higher than landfill;

- site identification will enhance land value and could discourage other uses from coming forward.

Planning Issues:

- need to consider the immediate impact of renewable energy projects on the local environment and their wider contribution to reducing emissions of greenhouse gases;
- EfW incinerators operate under tightly controlled conditions therefore there is a requirement for plant and equipment which is industrial in appearance, this includes a flue for gas treatment;
- in order to save on the cost of transport, the plant needs to be sited near to the source of the waste;
- Disposal of waste heat: if surplus heat is to be used to supply a district heating scheme the plant needs to be located close to built development. If electricity generation is an option then some form of connection with the grid will be needed. Otherwise cooling is needed, by water (eg sea water if near the coast) or air;
- safety in terms of handling, transporting waste and effluent and burning gas;
- site operation and emissions to meet the Environment Agency's high standards and the Agency's Waste Management Licence;
- in the absence of a commercial input the WPA may have misjudged the viability of an identified site;
- traffic generation in terms of transportation of wastes to and residual wastes from the site.

7.46 Policy W7G will apply to proposals for waste incinerators. The intention is that such facilities will be supported only when incineration is shown to be the BPEO, having regard to alternative methods of waste management further up the waste hierarchy (see policy W3A). They would have to meet the additional requirements of policy W7G regarding energy recovery, emissions and disposal of residues. The requirement concerning emissions addresses article 4 of the Waste Framework Directive (see paragraphs 2.6-2.8 above), and also paragraphs 1.25-1.28 of Circular 11/94 which points out the difficulty of ensuring that there is no risk. Waste incinerators will normally have a capacity of 50,000 tonnes per annum or more and so the requirements of policies W8A and/or W8B would also have to be met. It is unlikely that smaller incinerators would be proposed, except perhaps for specialised purposes. If there were any such proposals, policy W8C would apply.

- W7G**
- **PROPOSALS FOR INCINERATION OF WASTE MAY BE PERMITTED AT THE LOCATIONS IDENTIFIED IN SCHEDULE 1 (SUBJECT TO COMPLIANCE WITH THE REQUIREMENTS OF POLICY W8A) OR AT OTHER LOCATIONS (SUBJECT TO THE REQUIREMENTS OF POLICY W8B), PROVIDED THE FOLLOWING REQUIREMENTS ARE ALSO MET:**
 - **INCINERATION WITHOUT ENERGY RECOVERY WILL NOT BE PERMITTED EXCEPT IN SPECIALISED CASES**

- **EMISSIONS TO AIR AND WATER FROM THE PROCESS WILL NOT MATERIALLY ENDANGER HUMAN HEALTH OR HARM THE ENVIRONMENT. IN DECIDING WHETHER THIS REQUIREMENT IS MET, THE WPAS WILL ASSUME THAT THE NECESSARY CONTROLS ARE EXERCISED UNDER ENVIRONMENTAL PROTECTION LEGISLATION AND THAT THE POLLUTION CONTROL REGIME**
- **OPERATES EFFECTIVELY, AND WILL TAKE INTO ACCOUNT WHETHER THE PROCESS PROPOSED IS THE BEST PRACTICABLE ENVIRONMENTAL OPTION (BPEO) FOR THE PARTICULAR WASTE STREAM**
- **IN CONSIDERING THE APPLICATION OF BPEO, THERE WILL BE A PRESUMPTION AGAINST INCINERATION UNTIL THE TARGETS AGREED FOR HOUSEHOLD WASTE RECYCLING BY THE LOCAL AUTHORITIES HAVE BEEN TESTED**
- **PROVISION IS MADE FOR THE RECYCLING OR OTHER MANAGEMENT OF ALL RESIDUES, INCLUDING THE MEANS OF DISPOSAL TO LANDFILL WHERE THAT IS THE BPEO.**

Refuse Derived Fuel

- 7.47 Processing wastes can recover recyclable materials such as metals and glass, and also provides a fuel which is more homogenous, with a higher calorific value, lower moisture and heavy metal content than unprocessed waste. This material is commonly referred to as coarse refuse derived fuel. Compared with mass burn incineration, fuelling an incinerator with RDF produces less ash and emissions and combustion conditions can be better tailored to the fuel specifications to achieve a more efficient burn. Using RDF is ideally suited for energy recovery operations in smaller scale applications typically 75,000 to 200,000 tonnes/year. Further processing of coarse RDF to remove the putrescible fraction of waste gives a dense RDF largely comprised of plastics, paper and textiles which when dried and pelletised has half the energy density of coal. Dense RDF has been aimed at the industrial market as a substitute for coal, however, it is relatively expensive and plant may well have to be modified to take RDF, it therefore does not compete well with the convenience of oil, gas or coal.
- 7.48 Processing wastes obviously adds cost, but these additional costs can be offset by selling recovered materials and savings in the costs of combustion and gas clean up technology.
- 7.49 A number of facilities using RDF already exist in Japan, Scandinavia and the USA. RDF can be co-fired with other feedstocks such as wood chips and coal. In the UK, a waste contract has been awarded to develop a 200,000 tonne per annum facility in Kent.

Advantages:

- allows a flexible approach to material recycling and other processing options;

- improves the calorific value and combustion characteristics of the residual waste;
- RDF has a lower moisture and heavy metals contents so reducing the burden on gas cleaning plant;
- ash handling requirements are greatly reduced;
- combustion can be tailored to maximise efficiency and reduce cost.

Disadvantages:

- RDF process requires prior sorting of waste, production of the fuel medium and final incineration, which may result in dispersed locations at variance with the proximity principle and multiple impacts;
- for RDF to be worthwhile there is a need to integrate RDF processing with recycling and material recovery which introduces complexity reliant on markets being found for these materials.

Planning Issues:

- since the production of RDF is linked with the processing and recovery of materials from waste, its production is likely to be an integral part of other waste management facilities;
- could be a covert means of exporting waste (described as fuel) from other areas contrary to self-sufficiency principle.

Landfill Gas

7.50 The anaerobic decomposition of municipal waste in landfill, results in a flammable gas, typically comprised of 60% methane 35% carbon dioxide and 5% nitrogen. Until fairly recently this gas has been either simply vented to the atmosphere or flared off as a nuisance . If present in sufficient quantities it can be utilised in suitably adapted internal combustion engines or turbines to generate electricity. Alternatively it can be utilised by local industry. Production of landfill gas does vary enormously between sites depending, as it does, on a range of variables, time, composition of the waste, management of the site, moisture content, pH range and temperature. Past experience in Essex and Southend suggests that large sites with large volumes of waste are required before power generation is viable. Several plants utilising landfill gas are already operational within the County selling power to the National Grid. There may be some scope for additional plants at larger Type C landfill sites in the County.

Advantages:

- offers a last chance opportunity to recover energy from landfilled material, whilst controlling landfill gas emissions from the site.

Disadvantages:

requires the provision of plant within a rural area where such development may not normally be permitted.

Planning Issues:

- requires electrical connection;
- only involves a small site approximately half hectare however this does include buildings fencing and possibly appropriate bunds and landscaping to overcome noise and visual intrusion.

W7H SUBJECT TO THE CRITERIA AND POLICIES CONTAINED IN THE DEVELOPMENT PLAN, IN PARTICULAR THE CONSIDERATIONS SET OUT IN POLICY W10E, LANDFILL GAS UTILISATION PLANTS FOR ENERGY RECOVERY WILL BE ENCOURAGED AT LANDFILL SITES, AND THIS WILL BE A MATERIAL CONSIDERATION IN ASSESSING THE ACCEPTABILITY OF LANDFILL PROPOSALS.

Mining of Waste

- 7.51 Mining of waste previously disposed of by landfill has been carried out in several countries including the USA, Germany, Canada and Austria. The practice can recover recyclable materials although this is of doubtful practical value. Should the site suffer from poor engineering, or be causing pollution then such operations may be justified in extreme cases. Where material is being removed often the real motive is to increase landfill capacity. Such operations obviously require careful control of leachate, landfill gas, odours and dust to avoid pollution problems.
- 7.52 In Germany the decomposition of waste is stabilised by injection of warm, water-saturated air and methane extracted and deodorised in a biological filter. After 10 - 15 days the site is opened and waste is removed for processing by screening and magnetic separation. Computer controlled grab sorts material into cover material, rubble and stone, wood and bulky material and metals. The remaining waste is shredded with the lighter fraction being sent for incineration and the residual being landfilled. The project costs are covered by the resultant landfill capacity gains which can exceed 50%.
- 7.53 In Essex and Southend some type B landfill sites have been worked to recover aggregate materials, such as PFA. Removal of 'waste' materials such as mineral-working deposit, deposits of PFA, furnace ash, clinker, metallic slags etc are by virtue of Minerals Act 1981 classed as minerals and working of these materials has been addressed in the Essex Minerals Local Plan. However, unless there are environmental or health benefits, mining of waste possibly to create additional landfill void is likely to cause severe environmental disturbance and will not be permitted except where storage was temporary and intended to be reused (eg compost).

W7J THE WPA WILL NOT PERMIT THE MINING OF WASTE UNLESS THE SITE IS SHOWN TO BE ENDANGERING HUMAN HEALTH OR HARMING THE ENVIRONMENT, OR REMOVAL IS REQUIRED TO FACILITATE MAJOR INFRASTRUCTURE PROJECTS. THIS POLICY DOES NOT PRECLUDE THE TEMPORARY STORAGE OF WASTE PRODUCTS INTENDED FOR FUTURE REUSE.

8.0 PREFERRED LOCATIONS FOR WASTE MANAGEMENT

Introduction

8.1 The WP must develop the waste strategy and make site specific proposals if large amounts of waste are to be adequately dealt with.

8.2 Landfill has a declining ability to manage substantial volumes of waste as well as increasingly being seen as environmentally unacceptable. The revised position for the Plan area, in terms of quantity of waste to be managed over the Plan period is set out in Chapter 2. The revised strategy requires in the longer term, real alternatives to landfill and, where possible, energy recovery. Disposal of residues by landfill into adjacent voids, where this improves restoration, could be part of an integrated scheme.

8.3 This reflects the revised Regional Waste Advice (SERP 160), which identifies that 'old' Essex needs to divert 6.3 million cubic metres (5.04 mt) of waste away from landfill over the Advice period of 1996-2010, and much greater volumes thereafter, assuming residues only are disposed to landfill after 2010. This will be increasingly met towards the end of the Plan period as alternative waste management methods are developed. To achieve this requirement it is essential that Essex and Southend, through the WP, make a firm commitment to the development of alternative waste management techniques and nothing makes this more achievable than the identification of preferred sites for waste management facilities, as part of the Plan led system. This more proactive approach is considered necessary given the lead-time to develop waste management sites, and allows concurrent public debate about the principle of the sites. The Plan is definitely not prescriptive about the nature of the process for each site - this can only be considered when detailed proposals come forward as part of the normal planning system. The WPA monitors planning permissions and conditions, the Environment Agency monitors operations and compliance with the Waste Management Licence.

Site Specific Issues

8.4 This Plan identifies preferred locations for waste management facilities, to assist the move up the waste management hierarchy away from landfill. However it does not specify the waste processes which might take place at each site. This is to enable flexibility in meeting requirements for different types of process and to allow for innovation in waste management. In practice the environmental impact of any proposal will depend not just on the type of process but also on the size of plant, nature of waste handled, site layout and so on. Other policies of the Plan, particularly policies W3A,

and the policies in Chapters 7 and 10, control the acceptability of particular types of waste process.

8.5 This approach is supported at paragraph 33 of PPG10:

‘Plans should identify existing waste management sites with capacity for the future and, where practicable, new or extended sites sufficient to make adequate future provision of waste management facilities.

. . .Where new or replacement facilities are needed, preferred locations should be identified.

. . .Identification of specific sites for development is the best way that the planning system can make provision for future waste management facilities. If this is not possible, WLPs should justify why this approach has not been followed.’

8.6 This advice in PPG10 follows the principle of the plan-led approach as detailed in PPG12: ‘Development Plans’ (2000) at paragraph 1.1 and paragraphs 10 and 11 of Annex A:

‘1.1 The government remains fully committed to the plan-led system, given statutory force by section 54A of the Town and Country Planning Act 1990 (‘the 1990 Act’). Where an adopted or approved development plan contains relevant policies, section 54A requires that an application for planning permission or an appeal shall be determined in accordance with the plan, unless material considerations indicate otherwise. This provides a framework for rational and consistent decision making.’

Annex A

‘10 In areas where UDPs are prepared, waste policies should appear in UDPs, and there is no power to prepare separate waste local plans. In all other areas of England, planning applications for development associated with the deposit, treatment, storage, processing and disposal of refuse or waste materials other than mineral waste, are decided by county planning authorities, non-metropolitan unitary authorities, or National Park authorities. Those bodies require a development plan framework for deciding those applications. The 1991 Act therefore introduced a requirement for local plan coverage of development involving the depositing of refuse or waste materials (other than mineral waste).’

‘11 The plans should set out local authorities’ detailed land use policies for the management and disposal of waste, within the broad strategic framework of the structure plan. . . .The waste local plan should address the need for sites and facilities in particular areas, suitable locations, and planning criteria likely to apply, including geological, hydrological, and other considerations.’

8.7 A number of advantages are gained from such a proactive approach in identifying sites. These are:

essentially a firm commitment to move away from landfill and move up the waste management hierarchy;

- provides the ability to plan long term for the future practical provision for waste management as an alternative to landfill;
- will assist investment decisions to bring these needed facilities on stream, the principle already established in the Plan; without that principle of an identified site, developers will be wary of the costs of taking on the planning system/local objection - facilities may not be available when we need them;
- the Local Plan process (including examination at the Inquiry) provides opportunity for a wide ranging debate based on a number of sites, and the need for them, rather than ad-hoc decisions on individual sites.

Preferred Locations for Waste Management

8.8 The identification of suitable sites for waste management facilities does not imply that any specific scale or description of process would be acceptable. That can only be decided at the application stage in the light of the other policies of this Plan. However it does show that the sites are, in principle, suitable for waste management development. There are a range of suitable processes available which may be integrated in a number of combinations to achieve effective waste recycling and recovery of non-inert waste (household waste and commercial/industrial waste). A range of options could be developed as either an integral waste management facility or a stand alone plant. In some cases an integrated scheme of waste processes may involve more than one site and applicants must demonstrate that an integrated scheme which is within their control achieves the objective of managing waste as high up the hierarchy as is practicable as required by Policy W8A below. The identified locations have the potential to accommodate facilities above thresholds, or of a nature, which require an Environmental Statement to accompany the planning application. Circular 2/99 "Environmental Assessment" suggests that facilities with a capacity in excess of 50,000 tonnes per annum may require an Environmental Statement under Schedule 2, in addition to facilities for which it is mandatory under Schedule 1. This does not mean that in all cases facilities below 50,000 tpa will not require an Environmental Assessment. However, this threshold is a reasonable one to adopt as a guide for defining large-scale waste management development for the purposes of policy W8B below. In practice, the total capacity of an integrated waste management facility may be over 100,000 tpa.

8.9 The most likely types of facilities to be developed are listed below and have been fully described in Chapter 7 above:

- Materials Recovery Facility (MRF);
- Anaerobic Digestion (AD);
- Composting and recycling;
- Inert waste recycling;
- Energy from Waste Incineration (EfW).

Number of Sites Required

- 8.10 The need to identify sites for waste management facilities has already been established. Sites will come on stream as required by market forces and an important role of this Plan is to provide a clear planning framework, and identify relevant constraints, subject to which proposals may come forward. To assist the development of sites, a significant ingredient to their start up is a long term contract for MSW disposal from the WDAs.
- 8.11 Preferred locations for waste management are likely to deal essentially with non-inert waste, or the original waste Types B and C in SERPLAN/SEWRACs definition although an element of inert waste recycling may be part of an integrated scheme. An integrated waste management site is likely to have a capacity of over 100,000 tpa but this cannot be a criterion and capacities can only be considered when detailed proposals are made. Such schemes could potentially make a substantial contribution to the long-term management of waste. Operations such as recycling or composting facilities may be part of an integrated process or could operate on a smaller scale. Policy W8C sets the criteria for considering smaller-scale proposals, and existing waste management sites are listed in Appendix 7.
- 8.12 Non-inert waste from 'old' Essex to be diverted from landfill is assumed to be 6.3 mcm for the 15 year period of the Advice, in addition to the 5.1 mcm to be managed by reduction/recycling/composting etc (see 3.28 above). No better estimate can be provided for 'new' Essex but can be compared with an average disposal of 'old' Essex non-inert waste arisings of 1.475 mt per annum for the period 1986-1995. The approach of the Advice is to assume increasing levels of waste avoidance and reduction so the figures cannot be easily annualised, but if a full 25% reduction were achieved on past average rates Essex and Southend arisings of non-inert waste post 2005 would be 1.1 mt pa. This however excludes the amount already re-used/recycled/composted etc.
- 8.13 The WDA currently handles some 0.7 mt pa of MSW, and considers this already takes into account that 5% of the original total of waste produced is recycled/reduced. This 0.7 mt is included in the 'non-inert' waste figures. If the 60% target in 'Working Together' were achieved, this would reduce to 0.28 mt pa, plus residues.
- 8.14 To make the assumption that the combined capacity of the identified locations could be just these reduced figures would be false. The waste reduction includes recycling, composting etc which could be part of an integrated process on these sites. Given the difficulties in making accurate assumptions about plant capacity (which can only be known and assessed when a scheme is put forward), and the difficulties of forecasting future waste volumes, the identified locations together with non-identified sites provide a flexible basis for meeting the waste management needs of Essex and Southend for the Plan period. The adequacy of provision will be monitored, and adjusted as necessary at future Reviews of this Plan

Site Selection Process

- 8.15 In January 1997, the Essex CC Environment Committee agreed locational criteria for 'major waste management sites'. At that time, prior to the 'Working Together' agreement, it was intended that these sites, strategically located throughout Essex and Southend, would provide the facilities to realise the strategy for non-landfill waste management in the medium/long term. The Committee agreed that the County Planner should carry out a site selection process inviting suggestions from landowners, waste industry and District Councils.
- 8.16 In addition to inviting suggestions, the County Planner also considered the available vacant industrial land and major current landfill/mineral extraction sites.

Suggested Sites

- 8.17 Some 150 individual organisations, companies etc were contacted and invited to suggest sites for consideration. Some 22 sites were submitted but many fell well short of the criteria (see 8.23 below).

Industrial Land Availability Study Sites

- 8.18 The Essex Industrial Land Availability Report 1996 presents detailed information on vacant industrial land allocations in Local Plans and sites with planning permission in Essex and Southend. The information is presented on a District by District basis.
- 8.19 The Report was used as a basis to identify industrial sites for major waste management facilities. All sites satisfying the following criteria were identified as a starting point:
- over 2 ha;
 - any extant planning permission is over 2 years old (therefore doubt about implementation);
 - mainly suitable for Use Class Order B2/B8 (although a number of sites looked at incorporate potential B1 uses);
 - allocated in Local Plan for 'industry' or 'employment' or similar.
- 8.20 The undeveloped sites include land with planning permission for industrial use or land allocated for industry/warehousing in Local Plans. Land within the curtilage of existing firms is normally excluded.
- 8.21 The sites were then assessed against the site selection criteria (see 8.23).

Major Current landfill/mineral extraction sites

- 8.22 All current major landfill sites or combined mineral/landfill sites were considered and those where a major permanent waste management facility seems feasible were put forward for consideration. Landfill sites where the priority is for restoration and early closure were not considered suitable for a

permanent facility, though they may support temporary recycling facilities where a 'last resort' operation could assist recycling targets whilst not unduly delay restoration.

Site Selection Criteria

- 8.23 The criteria set out below give consideration to the impact of the proposal and the appropriateness of the site. Full consideration of the environmental impact can only be given when detailed proposals come forward in the form of planning applications. The sites will therefore be required to meet the relevant development policies of this Plan, including the detailed development control policies within Chapter 10.

Access

- 8.24 Policy W4C encourages proposals for rail or water transport of waste and this is reflected in policy W8A. However in practice opportunities for this are likely to be limited. Most waste management processes will generate traffic in the form of lorries. It is therefore of the utmost importance that large-scale facilities are located with regard to the County road hierarchy, in accordance with Policy W4C (see Appendix 1). To locate such facilities away from the main highway network, such that other routes would need to be used, cannot be justified and would be environmentally unacceptable. Some of the identified sites are located within existing industrial areas which are assumed to have satisfactory access.
- 8.25 The question about what is an acceptable route for lorries outside the defined hierarchy is academic if adequate sites can be found to satisfy the Policy. While the Policy provides a guide to selection of waste management sites, its sequential approach is applicable to consideration of all applications for waste management development.

Location

- 8.26 Preference is given to industrial/urban areas, but rural locations, especially on brownfield sites, cannot be ruled out if a special case can be demonstrated
- 8.27 Structure Plan policies are concerned to protect the countryside from unsuitable development, and this is reflected in the policies of this Plan. However paragraph 3.26 of PPG7 advises that 'waste disposal operations frequently take place in rural locations ...rural areas may also be appropriate locations for other forms of waste processing such as composting or recycling'. Urban sites are preferred for large-scale facilities, but the amenity of residential areas needs to be protected. There are also difficulties of reserving urban commercial sites for waste management in competition with other proposed uses of such land. The WPAs will seek to safeguard such sites as far as possible (see para 8.36), but some leeway is necessary for sites which become unavailable.

8.28 The problem is greatest in Green Belt areas. The area of Essex and Southend with the greatest population density, which generates large amounts of waste, is also the main area protected by Green Belt policy, south-west of a line roughly between Stansted and Southend. Under the advice in PPG2, any waste management development involving the construction of new buildings is inappropriate in the Green Belt, and the use of land for waste management is also inappropriate unless it maintains openness and does not conflict with the purposes of including land in the Green Belt. Paragraph 3.3 of PPG2 advises that Green Belt policies in development plans should ensure that planning applications for inappropriate development would not be in accord with the plan. This is a problem common to all the counties surrounding London. To identify Green Belt sites for waste management development in this Plan would be contrary to this advice. Only at the planning application stage can it be determined whether there are very special circumstances justifying such development.

Appearance

8.29 The site should be able to physically and visually accommodate industrial type structures. This may include the following:

- substantial landscaping;
- screening;
- development below general ground level.

The structures should be of a high quality design. More detailed aspects will be determined at the application stage.

Spatial Distribution

8.30 Essex and Southend is part urban and part rural such that it is inevitable that those areas with a low population density must either develop small local facilities or waste must be collected and may travel longer distances to reach the point of disposal. There could be benefits in locally bulking-up loads from collection vehicles at waste transfer stations, to travel more economically to more remote disposal sites within Essex and Southend. This is a matter for detailed calculation for those entering into contracts. Proposals to meet waste management needs at the identified locations will be considered against the proximity principle

Physical Size of Site

8.31 Sites of less than 2.5 ha may be too small for a large-scale waste management facility or an integrated scheme.

Electricity Generation

8.32 Access to the electricity distribution system to cater for energy production, is considered an advantage, although it is not a pre-requisite, given that not all waste management processes produce energy. However, where a process does produce energy for electricity generation access to such a network is

required, without unnecessary construction of new overhead lines, underground lines will be preferred.

Pollution

8.33 Consideration must be had to pollution and the proximity to residential dwellings. Concerns about emissions from incinerators are addressed by policy W7G. The Environment Agency is responsible for issuing and monitoring waste management licences and pollution control authorisations, and is concerned with regulating all emissions to the environment. The possible impact on local residents was given consideration, however, full details of these issues would be a matter for the application stage, when the Agency is consulted on a specific proposal. The extent of an impact would be dependent upon the nature of the development which has not been specified or proposed in the Plan.

Proposed Sites

8.34 As a result of the assessment of sites arising from the 3 sources (site suggested, industrial land, current landfill/mineral extraction sites), a number were suggested to the Members' Panel for initial consideration. This process led to the identification of 8 strategic sites in the deposit draft Plan. Since then, the agreement of the "Working Together" strategy between the WDAs and the WCAs, together with examination of the sites at the Local Plan inquiry, has led to a reduction in the number of identified locations to 6. This is balanced by a greater emphasis on non-identified sites and criteria for the location of smaller-scale facilities for local recycling, composting and materials recovery schemes. However as a result of the site selection process it is considered that the identified locations would in principle be capable of accommodating larger-scale and integrated schemes if required, subject to their satisfying the other policies of this Plan at the application stage. The locations now identified are listed in Table 8.1 below and set out within Schedule 1. The sites are listed by District.

Table 8.1 Preferred locations for waste management

DISTRICT/BOROUGH	Ref. No.	Location
BRAINTREE	WM1	Rivenhall Airfield, Silver End
COLCHESTER	WM2	Land east of Warren Lane, Stanway
	WM3	Whitehall Road, Colchester
EPPING FOREST	WM4	North Weald Airfield, North Weald Bassett
BASILDON	WM5	Courtauld Road, Basildon
CHELMSFORD	WM6	Sandon, Chelmsford

8.35 The Sandon site was added in the Deposit draft and the original MWM5 site at Harlow deleted because industrial development is scheduled to take place before the end of 1998 according to the site owners. The sites were renumbered in the Deposit Draft accordingly.

- 8.36 The sites are proposals of the Plan, but in the case of the industrial estate sites, (WM3, 4, 5) cannot be 'safeguarded' as the deletion of the Harlow site illustrates. These are 'identified' as potential locations which meet the criteria and it is recognised that the industrial sites may be developed for alternative industrial uses. This is not, however, the case with the non-industrially allocated sites (WM1, 2 and 6) which are exclusively allocated for waste management facilities only. Alternative development proposals on these sites, which prevented the development of waste management facilities there, would be strongly resisted by the WPA.
- 8.37 It is unlikely that waste management development would take up the whole of the identified locations. To this extent they may be treated as areas of search. The most suitable siting within the identified area would be decided at a later date when detailed proposals are made.

W8A WASTE MANAGEMENT FACILITIES WILL BE PERMITTED AT THE LOCATIONS SHOWN IN SCHEDULE 1 PROVIDED ALL OF THE FOLLOWING CRITERIA, WHERE RELEVANT, ARE COMPLIED WITH:

- **THERE IS A NEED FOR THE FACILITY TO MANAGE WASTE ARISING IN ESSEX AND SOUTHEND (SUBJECT TO POLICY W3C);**
- **THE PROPOSAL REPRESENTS THE BEST PRACTICABLE ENVIRONMENTAL OPTION FOR THE PARTICULAR WASTE STREAM, HAVING REGARD TO ANY ALTERNATIVE OPTIONS FURTHER UP THE WASTE HIERARCHY;**
- **THE DEVELOPMENT COMPLIES WITH OTHER RELEVANT POLICIES OF THIS PLAN, INCLUDING THE POLICY/IES IN CHAPTER 7 FOR THE TYPE(S) OF FACILITY PROPOSED;**
- **ADEQUATE ROAD ACCESS IS PROVIDED IN ACCORDANCE WITH POLICY W4C. ACCESS BY RAIL OR WATER WILL BE SUPPORTED IF PRACTICABLE;**
- **BUILDINGS AND STRUCTURES ARE OF A HIGH STANDARD OF DESIGN, WITH LANDSCAPING AND SCREENING PROVIDED AS NECESSARY; AND**
- **INTEGRATED SCHEMES FOR RECYCLING, COMPOSTING, MATERIALS RECOVERY AND ENERGY RECOVERY FROM WASTE WILL BE SUPPORTED WHERE THIS IS SHOWN TO PROVIDE BENEFITS IN THE MANAGEMENT OF WASTE WHICH WOULD NOT OTHERWISE BE OBTAINED.**

Alternative Sites

- 8.38 Schedule 1 identifies preferred locations for waste management development with regard to advice in PPG10 para 33, as detailed at paragraph 8.5 above. However the identified locations will not necessarily meet all waste management needs, especially as landfill is expected to reduce progressively to a residual role. The need for additional sites will depend on firstly whether proposals come forward at the identified locations, secondly the capacity of facilities developed on them, and thirdly the emerging waste contract strategy by the WDAs and WCAs which may require a more diverse spread of smaller sites. For all these reasons the

Plan must allow for waste management proposals coming forward at locations other than the identified ones. The first Review of the Plan may identify additional sites as far as possible, in accordance with the advice in PPG10, but the criteria-based policies will provide the basis for decisions on smaller sites.

- 8.39 In all cases, proposals will be subject to the criteria and policies of the development plan, in particular the considerations set out in Policy W10E. PPG10, paragraph A51, lists appropriate locations:
- a. industrial areas, especially those containing other heavy or specialised industrial uses;
 - b. degraded, contaminated or derelict land — well-located, planned, designed and operated waste management facilities may provide good opportunities for remediating and enhancing sites which are damaged or otherwise of poor quality, or bringing derelict or degraded land back into productive uses;
 - c. working and worked out quarries — landfill is commonly used in quarry restoration but there may be opportunities for other types of waste management facilities at some quarried sites;
 - d. existing landfill sites — where, for instance, composting facilities may be conveniently located;
 - e. existing or redundant sites or buildings — which could be used, or adapted, to house incineration or materials recycling facilities, or composting operations;
 - f. sites previously occupied by other types of waste management facilities; and
 - g. other suitable sites located close to railways or water transport wharves, or major junctions in the road network.
- 8.40 Policy W8B is the general policy for such proposals generally with a capacity of 25,000 – 50,000 tpa. They will also be required to comply with the criteria of policy W8A, and in the case of large-scale proposals (above 50,000 pa), developers will have to show why the identified locations would be less suitable or not available for their proposal. Policy W8C allows for smaller-scale facilities (generally below 25,000 tpa) in urban or rural locations to serve local communities. This policy will provide guidance in the event of a ‘smaller sites’ strategy being pursued. A considerable number of such sites will need to be found in Essex and Southend if this strategy is to succeed.

W8B WASTE MANAGEMENT FACILITIES (EXCEPT LANDFILL TO WHICH POLICIES W9A AND W9B APPLY) WILL BE PERMITTED AT LOCATIONS OTHER THAN THOSE IDENTIFIED IN THIS PLAN, PROVIDED ALL OF THE CRITERIA OF POLICY W8A ARE COMPLIED WITH WHERE RELEVANT, AT THE FOLLOWING TYPES OF LOCATION:

- **EXISTING GENERAL INDUSTRIAL AREAS;**
- **AREAS ALLOCATED FOR GENERAL INDUSTRIAL USE IN AN ADOPTED LOCAL PLAN;**

EMPLOYMENT AREAS (EXISTING OR ALLOCATED) NOT FALLING INTO THE ABOVE CATEGORIES, OR EXISTING WASTE MANAGEMENT SITES, OR AREAS OF DEGRADED, CONTAMINATED OR DERELICT LAND, WHERE IT IS SHOWN THAT THE PROPOSED FACILITY WOULD NOT BE DETRIMENTAL TO THE AMENITY OF ANY NEARBY RESIDENTIAL AREA.

LARGE-SCALE WASTE MANAGEMENT DEVELOPMENT (OF THE ORDER OF 50,000 TONNES PER ANNUM CAPACITY OR MORE, COMBINED IN THE CASE OF AN INTEGRATED FACILITY) WILL NOT BE PERMITTED AT SUCH NON-IDENTIFIED LOCATIONS UNLESS IT IS SHOWN THAT THE LOCATIONS IDENTIFIED IN SCHEDULE 1 ARE LESS SUITABLE OR NOT AVAILABLE FOR THE PARTICULAR WASTE STREAM(S) WHICH THE PROPOSAL WOULD SERVE.

W8C NOTWITHSTANDING POLICY W8B, PROPOSALS FOR SMALLER-SCALE WASTE MANAGEMENT FACILITIES (GENERALLY WITH A CAPACITY BELOW 25,000 TONNES PER ANNUM) AND EXCEPT LANDFILL TO WHICH POLICIES W9A AND W9B APPLY, WILL ALSO BE PERMITTED AT OTHER LOCATIONS PROVIDED ALL THE CRITERIA OF POLICY W8A ARE COMPLIED WITH WHERE RELEVANT, AT URBAN LOCATIONS WHERE THEY SERVE THE LOCAL COMMUNITY, SUBJECT TO PROTECTION OF RESIDENTIAL AMENITY, AND IN RURAL LOCATIONS WHERE THEY WOULD:

- 1. BE MAINLY LOCATED WITHIN EXISTING BUILDINGS NOT REQUIRING SIGNIFICANT ADAPTATION OR EXTENSION OR, IN THE CASE OF GREEN WASTE COMPOSTING, AT THE TYPES OF LOCATION LISTED IN POLICY W7B;**
- 2. NOT PREJUDICE THE OPENNESS OR CHARACTER OF THE RURAL LOCATION; AND**
- 3. NOT, IN THE CASE OF FARM BUILDINGS OR HARDSTANDINGS, RESULT IN A NEED TO BE REPLACED WITH OTHER BUILDINGS OR HARDSTANDINGS.**

IN ADDITION, TEMPORARY WASTE RECYCLING AND COMPOSTING FACILITIES MAY BE PERMITTED AT CURRENT MINERAL WORKING AND LANDFILL SITES, SUBJECT TO POLICIES W7B AND W7D.

DEVELOPMENT REQUIRED FOR THE PROVISION OF SEWAGE AND SLUDGE TREATMENT PROCESSES WILL BE CONSIDERED ON ITS MERITS AND EXPECTED TO CONFORM TO THIS POLICY AS FAR AS IS PRACTICABLE.

Schedule 1 Preferred Locations for Waste Management

WM1 Rivenhall Airfield, Silver End

Area: 6 ha

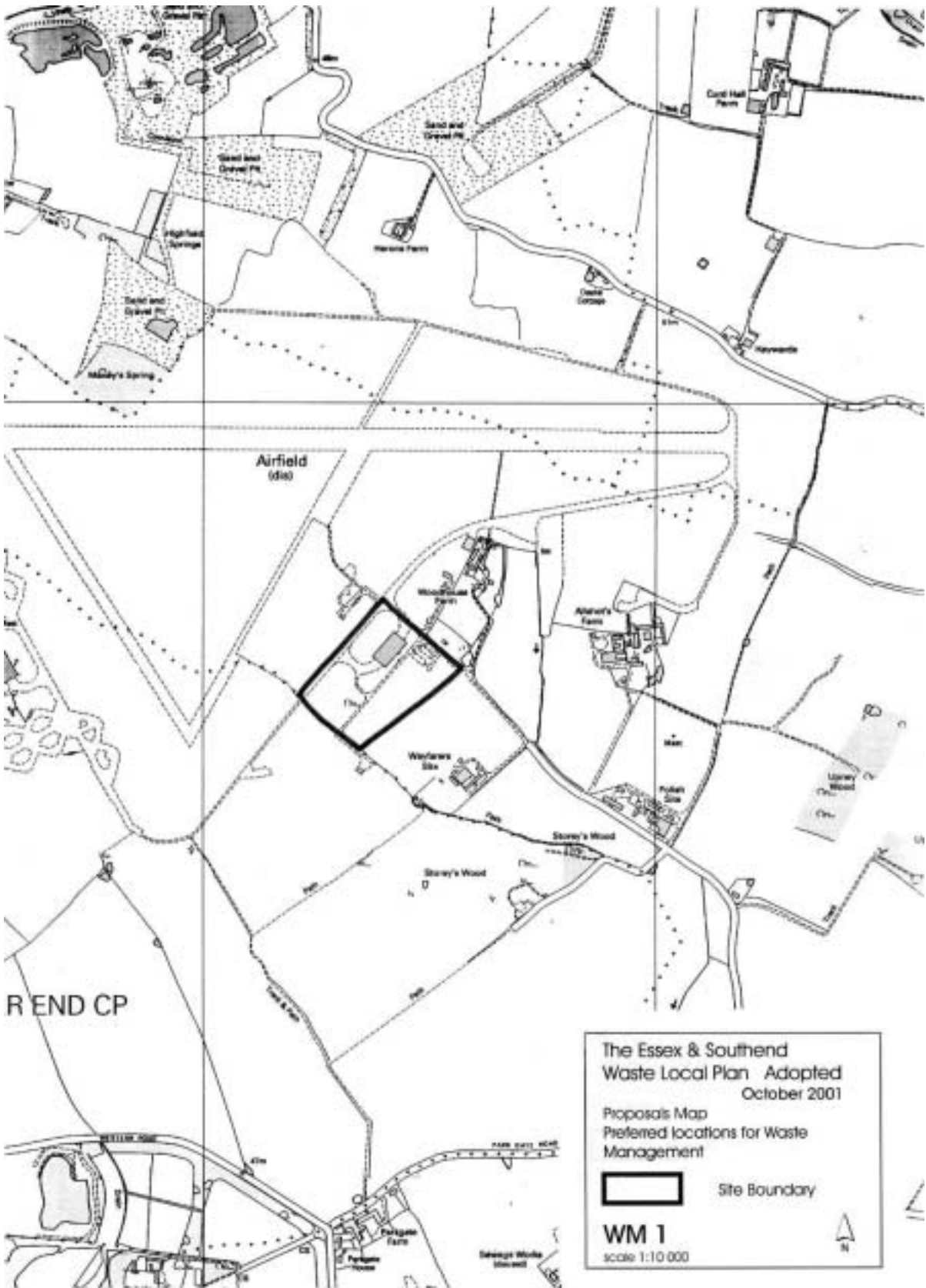
Development Plan: Adopted Braintree Local Plan (February 1995).

Allocation: Policies BDP 58A Rural Area

Notes:

- 1. The site consists of an existing disused aircraft hangar and other dilapidated buildings at a former airfield, adjacent to Minerals Local Plan site R2.**
- 2. Waste management development could use the existing buildings on site or, if replacement buildings or structures are proposed, they should be sensitively designed having regard to their surroundings and be comparable to the scale of current buildings. The more open areas of the site are likely to be more appropriate for uses such as outdoor composting. Screening and landscaping should have regard to visibility from public viewpoints and from Silver End, and to preserving the setting of listed buildings at Woodhouse Farm.**
- 3. There should be direct access to the A120 via the access road to site R, and a traffic impact analysis will be required.”**

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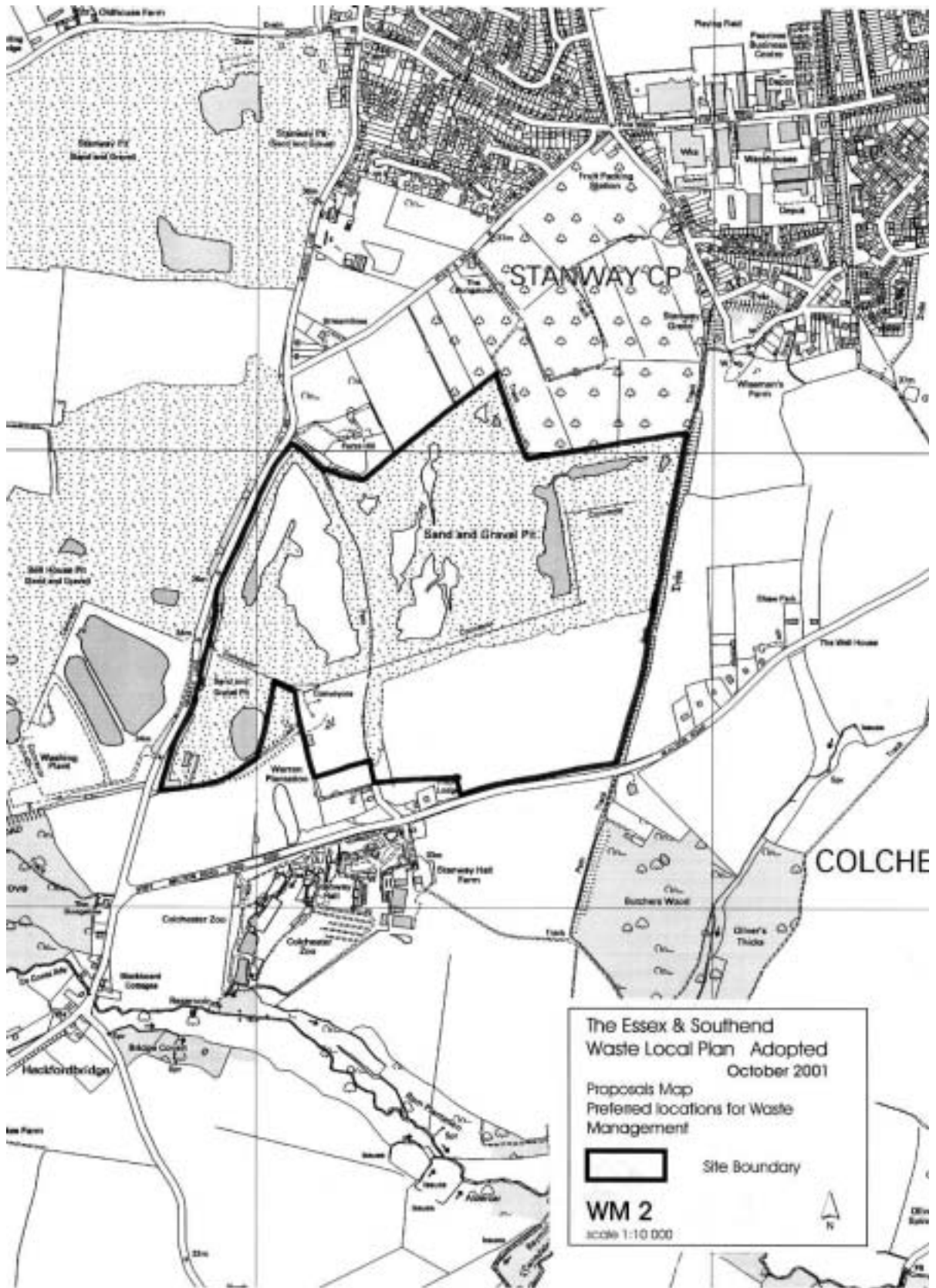


WM2 Land East of Warren Lane, Stanway, Colchester
Area: 70 ha
Development Plan: Adopted Colchester Local Plan Review (January 1995)
Allocation: Policies AP6 Recreational and Leisure after use; Env47 Countryside Conservation Area to the South and on the southern part of the site.

Notes

1. An existing mineral site, with an approved scheme providing for low level restoration to agriculture. However the Borough Local Plan seeks provision of outdoor leisure facilities, and a revised comprehensive restoration scheme is being sought. Any waste management development would be required to be integrated with the preparation of such a scheme.
2. The quarry, excluding the south-west part which is within a Countryside Conservation Area, is treated as an area of search within which an appropriate location would have to be found.
3. A high standard of design and landscaping would be required, taking account of other proposed uses within the site and views into the site from the surrounding area. To reflect this, location on the existing quarry floor is likely to be required.
4. The existing access via Warren Lane is inadequate for significant increases in heavy lorry movements, so that any large-scale waste management development (as defined at para 8.8) would not be permitted until the completion of the Colchester Western By-pass and Warren Lane Improvements. However the site would also be suitable for small-scale development serving the local area.”

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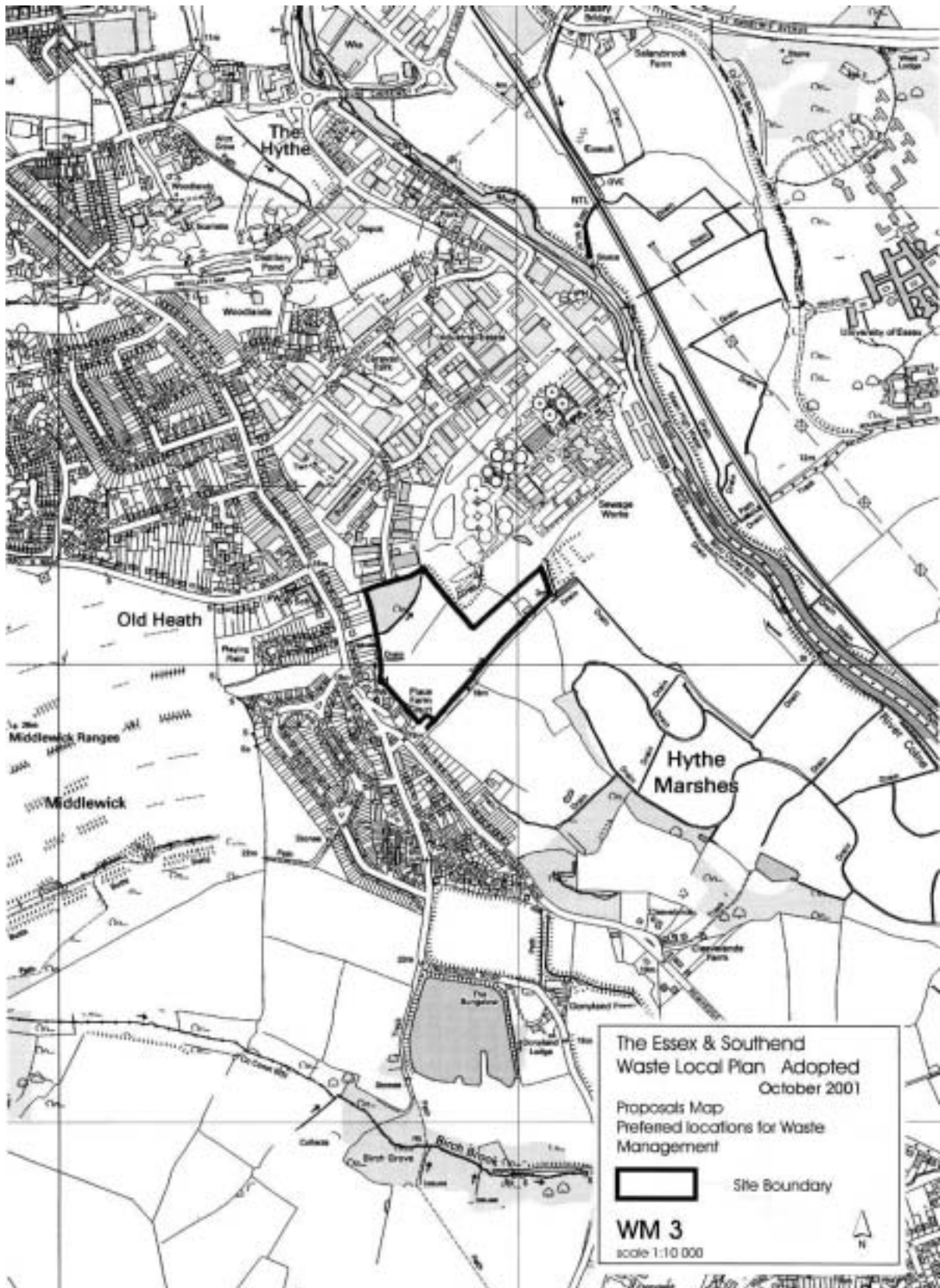


WM3 Whitehall Road Extension, Colchester
Area: 6.7 ha
Development Plan: Adopted Colchester Local Plan Review (January 1995)
Allocation: Policies: EMP1, 3, 4, 6, 9 Employment Zone for B1 - B8 uses; Env47 Countryside Conservation Area to the south.

Notes

- 1. The land is allocated for employment uses in the adopted and deposit draft Borough Local Plans, as an extension to the existing Whitehall industrial estate.**
- 2. It should be regarded as an area of search within which the location, size and nature of waste management development would have to take account of the proximity to residential property to the west and north-east, and views into the site, particularly across the Colne valley.**
- 3. Access must be to and from the industrial estate to the north, either via Haven Road and the sewage treatment works or via Grange Way. A traffic impact analysis will be required for any substantial scale of development.**
- 4. The site adjoins an SSSI and County Wildlife Site to the south-east and there may be some wildlife interest in the site itself: any proposal must take this into account.**
- 5. It is believed that the site, or parts of it, may be contaminated from tipping in the past. Prior investigation will be required as part of any planning application, and remediation measures may be required as a condition of any permission.**

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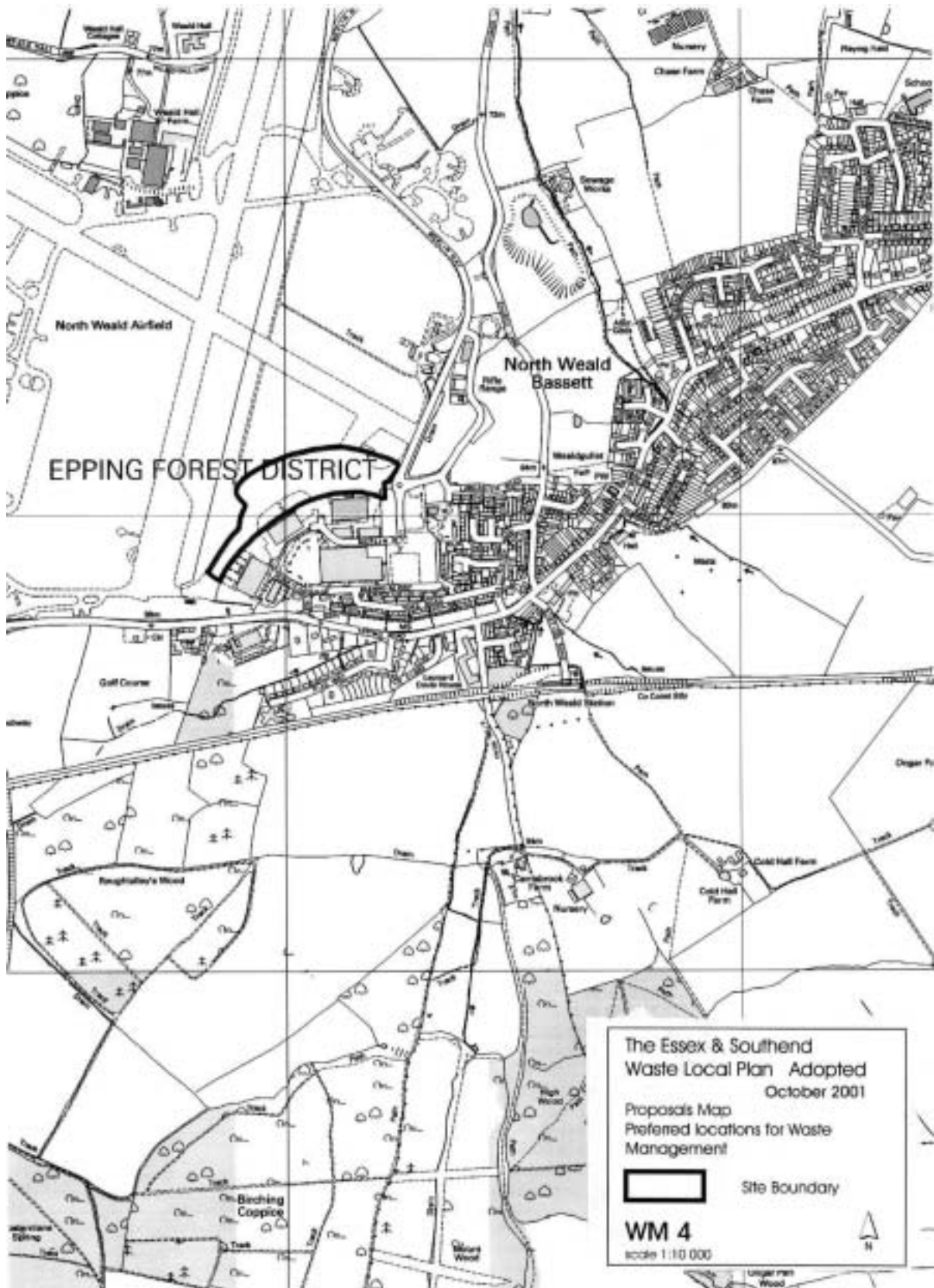


WM4 North Weald Airfield
Development Plan: Adopted Epping Forest District Local Plan (1998)
Allocation: Policy E6: New employment site for business / industry /
warehousing as an extension to existing employment area
Adjacent to E1 existing employment area and connected to North
Weald Airfield, RST28 protection of open character and RST29 major
buildings for recreation or in connection with the airfield, non
hazardous to air safety.

Notes:

- 1. Part of the original concrete perimeter track within the boundary of the airfield. It is allocated for employment uses in the District Local Plan, and adjoins warehousing/ industrial development to the south.**
- 2. Access to the site is from the A414 to the north via Merlin Way, and all waste traffic would be required to use this route and not approach or leave the site via North Weald Bassett.**
- 3. Development must take account of the proximity of residential property to the south and east, and protect the visual amenity of Green Belt land which adjoins to the north and west.**
- 4. The airfield is operational and this will constrain the height and location of development within the site: further information on this can be obtained from the District Council which owns the airfield. It will also be necessary to take adequate measures to avoid the risk of bird strike.**

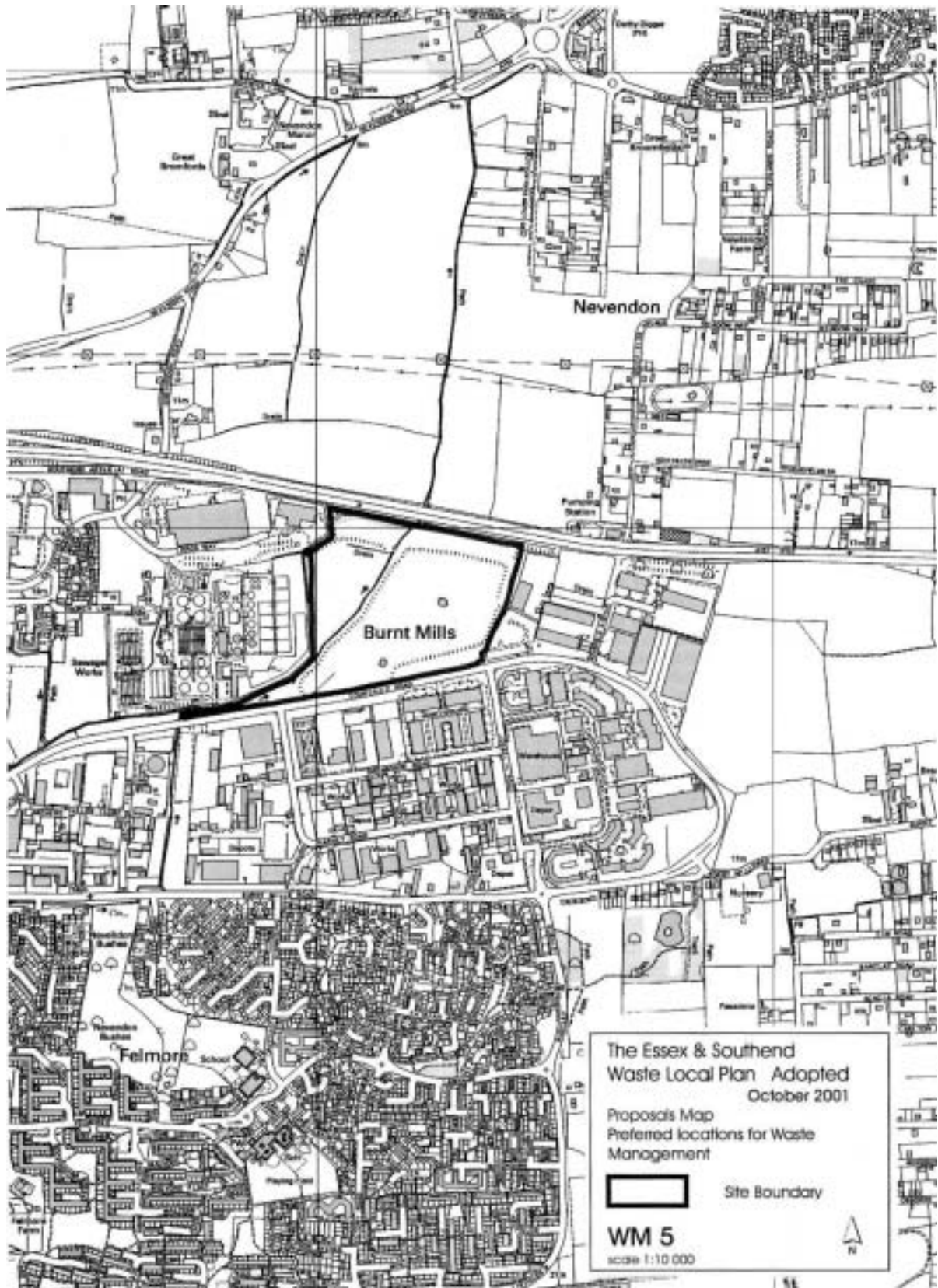
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WM5 Courtauld Road, Basildon
Development Plan: District Local Plan - Adopted March 1998
Allocation: Policy C1 SINC on part of site, Adjacent to E9 – Archers Field an untidy industrial estate to south

Notes:

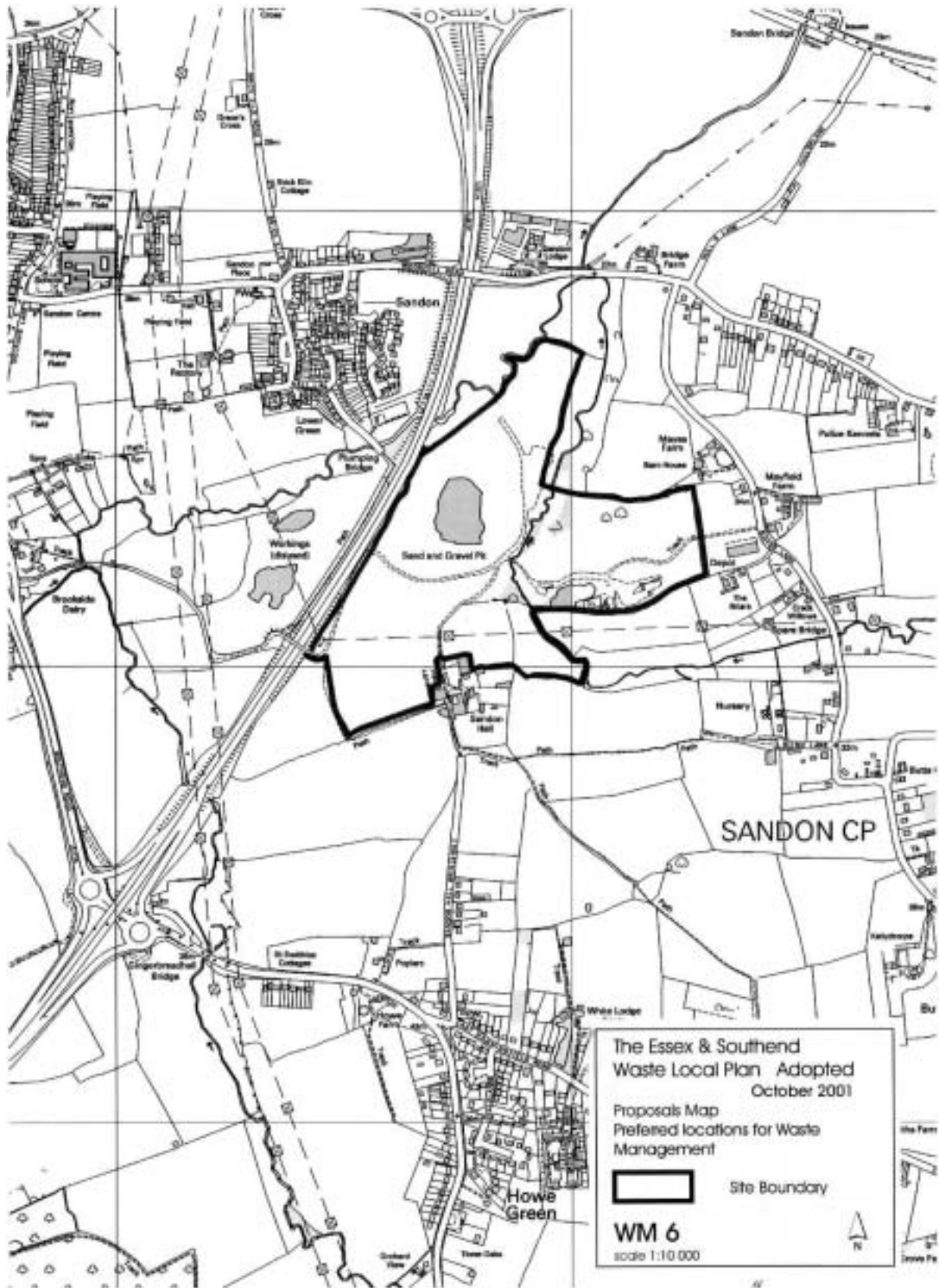
- 1. An area of rough grassland on the north side of Courtauld Road, bounded by a residential gypsy site to the east, the A127 to the north, a sewage works to the west and industrial development south of Courtauld Road.**
- 2. It should be treated as an area of search, within which any waste management development must have regard to the proximity to residential properties and the visual impact, including on Green Belt land to the north.**
- 3. Much of the site is of importance for nature conservation because of its mix of wet grassland plants, and proposals must deal with this, perhaps by relocation. Any proposal should be co-ordinated with the District Council's plans for comprehensive development.**
- 4. A traffic impact analysis will be required for any large-scale scheme. The area is at risk of flooding and the Environment Agency will be consulted on the implications of any proposal.**



WM6 Sandon, Chelmsford
Area: Part of a large site with an area of approximately 60 ha.
Development Plan: Adopted Chelmsford Local Plan (April 1995).
Allocation: Part of site on the western edge of larger area to which Policy RE22 applies 'protection of important wildlife habitats'.
Replacement Structure Plan Policy C4 applies 'rural areas beyond the Green Belt'.

Notes:

- 1. The site is a sand and gravel working, currently inactive except for processing plant, in a rural area on the east side of the A12 Chelmsford By-pass. Sandon village adjoins the west side of the A12. Any proposed development must take account of the impact on the environment and on residential amenity, particularly as regards Sandon village and conservation area, and other residential properties in the area.**
- 2. Development of this site for a permanent waste management facility should be integrated with the proposal to landfill and restore the former quarry. This may affect the capacity of the landfill site and the figures in Tables 9.2, 9.3 and paragraphs 9.14, 9.17 may need adjustment, but as there is a surplus of landfill capacity in the Plan as described in paragraph 9.20, the void at Sandon (if any) is not critical to the Plan's provisions.**
- 3. The Inspector's preference was for a facility at the base of the quarry and the feasibility of such a scheme will need to be investigated by the developer, and considered by the WPA as part of any planning applications. Landfill of the site must not prejudice the ability of the site to satisfy the long-term need for a permanent facility at this site.**
- 4. The design, height and siting of any facility/ies would have to take account of views from outside the site.**
- 5. Access would be required to be via the existing haul road onto the southern end of Molrams Lane and thence to and from the A1114/A130/A12. A lorry routing agreement may be sought, and a traffic impact assessment required for any substantial proposal.**



9.0 LANDFILL

Introduction

- 9.1 Chapter 3 above sets out the strategy of the WP and the relative position of landfill provision. The requirement for voidspace has been arrived at after full allowance has been made to reduce initial waste arisings by means of recycling etc. Landfill is only acceptable when there is an essential requirement to restore a site which cannot be achieved without fill material. Only where fill is required for proper restoration does landfill become acceptable. This is the substance of Policy W3A above, and W9B below.
- 9.2 Thurrock Unitary Authority is included in the Essex and Southend figures for the purposes of Regional Advice but the landfill provision in Thurrock must be discounted for the purposes of the current (1997) stock of voidspace and thus the additional provision that must be identified in the WP. The Plan cannot make 'proposals' for sites in Thurrock but recognition needs to be given to the 'potential' voidspace in Thurrock. Whilst some is not fully permitted (with site licence and planning permission), the majority of landfill void has planning permission even though phases of sites may yet need a site licence. Appendix 12 lists the sites in Thurrock with calculations of voidspace and this may be reasonably deducted from the Regional Advice total for Essex and Southend to identify what extra the WP must propose for the Plan area.
- 9.3 The amount of waste which remains to be disposed of has been initially calculated by Regional Advice, then those amounts modified in the WP by updating to a 1997 base date. Part of that Regional exercise was for each county to identify the amounts of landfill void which were 'permitted' (ie permitted and licensed: Categories 1 and 2 of the SEWRAC definition), and the amount which was 'potential' (Category 3). The former is a matter of fact, the latter now identified as 'preferred' sites in the WP.
- 9.4 The 'potential' sites for (inert and non-inert) waste in the Plan area first had to satisfy a need for restoration using imported waste. Indeed the landfill provision in the WP is restoration led. In practice most of the preferred landfill sites already have planning permission which includes a restoration requirement utilising imported waste. These sites are not included in the 'permitted' category, as defined by the SEWRAC survey, because no waste management licence has been issued. Detail on each site appears in Schedules 1 and 2.
- 9.5 To arrive at the Preferred Sites for future landfill in the WP, all voids in the Plan area (existing and proposed) have been examined. Landfill is regarded as a means of restoring land, usually following mineral extraction. Of all the Plan area's void spaces only those identified in the WP are considered suitable for landfill to achieve restoration. Other sites have been or can be satisfactorily restored without landfill.
- 9.6 Landraising (ie over-filling sites beyond the level necessary to achieve satisfactory restoration) is unacceptable when it does not satisfy this criterion even on former mineral sites or current landfill sites. Clearly, on

virgin land landraising is not acceptable. However, if a genuine restoration need can be demonstrated to the satisfaction of the WPA then landfill operations may be acceptable outside the preferred sites of the WP. Such restoration will normally be achieved with inert material only. The use of waste for restoration would require special circumstances to be demonstrated, which cannot be based on 'need' for landfill void, as this is already satisfied by the WP's provisions.

- 9.7 Need for landfill must be seen as merely part of need for waste management facilities. Having identified the volume of waste (from Essex, Southend and London) which requires treatment (eg after reduction, recycling, composting etc) the majority can be accommodated in the landfill sites identified in the WP (permitted and potential). Waste beyond that going to landfill must be dealt with by other methods ie increased recycling or earlier implementation of incineration capacity. There is therefore no 'need' for landfill beyond the sites included in the WP, except when there is a 'need' for restoration.

W9A LANDFILL OF WASTE WILL BE PERMITTED AS A MEANS OF ACHIEVING RESTORATION ON THE PREFERRED SITES IDENTIFIED IN THE PLAN SUBJECT TO COMPLIANCE WITH OTHER RELEVANT POLICIES OF THIS PLAN, INCLUDING POLICIES W3B AND W3C, AND PROVIDED THE FOLLOWING REQUIREMENTS ARE ALSO MET:

- **THE ACCEPTABILITY OF THE TYPE OF DEVELOPMENT PROPOSED WHEN A DETAILED SCHEME IS PUT FORWARD, INCLUDING ENVIRONMENTAL ASSESSMENT WHERE REQUIRED**
- **MINIMISING THE ENVIRONMENTAL IMPACT ON THE SURROUNDING AREA INCLUDING RESIDENTIAL AMENITY**
- **RECOGNITION OF THE POLICIES AND CRITERIA OF THIS PLAN AND THE DEVELOPMENT PLAN IN GENERAL, IN PARTICULAR THE CONSIDERATIONS SET OUT IN POLICY W10E**
- **PROVISION FOR LANDFILL GAS RECOVERY IN ACCORDANCE WITH POLICY W7H**

W9B LANDFILL, OR LANDRAISING, FOR ITS OWN SAKE, WITHOUT BEING NECESSARY FOR RESTORATION, WILL NOT BE PERMITTED. LANDFILL OUTSIDE THE BOUNDARIES OF THE PREFERRED SITES WILL NOT BE PERMITTED UNLESS IT CAN BE DEMONSTRATED THAT SATISFACTORY RESTORATION CANNOT OTHERWISE BE ACHIEVED. LANDFILL WILL NOT BE PERMITTED WHEN AT A SCALE BEYOND THAT WHICH IS ESSENTIAL FOR RESTORATION OF THE SITE.

The Voidspace Identified

- 9.8 The SERPLAN Advice has quantified the waste arising in 'old' Essex in the period up to 2010, and the contribution that can be made to the disposal of a proportion of London's waste. This section of the WP seeks to identify permitted and potential landfill, for 'new' Essex void space, subdivided into inert (Type A) and non-inert (Types B/C) void space. The void space at

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existing sites has been quantified by companies in their survey returns, at pre-settlement levels. Except where companies have calculated voidspace, or where no known pre-settlement contours exist, the voidspace in the Preferred Sites has been calculated to existing ground levels plus 20% to allow for normal doming (for restoration and drainage purposes), and settlement.

9.9 Existing and potential inert sites can only take inert waste. Other permitted sites are licensed for Types A/B waste only, others for all types of waste. The WPA has made assumptions about the volumes of waste types which will be disposed of at sites with different licensing restrictions. This is based on the assumption that sites permitted for non-inert waste will take maximum volumes of such waste, yet will receive a small amount of inert waste (eg for cover). Sites licensed for Types A/B only are likely to receive rather more inert waste. In practice proportions will vary and the split between inert and non-inert capacity should be treated as approximate

9.10 The assumptions are as follows :

Site Type	Waste Type		
	A	B	C
A	100%	-	-
AB	34%	66%	-
ABC	10%	10%	80%

Inert Waste Sites

9.11 Sites permitted for inert waste only at the end of 1996 are listed in Appendix 6:

The total void space available was 2.15 mcm at the end of 1996 and all is assumed to be available before the end of 2010. At some sites this will be subject to prior completion of mineral working.

9.12 New sites or voids preferred for inert waste are shown in table 9.1, illustrated in Schedule 2, and covered by Policy W9A.

Table 9.1 The Preferred Landfill Sites For Inert Waste Only

District	Ref	Site	Company	Void (mcm)
Uttlesford	LI.1	Hollow Road, Widdington	Widdington Contractors Ltd	0.35
Colchester	LI.2	Inworth Grange, Tiptree	Bradwell Aggregates	1.10
	LI.3	Church Lane, Marks Tey	Chelwood Brick	0.25
Tendring	LI.4	Keelars Lane, Wivenhoe	Redland Aggregates	1.83
Chelmsford	LI.5	Essex and Southend Showground, Great Leighs	Bardon Roadstone	0.29
	LI.6	St Cleres, Danbury	Bradwell Aggregates	0.60
Maldon	LI.7	Royal Oak, Danbury	Bradwell Aggregates	0.60
			TOTAL	5.02

Non-Inert Waste Sites

9.13 Sites permitted for non-inert waste are listed in Appendix 6. The total permitted void in these sites was 10.78 mcm at the end of 1996. An allowance has to be made for some inert waste to be deposited in non-inert sites and it is therefore estimated that in total the 'non-inert' permitted sites can accommodate:

inert waste 1.55 mcm
 non-inert waste 9.23 mcm

9.14 The new sites or voids preferred for non-inert waste are shown in Table 9.2, illustrated in Schedule 3 and covered by Policy W9A.

9.15 For the period up to the end of 2010 void space at Preferred non-inert sites will accommodate waste as follows:

inert 1.40 mcm
 non-inert 9.04 mcm
 total void 10.44 mcm

Totals

9.16 The following void space by waste type is all assessed to be available within the period up to the end of 2010.

9.17 For inert waste the total void space available is as follows:

permitted (inert sites) 2.15 mcm
 permitted (non-inert sites) 1.55 mcm
 potential (inert sites) 5.02 mcm
 potential (non-inert sites) 1.40 mcm

Total 10.12 mcm

Table 9.2 The preferred landfill sites identified for non-inert waste are

Ref	Site	Total Void	Non-inert Void mcm
LNI.1	Bellhouse	1.08	0.97
LNI.2	Sandon	3.00	2.70
LNI.3	Roxwell	1.56	1.41
LNI.4	Pitsea	<u>4.44</u>	<u>3.96</u>
		10.44	9.04 mcm

9.18 For non-inert waste the total void available is as follows:

permitted 9.23 mcm
 potential 9.04 mcm
 Total 18.27 mcm

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- 9.19 In Chapter 3, Table 3.1, the Regional Advice quantification of requirement has been adjusted to equate to the same period as that for the WP (1997 - 2010) by deducting the actual waste volume landfilled in 1996. Those figures are now adjusted in Table 9.3 to deduct the amount of landfill void in Thurrock, to provide figures for the Plan area. It therefore assumes that the whole of the Thurrock void will be available to 'old' Essex during the Plan period. To the extent that this does not occur, the voidspace requirement for 'new' Essex will be greater than that stated here. The Advice is based upon volumes of waste, not the actual total capacity of sites. It has already been explained that void at sites primarily disposing of non-inert waste will accept an amount of inert waste, and an assumption has been made that this will account for 10% of the void.
- 9.20 The WP identifies sufficient voidspace where restoration is required to accommodate the amount of waste requiring landfill as envisaged in the Regional Advice (as adjusted). For Sandon (LN1 2) the amount of void may be less than 3 mcm given in the tables when a detailed integrated scheme is devised which will provide a permanent waste management facility. There is no case of "need" for landfill void at this site and any reduction will still allow regional obligations to be met. There is more landfill than the minimum required by the Advice, and this may be prudent, because:
- site void has been identified by reference to restoration requirement (many already specified in planning permissions);
 - some sites may not come forward or be acceptable when considered in detail at the planning application stage;
 - some void may not be available within the Plan period, for example as indicated in para 9.19;
 - to allow for the contingency that levels of waste may continue to rise and the possibility that high diversion levels may not be achieved as assumed in the Advice.

Table 9.3 Voidspace Requirement and Provision (mcm)

	Inert	Non-inert
Requirement		
Volume of waste for landfill in Revised Advice (1996 - 2010), adjusted for 1997-2010	10.34	21.34
Less amount in Thurrock (Appendix 12)	4.40	13.82
Total	5.94	7.52
Provision		
Voidspace with full permission at end 1996	3.70	9.23
Voidspace, by waste type, proposed by WP	6.42	9.04
Total	10.12	18.27

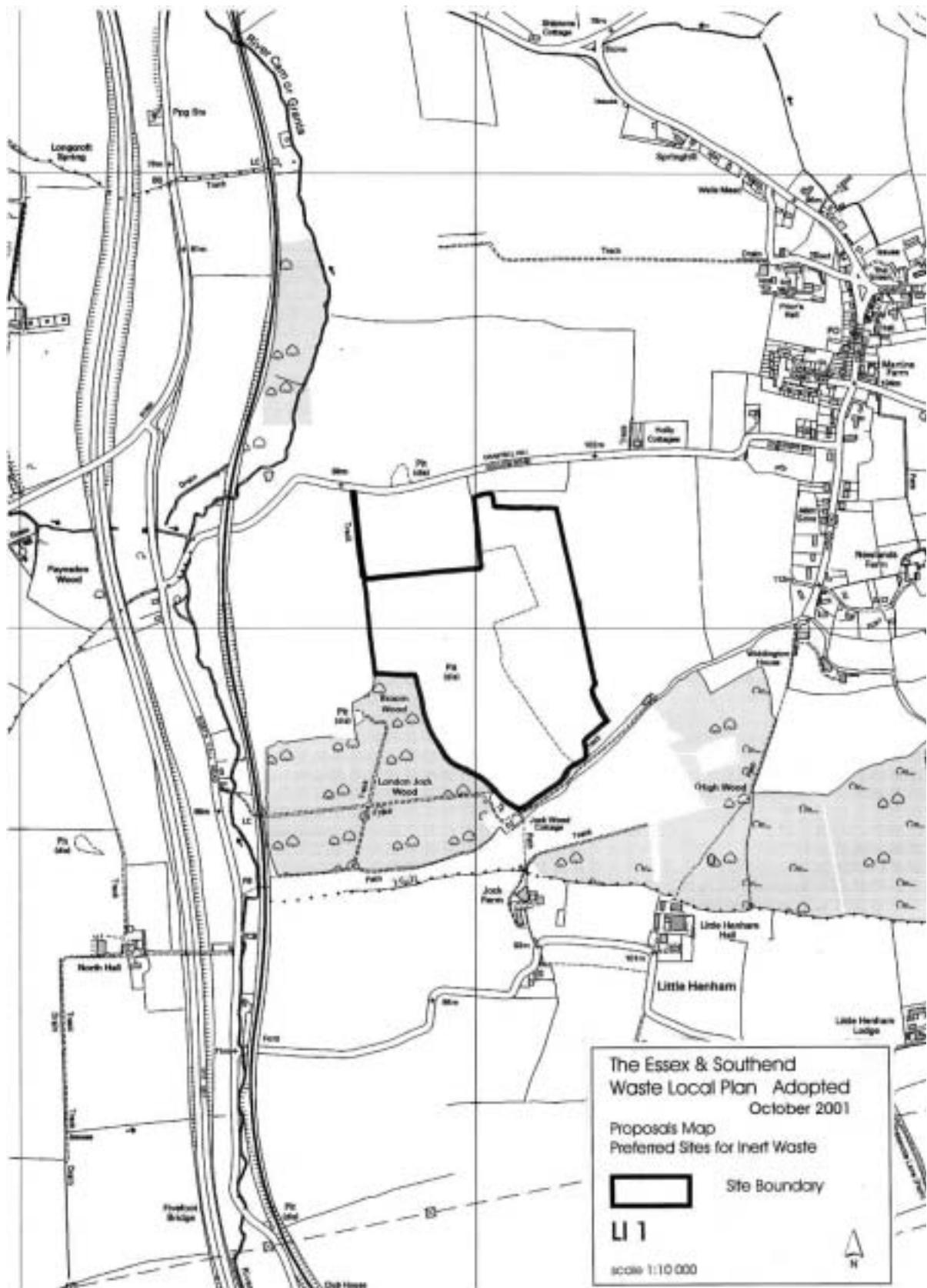
Schedule 2 Preferred Sites for Inert Waste

LI.1 Hollow Road, Widdington - Uttlesford District
Company: Widdington Contracts Ltd
Potential Void: 0.35 mcm

Notes

- i. Inert waste only, required for site restoration.
- ii. Permitted Site has planning permission for restoration and a licence which includes Type B waste. However, any new licence for the potential void is likely to restrict waste to inert only.

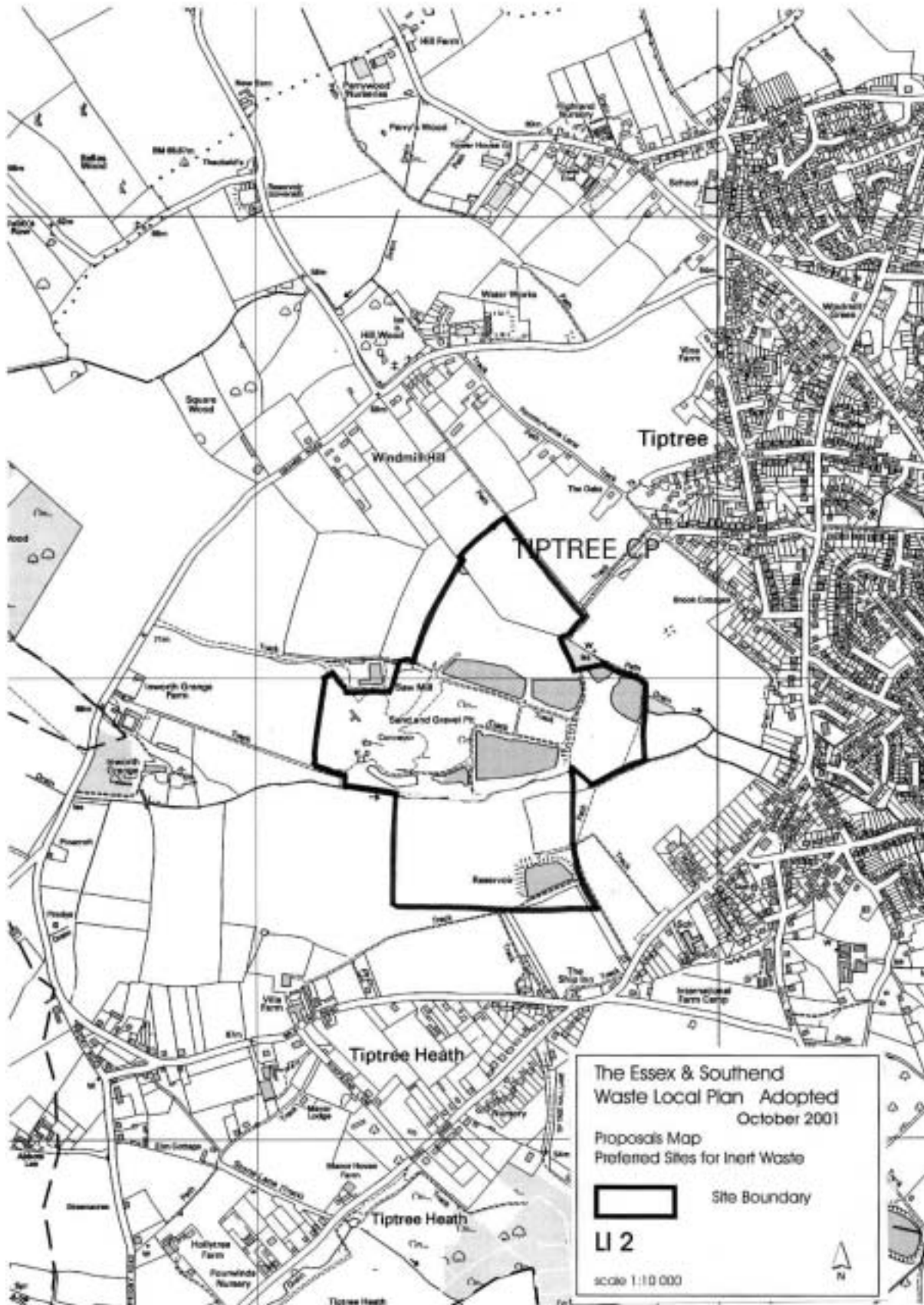
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LI.2 Inworth Grange, Tiptree, Colchester Borough
Company: Bradwell Aggregates
Potential void: 1.10 mcm

Notes:

- i. Inert waste only, required for site restoration.
- ii. The potential void represents that which is yet to be licensed.
- iii. This includes a Preferred Site (V) of the Minerals Local Plan.
- iv. Infilling and restoration schemes should take account of the potential recreational and wildlife interest of the lakes formed by mineral extraction and the shortage of recreational open space in Tiptree, as reflected in the Borough Local Plan. This is likely to preclude filling over the whole site.

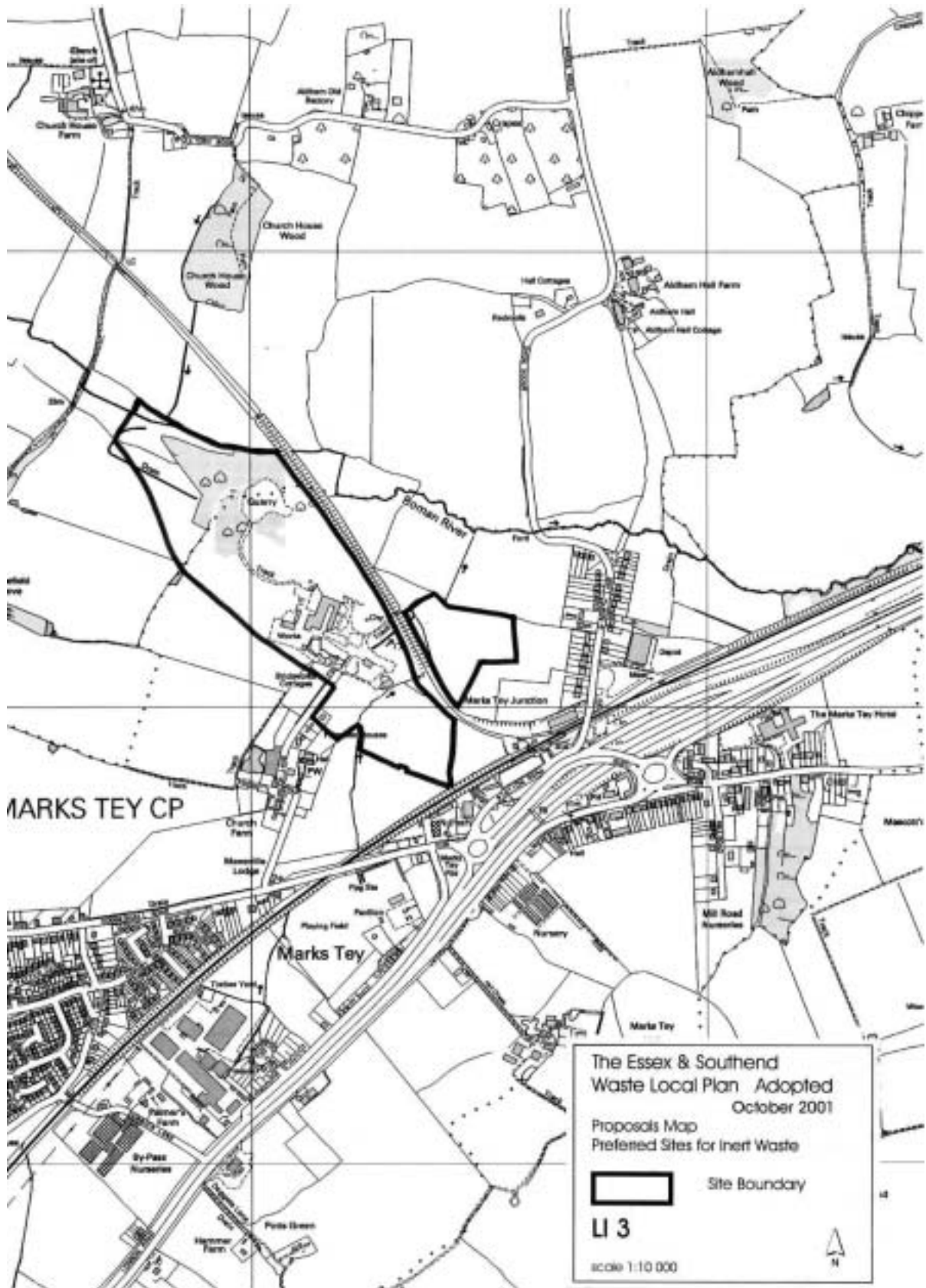


LI.3 Church Lane, Marks Tey - Colchester Borough
Company: Chelwood Brick
Potential Void: 0.25 mcm

Notes:

- i. Inert waste only, required for site restoration.
- ii. Site has planning permission (including IDO registration) for restoration utilising inert fill, however extraction rates are slow and may inhibit volumes of void available.
- iii. The potential void represents that which is yet to be licensed.
- iv. This is a sensitive site which includes a SSSI, such that restoration methods need to be particularly careful; however it is a commitment.

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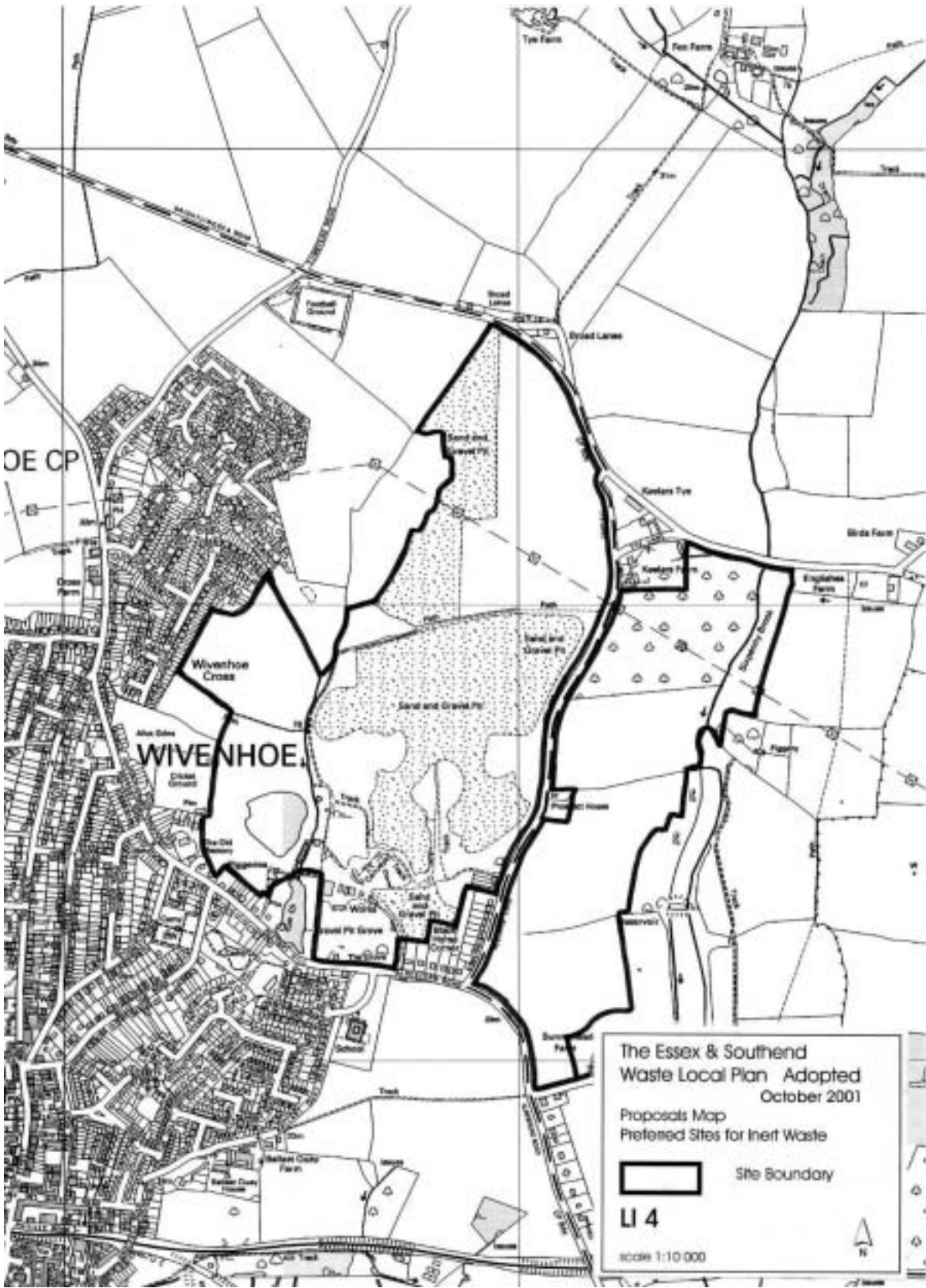


LI.4 Keelars Lane, Wivenhoe - Tendring District
Company: Redland Aggregates
Potential Void: 1.83 mcm

Notes:

- i. Inert waste only, required for site restoration.
- ii. Site has planning permission for restoration utilising inert fill, and this is progressing on west side of Keelars Lane.
- iii. The potential void represents that which is yet to be licensed, to the east of Keelars Lane.
- iv. This site includes the Wivenhoe Gravel Pit SSSI, and this will be a material consideration in relation to any future proposals.

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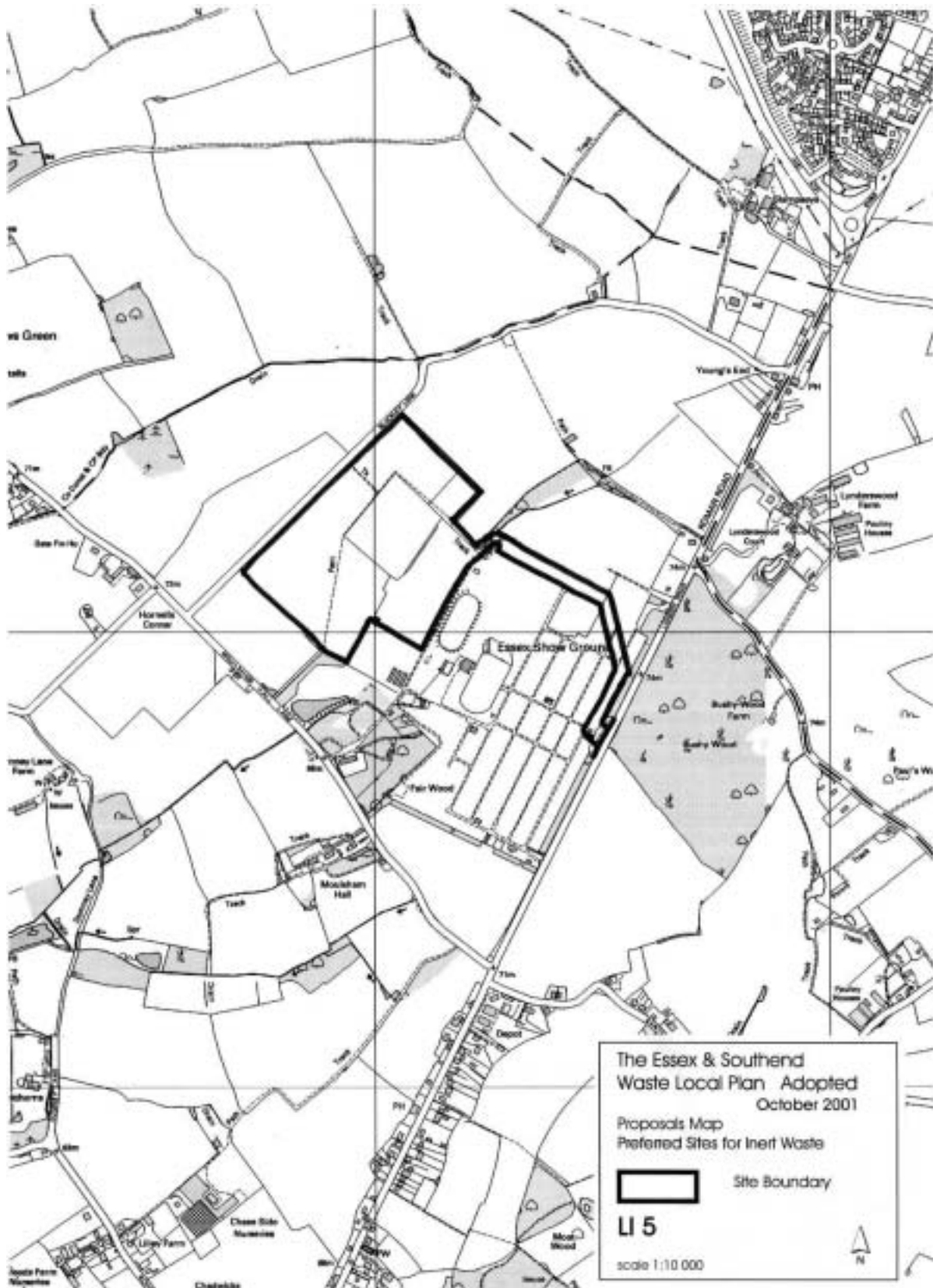


LI.5 Essex Showground, Great Leighs – Chelmsford Borough
Company: Bardon Roadstone
Potential Void: 0.29 mcm

Notes:

- i. Inert waste only, required for site restoration.
- ii. Site has planning permission for restoration utilising inert fill.
- iii. The potential void represents that which is yet to be licensed and is the estimated volume of fill required to satisfy the planning permission restoration conditions.
- iv. This was a Preferred Site (A) of the Minerals Local Plan.

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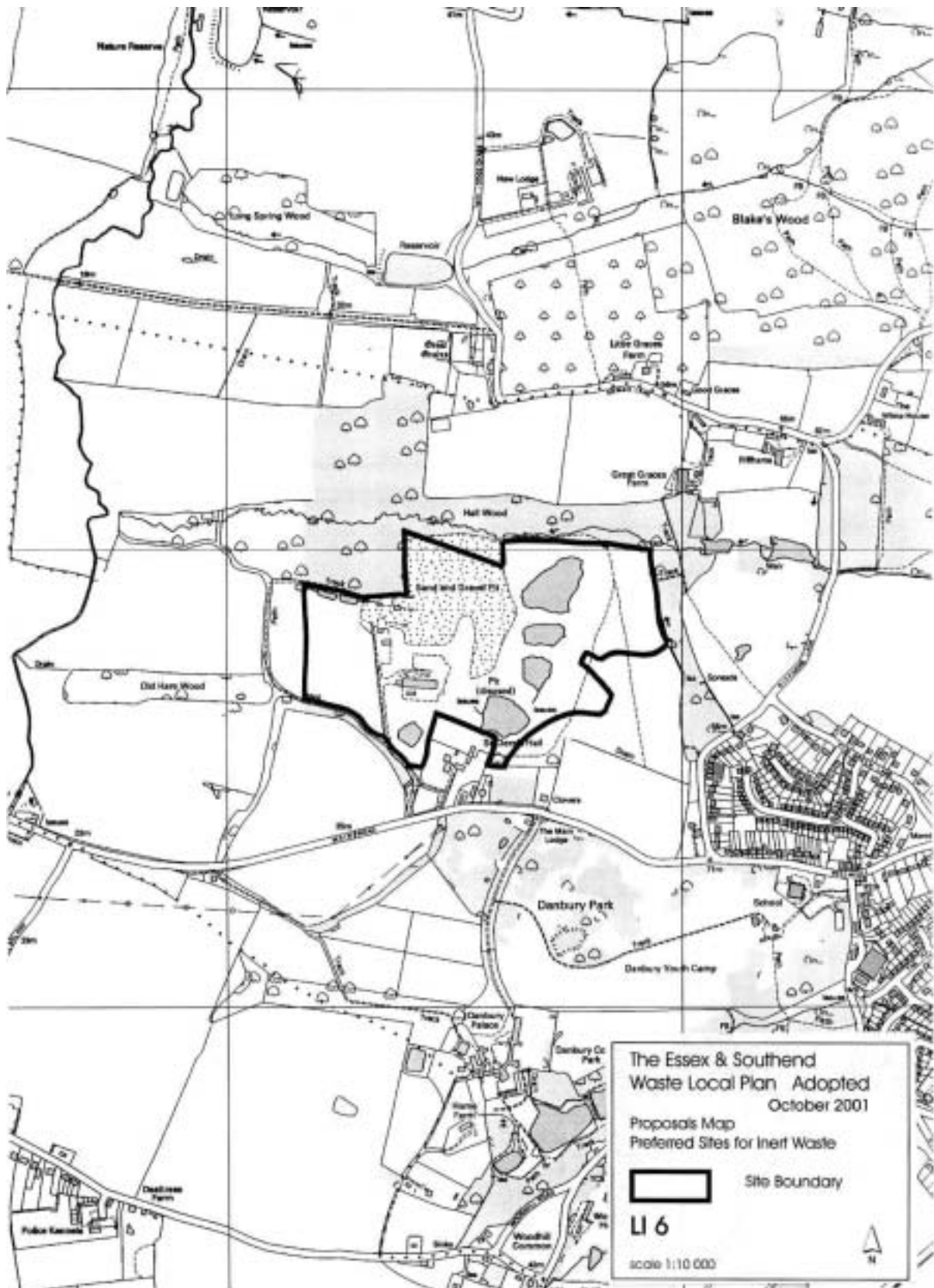


LI.6 St Cleres, Danbury – Chelmsford Borough
Company: Bradwell Aggregates
Potential void: 0.60 mcm

Notes:

- i. Inert waste only, required for site restoration.
- ii. Site has planning permission for restoration utilising inert fill, and this is progressing.
- iii. The potential void represents that which is yet to be licensed, including a new area of extraction yet to be permitted.
- iv. This includes a Preferred Site (F) of the Minerals Local Plan.

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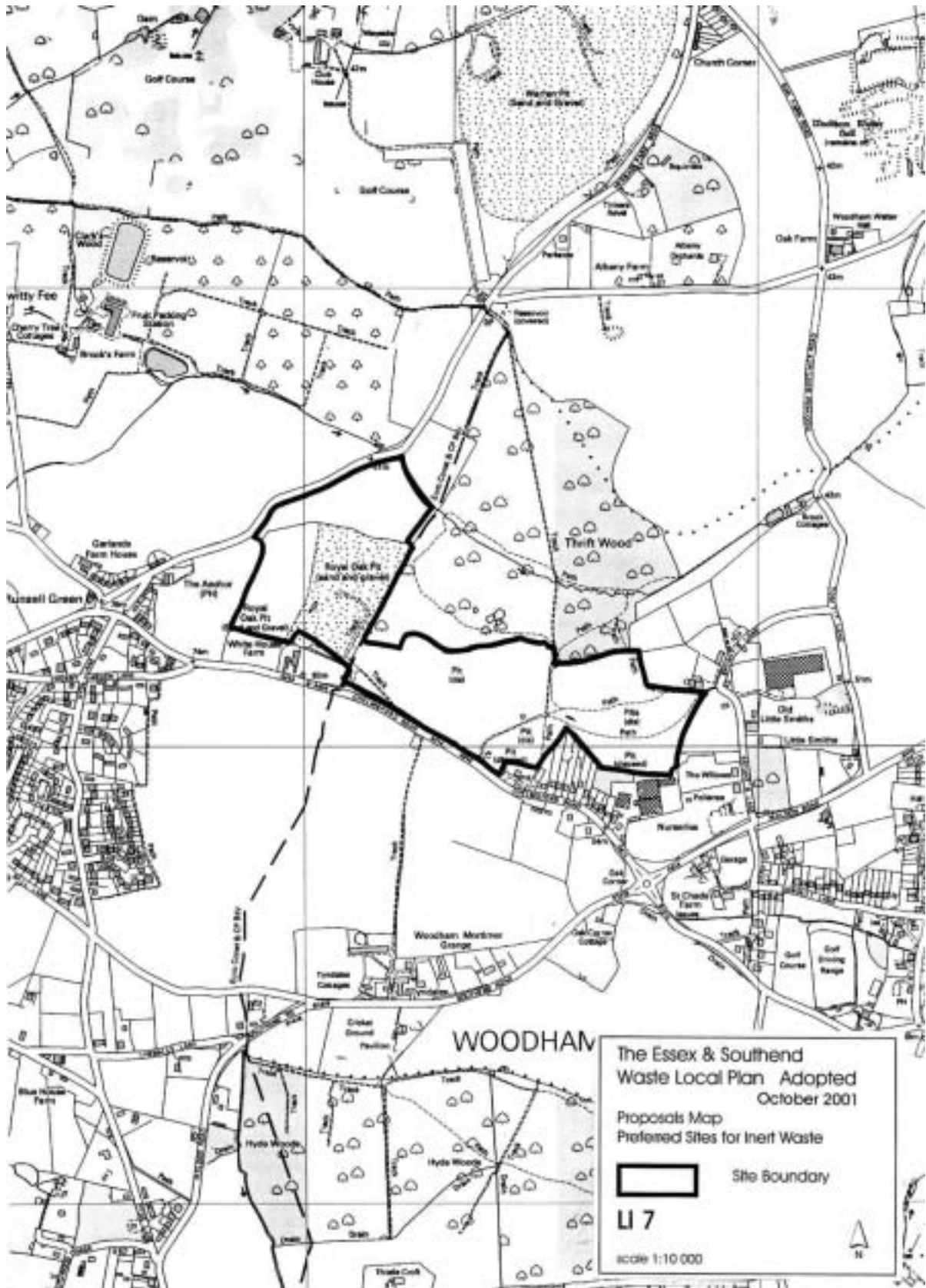


LI.7 Royal Oak, Danbury – Maldon District
Company: Bradwell Aggregates
Potential void: 0.60 mcm

Notes

- i. Inert waste only, required for site restoration.
- ii. The potential void represents that which is yet to be licensed, and that which is yet to be permitted for mineral extraction.
- iii. This includes a Preferred Site (W) of the Minerals Local Plan.

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Schedule 3 Preferred Landfill Sites for Non-inert Waste

LNI.1 Bellhouse, Stanway, Colchester
Company: Tarmac/Cory Environmental

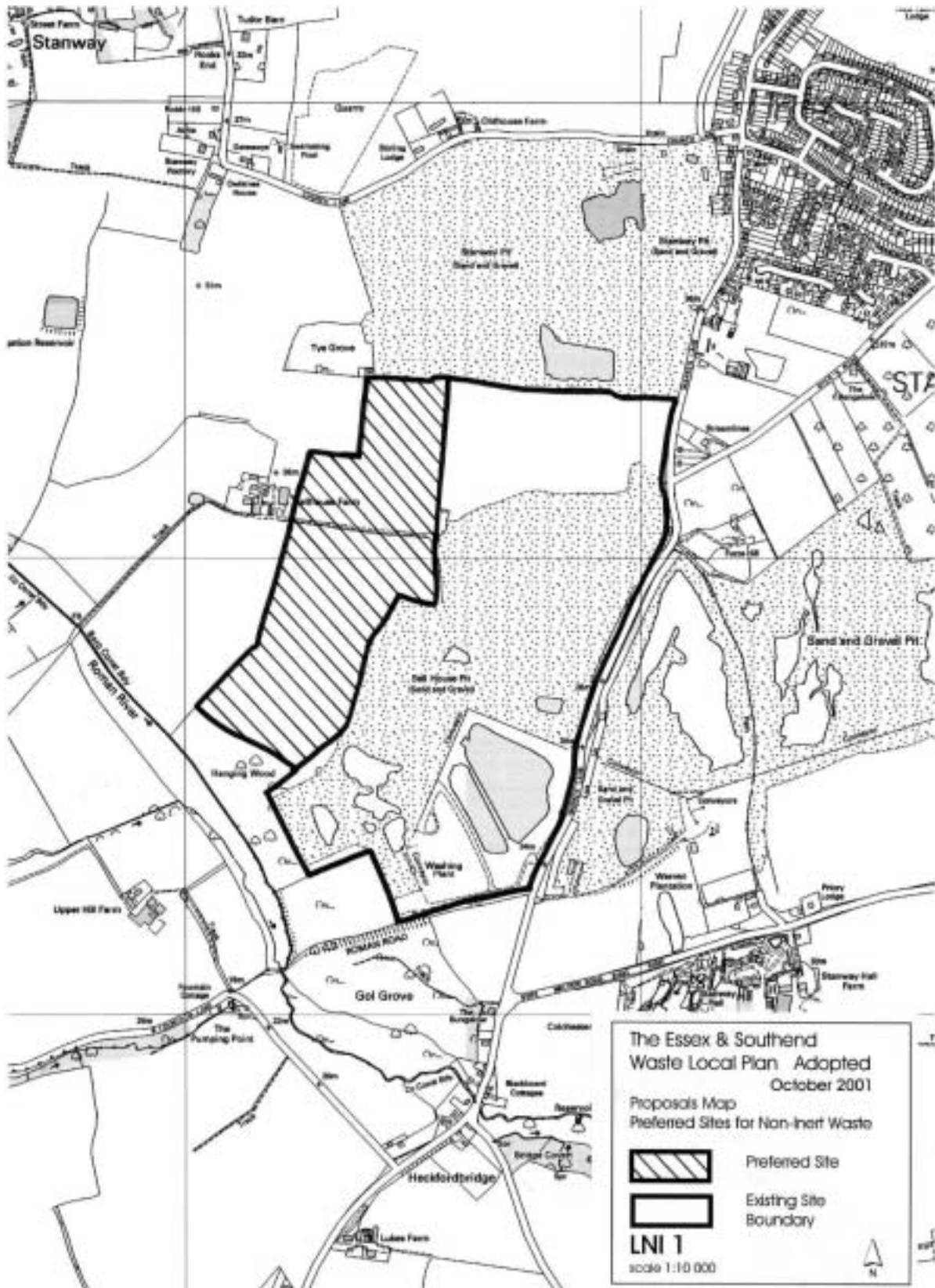
Potential Void	mcm
Inert	0.11
Non-inert	0.97
Total	1.08

Notes:

- i. This existing site already has a large consented void used for landfilling of domestic waste. The potential void will be created by mineral extraction from Preferred Site Y of the Minerals Subject Plan.
- ii. This site has already been granted planning permission for extraction and landfill to achieve restoration.

On map to site LNI.1, delete the land north of the line between Warren Lane and Tye Grove from the existing site.

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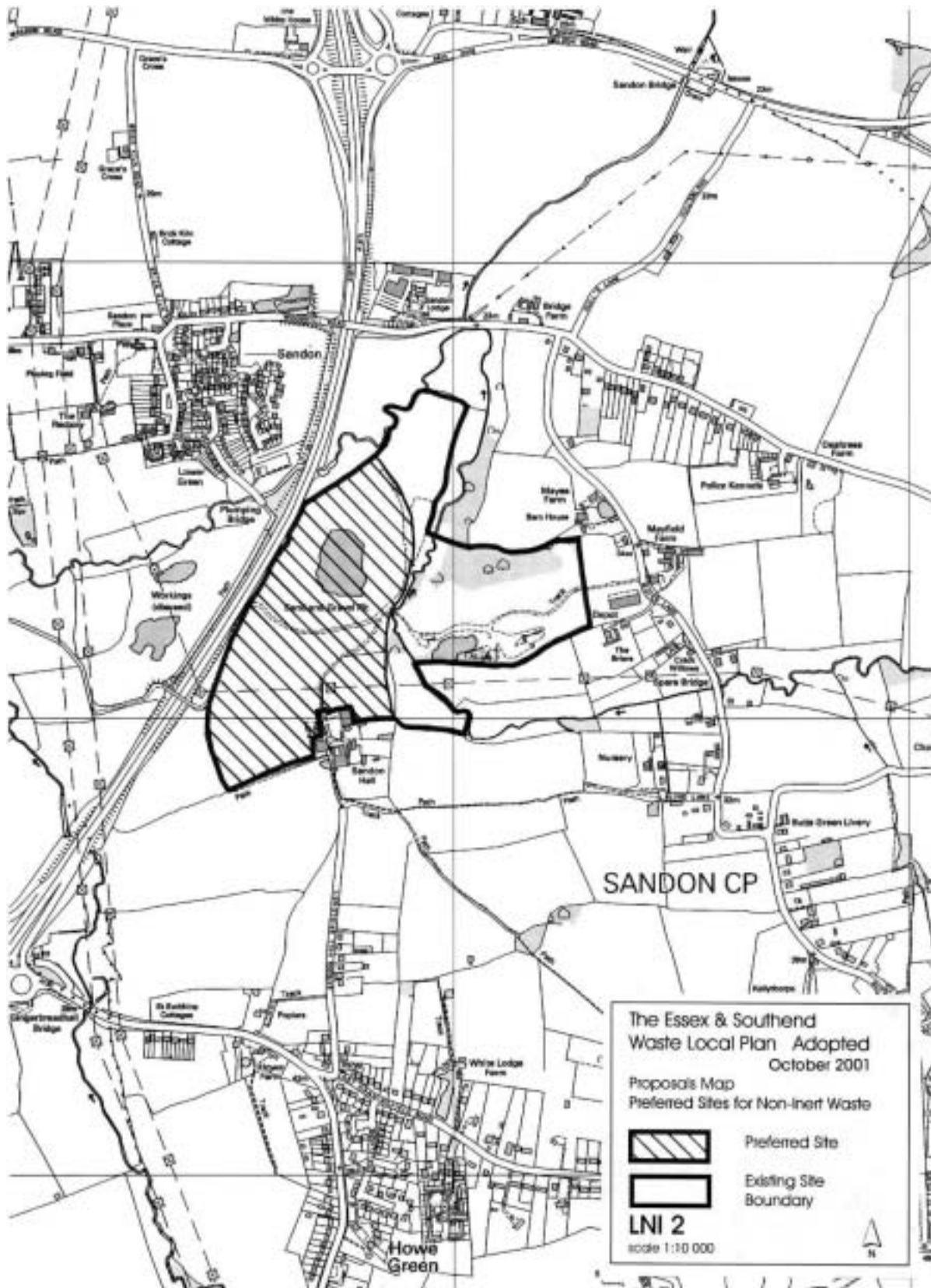
LNI.2 Sandon, Chelmsford
Company: Brett Gravel

Potential void	mcm
Inert	0.30
Non-inert	<u>2.70</u>
Total	3.00* but see note below

Notes:

- i. This site is operated by Brett Gravel and is an inactive sand and gravel pit. Some filling with inert waste has taken place and under the existing planning permissions restoration of the southern part of the site is required to be completed by the end of 2002. Nevertheless large voids remain. Identification for non-inert landfill is considered to be a way of achieving the comprehensive restoration of the whole site. The Inspector recommended that there are other ways of achieving restoration.
- ii. Development of this site for a permanent waste management facility should be integrated with the proposal to landfill and restore the former quarry. This may affect the capacity of the landfill site and the figures in Tables 9.2, 9.3 and paragraphs 9.14, 9.17 may need adjustment, but as there is a surplus of landfill capacity in the Plan as described in paragraph 9.20, the void at Sandon (if any) is not critical to the Plan's provisions.
- iii. The Inspector's preference was for a facility at the base of the quarry and the feasibility of such a scheme will need to be investigated by the developer, and considered by the WPA as part of any planning applications. Landfill of the site must not prejudice the ability of the site to satisfy the longer-term need for a permanent facility at this site.
- iv. Landfill of the site to at or near former ground level may be permitted, but this will be subject to the WPA being satisfied that it is capable of being operated without unacceptable harm to the environment or residential amenity, taking account of the controls exercised by the Environment Agency under waste management licensing, and of being restored to a high standard.
- v. The potential void figures given above assume full landfill of all voidspace plus 20% surcharging, and will be reduced if this does not take place.
- vi. However this proposal is implemented, planning permission will only be granted if there is a comprehensive restoration, landscaping and after-care scheme for the whole site, with a clear programme for implementation.
- vii. Proposals will have to comply with all relevant policies of this Plan, especially policy W9A. Access will be required to be via the existing haul road onto the southern end of Molrams Lane and thence to and from the A1114/A130/A12. A lorry routing agreement may be sought, and a traffic impact assessment required for any substantial proposal.

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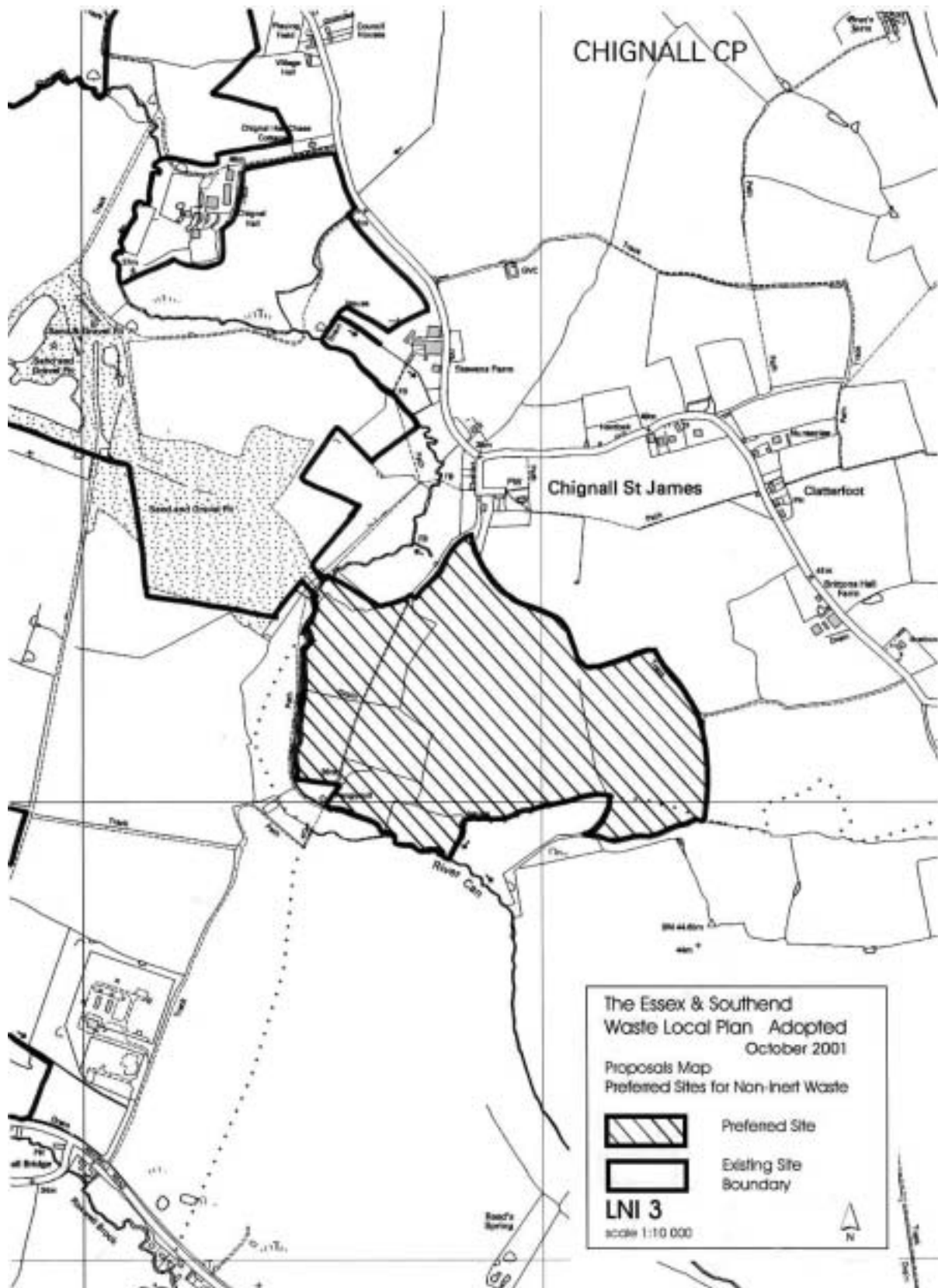
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LNI.3 Brittons Hall, Roxwell, Chelmsford
Company: Redland

Potential void	mcm
Inert	0.15
Non-inert	<u>1.41</u>
Total	1.56

Notes:

This extension to an existing landfill site has full permission for mineral extraction and filling but no licence was granted by the end of 1996 so this the void is not included in the 'permitted' category and must be recorded as 'potential'. It is already committed.



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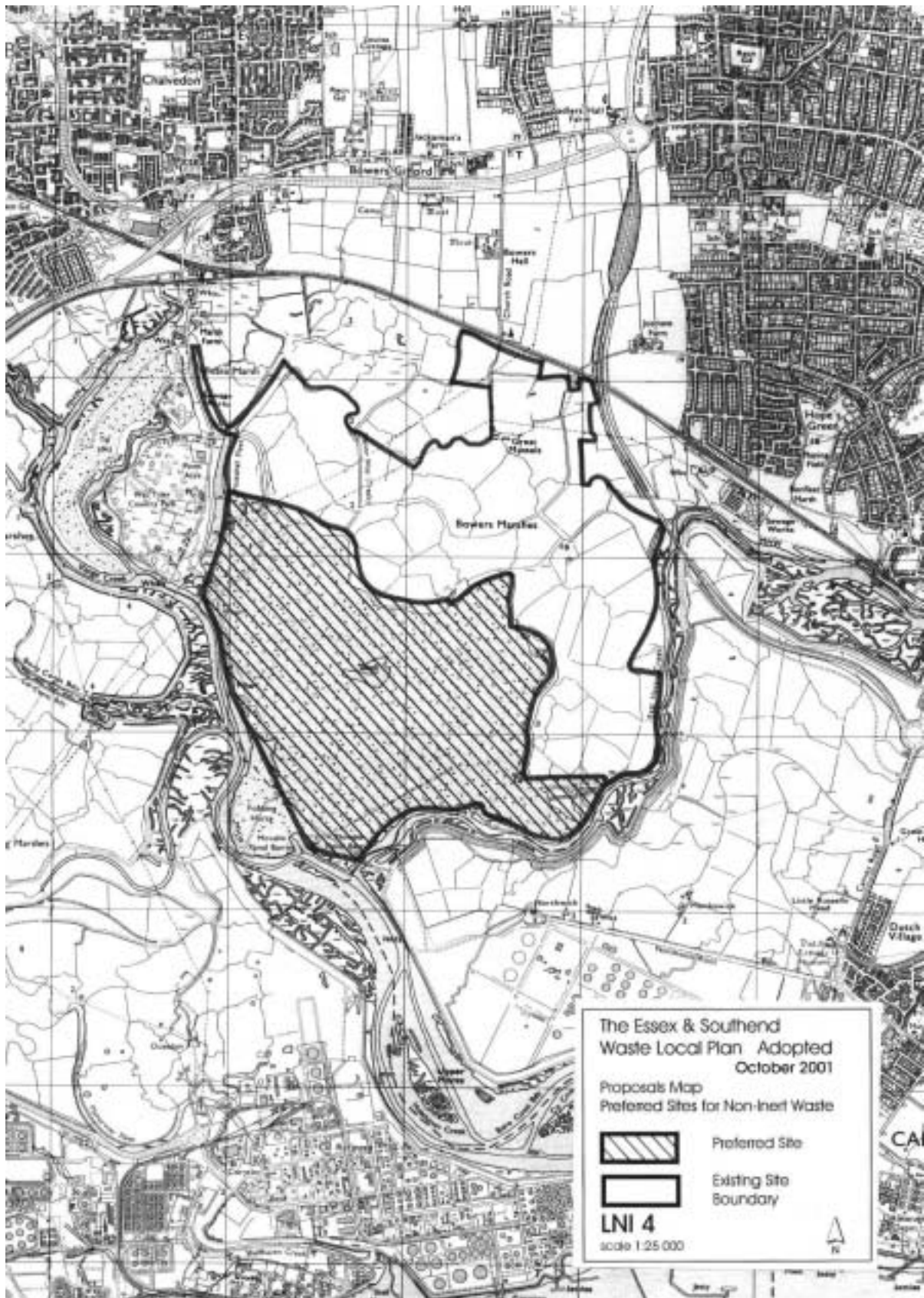
LN1.4 Pitsea, Basildon
Company: Cleanaway

Potential void	mcm
Inert	0.44
Non-inert	3.96
Total	4.40

Notes:

ECC Planning Committee, in December 1997, resolved to grant planning permission for a revised scheme of landfill/restoration for this operational site adding 4.4 mcm to the void space. A section 106 Agreement has yet to be concluded. The site is thus already committed. but the void is not included in the 'permitted' category so must be recorded as 'potential'.

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10.0 DEVELOPMENT CONTROL AND IMPLEMENTATION

Introduction

- 10.1 The Plan is required to be in general conformity with the Structure Plan and include criteria against which applications for waste management developments are to be considered, and how the environmental impact of waste management facilities might be minimised. Waste management methods that have the least overall environmental impact and which take account of the potential for energy and materials recovery should be encouraged. Planning decisions will be made in accordance with the Development Plan unless material considerations indicate otherwise. Identification of a preferred site for waste management in this Plan does not preclude full consideration when a detailed application is made. This may still result in the refusal of the application for planning permission should objections prove to be insurmountable. Effective waste management requires the highest operating standards. Licensing requirements, which are the responsibility of the Environment Agency include a 'fit and proper person' test of applicants as well as consideration of the development.
- 10.2 Waste management has key elements which can be independent or combined whereby waste materials are reprocessed, deposited or disposed of in such a manner that the bulk of the waste is reduced. Reprocessing can involve the recycling or composting of wastes; disposal can include incineration or treatment of the waste to neutralise or remove its harmful element. Landfill is a last resort. Waste transfer can be part of both a recycling activity and a precursor to the deposit or disposal of waste materials.
- 10.3 Preferred Sites for major waste management are identified in this Plan but the development of smaller scale facilities will also be encouraged. In most cases such proposals will have to demonstrate a locational need, and the extent to which mitigation measures have been incorporated into the design to make the development compatible with the site's surroundings. Waste related development proposals may occasionally raise unusual issues but generally there will be a number of common aspects that would need to be examined. eg impact on local amenity, landscape quality, wildlife conservation, groundwater protection and highway infrastructure. Where the development proposal requires the submission of an Environmental Statement then all impacts should be addressed and mitigating measures incorporated into the planning application.
- 10.4 Section 54A of the Town and Country Planning Act 1990 requires determination of planning applications to be in accordance with the development plan unless material considerations indicate otherwise. When determining planning applications the WPA will examine each application against the policies of the WP. Guidance for the form and content of planning applications is set out in Appendix 11. Consideration will also be given to the following issues :-

- potential economic and social benefits such as the provision of a product or service;
- impact on the countryside and the Green Belt;
- landscape context and overall visual appearance and impact from public viewpoints;
- setting within traditional/ historic landscapes and loss or damage to sites of historic/ archaeological interest;
- proximity to sensitive properties and land-uses;
- adverse cumulative effect in combination with other development in the locality;
- operators' previous environmental management performance;
- impact on agricultural land quality, flora and fauna and nationally designated sites of scientific, ecological, or geological interest;
- duration and likely generation of noise, vibration, odour, fumes, dust, litter, scavengers and vermin;
- Large Goods Vehicle generation, suitability and capacity of highway network;
- protection of statutory public rights of way;
- flooding risk, local hydrogeology, groundwater regime, site drainage and control of effluent or leachates;
- toxic emissions to the atmosphere;
- land contamination;
- bird strike risk to aircraft;
- measures to encourage energy efficiency and recovery, proximity to national grid and local heat markets, recycling, re-use or alternative disposal of waste arising;
- phased progression and restoration of landfill operations.

Planning Conditions and Obligations

10.5 Planning authorities may use conditions (see Circular 11/95) or planning obligations to meet planning goals to protect the environment where relevant to the proposed development. Guidelines on the scope of planning obligations are set out in Department of the Environment Circular 1/97 (Planning Obligations). They must meet the following tests :

- Necessary;
- Relevant to planning;
- Directly related to the proposed development;
- Fairly and reasonably related in scale and kind to the proposed development;
- Reasonable in all other respects.

10.6 Conditions and planning obligations may be used to require the use of particular transport modes and the posting of notices requesting lorry drivers either to use or avoid particular routes. Operators may offer to restrict their lorries to particular routes but conditions or planning obligations will not seek to control the right of passage over a public highway. Planning obligations may also be used to require the decontamination of soil, removal of chemicals, and reinstatement of land if

the permitted use ceases. In addition, obligations can require developments to make provision for recycling facilities where appropriate.

W10A WHEN GRANTING PLANNING PERMISSION FOR WASTE MANAGEMENT FACILITIES, THE WPA WILL IMPOSE CONDITIONS AND/OR ENTER INTO LEGAL AGREEMENTS AS APPROPRIATE TO ENSURE THAT THE SITE IS OPERATED IN A MANNER ACCEPTABLE TO THE WPA AND THAT THE DEVELOPMENT IS UNDERTAKEN IN ACCORDANCE WITH THE APPROVED DETAILS.

Statutory Consultations

- 10.7 It is recommended that applicants enter into pre-application consultations with the EA, WPA, and other statutory bodies where appropriate, as a matter of course.

Relationship with the Environment Agency

- 10.8 When reaching a planning decision the WPA will not give weight to objections on matters which are properly subject to the pollution control regime and which do not have land-use planning implications. However, there are issues relating to social, economic and environmental factors that can be addressed in land use planning terms. The Agency will advise on the weight to attach to the risk of a pollution and this is more likely to be objectively considered than the perception of risk. Planning conditions would not normally be appropriate to control the level of emissions from a proposed development, where they are subject to pollution control. However, a planning condition may need to be imposed to protect amenity or limit the hours of operation of a plant.
- 10.9 Air quality and odour emissions from combustion processes are controlled by the Environment Agency but its responsibilities do not extend to odour nuisance arising from open air storage, or the handling and transportation of waste materials or their products. Developers will therefore be expected to discuss their proposals with the Agency in advance of submitting a planning application. Such discussions would provide an opportunity to consider the principle of the development and to influence its design so that potential problems can be satisfactorily mitigated. This should then enable the WPA to avoid conflicts between the pollution control authorisation and planning requirements.

Environmental Impact Assessment

- 10.10 An environmental statement will need to accompany a planning application where the proposed development is of a type listed in Schedule 1 of the Town and Country Planning (Environmental Impact Assessment) Regulations 1999, or is a type listed in Schedule 2 and is likely to have significant environmental effects by virtue of its nature, size or location. Paragraphs 3.36-3.40 above have already addressed this issue in greater detail.

Content of Planning Implications and Material Considerations

10.11 Planning applications for waste management development must be accompanied by a supporting statement and detailed drawings illustrating the scale, nature and extent of the development. (See Appendix 11). The supporting statement should evaluate the development against the issues identified in par 10.4 and state the measures proposed to mitigate any adverse impacts.

10.12 When determining planning applications for waste management facilities, the Waste Planning Authority will seek to balance their obligation to:

- facilitate development required to meet statutory obligations and the provision of essential infrastructure
- minimise visual intrusion and ensure that the operations are carried out so as to protect the environment and local amenity.

This may necessitate that waste management operations are undertaken within buildings and/or on sites where landscaping can ameliorate impact. Specific consideration will be given to the siting, design and colour treatment to the elevations of buildings, structures and plant to reduce their bulk and overall impact. A high standard of design and landscaping to minimise visual impact will be required. Full account will also be taken of the operations involved and the design, installation and maintenance programme for plant and machinery to minimise visual and noise intrusion and the provision of long term pollution prevention measures. Where it is a matter for planning control and not covered by site licensing, suitable measures shall be incorporated in proposals for waste management facilities to mitigate, attenuate and control: noise, artificial lighting, dust, litter, odour, landfill gas, flue emissions, vermin, leachate.

W10B FOR ALL PROPOSALS FOR WASTE MANAGEMENT FACILITIES THE WPA WILL REQUIRE THE SUBMISSION OF A FULL PLANNING APPLICATION WHICH SHOULD INCLUDE THE SITING, DESIGN AND EXTERNAL APPEARANCE OF BUILDINGS, PLANT, EQUIPMENT AND STORAGE FACILITIES, LANDSCAPING AND SUITABLE MEASURES TO MITIGATE AND CONTROL UNACCEPTABLE ADVERSE EFFECTS, INCLUDING NOISE AND ARTIFICIAL LIGHTING.

W10C IN CONSIDERING PLANNING APPLICATIONS FOR LANDFILL PROPOSALS THE WPA WILL REQUIRE THE PROPOSED MEASURES FOR RESTORING THE LAND TO AN ACCEPTABLE AND SUSTAINABLE AFTER-USE TO BE FEASIBLE.

10.13 The proximity of a waste management facility to sensitive land uses particularly residential is an issue that has to be addressed. Major landfilling sites can despoil a locality over a prolonged period of time and often are more offensive than the mineral extraction that in many cases preceded them. The formation of buffer zones comprising woodland planting and/or landscaped earth bunding are commonly used to mitigate

the situation. Factors to be taken into account in assessing planning applications will include :

- the nature of the waste and the process involved;
- direction of the prevailing wind, the extent of enclosure to malodorous processes;
- neutralisation and minimisation of odours and other emissions;
- measures for dust control;
- vehicle sheeting;
- the number of persons affected by the development;
- local topography providing natural screening;
- the extent of noise and vibration generated by the operations;
- the duration of the development;
- the proposed hours of working;
- the luminance of flood-lighting;
- litter and vermin control measures;
- measures to deal with landfill gas, including details of any facilities required;
- the planning implications of landfill stabilisation measures, including details of leachate control facilities

Policies W10D and W10E require these factors to be taken into account, and also require satisfactory provision to be made in respect of other landscape, highways, agricultural, historic, infrastructure and nature conservation criteria. For more guidance on these see PPG2, PPG7, PPG9, PPG15 and PPG16. The designated areas protected under policy W10E include:

- Ramsar sites;
- Special Protection Areas (SPA);
- Special Areas of Conservation (SAC);
- National Nature Reserves (NNR);
- Sites of Special Scientific Interest (SSSI);
- Local Nature Reserves;
- Non-statutory Nature Reserves;
- Sites of Importance for Nature Conservation (SINC);
- Areas of Outstanding Natural Beauty (AONB);
- Ancient Monuments;
- Environmentally Sensitive Areas;
- regionally important geological and geomorphological sites.

W10D FOR ALL NON-INERT LANDFILL PROPOSALS, THE WPAS WILL REQUIRE TO BE SATISFIED BEFORE GRANTING PERMISSION THAT ADEQUATE ARRANGEMENTS WILL BE MADE TO PREVENT LANDFILL GAS MIGRATION TO ADJOINING LAND, AND THAT THE PROPOSED METHOD OF LANDFILL GAS COLLECTION IS ENVIRONMENTALLY AND VISUALLY ACCEPTABLE FOR AS LONG AS FACILITIES HAVE TO REMAIN. POLICY W7H WILL ALSO APPLY. DEPOSIT OF NON-INERT WASTE WITHIN 250 METRES OF RESIDENTIAL DWELLINGS OR OTHER SENSITIVE LAND USES WILL

NOT BE PERMITTED UNLESS SPECIAL MEASURES ARE INCLUDED TO PREVENT THE MIGRATION OF LANDFILL GAS, OR ODOURS THEREFROM, TOWARDS SUCH PROPERTIES.

W10E WASTE MANAGEMENT DEVELOPMENT, INCLUDING LANDFILL, WILL BE PERMITTED WHERE SATISFACTORY PROVISION IS MADE IN RESPECT OF THE FOLLOWING CRITERIA, PROVIDED THE DEVELOPMENT COMPLIES WITH OTHER POLICIES OF THIS PLAN:

- 1. THE EFFECT OF THE DEVELOPMENT ON THE AMENITY OF NEIGHBOURING OCCUPIERS, PARTICULARLY FROM NOISE, SMELL, DUST AND OTHER POTENTIAL POLLUTANTS (THE FACTORS LISTED IN PARAGRAPH 10.12 WILL BE TAKEN INTO ACCOUNT);**
- 2. THE EFFECT OF THE DEVELOPMENT ON THE LANDSCAPE AND THE COUNTRYSIDE, PARTICULARLY IN THE AONB, THE COMMUNITY FOREST AND AREAS WITH SPECIAL LANDSCAPE DESIGNATIONS;**
- 3. THE IMPACT OF ROAD TRAFFIC GENERATED BY THE DEVELOPMENT ON THE HIGHWAY NETWORK (SEE ALSO POLICY W4C);**
- 4. THE AVAILABILITY OF DIFFERENT TRANSPORT MODES;**
- 5. THE LOSS OF LAND OF AGRICULTURAL GRADES 1, 2 OR 3A;**
- 6. THE EFFECT OF THE DEVELOPMENT ON HISTORIC AND ARCHAEOLOGICAL SITES;**
- 7. THE AVAILABILITY OF ADEQUATE WATER SUPPLIES AND THE EFFECT OF THE DEVELOPMENT ON LAND DRAINAGE;**
- 8. THE EFFECT OF THE DEVELOPMENT ON NATURE CONSERVATION, PARTICULARLY ON OR NEAR SSSI OR LAND WITH OTHER ECOLOGICAL OR WILDLIFE DESIGNATIONS; AND**
- 9. IN THE METROPOLITAN GREEN BELT, THE EFFECT OF THE DEVELOPMENT ON THE PURPOSES OF THE GREEN BELT.**

Preferred Locations for Non-landfill Proposals

- 10.14 Preferred locations for waste management facilities are identified in the Plan. Waste management facilities may also be acceptable at other locations, subject to policies W8B and W8C, where Large Goods Vehicle movements and the level of environmental disturbance can be accommodated. The temporary use of land within certain mineral workings and waste disposal sites may be acceptable for aggregates recycling where it can be demonstrated that the use will not cause unacceptable environmental impact, generation of unsuitable traffic or an unacceptable delay in the restoration of the site. Use of redundant agricultural buildings, hardstandings and 'brownfield sites' has already been referred to in Chapter 7 above.
- 10.15 Complaints about noise from industrial, commercial and landfill waste management are likely to arise from an increase in noise levels attributable to the new development above the existing background (ambient) noise. A

difference of around 5dB is of marginal significance but when it approaches 10 dB or higher it could be unacceptable. Since background noise levels vary throughout a 24 hour period noise levels need to be assessed for separate periods comparable to the hours of operation of the proposed development. The main sources of noise will be from on site processing utilising fixed and mobile plant, waste handling operations involving discharge, compaction or loading and the general movement of Large Goods Vehicle traffic making deliveries and collections.

10.16 Noise attenuation measures will be required an integral part of the development and proposals will need to show compliance with national policy (see, for example, Minerals Planning Guidance 11 and Planning Policy Guidance 24). As a general rule, under current guidance the WPAs will expect daytime noise arising from a proposal not to exceed 10 dB(A) above the background noise level at any noise sensitive property (measurements to accord with BS4142), with a maximum of 55 dB(A).

10.17 Measures to ensure that noise levels are not exceeded could involve specially designed plant and equipment. These may include :

- acoustically clad plant and equipment with high performance cooling systems,
- the siting the of plant and equipment away from noise sensitive properties
- use of quiet machinery eg conveyors instead of loading shovels fitted with reversing alarms,
- bird scaring methods other than gas guns .

Hours of Operation

10.18 Unless it can be shown that no noise nuisance would arise or an overriding special case is made, all waste management facilities will be subject to restrictions on their hours of operation. These will normally be 07.00 to 18.30 Monday to Friday and 07.00 to 13.00 on Saturday with no working on Sundays and Public Holidays other than for essential maintenance. To avoid queues of Large Goods Vehicles before 07.00 consideration will be given to the provision of parking off the public highway where appropriate but this should not be regarded as a precursor to the relaxation of the start time. There may be occasions where queuing provision is still desirable but a later start time will have to be imposed because of local circumstances.

W10F WHERE APPROPRIATE THE WPA WILL IMPOSE A CONDITION RESTRICTING HOURS OF OPERATION ON WASTE MANAGEMENT FACILITIES HAVING REGARD TO LOCAL AMENITY AND THE NATURE OF THE OPERATION.

Airborne Emissions

10.19 Airborne emissions from waste management facilities are a particular source of concern despite the requirement for stringent controls prior to authorisation by the Environment Agency. The WPA will need to be

satisfied that full account is taken of prevailing background pollution and the consequences of any cumulative impact of additional emissions arising from the operation of the facility on neighbouring land uses.

- 10.20 Open storage of waste and waste residues will not be permitted unless it can be demonstrated that appropriate measures are taken to avoid the release of particulates. Likewise vehicles used to transport susceptible wastes should be enclosed.

Odours

- 10.21 Pungent odours are frequently associated with sewage treatment works and to a lesser extent on certain occasions where household wastes are being landfilled or with composting if windrows are not rotated sufficiently. Other waste management processes such as anaerobic digestion incorporate odour control systems and will therefore only cause a problem if the unit has to be opened for major maintenance works.

- 10.22 Odour nuisance tends to be very subjective and this is compounded by difficulty in its detection and recording on a reliable scientific basis. Where waste management facilities are likely to generate offensive odours then the proposal must incorporate an effective means of mitigating the odours to avoid loss of local amenity. Where this involves a means of enclosure this may include a negative internal air pressure environment and air filtration and treatment plant incorporated into the ventilation system.

Groundwater

- 10.23 Protection of groundwater resources is paramount in the consideration of any waste management proposal. Topography and the underlying geology and hydrogeology may exclude certain sites because there may be too greater a risk of pollution occurring should the measures fail. Applicants will need to provide an assessment of the potential risk and details of the local geology. Development proposals for waste management facilities will therefore be required to incorporate provisions for the containment and proper disposal of waste related substances and discharges that have the potential to cause pollution to surface or groundwater resources. See policy W4B in chapter 4.

Public Rights of Way

- 10.24 Accesses to waste management facilities that coincide with public rights of way will be discouraged but crossing points, subject to user frequency and design of the cross over, will normally be accepted. The Waste Planning Authority will require the applicant to show that rights of way will be protected from the adverse effects of the proposed waste management development and properly maintained during the life of the operations. This may entail additional screening and landscaping, signs, gates/stiles, or the temporary or permanent diversion of rights of way depending on the site's after use. The opportunity for creating new rights of way should be taken. The Ramblers Association and other appropriate organisations listed in

Annex E of Circular 2/93 will be consulted on schemes involving footpaths and rights of way.

W10G APPLICATIONS FOR WASTE MANAGEMENT FACILITIES SHOULD INCLUDE MEASURES TO SAFEGUARD AND WHERE PRACTICABLE TO IMPROVE THE RIGHTS OF WAY NETWORK, WHICH SHALL BE IMPLEMENTED PRIOR TO ANY DEVELOPMENT AFFECTING PUBLIC RIGHTS OF WAY COMMENCING.

Highway Considerations

- 10.25 The transport of waste materials by rail or water will be encouraged but it is recognised that the majority of waste management facilities accepting waste materials produced within the Plan area will generate Large Goods Vehicle movements. Consequently proposals will be judged on their ability to obtain an effective direct access, if necessary via existing junctions, to an appropriate highway at the upper end of the road hierarchy. Anything less than the most direct access onto the main system is unlikely to be acceptable. Policy W4C above provides clear guidelines for access to waste management sites.
- 10.26 Detritus including debris, litter, mud and slurry deposited on the public highway by vehicles leaving a waste management site constitutes a traffic hazard and emphasises both the nature of the prevailing land use and implies poor management of the site. Conditions will be imposed to ensure that all potential detritus is removed from vehicles before they leave the site and that vehicles carrying waste materials are securely sheeted.
- 10.27 Waste management proposals will need to make provisions for effective site controls to avoid environmental damage to land beyond the operational site. These will include the metalled surfacing of access roads for at least 100 metres from the public highway. The surface should be cambered to accelerate surface water run off with a smooth unpotholed surface, so that it can be easily cleaned on a regular basis, and provided with adequate drainage and interception gullies to avoid any surface slurry from being tracked onto the public highway. At the commencement of the exit roadway wheel and chassis cleaning equipment, including a wheel spinner on landfill sites, will be required to be provided unless the entire operational area is metalled or incoming wastes are transferred to dedicated site vehicles without road going vehicles having to move off of the metalled surface. Regular and effective cleaning of all metalled surfaces and the provision of means to dampen the road during dry weather to arrest dust, will also be required.

Airport Safeguarding

- 10.28 There are passenger and commercial airports at Stansted and Southend and a number of smaller aerodromes used by light aircraft. Development within the safeguarding areas of major airports are subject to mandatory consultation with the Civil Aviation Authority or Ministry of Defence otherwise the applicant is required to consult the airport management for

development within a 2 Km radius of the airport. The radius for bird control consultation should be 13 km. Public Safety Zones have been identified in some local plans where development will be resisted if likely to increase the number of people residing, working or congregating within that area. Rochford District Council, for example, have recognised that land identified for open storage and low employment generating uses within part of the PSZ for Southend Airport may also have potential for scrapyards, waste transfer, processing or recycling uses.

W10H PROPOSALS FOR WASTE MANAGEMENT FACILITIES WITHIN THE SAFEGUARDING AREAS OF AIRPORTS AND AERODROMES AND, WHERE APPROPRIATE, CLOSE TO OTHER AIRPORTS WILL BE RESISTED UNLESS IT CAN BE DEMONSTRATED THAT THE DEVELOPMENT AND THE NATURE OF THE WASTE MATERIALS INVOLVED WOULD NOT CONSTITUTE A HAZARD TO AIR TRAFFIC.

Landfilling and Surcharging

- 10.29 Where the restoration of mineral workings or engineering operations necessitate the reinstatement of land to prescribed contours then subject to environmental and pollution safeguards this will be achieved by landfilling. A reduction in waste residues coupled with the encouragement of temporary recycling facilities at mineral workings and landfill sites will inevitably prolong their reinstatement, restoration and the period before aftercare becomes operative. A balance needs to be struck between early restoration of the site and the recovery of recyclable materials as a last resort.
- 10.30 Normally reinstatement as near as possible to original ground contours, with a minimum allowance for the settlement of fill and soil materials, would be sought unless there are specific drainage, landscape, or engineering requirements. Differential settlement of landfilled waste materials is influenced by a number of factors including the nature of the waste, its behaviour, handling and the rate of infilling. Surcharging of landfill involving excess infilling above the desired contour is standard practice to allow for subsequent settlement and can, where the bulking factor is limited, range from less than 0% for Category A inert materials up to 25% for Category C waste materials that will degrade. The aftercare of a site may require surface and sub-surface water drainage. Its effectiveness, however, will depend on the gradients of the main drainage pipes which is determined by the stabilised slope of the infilled land. Drainage requirements are therefore fundamental to the final landform and the contours to be achieved after settlement.
- 10.31 Land improvement schemes utilising inert fill materials will be considered favourably by the Waste Planning Authority only where it can be adequately demonstrated that the primary purpose of the development is to undertake prescribed operations to achieve a significant improvement in the agricultural quality of the restoration of land concerned to allow a wider range of aftercare and is not simply the creation of void space. Policy W9B above makes this point.

11.0 ENVIRONMENTAL APPRAISAL

Introduction

- 11.1 PPG12 advises local authorities to carry out an Environmental Appraisal of their development plan. Paragraph 4.22 points out, however, that ‘. . .the fact that a plan was subject to environmental appraisal does not take away the requirements for environmental assessment of individual development proposals where they are required by legislation.’
- 11.2 The Environmental Appraisal of the WP has followed guidance set out by the DETR in ‘Environmental Appraisal of Development Plans: A Good Practice Guide’.
- 11.3 The Environmental Appraisal process, like the plan making process is a cyclical one. An appraisal was carried out at an earlier stage of the plan and the results were included in the original consultation draft document . References are made to that earlier appraisal at appropriate places in the presentation of the current appraisal.

Sustainable Development and Environmental Appraisal

- 11.4 Paragraph 4.1 of PPG12 states:
‘The planning system, and development plans in particular, can make a major contribution to the achievement of the Government’s objectives for sustainable development.’
- 11.5 Development clearly affects the environment and may adversely impact on the future in two ways:-
- globally, by reducing or threatening basic ‘life support’ systems
 - depriving future generations of access to natural / cultural resources etc
- 11.6 One of the purposes of environmental appraisal is to provide a framework to try to ensure that these environmental and sustainability concerns are integrated into the plan making process.
- 11.7 The appraisal will also enable negative impacts to be highlighted so that consideration can be given to possibly mitigating the adverse effects.

Methodology

- 11.8 Based on the Government’s Good Practice Guide, the appraisal has been divided into three main stages:
1. Assessing the scope of the Plan against European, national and regional advice and guidance.
 2. Testing the compatibility and consistency of the policies in the Plan with the policies in the Deposit Draft of the Replacement Structure Plan and the Adopted Minerals Local Plan-First Review.
 3. Appraisal of the impact of the policies of the Plan against environmental and sustainability criteria.

The Scope of the Plan

- 11.9 In order to ensure that the Plan deals with all the significant environmental and sustainability issues contained within guidance and advice emerging from Europe, the Government and regional bodies, the contents of the original consultation draft plan was compared with the guidance / advice current at that time. Since then the Plan has undergone changes - as has the guidance and advice - with a growing awareness of sustainability issues.
- 11.10 The Scoping exercise has therefore been fully updated to take account of the new situation.
- 11.11 The results of this exercise show that generally the Plan does cover all the relevant issues. However there are some matters to which attention is drawn.
- 11.12 Some matters eg protection of the Green Belt, (PPG2) Areas of Outstanding Natural Beauty, (PPG7 and PPG23) and protection of the cultural heritage - listed buildings, conservation areas etc (PPG15), are not covered in detail by policies in the Plan, although policy W10E requires the impact on such areas to be taken into account. Reliance is made in addition on policies elsewhere in the development plan.
- 11.13 PPG13 advises that rail and water transport should be encouraged and this is dealt with in policies W4C, W8A and supporting text.
- 11.14 The Annex to PPG14 refers to the need for slope stability reports to be submitted with applications in certain circumstances and this is mentioned in the text.

Compatibility and Consistency of Policies in the Plan with Essex Structure Plan and Minerals Local Plan Policies

- 11.15 The results of the comparison of the policies in the plan with those contained in the Deposit Draft version of The Replacement Structure Plan, indicate that they are generally compatible and consistent with each other.
- 11.16 However the analysis has highlighted the possible problems of reconciling Structure Plan Policies C4 and CC1, which strongly protect rural areas and the coast, with some of the proposed Waste Management sites referred to in Policy W8A and Schedule 1.
- 11.17 Attention is also drawn to Structure Plan Policy BIW3 which seeks to restrict other uses on industrial sites. The implementation of this policy may need to be carefully monitored in order to ensure that it does not inhibit those waste disposal facilities which are directed to industrial areas by policies in the Plan.

- 11.18 With regard to the comparison between the Adopted Minerals Local Plan First Review and the WP, it is concluded that the policies and proposals are compatible and generally consistent.

Appraisal of Impact of Policies on the Environment and Implications for Sustainability

- 11.19 The methodology of this part of the Appraisal is based on that used to appraise the Deposit Draft version of the Replacement Structure Plan and involves assessing the impact of policies against significant aspects of the environment
- 11.20 In order to make the appraisal as manageable as possible the environmental baseline is divided into 14 key environmental criteria against which the policies are judged to have impacts of varying significance.
- 11.21 The DETR Good Practice Guide states that 'The identification of environmental criteria allows environmental factors to be systematically considered throughout the plan, encourages consistency across the planning areas and with other environmental bases, and allows the plan to be monitored'
- 11.22 The environmental stock criteria are divided into 3 broad areas - local environmental quality, natural resources and global sustainability.

Local Environmental Quality

This category reflects the impact policies may have on the quality of people's lives and their surroundings

A. Human needs:

- Social facilities: housing, community, education etc
- Quality of surroundings
- Economic aspects
- Equality of opportunity
- Health and Safety

B. Urban Environment:

- Settlement form / Density / Infrastructure

C. Cultural Heritage:

- Historic buildings / Archaeological sites / Conservation areas / Parks/Gardens
- Historic Natural features-Trees, Hedges, Woods
- Ancient landscapes / Protected lanes
- Leisure / Tourism

D. Open Space/Access to Countryside:

- Formal/informal
- Urban/rural
- Country Parks / Rights of Way / Amenity Recreation / Walking / riding etc

E. Environmental Health:

- Local air quality / Smell / Noise /
- Visual intrusion / light pollution

Natural Resources

This category reflects the impact policy may have on physical County-wide natural resources.

F. Water Quality:

- Pollution-groundwater / Water supply
- Amenity Recreation / Fishing / Wildlife Rivers
- Lakes, Coast etc

G. Land Quality:

- Agricultural soil / Contamination
- Waste disposal Dereliction /
- Landscape / Reclamation
- Floodplains Coastal protection

H. Biodiversity:

- Wildlife-fauna/flora Habitats-land/aquatic
- Designations
- Recreation / Education / Amenity

I. Minerals:

- Reducing consumption
- Husbanding resources

Global Sustainability

This category reflects the potential wider scale impact of policies on the global environment.

J. Energy – Transportation:

- Reduce transport
- Increase public transport cycling, walking etc
- Divert freight to water/rail

K. Energy/Other:

- Energy conservation

L. Energy – Renewable:

- Wind, biomass, solar, etc

M. Atmosphere:

- Greenhouse gases
- CO₂ fixing (tree planting etc)

N. Natural Resources:

- Fossil fuels (power generation/transport)
- Reduce use of non renewable raw materials.

Key Questions/Indicators

11.23 In order to carry out the appraisal a key question or questions need to be asked of each policy, in respect of each environmental element. These then help indicate the scale of impact and whether it is likely to be positive, negative or neutral etc.

11.24 The Key Questions or Indicators used in the appraisal are set out below.

Table 11.1: Environmental Criteria

<i>General Criteria</i>	<i>Indicators of Positive Impact</i>
Local Environmental Quality	
A. HUMAN NEEDS	<ul style="list-style-type: none"> Does the policy improve the quality of life-ie increase/safeguard social facilities, surroundings or safeguard/increase employment opportunities? Does the policy redress inequality? Does the policy safeguard or improve safety?
B. URBAN/BUILT ENVIRONMENT	<ul style="list-style-type: none"> Will the policy encourage use of brownfield sites and minimise use of greenfield sites? Will the policy encourage efficient use of land?
C. CULTURAL HERITAGE	<ul style="list-style-type: none"> Will the policy maintain, preserve, or enhance the cultural environment? Will the policy encourage the use of the cultural heritage for education, leisure and tourism?
D. OPEN SPACE/ACCESS TO COUNTRYSIDE	<ul style="list-style-type: none"> Does the policy safeguard/enhance public open space or safeguard/increase access to the countryside?
E. ENVIRONMENTAL HEALTH	<ul style="list-style-type: none"> Will the policy lead to local quality of air being conserved/improved? Will the policy lead to a reduction of smell, noise, vibration or visual intrusion in the locality?
Natural Resources	
F. WATER QUALITY	<ul style="list-style-type: none"> Will the policy result in quality and/or quantity of water being conserved/improved? Will the policy lead to reduction in water consumption or to provision of new sources? Will the policy protect amenity/recreation?
G. LAND QUALITY	<ul style="list-style-type: none"> Will the policy result in land being conserved/upgraded, physically and/or visually? Will the policy lead to less waste being landfilled?
H. BIODIVERSITY	<ul style="list-style-type: none"> Will the policy conserve/enhance stock of species and habitats?
I. MINERALS	<ul style="list-style-type: none"> Will the policy result in quantity/rate of extraction decreasing? Will the policy safeguard resource for the future?

Global Sustainability	
J. ENERGY – TRANSPORTATION	<ul style="list-style-type: none"> • Will the policy reduce the number of journeys or lengths? • Will the policy encourage diversion of freight from road to water/rail etc? • Will the policy encourage public transport, cycling, walking etc?
K. ENERGY – Other	<ul style="list-style-type: none"> • Will the policy lead to a decrease in energy requirements (heat/light etc)?
L. ENERGY – Renewable	<ul style="list-style-type: none"> • Will the policy encourage renewable energy production?
M. ATMOSPHERE	<ul style="list-style-type: none"> • Will the policy reduce emission of greenhouse gases? • Will the policy retain/increase tree cover (CO2 fixing)?
N. NATURAL RESOURCES	<ul style="list-style-type: none"> • Will the policy reduce demand for fossil fuels and non-renewable raw materials?

Environmental Baseline

11.25 In para 11.24, the Environmental Criteria were described as forming the environmental baseline. Information on the actual state of the environment ie baseline environmental information was published by the then County Planning Department in a report entitled 'The Essex Environment' in 1992. This work has been progressed and a new Sustainability Report, based on 1997 information was published in 1998. It is hoped that this document, containing as it does Sustainability Indicators together with regular updating, will indicate sustainability trends occurring within the Plan area, and should therefore prove helpful in determining the progress the county is making towards a sustainable future.

11.26 Indications from the Draft Sustainability Report are that the percentage of household waste being recycled is increasing, although there is still a long way to go to meet the Governments 25% target.

Policy Evaluation Matrix

11.27 The principal tool in the appraisal process is the Policy Evaluation Matrix which is used to look in broad terms at the overall impacts of policies on the environment. WP policies form one axis of the matrix and the other comprises the 14 environmental criteria.

Results and Analysis of the Appraisal

11.28 The results of the appraisal are presented in summary matrices for each relevant chapter of the plan and are contained in Table 11.2 at the end of this chapter.

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- 11.29 Each of the 35 policies in the Plan have been scrutinised in relation to the 14 environmental criteria - in all 490 separate decisions have had to be made. This has been complicated, however, by the fact that some of the policies deal with several different aspects or seek to cover different eventualities and which could therefore have different outcomes, often depending on how the policy is actually interpreted and implemented.
- 11.30 In order that the results are as meaningful as possible the aims of each policy have been summarised in the matrices.(the full text of the policies are also listed in an Appendix to the Plan). A brief commentary is also given on the environmental or sustainability issues raised in the appraisal of each policy.
- 11.31 As a result of work on the appraisal of the Structure Plan the approach to Environmental Appraisal has been refined considerably since carrying out the appraisal of the earlier consultation version of the WP. The current appraisal has therefore been carried out in greater depth in seeking to identify indirect or minor effects as well as acknowledging the inter connected nature of the Plan and its implementation. This is manifested by the recognition that many of the adverse impacts have the potential to be mitigated by the policy itself (identified by an M in the matrices) or by other policies in the plan or in other plans - in particular the Structure Plan (identified by the symbol O). As a result of the more in depth approach it has not been possible to carry out a direct comparison between the earlier appraisal and the current one.

Conclusion

- 11.32 Overall it is considered that the Plan is moving to a more sustainable position than currently exists, by strongly promoting BPEO and the waste hierarchy and encouraging regional self-sufficiency and the proximity principle in the management of waste.
- 11.33 The Plan also protects the countryside etc by directing most waste processes to urban / industrial areas.
- 11.34 The main negative impacts result from the continuing need to transport waste by road - creating atmospheric and environmental health problems. Although the Plan tries to mitigate some of the problems, any significant mitigation is beyond the scope of the WP; what is required is the development of cleaner more sustainable vehicles.
- 11.35 In relation to negative impacts on the atmosphere resulting from landfill gas, transport, and composting emissions, one way of helping to mitigate this could be to encourage tree cover for the restoration of landfill sites. This would help fix CO₂ and thus albeit in a small way, help to reduce its impact as a greenhouse gas.

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Table 11.2 Policy Evaluation Matrix

Policy	Human Needs	Urban Environment	Heritage	Open Space	Environmental Health	Water Quality	Land Quality	Bio-diversity	Minerals	Energy Transport	Energy Other	Energy Renewable	Atmosphere	Natural Resources	Commentary
CHAPTER 3. THE STRATEGY FOR ESSEX															
W3A PROMOTION OF WASTE HIERARCHY AND RESTORATION	✓	=	*	*	*?	*	✓	*	✓	?	=	✓	✓	✓	Should lead to more sustainable system; promotes restoration; should lead to renewable energy schemes and more recycling.
W3B STRATEGY TO REDUCE INPUT OF LONDON'S WASTE	✓	=	*	*	*	*	=	*	=	✓	=	=	=	?	Negative impacts dealing with London's waste, mitigated by other policies. Should lead to reduction in transportation in long term.
W3C RESTRICTS NEW SITES TO ESSEX WASTE	✓	=	✓	✓	✓	✓	✓	✓	=	✓	=	=	✓	✓	Overall waste levels will be less – reducing potential long term impacts.
W3D RESERVES NON-INERT WASTE TO SPECIFIC SITES	✓	=	✓	✓	✓	✓	✓	✓	=	✓	=	=	✓	✓	Aims to ensure sites with specific abilities to take non-inert waste are not squandered – otherwise leading to a need for more sites:- indirect benefits

Key															
✓	Significant positive impact on the environment.								*	Potential negative impact mitigated by the particular policy.					
X	Significant negative impact on the environment.								*	Potential negative impact mitigated by other policies in the plan/other plans.					
✓	Indirect, potential or minor positive impact.								?	Unclear whether there will be a positive or negative impact.					
X	Indirect, potential or minor negative impact.								=	Neutral impact – either positive and negative impacts counteract each other or no known impact.					

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Table 11.2 Policy Evaluation Matrix

Policy	Human Needs	Urban Environment	Heritage	Open Space	Environmental Health	Water Quality	Land Quality	Bio-diversity	Minerals	Energy Transport	Energy Other	Energy Renewable	Atmosphere	Natural Resources	Commentary
CHAPTER 4. ENVIRONMENTAL PROTECTION															
W4A & W4B FLOODING & GROUNDWATER	✓	=	=	=	✓	✓	=	✓	=	=	=	=	=	=	Protects water supplies, might allow old workings to regenerate for nature conservation; indirect benefits from preventing non-inert disposal.
W4C VEHICULAR ACCESS TO MAJOR SITES	✓	=	=	=	✓?	=	=	=	=	X	=	=	?	=	Seeks to ensure less traffic congestion – less local air pollution; but could encourage use of road traffic over other possible modes.

Key

- | | | | |
|---|---|---|---|
| ✓ | Significant positive impact on the environment. | * | Potential negative impact mitigated by the particular policy. |
| X | Significant negative impact on the environment. | * | Potential negative impact mitigated by other policies in the plan/other plans. |
| ✓ | Indirect, potential or minor positive impact. | ? | Unclear whether there will be a positive or negative impact. |
| X | Indirect, potential or minor negative impact. | = | Neutral impact – either positive and negative impacts counteract each other or no known impact. |

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Table 11.2 Policy Evaluation Matrix

Policy	Human Needs	Urban Environment	Heritage	Open Space	Environmental Health	Water Quality	Land Quality	Bio-diversity	Minerals	Energy Transport	Energy Other	Energy Renewable	Atmosphere	Natural Resources	Commentary	
CHAPTER 5. WASTE STREAMS																
W5A NO NUCLEAR WASTE. DIFFICULT/SPECIALIST WASTE ON MERITS	?	=	*	=	*	*	*	*	=	=	=	=	=	=	Protects public/environment re disposal in Essex; but not on national scale or re possible risk of rail accident transporting it.	
W5B CLINICAL WASTE INCINERATORS – INDUSTRIAL AREAS OR HOSPITALS	✓	✓	*	=	*	=	=	=	=	✓	=	✓	*	✓	Encourages use of brown field sites; possible transport reduction; possible energy recovery – less demand for fossil fuels.	
W5C MITIGATION OF IMPACTS – SEWAGE TREATMENT WORKS. ENCOURAGES ENHANCED SLUDGE TREATMENT	✓	=	=	=	✓?	*	✓	=	=	X	=	=	=	✓	Provides odour control and improved appearance. Treated sludge can improve agricultural land – but transport required.	
Key									*	Potential negative impact mitigated by the particular policy.						
✓	Significant positive impact on the environment.								*	Potential negative impact mitigated by other policies in the plan/other plans.						
X	Significant negative impact on the environment.								?	Unclear whether there will be a positive or negative impact.						
✓	Indirect, potential or minor positive impact.								=	Neutral impact – either positive and negative impacts counteract each other or no known impact.						
X	Indirect, potential or minor negative impact.															

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Table 11.2 Policy Evaluation Matrix

Policy	Human Needs	Urban Environment	Heritage	Open Space	Environmental Health	Water Quality	Land Quality	Bio-diversity	Minerals	Energy Transport	Energy Other	Energy Renewable	Atmosphere	Natural Resources	Commentary	
CHAPTER 6. WASTE MINIMISATION AND RECYCLING																
W6A SUPPORT FOR REDUCTION/RE-USE OF WASTE	✓	✓	=	=	*?	*	✓	*	✓	?	=	✓	✓	✓	Supports efficient use of land and recycling – less need for new raw materials etc. Unclear transport implications.	
CHAPTER 7. PROCESSING AND RECOVERY																
W7A ENCOURAGES INDOOR COMPOSTING	✓	✓	*	=	*?	*	✓	=	=	?	=	✓	x?	✓	Produces CO ² a Greenhouse Gas, but significance is unclear. Process can be used for heating; produces a peat substitute.	
W7B ENCOURAGES OUTDOOR COMPOSTING	✓	=	*	=	*?	*	✓	=	=	?	=	=	x?	✓	As above, but in rural areas unlikely to be used for district heating.	
W7C ENCOURAGES ANAEROBIC DIGESTION	✓	✓	*	=	*?	*	✓	=	=	?	=	✓	✓	✓	If linked to district heating will support efficient use of land for settlements. Benefit from energy recovery and peat replacement.	
Key									*	Potential negative impact mitigated by the particular policy.						
✓	Significant positive impact on the environment.								*	Potential negative impact mitigated by other policies in the plan/other plans.						
x	Significant negative impact on the environment.								?	Unclear whether there will be a positive or negative impact.						
✓	Indirect, potential or minor positive impact.								=	Neutral impact – either positive and negative impacts counteract each other or no known impact.						
x	Indirect, potential or minor negative impact.															

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Table 11.2 Policy Evaluation Matrix

Policy	Human Needs	Urban Environment	Heritage	Open Space	Environmental Health	Water Quality	Land Quality	Bio-diversity	Minerals	Energy Transport	Energy Other	Energy Renewable	Atmosphere	Natural Resources	Commentary
CHAPTER 7 CONTINUED. PROCESSING AND RECOVERY															
W7D ENCOURAGES RECYCLING INERT WASTE – INDUSTRIAL AREAS; WASTE SITES & MINERAL SITES	✓	=	*	=	*?	*	✓	=	✓	?	=	=	=	=	Will lead to less need for aggregate extraction. Traffic implications are unclear – depends on location.
W7E ENCOURAGES MATERIAL RECOVERY, CIVIC AMENITY SITES AND WASTE TRANSFER IN INDUSTRIAL AREAS	✓	=	*	=	*?	*	✓	*	✓	?	=	✓	✓	✓	Encourages recycling, could remove poor-combustion matter to help Energy Recovery. Unclear traffic implications.
W7F SCRAPYARDS/ VEHICLE DISMANTLING ONLY IN INDUSTRIAL AREAS	✓	=	*	=	*?	*	✓	*	✓	?	=	=	=	✓	Encourages recycling in urban areas – reducing pressure on countryside. Transport implications unclear.

Key

- ✓ Significant positive impact on the environment.
- ✗ Significant negative impact on the environment.
- ✓ Indirect, potential or minor positive impact.
- ✗ Indirect, potential or minor negative impact.
- * Potential negative impact mitigated by the particular policy.
- * Potential negative impact mitigated by other policies in the plan/other plans.
- ? Unclear whether there will be a positive or negative impact.
- = Neutral impact – either positive and negative impacts counteract each other or no known impact.

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Table 11.2 Policy Evaluation Matrix

Policy	Human Needs	Urban Environment	Heritage	Open Space	Environmental Health	Water Quality	Land Quality	Bio-diversity	Minerals	Energy Transport	Energy Other	Energy Renewable	Atmosphere	Natural Resources	Commentary
CHAPTER 7 CONTINUED. PROCESSING AND RECOVERY															
W7G INCINERATION PLUS ENERGY RECOVERY ON MAJOR WASTE MANAGEMENT SITES' – CRITERIA	✓	✓	*	*	*?	*	✓	*	=	X	=	✓	✓	✓	Could encourage compact settlements – economics of energy distribution. Reduce need for landfill. Powerlines could be a problem. Will generate heavy traffic.
CHAPTER 8. MAJOR WASTE MANAGEMENT SITES															
W8A PROMOTES MAJOR WASTE MANAGEMENT FACILITIES ON SCHEDULE 1 SITES	✓	✓	*?	*?	*?	*?	?	*?	=	X	=	✓	✓	✓	Actual impact of major projects depends on nature, and scale of project and sensitivity of site; overall global benefits but balanced by increase in traffic.
W8B MAJOR WASTE MANAGEMENT FACILITIES NOT ON SCHEDULE 1 SITES - CRITERIA	✓	✓	*?	*?	*?	*?	?	*?	=	X	=	✓	✓	✓	Actual impact of major projects depends on nature, and scale of project and sensitivity of site; overall global benefits but balanced by increase in traffic.
Key															
✓	Significant positive impact on the environment.							*	Potential negative impact mitigated by the particular policy.						
X	Significant negative impact on the environment.							*	Potential negative impact mitigated by other policies in the plan/other plans.						
✓	Indirect, potential or minor positive impact.							?	Unclear whether there will be a positive or negative impact.						
X	Indirect, potential or minor negative impact.							=	Neutral impact – either positive and negative impacts counteract each other or no known impact.						

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Table 11.2 Policy Evaluation Matrix

Policy	Human Needs	Urban Environment	Heritage	Open Space	Environmental Health	Water Quality	Land Quality	Bio-diversity	Minerals	Energy Transport	Energy Other	Energy Renewable	Atmosphere	Natural Resources	Commentary	
CHAPTER 8 CONTINUED. MAJOR WASTE MANAGEMENT SITES																
W8C RESTRICTS WASTE HANDLING TO URBAN AREAS; EXCEPTIONALLY IN EXISTING BUILDINGS IN RURAL AREAS	✓	✓	*	*	* _*	*	*	*	=	✓	=	✓	=	✓	Encourages efficient use of land; mitigates possible rural impacts; might reduce transport, should encourage renewable energy schemes.	
CHAPTER 9. LANDFILL																
W9A LANDFILL DIRECTED TO PERMITTED AND PREFERRED SITES	✓	=	*?	*?	*?	*?	✓	*?	=	X	=	=	X*	X	Actual impact on local environment depends on nature and scale of project and sensitivity of site. Will provide restoration; but adverse impacts apparent.	
W9B LANDFILL TO BE PERMITTED ONLY FOR RESTORATION	✓	=	*?	*?	*?	*?	✓	*?	=	✓	=	=	✓	✓	Restoration only led policy should lead to less landfill development in long term.	
Key																
✓	Significant positive impact on the environment.								*	Potential negative impact mitigated by the particular policy.						
X	Significant negative impact on the environment.								*	Potential negative impact mitigated by other policies in the plan/other plans.						
✓	Indirect, potential or minor positive impact.								?	Unclear whether there will be a positive or negative impact.						
X	Indirect, potential or minor negative impact.								=	Neutral impact – either positive and negative impacts counteract each other or no known impact.						

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Table 11.2 Policy Evaluation Matrix

Policy	Human Needs	Urban Environment	Heritage	Open Space	Environmental Health	Water Quality	Land Quality	Bio-diversity	Minerals	Energy Transport	Energy Other	Energy Renewable	Atmosphere	Natural Resources	Commentary
CHAPTER 10. DEVELOPMENT CONTROL AND IMPLEMENTATION															
W10A CONDITIONS AND LEGAL AGREEMENTS	✓	=	✓	✓	✓	✓	✓	✓	✓	✓	=	=	=	✓	Conditions etc can safeguard/ protect the environment and require recycling; specify mode of transport and regulate decontamination etc.
W10B FULL DETAILS REQUIRED FOR WASTE MANAGEMENT BUILDINGS	✓	=	✓	=	✓	✓	=	✓	=	=	=	=	=	=	Opportunity for environmental protection by influencing design/siting etc.
W10C RESTORATION FOR LANDFILL TO BE FEASIBLE	✓	=	=	✓	✓?	✓	✓	✓	=	?	=	=	=	=	Potential to benefit environment; transport implications depend on final use.
W10E MITIGATING MEASURES TO SAFEGUARD ENVIRONMENT	✓	=	✓	✓	✓	✓	✓	✓	=	=	=	=	✓	=	Protects the environment – including reduction of greenhouse gas emissions. No mention of light pollution.

Key															
✓	Significant positive impact on the environment.								*	Potential negative impact mitigated by the particular policy.					
X	Significant negative impact on the environment.								*	Potential negative impact mitigated by other policies in the plan/other plans.					
✓	Indirect, potential or minor positive impact.								?	Unclear whether there will be a positive or negative impact.					
x	Indirect, potential or minor negative impact.								=	Neutral impact – either positive and negative impacts counteract each other or no known impact.					

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Table 11.2 Policy Evaluation Matrix

Policy	Human Needs	Urban Environment	Heritage	Open Space	Environmental Health	Water Quality	Land Quality	Bio-diversity	Minerals	Energy Transport	Energy Other	Energy Renewable	Atmosphere	Natural Resources	Commentary
CHAPTER 10 CONTINUED. DEVELOPMENT CONTROL AND IMPLEMENTATION															
W10F HOURS OF OPERATION	✓	=	✓	✓	✓	=	=	✓	=	=	=	=	=	=	Reduces adverse effects on community.
W10G PROTECTS RIGHTS OF WAY	✓	=	=	✓	=	=	=	=	=	=	=	=	=	=	Ensures continuity of access to countryside etc.
W10H SAFEGUARDS AIR TRAFFIC	✓	=	=	=	=	=	=	✓	=	=	=	=	=	=	Policy will also safeguard bird life.

NOTE: Policy W10D has been deleted from earlier version of plan. Policy W10H has been deleted from earlier version of plan. There is no Policy W10I.

Key															
✓	Significant positive impact on the environment.							*	Potential negative impact mitigated by the particular policy.						
X	Significant negative impact on the environment.							*	Potential negative impact mitigated by other policies in the plan/other plans.						
✓	Indirect, potential or minor positive impact.							?	Unclear whether there will be a positive or negative impact.						
x	Indirect, potential or minor negative impact.							=	Neutral impact – either positive and negative impacts counteract each other or no known impact.						

12.0 MONITORING & REVIEW

Introduction

- 12.1 The Plan will be implemented by Essex County Council and Southend Unitary Authority (as Waste Planning Authorities) in the exercise of their statutory responsibilities in determining planning applications in accordance with the policies and the provisions of this Plan unless material considerations indicate otherwise.
- 12.2 Success of the Plan depends upon the co-operation of all parties and will be monitored through bi-annual waste surveys which record levels of waste arisings and disposals, including any increase in recovery and a reduction in waste disposal within the Plan area in accordance with the Revised Waste Planning Advice (SERPLAN, SERP 160, March 1997). In addition the development of Preferred Sites rather than others, adherence to the criteria and constraints listed, minimisation of disturbance caused by waste management sites and associated transportation, and the protection of the environment.
- 12.3 Continual monitoring of the Plan will be undertaken by the Waste Planning Authorities by:
- (a) The publication of annual statements on the quantity of waste involved in planning applications permitted and refused.
 - (b) Having regard to the results of surveys on the level of waste disposal and recycling, the level of the permitted voidspace and the movement of waste for disposal.
 - (c) By assessing the Policies against the environmental criteria.

Review Pattern

- 12.4 To ensure flexibility of the Plan the Waste Planning Authorities will publish future Reviews approximately every four years, when account will be taken of matters such as changes in National, Regional and County policies; need; appeal decisions and any other relevant information. Should it become clear that a Preferred Site is unavailable within the Plan period or that no planning application has been made then this is likely to be taken into account. In this way the Plan period will be rolled forward at each Review.

APPENDIX 1 SCHEDULE OF POLICIES

Introduction

A.1.1 This Appendix contains a schedule of the WP's policies. The numbering system is based on the Deposit Draft and Modifications for ease of reference.

A.1.2 Throughout, Essex County Council and Southend Unitary Authority are referred to as the 'Waste Planning Authority' abbreviated to 'WPA'.

A1.3 All proposals must, where appropriate, have regard to the policies of this Waste Plan, other Local Plans produced by District/Unitary Councils and Minerals Local Plan produced by the County Council) and the Structure Plan. All these documents are collectively known as, and referred to in the WP policies, as 'the development plan.'

A.1.4 The policy numbers reflect the Chapter numbering beginning with Chapter 3, thus there are no Policies 1 or 2.

W3A THE WPAS WILL:

- 1. IN DETERMINING PLANNING APPLICATIONS AND IN ALL CONSIDERATION OF WASTE MANAGEMENT PROPOSALS HAVE REGARD TO THE FOLLOWING PRINCIPLES:**
 - **CONSISTENCY WITH THE GOALS AND PRINCIPLES OF SUSTAINABLE DEVELOPMENT;**
 - **WHETHER THE PROPOSAL REPRESENTS THE BEST PRACTICABLE ENVIRONMENTAL OPTION FOR THE PARTICULAR WASTE STREAM AND AT THAT LOCATION;**
 - **WHETHER THE PROPOSAL WOULD CONFLICT WITH OTHER OPTIONS FURTHER UP THE WASTE HIERARCHY;**
 - **CONFORMITY WITH THE PROXIMITY PRINCIPLE;**
- 2. IN CONSIDERING PROPOSALS FOR MANAGING WASTE AND IN WORKING WITH THE WDAs, WCAs AND INDUSTRIAL AND COMMERCIAL ORGANISATIONS, PROMOTE WASTE REDUCTION, RE-USE OF WASTE, WASTE RECYCLING/COMPOSTING, ENERGY RECOVERY FROM WASTE AND WASTE DISPOSAL IN THAT ORDER OF PRIORITY;**
- 3. IDENTIFY SPECIFIC LOCATIONS AND AREAS OF SEARCH FOR WASTE MANAGEMENT FACILITIES, PLANNING CRITERIA FOR THE LOCATION OF ADDITIONAL FACILITIES, AND EXISTING AND POTENTIAL LANDFILL SITES, WHICH TOGETHER ENABLE ADEQUATE PROVISION TO BE MADE FOR ESSEX, SOUTHEND AND REGIONAL WASTE MANAGEMENT NEEDS AS DEFINED IN POLICIES W3B AND W3C.**

W3B FOR THE PLAN PERIOD (1997 - 2010) PROVISION IS MADE FOR LANDFILL OF A PROPORTION OF LONDON'S WASTE IN ACCORDANCE WITH REGIONAL ADVICE (CURRENTLY SERPLAN SERP 160 PENDING THE FINALISING OF RPG9). BEYOND 2005 PROVISION WILL BE MADE FOR A REDUCED AMOUNT OF LONDON'S WASTE. BEYOND 2010 PROVISION WILL ONLY BE MADE FOR SOME OF LONDON'S PRE-TREATED WASTE RESIDUES, AT A LEVEL TO BE DETERMINED IN A REVIEW OF THIS PLAN.

W3C SUBJECT TO POLICY W3B IN THE CASE OF LANDFILL AND TO POLICY W5A IN THE CASE OF SPECIAL WASTES, SIGNIFICANT WASTE MANAGEMENT DEVELOPMENTS (WITH A CAPACITY OVER 25,000 TONNES PER ANNUM) WILL ONLY BE PERMITTED WHEN A NEED FOR THE FACILITY (IN ACCORDANCE WITH THE PRINCIPLES ESTABLISHED IN POLICY W3A) HAS BEEN DEMONSTRATED FOR WASTE ARISING IN ESSEX AND SOUTHEND. IN THE CASE OF NON-LANDFILL PROPOSALS WITH AN ANNUAL CAPACITY OVER 50,000 TONNES PER ANNUM, RESTRICTIONS WILL BE IMPOSED, AS PART OF ANY PLANNING PERMISSION GRANTED, TO RESTRICT THE SOURCE OF WASTE TO THAT ARISING IN THE PLAN AREA. EXCEPTIONS MAY BE MADE IN THE FOLLOWING CIRCUMSTANCES:

- **WHERE THE PROPOSAL WOULD ACHIEVE OTHER BENEFITS THAT WOULD OUTWEIGH ANY HARM CAUSED;**
- **WHERE MEETING A CROSS-BOUNDARY NEED WOULD SATISFY THE PROXIMITY PRINCIPLE AND BE MUTUALLY ACCEPTABLE TO BOTH WPAs;**
- **IN THE CASE OF LANDFILL, WHERE IT IS SHOWN TO BE NECESSARY TO ACHIEVE SATISFACTORY RESTORATION.**

W3D THE VOID AT ALL SITES INTENDED FOR NON-INERT WASTE SHOULD BE RESERVED FOR THAT TYPE OF WASTE (APART FROM SITE ENGINEERING REQUIREMENTS). WHERE APPROPRIATE, RESTRICTIONS WILL BE IMPOSED TO ACHIEVE THIS AIM AS PART OF ANY PLANNING PERMISSION.

W4A WASTE MANAGEMENT DEVELOPMENT WILL ONLY BE PERMITTED WHERE:

- **THERE WOULD NOT BE AN UNACCEPTABLE RISK OF FLOODING ON SITE OR ELSEWHERE AS A RESULT OF IMPEDIMENT TO THE FLOW OR STORAGE OF SURFACE WATER;**
- **THERE WOULD NOT BE AN ADVERSE EFFECT ON THE WATER ENVIRONMENT AS A RESULT OF SURFACE WATER RUNOFF;**
- **EXISTING AND PROPOSED FLOOD DEFENCES ARE PROTECTED AND THERE IS NO INTERFERENCE WITH THE ABILITY OF RESPONSIBLE BODIES TO CARRY OUT FLOOD DEFENCE WORKS AND MAINTENANCE.**

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- W4B WASTE MANAGEMENT DEVELOPMENT WILL ONLY BE PERMITTED WHERE THERE WOULD NOT BE AN UNACCEPTABLE RISK TO THE QUALITY OF SURFACE AND GROUNDWATERS OR OF IMPEDIMENT TO GROUNDWATER FLOW.**
- W4C**
- 5. ACCESS FOR WASTE MANAGEMENT SITES WILL NORMALLY BE BY A SHORT LENGTH OF EXISTING ROAD TO THE MAIN HIGHWAY NETWORK CONSISTING OF REGIONAL ROUTES AND COUNTY/URBAN DISTRIBUTORS IDENTIFIED IN THE STRUCTURE PLAN , VIA A SUITABLE EXISTING JUNCTION, IMPROVED IF REQUIRED, TO THE SATISFACTION OF THE HIGHWAY AUTHORITY.**
 - 6. EXCEPTIONALLY, PROPOSALS FOR NEW ACCESS DIRECT TO THE MAIN HIGHWAY NETWORK MAY BE ACCEPTED WHERE NO OPPORTUNITY EXISTS FOR USING A SUITABLE EXISTING ACCESS OR JUNCTION, AND WHERE IT CAN BE CONSTRUCTED IN ACCORDANCE WITH THE COUNTY COUNCIL'S HIGHWAY STANDARDS.**
 - 7. WHERE ACCESS TO THE MAIN HIGHWAY NETWORK IS NOT FEASIBLE, ACCESS ONTO ANOTHER ROAD BEFORE GAINING ACCESS ONTO THE NETWORK MAY BE ACCEPTED IF, IN THE OPINION OF THE WPA HAVING REGARD TO THE SCALE OF DEVELOPMENT, THE CAPACITY OF THE ROAD IS ADEQUATE AND THERE WOULD BE NO UNDUE IMPACT ON ROAD SAFETY OR THE ENVIRONMENT.**
 - 8. PROPOSALS FOR RAIL OR WATER TRANSPORT OF WASTE WILL BE ENCOURAGED SUBJECT TO COMPLIANCE WITH OTHER POLICIES OF THIS PLAN.**
- W5A PROPOSALS FOR FACILITIES TO REDUCE THE QUANTITY OF AND TO MANAGE DIFFICULT AND SPECIAL WASTES USING APPROPRIATE TECHNOLOGIES WILL BE JUDGED ON THEIR MERITS, AGAINST THE CRITERIA AND POLICIES STATED IN THE DEVELOPMENT PLAN, AND HAVING REGARD TO ALTERNATIVE PROVISION WITHIN THE EASTERN OR SOUTH EAST REGIONS. PERMISSION FOR NUCLEAR OR RADIOACTIVE WASTE DISPOSAL (EXCEPT LOW LEVEL CLINICAL WASTE) WILL NOT BE GRANTED.**
- W5B SUBJECT TO COMPLIANCE WITH OTHER RELEVANT POLICIES OF THIS PLAN, PROPOSALS FOR FACILITIES TO MANAGE CLINICAL WASTE WILL GENERALLY BE ACCEPTABLE WITHIN APPROPRIATE LOCATIONS AS DEFINED IN POLICY W8B AND MAY ALSO BE CONSIDERED APPROPRIATE AS PART OF A HOSPITAL COMPLEX.**

- W5C** PROPOSALS FOR NEW OR EXTENDED SEWAGE TREATMENT WORKS MAY BE LOCATED IN RURAL AREAS. ALL PROPOSALS WILL BE REQUIRED TO MAKE PROVISION FOR ODOUR CONTROL, AN ACCEPTABLE STANDARD OF VISUAL APPEARANCE AND LANDSCAPING, AND (WHERE APPROPRIATE) ACCESS ARRANGEMENTS WHICH MEET POLICY W4C. PROVISION FOR THE RECYCLING OF SLUDGE TO PRODUCE BENEFICIAL END PRODUCTS WILL BE SOUGHT WHERE APPROPRIATE INCLUDING PROPOSALS FOR THE CO-TREATMENT OF SLUDGE WITH OTHER WASTES, SUBJECT TO ENVIRONMENTAL SAFEGUARDS REGARDING ON-SITE STORAGE OF THE PRODUCT. ALL PROPOSALS WILL BE SUBJECT TO THE RELEVANT CRITERIA CONTAINED ELSEWHERE IN THE DEVELOPMENT PLAN, IN PARTICULAR THE CONSIDERATIONS SET OUT IN POLICY W10E.
- W6A** THE WPAs WILL SEEK TO WORK WITH WDAs/WCAs TO SUPPORT AND PROMOTE PUBLIC, PRIVATE AND VOLUNTARY SECTOR INITIATIVES TO REDUCE, RE-USE AND RECYCLE WASTE ARISING IN AN ENVIRONMENTALLY ACCEPTABLE MANNER IN ACCORDANCE WITH THE POLICIES WITHIN THIS PLAN.
- W7A** PROPOSALS FOR INDOOR WASTE COMPOSTING FACILITIES WILL BE SUPPORTED AT THE FOLLOWING LOCATIONS:
- THE WASTE MANAGEMENT LOCATIONS IDENTIFIED IN SCHEDULE 1 (SUBJECT TO POLICY W8A);
 - OTHER LOCATIONS (SUBJECT TO POLICIES W8B AND W8C); OR
 - IN ASSOCIATION WITH OTHER WASTE MANAGEMENT DEVELOPMENT;
- PROVIDED THE DEVELOPMENT COMPLIES WITH OTHER RELEVANT POLICIES OF THIS PLAN.

W7B PROPOSALS FOR OUTDOOR WASTE COMPOSTING FACILITIES WILL BE SUPPORTED, IN ADDITION TO LOCATIONS COMPLYING WITH POLICY W7A, AT SITES WITHIN THE RURAL AREA AT THE FOLLOWING LOCATIONS:

- EXISTING AREAS OF HARDSTANDING;
- IN ASSOCIATION WITH OTHER WASTE MANAGEMENT DEVELOPMENT;
- AT SEWAGE TREATMENT WORKS;
- WHERE THE COMPOST IS TO BE USED AS PART OF A RECLAMATION PROCESS ON ADJOINING LAND;
- CURRENT MINERAL WORKING AND LANDFILL SITES, PROVIDED THE USE CEASES PRIOR TO THE PERMITTED COMPLETION DATE OF THE SITE (UNLESS AN EXTENSION OF TIME TO RETAIN SUCH FACILITIES IS PERMITTED);
- DESPOILED AND PREVIOUSLY DEVELOPED LAND;

PROVIDED, IN ALL CASES, THE DEVELOPMENT COMPLIES WITH OTHER RELEVANT POLICIES OF THIS PLAN, AND IN PARTICULAR IS NOT DETRIMENTAL TO THE AMENITY OF ANY NEARBY RESIDENTIAL AREA OR HARMFUL TO THE CHARACTER OF THE RURAL AREA.

W7C THE WPAS WILL SEEK TO WORK WITH WDAS/WCAS TO PROVIDE AND SUPPORT COMPOSTING SCHEMES AND ANAEROBIC DIGESTION FACILITIES AS A METHOD OF TREATING PUTRESCIBLE WASTE MATERIALS AND WITH THE AIM OF PRODUCING A SOIL IMPROVER OR GROWING MEDIUM AND, WHERE POSSIBLE, RECOVERING ENERGY. PROPOSALS FOR ANAEROBIC DIGESTION FACILITIES WILL BE SUPPORTED AT THE FOLLOWING LOCATIONS:

- THE WASTE MANAGEMENT LOCATIONS IDENTIFIED IN SCHEDULE 1 (SUBJECT TO POLICY W8A);
- OTHER LOCATIONS, SUBJECT TO POLICIES W8B AND W8C
- IN ASSOCIATION WITH OTHER WASTE MANAGEMENT DEVELOPMENT;
- IN ASSOCIATION WITH SEWAGE TREATMENT WORKS AND INTENSIVE LIVESTOCK UNITS;
- AS PART OF DISTRICT HEATING SCHEMES;

PROVIDED THE DEVELOPMENT COMPLIES WITH ALL OTHER RELEVANT POLICIES OF THIS PLAN.

W7D PROPOSALS FOR INERT WASTE RECYCLING FACILITIES WILL BE SUPPORTED AT THE FOLLOWING LOCATIONS:

- **THE WASTE MANAGEMENT LOCATIONS IDENTIFIED IN SCHEDULE 1 (SUBJECT TO POLICY W8A);**
- **INDUSTRIAL LOCATIONS AS DEFINED IN POLICY W8B;**
- **IN ASSOCIATION WITH OTHER WASTE MANAGEMENT DEVELOPMENT;**
- **CURRENT MINERAL WORKING AND LANDFILL SITES, PROVIDED THE DEVELOPMENT DOES NOT UNDULY PREJUDICE THE AGREED RESTORATION TIMESCALE FOR THE SITE AND THE USE CEASES PRIOR TO THE PERMITTED COMPLETION DATE OF THE SITE (UNLESS AN EXTENSION OF TIME TO RETAIN SUCH FACILITIES IS PERMITTED);**
- **DEMOLITION AND CONSTRUCTION SITES WHERE THE SPOIL IS TO BE USED IN THE PROJECT ITSELF**

PROVIDED THE DEVELOPMENT COMPLIES WITH ALL OTHER RELEVANT POLICIES OF THIS PLAN; AND, IN PARTICULAR, DOES NOT CAUSE UNACCEPTABLE HARM TO THE ENVIRONMENT OR RESIDENTIAL AMENITY BY VIRTUE OF NOISE, DUST OR HEAVY TRAFFIC.

W7E TO FACILITATE THE EFFICIENT COLLECTION AND RECOVERY OF MATERIALS FROM THE WASTE STREAM, IN ACCORDANCE WITH POLICY W3A, THE WPAS WILL SEEK TO WORK WITH THE WDAS/WCAS TO FACILITATE THE PROVISION OF:

- **DEVELOPMENT ASSOCIATED WITH THE SOURCE SEPARATION OF WASTES;**
- **MATERIAL RECOVERY FACILITIES (MRFS);**
- **WASTE RECYCLING CENTRES;**
- **CIVIC AMENITY SITES;**
- **BULKING-UP FACILITIES AND WASTE TRANSFER STATIONS.**

PROPOSALS FOR SUCH DEVELOPMENT WILL BE SUPPORTED AT THE FOLLOWING LOCATIONS:

- **THE WASTE MANAGEMENT LOCATIONS IDENTIFIED IN SCHEDULE 1 (SUBJECT TO POLICY W8A);**
- **OTHER LOCATIONS (SUBJECT TO POLICIES W8B AND W8C);**
- **IN ASSOCIATION WITH OTHER WASTE MANAGEMENT DEVELOPMENT;**
- **SMALL SCALE FACILITIES MAY BE PERMITTED AT CURRENT LANDFILL SITES, PROVIDED THE DEVELOPMENT DOES NOT UNDULY PREJUDICE THE AGREED RESTORATION TIMESCALE FOR THE SITE AND THE USE CEASES PRIOR TO THE PERMITTED COMPLETION DATE OF THE SITE (UNLESS AN EXTENSION OF TIME TO RETAIN SUCH FACILITIES IS PERMITTED)**

PROVIDED THE DEVELOPMENT COMPLIES WITH OTHER RELEVANT POLICIES OF THIS PLAN.

W7F SCRAP YARDS AND VEHICLE DISMANTLING FACILITIES WILL ONLY BE PERMITTED WITHIN INDUSTRIAL LOCATIONS AS DEFINED IN POLICY W8B.

W7G PROPOSALS FOR INCINERATION OF WASTE MAY BE PERMITTED AT THE LOCATIONS IDENTIFIED IN SCHEDULE 1 (SUBJECT TO COMPLIANCE WITH THE REQUIREMENTS OF POLICY W8A) OR AT OTHER LOCATIONS (SUBJECT TO THE REQUIREMENTS OF POLICY W8B), PROVIDED THE FOLLOWING REQUIREMENTS ARE ALSO MET:

- **INCINERATION WITHOUT ENERGY RECOVERY WILL NOT BE PERMITTED EXCEPT IN SPECIALISED CASES**
- **EMISSIONS TO AIR AND WATER FROM THE PROCESS WILL NOT MATERIALLY ENDANGER HUMAN HEALTH OR HARM THE ENVIRONMENT. IN DECIDING WHETHER THIS REQUIREMENT IS MET, THE WPAS WILL ASSUME THAT THE NECESSARY CONTROLS ARE EXERCISED UNDER ENVIRONMENTAL PROTECTION LEGISLATION AND THAT THE POLLUTION CONTROL REGIME OPERATES EFFECTIVELY, AND WILL TAKE INTO ACCOUNT WHETHER THE PROCESS PROPOSED IS THE BEST PRACTICABLE ENVIRONMENTAL OPTION (BPEO) FOR THE PARTICULAR WASTE STREAM**
- **IN CONSIDERING THE APPLICATION OF BPEO, THERE WILL BE A PRESUMPTION AGAINST INCINERATION UNTIL THE TARGETS AGREED FOR HOUSEHOLD WASTE RECYCLING BY THE LOCAL AUTHORITIES HAVE BEEN TESTED**
- **PROVISION IS MADE FOR THE RECYCLING OR OTHER MANAGEMENT OF ALL RESIDUES, INCLUDING THE MEANS OF DISPOSAL TO LANDFILL WHERE THAT IS THE BPEO.**

W7H SUBJECT TO THE CRITERIA AND POLICIES CONTAINED IN THE DEVELOPMENT PLAN, IN PARTICULAR THE CONSIDERATIONS SET OUT IN POLICY W10E, LANDFILL GAS UTILISATION PLANTS FOR ENERGY RECOVERY WILL BE ENCOURAGED AT LANDFILL SITES, AND THIS WILL BE A MATERIAL CONSIDERATION IN ASSESSING THE ACCEPTABILITY OF LANDFILL PROPOSALS.

W7J THE WPA WILL NOT PERMIT THE MINING OF WASTE UNLESS THE SITE IS SHOWN TO BE ENDANGERING HUMAN HEALTH OR HARMING THE ENVIRONMENT, OR REMOVAL IS REQUIRED TO FACILITATE MAJOR INFRASTRUCTURE PROJECTS. THIS POLICY DOES NOT PRECLUDE THE TEMPORARY STORAGE OF WASTE PRODUCTS INTENDED FOR FUTURE REUSE.

W8A WASTE MANAGEMENT FACILITIES WILL BE PERMITTED AT THE LOCATIONS SHOWN IN SCHEDULE 1 PROVIDED ALL OF THE FOLLOWING CRITERIA, WHERE RELEVANT, ARE COMPLIED WITH:

- **THERE IS A NEED FOR THE FACILITY TO MANAGE WASTE ARISING IN ESSEX AND SOUTHEND (SUBJECT TO POLICY W3C);**
- **THE PROPOSAL REPRESENTS THE BEST PRACTICABLE ENVIRONMENTAL OPTION FOR THE PARTICULAR WASTE STREAM, HAVING REGARD TO ANY ALTERNATIVE OPTIONS FURTHER UP THE WASTE HIERARCHY;**
- **THE DEVELOPMENT COMPLIES WITH OTHER RELEVANT POLICIES OF THIS PLAN, INCLUDING THE POLICY/IES IN CHAPTER 7 FOR THE TYPE(S) OF FACILITY PROPOSED;**
- **ADEQUATE ROAD ACCESS IS PROVIDED IN ACCORDANCE WITH POLICY W4C. ACCESS BY RAIL OR WATER WILL BE SUPPORTED IF PRACTICABLE;**
- **BUILDINGS AND STRUCTURES ARE OF A HIGH STANDARD OF DESIGN, WITH LANDSCAPING AND SCREENING PROVIDED AS NECESSARY; AND**
- **INTEGRATED SCHEMES FOR RECYCLING, COMPOSTING, MATERIALS RECOVERY AND ENERGY RECOVERY FROM WASTE WILL BE SUPPORTED WHERE THIS IS SHOWN TO PROVIDE BENEFITS IN THE MANAGEMENT OF WASTE WHICH WOULD NOT OTHERWISE BE OBTAINED.**

W8B WASTE MANAGEMENT FACILITIES (EXCEPT LANDFILL TO WHICH POLICIES W9A AND W9B APPLY) WILL BE PERMITTED AT LOCATIONS OTHER THAN THOSE IDENTIFIED IN THIS PLAN, PROVIDED ALL OF THE CRITERIA OF POLICY W8A ARE COMPLIED WITH WHERE RELEVANT, AT THE FOLLOWING TYPES OF LOCATION:

- **EXISTING GENERAL INDUSTRIAL AREAS;**
- **AREAS ALLOCATED FOR GENERAL INDUSTRIAL USE IN AN ADOPTED LOCAL PLAN;**
- **EMPLOYMENT AREAS (EXISTING OR ALLOCATED) NOT FALLING INTO THE ABOVE CATEGORIES, OR EXISTING WASTE MANAGEMENT SITES, OR AREAS OF DEGRADED, CONTAMINATED OR DERELICT LAND, WHERE IT IS SHOWN THAT THE PROPOSED FACILITY WOULD NOT BE DETRIMENTAL TO THE AMENITY OF ANY NEARBY RESIDENTIAL AREA.**

LARGE-SCALE WASTE MANAGEMENT DEVELOPMENT (OF THE ORDER OF 50,000 TONNES PER ANNUM CAPACITY OR MORE, COMBINED IN THE CASE OF AN INTEGRATED FACILITY) WILL NOT BE PERMITTED AT SUCH NON-IDENTIFIED LOCATIONS UNLESS IT IS SHOWN THAT THE LOCATIONS IDENTIFIED IN SCHEDULE 1 ARE LESS SUITABLE OR NOT AVAILABLE FOR THE PARTICULAR WASTE STREAM(S) WHICH THE PROPOSAL WOULD SERVE.

W8C NOTWITHSTANDING POLICY W8B, PROPOSALS FOR SMALLER-SCALE WASTE MANAGEMENT FACILITIES (GENERALLY WITH A CAPACITY BELOW 25,000 TONNES PER ANNUM) AND EXCEPT LANDFILL TO WHICH POLICIES W9A AND W9B APPLY, WILL ALSO BE PERMITTED AT OTHER LOCATIONS PROVIDED ALL THE CRITERIA OF POLICY W8A ARE COMPLIED WITH WHERE RELEVANT, AT URBAN LOCATIONS WHERE THEY SERVE THE LOCAL COMMUNITY, SUBJECT TO PROTECTION OF RESIDENTIAL AMENITY, AND IN RURAL LOCATIONS WHERE THEY WOULD:

BE MAINLY LOCATED WITHIN EXISTING BUILDINGS NOT REQUIRING SIGNIFICANT ADAPTATION OR EXTENSION OR, IN THE CASE OF GREEN WASTE COMPOSTING, AT THE TYPES OF LOCATION LISTED IN POLICY W7B;

NOT PREJUDICE THE OPENNESS OR CHARACTER OF THE RURAL LOCATION; AND

NOT, IN THE CASE OF FARM BUILDINGS OR HARDSTANDINGS, RESULT IN A NEED TO BE REPLACED WITH OTHER BUILDINGS OR HARDSTANDINGS.

IN ADDITION, TEMPORARY WASTE RECYCLING AND COMPOSTING FACILITIES MAY BE PERMITTED AT CURRENT MINERAL WORKING AND LANDFILL SITES, SUBJECT TO POLICIES W7B AND W7D.

DEVELOPMENT REQUIRED FOR THE PROVISION OF SEWAGE AND SLUDGE TREATMENT PROCESSES WILL BE CONSIDERED ON ITS MERITS AND EXPECTED TO CONFORM TO THIS POLICY AS FAR AS IS PRACTICABLE.

W9A LANDFILL OF WASTE WILL BE PERMITTED AS A MEANS OF ACHIEVING RESTORATION ON THE PREFERRED SITES IDENTIFIED IN THE PLAN SUBJECT TO COMPLIANCE WITH OTHER RELEVANT POLICIES OF THIS PLAN, INCLUDING POLICIES W3B AND W3C, AND PROVIDED THE FOLLOWING REQUIREMENTS ARE ALSO MET:

- THE ACCEPTABILITY OF THE TYPE OF DEVELOPMENT PROPOSED WHEN A DETAILED SCHEME IS PUT FORWARD, INCLUDING ENVIRONMENTAL ASSESSMENT WHERE REQUIRED**
- MINIMISING THE ENVIRONMENTAL IMPACT ON THE SURROUNDING AREA INCLUDING RESIDENTIAL AMENITY**
- RECOGNITION OF THE POLICIES AND CRITERIA OF THIS PLAN AND THE DEVELOPMENT PLAN IN GENERAL, IN PARTICULAR THE CONSIDERATIONS SET OUT IN POLICY W10E**
- PROVISION FOR LANDFILL GAS RECOVERY IN ACCORDANCE WITH POLICY W7H**

- W9B** LANDFILL, OR LANDRAISING, FOR ITS OWN SAKE, WITHOUT BEING NECESSARY FOR RESTORATION, WILL NOT BE PERMITTED. LANDFILL OUTSIDE THE BOUNDARIES OF THE PREFERRED SITES WILL NOT BE PERMITTED UNLESS IT CAN BE DEMONSTRATED THAT SATISFACTORY RESTORATION CANNOT OTHERWISE BE ACHIEVED. LANDFILL WILL NOT BE PERMITTED WHEN AT A SCALE BEYOND THAT WHICH IS ESSENTIAL FOR RESTORATION OF THE SITE.
- W10A** WHEN GRANTING PLANNING PERMISSION FOR WASTE MANAGEMENT FACILITIES, THE WPA WILL IMPOSE CONDITIONS AND/OR ENTER INTO LEGAL AGREEMENTS AS APPROPRIATE TO ENSURE THAT THE SITE IS OPERATED IN A MANNER ACCEPTABLE TO THE WPA AND THAT THE DEVELOPMENT IS UNDERTAKEN IN ACCORDANCE WITH THE APPROVED DETAILS.
- W10B** FOR ALL PROPOSALS FOR WASTE MANAGEMENT FACILITIES THE WPA WILL REQUIRE THE SUBMISSION OF A FULL PLANNING APPLICATION WHICH SHOULD INCLUDE THE SITING, DESIGN AND EXTERNAL APPEARANCE OF BUILDINGS, PLANT, EQUIPMENT AND STORAGE FACILITIES, LANDSCAPING AND SUITABLE MEASURES TO MITIGATE AND CONTROL UNACCEPTABLE ADVERSE EFFECTS, INCLUDING NOISE AND ARTIFICIAL LIGHTING.
- W10C** IN CONSIDERING PLANNING APPLICATIONS FOR LANDFILL PROPOSALS THE WPA WILL REQUIRE THE PROPOSED MEASURES FOR RESTORING THE LAND TO AN ACCEPTABLE AND SUSTAINABLE AFTER-USE TO BE FEASIBLE.
- W10D** FOR ALL NON-INERT LANDFILL PROPOSALS, THE WPAS WILL REQUIRE TO BE SATISFIED BEFORE GRANTING PERMISSION THAT ADEQUATE ARRANGEMENTS WILL BE MADE TO PREVENT LANDFILL GAS MIGRATION TO ADJOINING LAND, AND THAT THE PROPOSED METHOD OF LANDFILL GAS COLLECTION IS ENVIRONMENTALLY AND VISUALLY ACCEPTABLE FOR AS LONG AS FACILITIES HAVE TO REMAIN. POLICY W7H WILL ALSO APPLY. DEPOSIT OF NON-INERT WASTE WITHIN 250 METRES OF RESIDENTIAL DWELLINGS OR OTHER SENSITIVE LAND USES WILL NOT BE PERMITTED UNLESS SPECIAL MEASURES ARE INCLUDED TO PREVENT THE MIGRATION OF LANDFILL GAS, OR ODOURS THEREFROM, TOWARDS SUCH PROPERTIES.

W10E WASTE MANAGEMENT DEVELOPMENT, INCLUDING LANDFILL, WILL BE PERMITTED WHERE SATISFACTORY PROVISION IS MADE IN RESPECT OF THE FOLLOWING CRITERIA, PROVIDED THE DEVELOPMENT COMPLIES WITH OTHER POLICIES OF THIS PLAN:

- 10. THE EFFECT OF THE DEVELOPMENT ON THE AMENITY OF NEIGHBOURING OCCUPIERS, PARTICULARLY FROM NOISE, SMELL, DUST AND OTHER POTENTIAL POLLUTANTS (THE FACTORS LISTED IN PARAGRAPH 10.12 WILL BE TAKEN INTO ACCOUNT);**
- 11. THE EFFECT OF THE DEVELOPMENT ON THE LANDSCAPE AND THE COUNTRYSIDE, PARTICULARLY IN THE AONB, THE COMMUNITY FOREST AND AREAS WITH SPECIAL LANDSCAPE DESIGNATIONS;**
- 12. THE IMPACT OF ROAD TRAFFIC GENERATED BY THE DEVELOPMENT ON THE HIGHWAY NETWORK (SEE ALSO POLICY W4C);**
- 13. THE AVAILABILITY OF DIFFERENT TRANSPORT MODES;**
- 14. THE LOSS OF LAND OF AGRICULTURAL GRADES 1, 2 OR 3A;**
- 15. THE EFFECT OF THE DEVELOPMENT ON HISTORIC AND ARCHAEOLOGICAL SITES;**
- 16. THE AVAILABILITY OF ADEQUATE WATER SUPPLIES AND THE EFFECT OF THE DEVELOPMENT ON LAND DRAINAGE;**
- 17. THE EFFECT OF THE DEVELOPMENT ON NATURE CONSERVATION, PARTICULARLY ON OR NEAR SSSI OR LAND WITH OTHER ECOLOGICAL OR WILDLIFE DESIGNATIONS; AND**
- 18. IN THE METROPOLITAN GREEN BELT, THE EFFECT OF THE DEVELOPMENT ON THE PURPOSES OF THE GREEN BELT.**

W10F WHERE APPROPRIATE THE WPA WILL IMPOSE A CONDITION RESTRICTING HOURS OF OPERATION ON WASTE MANAGEMENT FACILITIES HAVING REGARD TO LOCAL AMENITY AND THE NATURE OF THE OPERATION.

W10G APPLICATIONS FOR WASTE MANAGEMENT FACILITIES SHOULD INCLUDE MEASURES TO SAFEGUARD AND WHERE PRACTICABLE TO IMPROVE THE RIGHTS OF WAY NETWORK, WHICH SHALL BE IMPLEMENTED PRIOR TO ANY DEVELOPMENT AFFECTING PUBLIC RIGHTS OF WAY COMMENCING.

W10H PROPOSALS FOR WASTE MANAGEMENT FACILITIES WITHIN THE SAFEGUARDING AREAS OF AIRPORTS AND AERODROMES AND, WHERE APPROPRIATE, CLOSE TO OTHER AIRPORTS WILL BE RESISTED UNLESS IT CAN BE DEMONSTRATED THAT THE DEVELOPMENT AND THE NATURE OF THE WASTE MATERIALS INVOLVED WOULD NOT CONSTITUTE A HAZARD TO AIR TRAFFIC.

APPENDIX 2 – GLOSSARY OF TERMS, ABBREVIATIONS AND CONVERSION FACTORS

AERATION – Exposure to the action of air.

AEROBIC DECOMPOSITION is a bio-degradable process carried out by bacteria in warm, well aerated conditions.

AFTERCARE – The maintenance work needed to ensure that a restored landfill site does not produce environmental problems.

AFTERUSE – The use to which a landfill site is put following its restoration.

AGRICULTURAL WASTE – A general term used to cover animal excreta, litter, straw waste, carcasses and silage liquors.

ANAEROBIC DECOMPOSITION – is a bio-degradation process carried out by bacteria in warm oxygen free conditions.

AQUIFER – A subsurface zone or formation of rock which contains exploitable resources of ground water.

BACKACTOR – An excavator mainly used to place soil in landfill restoration and to compact refuse.

BACKFILL – The material used for, or the act of, refilling an excavation.

BALE – To compress solid wastes or recoverable material, using a baling machine or baler, into a block having suitable density and form to allow it to be handled subsequently as a unit. Specially designed high density baling machines can produce bales having a density of 0.9-1.0 t/m³.

BEST PRACTICABLE ENVIRONMENTAL OPTION (BPEO) – The option that provides the most benefit or least damage to the environment as a whole, at acceptable cost, and in the long term as well as in the short term.

BIOCHEMICAL ATTENUATION – The reduction (particularly in leachate) of polluting species by biochemical reaction.

BIRD STRIKE – Damage caused by birds striking the fuselage or entering the engine of an aircraft.

BOD (BIOCHEMICAL OXYGEN DEMAND) – A measure of the amount of material present in water which can be readily oxidised by micro-organisms and is thus a measure of the power of that material to take up the oxygen in water supplies.

BRING SYSTEM – Where facilities are provided at supermarkets and other locations visited regularly by householders, in which they may deposit recyclable wastes.

BROWNFIELD SITE – a site previously affected by development which has been abandoned and may be in a derelict condition.

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BOREHOLE – A hole drilled in the ground or landfill in order to obtain samples of the geological strata, wastes or liquids. Also used as a means of venting or withdrawing gas from landfills (see MONITORING).

BUFFER ZONE

- (1) A zone within or beneath a landfill where acid or alkaline substances entering that zone can be neutralised by material already present.
- (2) An area of land designated to distance landfill sites from adjacent land.

BULK DENSITY – The density of a material expressed as the ratio of unit mass to unit volume, including voids.

BUND – An embankment usually of clay or soil used to screen sensitive development from noise or visual intrusions.

CALORIFIC VALUE – The heat liberated when a unit mass of a substance is burned as fuel under standard conditions. Calorific value is measured in Giga-Joules (GJ) per tonne.

CAPPING – The covering of a landfill with impervious material to inhibit penetration by water.

CATCHMENT AREA

- (1) The area from which solid waste is collected for a specific landfill or transfer station.
- (2) The area from which water drains into a reservoir, river or lake.

CELLULOSE – Organic material present in wood, cotton and other fibrous materials.

CHEMICAL FIXATION – See SOLIDIFICATION.

CIVIC AMENITY SITE – Sites for the collection of household waste, often with recycling points. Sites are intended to reduce the incidence of fly tipping. (ECC May 1992).

COMPACTING – Increasing the density of solid waste in landfills by the repeated passage of heavy machinery over its surface. Also refers to baling machines and stationary compactors for use in compacting solid waste into containers.

COMPOST – Organic matter decomposed aerobically and used as a fertiliser or soil conditioner.

COMPOSTING – the process of aerobically decomposing organic matter.

CONDITIONER (for soil) – Material added to soil to improve its structure and thereby its ability to support vegetation.

CONTAINMENT SITE – Landfill site where leachate into the environment is contained. Polluting components in wastes are retained within such landfills for sufficient time to allow biodegradation and attenuation processes to have occurred;

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thus preventing the escape of polluting species at unacceptable concentration.

CONTAMINATION – Contamination is the addition, or the result of the addition, or presence of a material or materials to, or in, another substance to such a degree as to render it unfit for its intended purpose.

COVER – Material used to cover solid wastes deposited in landfills. Daily cover is used to cover each lift or layer at the end of each working day to prevent odours, windblown litter, insect or rodent infestation. Intermediate cover refers to cover material deposited over wastes at the end of a particular phase of landfilling. Final cover is that material placed on the surface of a landfill during its restoration.

DECOMPOSITION – Breakdown of matter into more simple molecules. Decomposition may be caused by physical, chemical or micro-biological action.

DEWATERING – The removal of water from sludges or pulps by filtering, centrifuging or other means.

DIFFICULT WASTES – See WASTES, DIFFICULT.

‘DILUTE AND DISPERSE’ – Formerly used to describe unsealed landfill sites at which relatively rapid leachate migration could occur.

DIRECT LANDFILL – See LANDFILL.

DISTRICT HEATING SCHEME

DOMESTIC REFUSE – See WASTES, DOMESTIC REFUSE.

DOMING

- (1) In a landfill context, doming is the laying of waste and/or cover material (intermediate and final) such that the centre of the covered area is higher than the periphery to assist surface water run-off and thus minimise water ingress.
- (2) The water table within a landfill may present a domed configuration as a result of the disposal of large quantities of liquid waste associated with the variable permeability of the landfilled material.

DUST – Fine particles of solid materials ranging in size from 1.75 µm diameter (see British Standard 3405) capable of being suspended in air and settling only slowly under the influence of gravity.

EFFLUENT – The fluid discharged or emitted to the external environment or liquid waste arising from a process.

EMISSION – A material which is expelled or released to the environment. Usually applied to gaseous or odorous discharges to atmosphere.

ENERGY FROM WASTE PLANT – Incineration of waste using the heat generated for heating or electricity, or both.

ENVIRONMENTAL IMPACT – The total effect of any operation on the surrounding environment.

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EROSION – The wearing away and removal of weathered land surfaces by natural agents such as rain, running water, wind, temperature changes and bacteria.

EXOTHERMIC – A chemical or biological reaction which generates heat.

FERROUS METALS – A term used to describe iron and its alloys, eg steels. It is also used to describe the general class of metallic materials containing iron, cobalt and nickel as major components.

FILL – See LANDFILL.

FLY TIPPING – The unregulated and hence illegal dumping of waste.

GAS BARRIER – Any device used to minimise the lateral flow of gas from a landfill site.

GEOLOGICAL FORMATION – An assemblage of rock types which have some characteristics in common, whether of origin, age or composition. Normally now used as a convenient lithological rock unit in a particular area and which can be mapped. A stratigraphic formation is usually implied.

GREENFIELD SITE – a site previously unaffected by built development.

GROUND COVER – Plants grown to prevent or reduce soil erosion, and to remove excess moisture.

GROUNDWATER – Water held within soil or rocks below the ground surface but is usually taken to mean water in the saturated zone.

HAMMERMILL – A high speed machine in which waste is disintegrated into smaller pieces by fixed or swinging metal hammers.

HARDSTANDING – A concrete, asphalted or other hard surfaced area on which vehicles or materials can be parked, cleaned or stored.

HAUL DISTANCE – The distance over which wastes or landfill material must be transported either from (a) the last pick-up point of the collection vehicles, or (2) from the transfer station to the landfill.

HEAVY METALS – A term for those ferrous and non-ferrous metals having a density greater than about 4 which possess properties which may be hazardous in the environment. The term usually includes the metals copper, nickel, zinc, chromium, cadmium, mercury, lead, arsenic, and may include selenium and others.

HOUSEHOLD WASTES – See WASTES, DOMESTIC.

HYDROGEOLOGY – The study of water in rocks.

INCINERATION – burning of waste.

INERT WASTE – See WASTE, INERT.

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INFILTRATION – The entry of water, usually as rain or melted snow, into soil or a landfill.

INPUT – Amount of waste imported into a landfill during a given period of time.

INTERMEDIATE COVER – See COVER.

KERBSIDE COLLECTION – Where materials are segregated by householders into various categories for collection from the doorstep or kerbside.

LAGOON – A land area used to contain liquid. Lagoons may be formed in natural or artificially created depressions below surround ground level.

LANDFILL – The deposit of waste onto and into land in such a way that pollution or harm to the environment is prevented and, through restoration, to provide land which may be used for another purpose.

‘Controlled landfill’ – is a disposal practice where wastes are deposited in an orderly planned manner at a site licensed under the Environmental Protection Act 1990.

‘Codisposal’ – the landfilling of both industrial and household wastes together in such a way that benefit is derived from biodegradation processes to produce relatively non-polluting products.

LANDFILL GAS – A by-product from the digestion by anaerobic bacteria of putrescible matter present in waste deposited on landfill sites. The gas is predominantly methane (65%) together with carbon dioxide (35%) and trace concentration of a range of vapours and gases.

LANDRAISING – Deposition of waste onto unworked ground or onto land previously filled to original ground level.

LANDSPREADING – The application of wastes or sludges to the land and thereby facilitating their degradation and incorporation into the top layer of soil. Fertiliser is usually added to assist aerobic breakdown.

LEACHATE – Liquid which seeps through a landfill, and by so doing extracts substances from the deposited waste.

Leachate recirculation – the practice of returning leachate to the upper layers of a landfill, from which it has been abstracted, usually by direct spraying on to its surface.

LEACHATE TREATMENT – A process to reduce the polluting potential of leachate. Such processes can include leachate recirculation, spray irrigation over adjacent grassland and biological and physico-chemical processes.

LICENSING – See WASTE MANAGEMENT LICENCE

LINER – A natural or synthetic membrane material, used to line the base and sides of a landfill site to prevent leachate seeping into surrounding geological strata.

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LITTER – The haphazard distribution of waste on land. At landfill sites this is usually the light, windblown, fraction in household waste such as paper and plastic which escapes before the waste is compacted and covered.

LITTER SCREEN – A moveable screen used on landfill sites to catch litter and prevent its escape from the site. See also **WINDBREAKS**.

MACRO-BIODEGRATION

MEMBRANE – See **LINER**.

METHANE – CH₄, a colourless, odourless, flammable gas, formed during the anaerobic decomposition of putrescible matter. It forms an explosive mixture in the range 5.15% methane in air.

MILL – A mechanical device used to reduce the size of solid waste to small particles (see **HAMMERMILL**, **PULVERISE**).

MINING WASTE – Mining waste previously disposed of in landfill to recover recyclable materials.

MINIMISATION – See **WASTE REDUCTION**.

MOISTURE CONTENT – Weight of moisture (usually water) contained in a sample of waste or soil. Usually determined by drying the sample at 150°C to constant weight.

MONITORING – A continuous or regular periodic check to determine the environmental impact of landfill operations to ensure compliance with planning conditions and other statutory environmental safety requirements.

MUNICIPAL WASTE – See **WASTES, MUNICIPAL**.

MULCHING – See **LANDSPREADING**.

NATIONAL RIVERS AUTHORITY (NRA) – Authority charged (inter alia) with the responsibility properly to manage the nation's water resources, and to protect these resources from pollution.

NON-FERROUS METALS – Metals which do not contain iron.

NON-FOSSIL FUEL OBLIGATION – A requirement on regional electricity companies in England and Wales to purchase from specified producers, at a premium price, for a fixed period, specified amounts of electricity generated by methods other than burning fossil fuels.

NON-INERT WASTE – See **WASTE, NON-INERT**.

NUTRIENTS – Materials used by plants and micro-organisms to sustain life.

ODOUR – The (unpleasant) smell of a material or collection of materials. The

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characteristic odour of landfill gas is due mainly to alkyl benzenes and limonene, occasionally and additionally associated with esters and organo-sulphur compounds.

ODOUR THRESHOLD – The lowest concentration at which an odour can be detected by the human nose.

ORGANIC (compound) – A substance containing usually two or more carbon atoms in which carbon-carbon atom chains are formed.

OXIDATION – The loss of electrons by an atom or ion in a chemical reaction. Originally the term simply meant the addition of oxygen.

PATHOGEN – A micro-organism responsible for disease.

PERCOLATE – The flow of liquid through material by gravitational effects.

PERIPHERAL DRAIN – A drain provided around the boundary of a site.

PFA – See Pulverised Fuel Ash.

POLLUTION, POLLUTANT – The addition of materials or energy to an existing environmental system to the extent that undesirable changes are produced directly or indirectly in that system. A pollutant is a material or type of energy whose introduction into an environmental system leads to pollution.

PROBE – A tube used to collect samples or allow measurements to be made.

PULVERISE – To break solid waste into small pieces. A pulveriser or fragmentiser is a machine used for grinding, shredding or crushing waste or other materials to reduce its volume.

PULVERISED FUEL ASH (PFA) – Ash resulting from the combustion of coal in power stations.

PUTRESCIBLE – Readily able to be decomposed by bacterial action. Offensive odours usually occur as by-products of the decomposition.

PUTRESCIBLE FRACTION – That part of household wastes which will decompose most readily and which often is responsible for offensive odours; commonly due to the decomposition of food and vegetable matter present in the waste.

RECYCLING – The collection and separation of materials from waste and subsequent processing to produce marketable products.

RECOVERY – The reclamation, collection and separation of materials from the waste stream.

REDUCTION – 1) Reducing the volume of waste by compaction. 2) Use of technology requiring less waste generation from production or 3) production of longer lasting products with lower pollution potential 4) Removing material from the waste stream, ie green waste used in home composts.

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REFUSE, DOMESTIC – See WASTES, DOMESTIC.

RESIDUALS – Material left after combustion of wastes.

RESTORATION – Completion of a landfill site to allow planned afteruse.

RE-USE – Using an item for a different use once its original function has been fulfilled.

RUBBISH – See WASTE.

RUBBLE – See WASTES, DEMOLITION.

RUNOFF – Rain or melted snow which drains from the land surface and in the case of landfill, drains from the surface.

SCRAPYARDS – Recovery and bulking up facilities concentrating on metals providing a high quality feedstock to the refining industry.

SCREEN, (OR LITTER SCREEN) –

- (1) A mesh, supported vertically, used to capture windblown refuse (paper, plastic etc) ie a litter screen.
- (2) A mesh or perforated plate used for separating pulverised or shredded refuse into fractions according to particle size.
- (3) A mechanical device used to separate medium and larger sized solid material from an effluent prior to further treatment. The separated solids are called 'screenings'.

SECONDARY LIQUID FUELS – Industrial wastes such as solvents, inks and paints blended for use as secondary fuels to power industrial furnaces and kilns such as cement kilns.

SETTLEMENT – The amount by which a landfill surface sinks below its original level due to compaction by its own weight, or that of landfill machinery.

SEWAGE SLUDGE – The residue produced at a sewage treatment works that is not discharged with the treated effluent.

SHREDDER – A mechanical device which tears or cuts material into small pieces, used to reduce size of refuse, scrap metal, paper, card, plastic pieces etc. See also HAMMERMILL and PULVERISE.

SIFTINGS, RIDDLINGS – Fine ash which falls through an incinerator grate.

SLUDGE – An intimate mixture of solid and liquid.

SMEARING – Mechanical action on wet soil resulting in the formation of a thin compacted layer possessing low permeability.

SOIL – The medium in which plants live and grow and from which through their roots the obtain water and nutrients.

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SOIL STRIPPING – The removal of top soil and subsoil preparatory to further work.

SOLIDIFICATION – The treatment of liquid slurries and sludges to produce solid products in which toxic ions or elements present in wastes become trapped and thereby immobilised.

SOLID RESIDUES – A general term used to cover fly ash, slag ash, ash and clinker from the grate, and the sludge from the treatment of liquid effluent. (RCEP 1993).

SPOIL – Materials removed during mining or mineral extraction distinguished from overburden. SPOIL also includes material generated by civil projects which become waste.

SPRINKLER SYSTEM

- 1) Pipes, pumps and spraying devices used for dispersing leachate over a landfill for leachate recirculation or in the distribution of leachate over grassland.
- 2) For damping down dust – eg from roads or aggregates processing.

STABILISATION – As applied to landfill this item includes the degradation of organic matter to stable products, and the settlement of the fill to its rest level. The process can take more than 20 years to complete. The term also refers to the use of plants to prevent soil erosion from the surface of a landfill or spoil heap.

SUBSIDENCE – The sinking of the landfill surface due to consolidation and filling or underground void space, (may be caused by degradation or gas removal).

SUBSOIL – The less well structured and less biologically active layer below top soil which acts as a reserve of nutrients and water for plant growth in the top soil.

SURCHARGE – landfill above final contours to allow for subsequent settlement.

TIP – A place where discarded material from mineral extraction processes is deposited.

TIPPING, DIRECTION – The direction in which landfilling is to proceed from an existing working face.

TOPSOIL – The biologically active surface layer of soil which provides a medium for the cultivation of plants.

TOTTING – The practice of scavenging a landfill to retrieve material and objects having some commercial, usually scrap, value.

TOXIC, (TOXICITY) – A substance or material which when taken in produces a detrimental effect on human, animal or plant life.

TRANSFER STATION – A depot where waste from land collection vehicles for carriage in bulk to a treatment or disposal site.

VENT – Usually refers to a facility provided in a landfill to permit the escape to atmosphere of gases and vapours generated by deposited waste during biodegradation. Perforated pipes, placed laterally or vertically within the landfill, are

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sometimes used.

VERMIN – Used collectively to describe insects and small wild animals whose habitat is associated with filth, disease and decay.

VOID RATIO – The relationship between the voids or spaces in deposited refuse and consolidated material.

WASTE (DIRECTIVE WASTE) – means any substance or object set out in Part II of Schedule 4 to the Waste Management Licensing Regulations 1994 which the producer or the person in possession of it discards or intends or is required to discard but with the exception of anything excluded from the scope of the Directive by Article 2 of the Directive. (DOE Circular 11/94 Annex 2.)

WASTE ARISING – These are wastes generated within the area, derived from waste disposals minus imports plus exports. (SERPLAN RPC 2090).

WASTE DISPOSAL – The process of getting rid of unwanted, broken, worn out, contaminated or spoiled materials in an orderly, regulated fashion.

WASTE COLLECTION AUTHORITY (WCA) – Authority responsible for the collection of household waste and preparation of Waste Recycling Plans. (District Councils).

WASTE DISPOSAL AUTHORITY (WDA) – Authority responsible for the disposal of WCA collected waste, and the disposal of waste delivered to Civic Amenity Sites. (County Council.)

WASTE REGULATION AUTHORITY (WRA) – Responsible for authorising waste management licences for disposal facilities, site monitoring and preparation of S50 Waste Management Plan. (Environment Agency).

WASTE, COMMERCIAL – Waste from premises used mainly for trade, business, sport, recreation or entertainment. (1990 EPA 5.75 (7)).

WASTE, CONTROLLED – Waste consisting of household, industrial, commercial and special waste.

WASTES, DEMOLITION – Masonry and rubble wastes arising from the demolition or reconstruction of buildings or other civil engineering structures.

WASTES, DIFFICULT – Waste difficult to dispose of and might require special management site to avoid nuisance or pollution.

WASTES, DOMESTIC – Waste or refuse that arises from private houses; synonymous with 'household waste'.

WASTES, HAZARDOUS – A waste that, by virtue of its composition, carries the risk of death, injury, or impairment of health, to humans or animals, the pollution of waters, or could have an unacceptable environmental impact (qv) if improperly handled, treated or disposed of. The term should not be used for waste that merely contains a hazardous material or materials. It should be used only to describe

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wastes that contain sufficient of these materials to render the waste as a whole hazardous within the definition given above.

WASTE, HOUSEHOLD – Waste from a domestic property, caravan, residential home or from premises forming part of a university or school or other educational establishment; premises forming part of a hospital or nursing home. (1990 EPA – 5.75 (5)).

WASTE, INDUSTRIAL – Waste from any of the following; any factory, premises for the provision to the public of transport services (land, water and air); premises for the purpose of connection of the supply to the public of gas, water, electricity or provision of sewerage services; premises for provision to the public of postal or telecommunication services (1990 EPA 5.75 (6)).

WASTE, INERT – SERPLAN Type A – Wastes that do not undergo any significant physical, chemical or biological transformations when deposited in a landfill.

WASTE MANAGEMENT LICENCE – Licence granted by WRA authorising treatment, keeping or disposal of any specified description of controlled waste in or on specified land by means of specified plant.

WASTE, MUNICIPAL – Municipal waste is that waste that is collected and disposed of by or on behalf of a local authority. It will generally consist of household waste, some commercial waste and waste taken to civic amenity waste collection/disposal sites by the general public. In addition, it may include road and pavement sweepings, gully emptying wastes, and some construction and demolition waste arising from local authority activities.

WASTE, NON-INERT – SERPLAN Types B and C waste (See Appendix 2).

WASTE, SPECIAL – Controlled waste that is dangerous or difficult to treat, keep, store or dispose of, that special provision is required for dealing with it. (1990 EPA 5.62 and 5.75 (9)).

The procedure to be followed is described in the Control of Pollution (Special Waste) Regulations 1980, issued under Section 17 of the Control of Pollution Act 1974.

WASTE, TOXIC – That class of ‘hazardous waste’ constituents in which are harmful to a significant degree.

WASTE, TRADE – See WASTES, COMMERCIAL.

WATER, CAPILLARY – Water, present in land above the water table, which is held between and around soil particles by capillary attraction.

WATER, INGRESS – The infiltration of water into a landfill.

WATER TABLE – The upper surface of a body of groundwater.

WATER, SURFACE – Any natural body of water with a with a surface open to the atmosphere.

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WEIGHBRIDGE – A machine used to weigh large objects such as vehicles. Used to weigh the quantity of waste received at a landfill site.

WHEEL CLEANING – The process by which dirt and mud adhering to the wheels (and maybe the chassis) of vehicles that have travelled over a landfill site is removed, before they gain access to public roads.

WHITE GOODS – A general term used to describe discarded equipment and appliances, usually made from sheet metal, which incorporate a large void space. Typical examples of 'white goods' include refrigerators, freezers, cookers, washing machines. The term has evolved because, in the past, these goods were traditionally white.

WINDBREAKS – A barrier or screen, designed and installed to prevent the spread of windblown litter from a landfill onto adjacent land.

WORKING FACE – The area of a landfill in which waste is currently being deposited.

WORMERIES – Macrobiological degradation by use of worms or maggots to digest wastes producing more stable medium that can be landspread.

ABBREVIATIONS

BATNEEC	Best Available Technique Not Entailing Excessive Cost (RCEP 1993)
BPEO	Best Practical Environmental Option
EA	Environmental Assessment
EA, The	The Environment Agency
ECC	Essex County Council
EfW	Energy from Waste Plant
EN	English Nature
EPA	Environmental Protection Act
ha	Hectares
HMIP	Her Majesty's Inspectorate of Pollution
Kg	Kilogram
LPAC	London Planning Advisory Committee
mcm	Million cubic metres
m ³	Cubic metre
m ²	Square metre
mt	Million tonnes
MAFF	Ministry of Agriculture, Fisheries and Food
MLP	Minerals Local Plan Review One (Deposit Draft March 1995)
MPG	Minerals Policy Guidance
NRA	National Rivers Authority
MRF	Material Recovery Facilities
PPG	Planning Policy Guidance
SERAWP	South East Regional Aggregates Working Party
SERPLAN	The London and South East Regional Planning Conference
SEWRAC	South East Regulation Advisory Centre

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t	tonnes
tt	thousand tonnes
WCA	Waste Collection Authority
WDA	Waste Disposal Authority
WDP	Waste Disposal Plan (COPA 1974)
WLP	Waste Local Plan (TCPA 1990)
WMP	Waste Disposal (Management Plan) (EPA 1990 to replace WDP)
WPA	Waste Planning Authority
WRA	Waste Regulation Authority
WRP	Waste Recycling Plan (EPA 1990)
WTS	Waste Transfer Station

CONVERSION FACTORS

Inert waste/Type A:

1 tonne occupies 0.67 m³

1m³ ≥ accommodates 1.50 tonnes

Non-inert/Types B, C:

1 tonne occupies 1.25 m³

1m³ accommodates 0.80 tonne

Source Table 8 SEWRAC 1995 Survey (RAC 3000)

APPENDIX 3 – WASTE CLASSIFICATION AND TERMINOLOGY

The following is an extract from the SEWRAC publication: *Waste Disposal in the South East Region: Results of the 1995 Waste Monitoring Survey (RAC 300)*.

Solid Waste

The waste types (A, B, C) relevant to the 1995 Waste Monitoring Survey (henceforth called 'the survey') are defined below:

Type "A" Waste does not contain substances other than those listed below and does not itself appear as an item in another category:

Topsoil, Subsoil, Brickwork, Concrete, Stone, Clay, Sand, Silica, glass and ceramics. Mixtures of these materials such as, hard-core and weathered tar-coated stone.

Type "B" Waste does not contain significant quantities of substances other than those listed below and in Category "A".

Metals, (iron, steel, aluminium, brass, copper, tin and zinc), plastics, leather, natural/man-made fibres (wood, cotton, kapok, linen, nylon, polyester etc) coal, coke, wood and wood products (all hard and soft woods, sawdust and sanderdust, hardboard and chipboard, trees and bushes, paper (all paper including oiled and tarred paper, cardboard, fibreboard), gypsum, carbon, ebonite, pottery, china and enamels, shot-blasting residues, abrasives, mica, diatomaceous earth (kieselguhr), slag and boiler scale (excluding that contaminated with toxic metals), oxides of iron, magnesium, zinc, aluminium, copper and titanium, hydroxides of iron, calcium carbonate, calcium chloride and magnesium carbonate, rubber.

Mixtures of products containing only the material listed in Categories "A" and "B", such as *plasterboard, painted or treated wood, painted or treated metal*. It should be noted that some products containing only the materials listed in Categories "A" and "B" are explicitly included in Category "C".

Type "C" Waste does not contain significant quantities of substances other than those listed below and in Categories "A" and "B".

Animal carcasses; part or whole, vegetable matter, cellulose waste, soap or other stearates, dry sewage sludge.

Mixtures or products consisting only of the materials listed in Categories "A", "B" and "C" such as:

Refuse – treated or untreated, waste food or food processing materials, floor sweepings, empty used containers – metal, glass, plastic, paper, sacks etc, electrical fittings, fixtures and appliances, machinery, cosmetic products.

Special and Difficult Waste

The following terms relate to the surveys of special and difficult waste:

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'Special waste' includes anything on a special waste form.

'Solid' generally means material with less than 20% liquid mixed with it, that is normally unpumpable and contained in skips or drums.

'Sludge' means material with usually more than 20% liquid mixed with it. A sludge, once it becomes thick and rigid enough to retain its shape (spadeable), should be considered as a solid.

"Aqueous" means a solution or sludge where more than 50% of the solvent is water.

"Non Aqueous" means a solution of sludge where less than 50% of the solvent is water.

"Metal bearing" means those materials with a metal content of sufficient level for it to be the cause of the hazardous nature of the material or significant for some other reason, eg recovery.

Suggested levels are:

Ti, Mn, Fe, Al	200,000 ppm (20%)
V, Zn, Co, Cr, Mo, Ba, Si, Ni, Pb, Sn	10,000 ppm (1%)
Sb, Bi, Be, As, Ag, Cd, Ge, Hg	1,000 ppm (0.1%)

Classification of Special Waste

Class (i) Solid

(a) Solid: *metal bearing*

Metals themselves will not normally be the reason for consigning a waste; however, pyrophoric metals and others such as mercury, thallium, beryllium in the metallic state at levels over 1% may be. In the case of metal salts see under 'terminology' above.

(b) Solid: *inorganic (others excluding i(a) and i(d))*

Includes most solid wastes with toxic components not included in the other sub-categories. Major constituent must be an inorganic chemical, ie filter cakes would be excluded. Include Oxidising agents.

(c) Solid: *organic (others)*

Organic solids (major constituents) which are toxic – plastics not included. Solid implies a melting point/softening range somewhere above 30°C. Hydrocarbon waxes/greases appear in Class (vii)(d).

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- (d) Solid: *cyanide, sulphide, selenide, telluride*

This sub-class includes those solid wastes which will generate gases if exposed to acid conditions. Generally consigned when concentration is more than or equal to the 100 ppm.

- (e) Solid: *pharmaceuticals*

Includes pharmaceutically active materials – both out of date stock etc and manufacturing by-products.

- (f) Solid: *mixed laboratory/process chemicals*

Quantities of miscellaneous fine chemicals or formulated products. Larger quantities of individual chemicals or solvents eg 200 litres mixed laboratory solvents, should go under a more appropriate class.

Class (ii) Contaminated soil

The majority of contaminated soils are likely to be classified as “difficult”. If it is transported on a special waste form, then it should be regarded as hazardous and appear in this class.

Class (iii) Solid asbestos bearing

Any waste containing fibrous asbestos (both as a solid or sludge) and any bonded asbestos that is transported on special waste forms.

Classes (iv), (v) and (vi): Aqueous acid, alkaline or neutral: solutions or sludges

The pH range for neutral is pH 4-10. Anything outside these limits must be considered in one of the other categories. If there is a regular arising which comes near the borderline, then the worst analysis result should determine the regular class (pH 9.5-10 and pH 4-4.5).

The sub-category **metal bearing** has the same meaning as previously stated.

Organic implies quantities of organic chemical in the mixture/solution/sludge (more than 5%) eg an organic acid, a solution of acetone/water, an inorganic acid with some oil contamination etc. Inorganic covers all those left by the others. The debate as to which sub category any mixture goes into must be determined by the principal toxic component. Why is it hazardous? Why is it going to cause an environmental hazard? What is going to be the principal danger in its disposal operation?

Cyanide, sulphide, selenide, tellurides containing categories covers these anions when they occur in excess of 20 ppm free anion. However, if the principal toxic hazard is overriding something else, ie metals, then the cyanide etc category can be omitted but this must be done with great caution.

Class (vii) Oils (with <20% solids)

Oily-water includes the low level oil water emulsions. If the pH is outside the neutral range they should be included in the appropriate (ii) (c) or (iii) (c) category. Oils are rarely classified as special waste.

Class (viii) Tars/phenols

Includes the viscous/tarry materials from still bottoms and destructive/reaction processes, Bitumen type products and very heavy oils from the petroleum, coal and gas industries. (Acid tars from petroleum refining should appear as class (ii) (c) unless they have no aqueous component).

Class (ix) Solvents

Solvents substantially free of solid, ie with a real possibility of recovery or incineration. Any of them can contain up to 50% water.

Class (x) Solvent sludges

Includes those solvent based wastes containing a fair proportion of solids, ie paint wastes, and therefore presenting difficulties during incineration. Polymers and resins would normally be included in this class. Paint wastes and inks would normally be included under aqueous/organic waste or solvent sludges depending upon the solvent.

Class (xi) Other wastes

This category contains most of the commonly occurring unusual and 'grey' wastes which have not been covered and refers to general solid factory waste.

(a) *General factory waste*

Covers general waste which has some hazardous material mixed with it, eg filter cakes etc.

(b) *Empty contaminated containers*

Essentially covers drums and paper sacks etc.

(c) *Pressurised vessels*

Comprises aerosols, inhalers, cylinders and other pressure vessels.

(d) *Other*

Class (xii) Pesticides

Pesticides are defined in Waste Management Paper No. 23 and include all those biologically active materials which find their principal use in agricultural and pest control, including herbicides, insecticides, fungicides etc, but not including disinfectants.

Class (xiii) Special hazard or nuisance

Any unusual disposal which cannot sensibly go into any other category or which needs special attention, such as polychlorinated biphenyls and batteries.

Class (xiv) Mixed loads

Mixed loads that cannot be classified in any of the above classes. Such loads or consignments comprise a variety of hazardous waste in separate containers (for example, 80x450g drums).

Classification of Difficult Waste

Difficult waste is waste defined as being difficult to dispose of and might require special management on site to avoid nuisance or pollution. Examples are industrial non-special liquid waste, tyres, aerosols, sewage sludge. In the 1993 survey, difficult waste excluded any waste that moved on a special waste consignment note or imported under a transfrontier shipment (TFS) or an EC uniform document.

This Survey seeks to include all other liquid wastes, contaminated soils and clinical wastes together with certain other waste streams that can be easily identified at the disposal site. Inevitably small quantities of these materials will arrive at disposal sites within mixed loads of industrial, commercial and household wastes and be recorded within the SEWRAC Categories A, B and C (defined earlier).

Where possible, the same definitions are used as for special waste, to retain continuity with the previous SERPLAN surveys. However, some classes are different and do not appear in both the special and difficult waste surveys.

Class (i) Solid (other)

Solid difficult waste other than that which falls in the remaining difficult waste categories.

Class (ii) Contaminated soil

Class (iii) Asbestos cement/bonded asbestos

Class (iv) Aqueous solutions or sludges (pH >4 and >10)

Class (v) Oils (with <20% solids)

- (a) mineral oils
- (b) mineral oils/water (oil > 10%)
- (c) greases, fats, waxes, non-mineral oils (including mixtures with less than 90% water)

Class (vi) Solvents/Solvent sludges

Include halogenated and non-halogenated solvents. May include water/solvent mixtures up to 50% water.

Class (vii) Tyres

Class (viii) Clinical waste

- (a) from hospitals, nursing homes, GPs and dentists
- (b) from research laboratories
- (c) from schools, old people's homes, day centres, housing
- (d) clinical waste supported by Grundon's and similar paper work which is not normally special. The exception is notified pharmaceutical waste.

Class (ix) Contaminated packaging waste

For example, empty bags, drums, plastic sheet, bottles originally used to supply or store special wastes.

Class (x) Filter cakes

Class (xi) Incinerator ash/pulverised fly ash

Class (xii) Other

For example, spadeable material with residues of oil or solvent residues from cleaning processes.

Source: SEWRAC: ANNUAL MONITORING REPORT 1992/93

APPENDIX 4 – WASTE STATISTICS

Waste Statistics by type in Essex 1987-1995

	Thousand tonnes				
	A	B	C	Total	Non-inert (B + C)
Waste Arisings					
1986-87	1,539	588	579	2,707	1,167
1988-89	1,626	1,254	744	3,624	1,998
1990-91	646	657	878	2,181	1,535
1992-93	959	411	809	2,179	1,220
1994-95	1,754	625	831	3,210	1,456
Average	1,305	707	768	2,780	1,475
Waste Disposals					
1986-87	3,153	1,214	1,992	6,359	3,206
1988-89	2,712	2,208	2,237	7,157	4,445
1990-91	1,134	1,241	2,323	4,698	3,564
1992-93	1,714	1,016	2,416	5,146	3,432
1994-95	3,054	1,350	2,270	6,674	3,620
Average	2,353	1,406	2,248	6,007	3,654
Volume*	1,568 mcm			6,136 mcm	4,568 mcm
Waste Imports					
1986-87	1,719	626	1,413	3,758	2,039
1988-89	1,096	971	1,497	3,564	2,468
1990-91	496	607	1,454	2,552	2,061
1992-93	773	617	1,619	3,009	2,236
1994-95	1,447	756	1,480	3,684	2,236
Waste Exports					
1986-87	105	1	0	106	1
1988-89	10	17	4	31	21
1990-91	3	23	9	35	22
1992-93	18	12	12	42	24
1994-95	147	31	42	221	73

* using conversion figures in Appendix 1

Sources: SERPLAN/SEWRAC Biannual Surveys RPC1200, RPC1780, RPC2090, RAC161R, RAC300

APPENDIX 5 - REPLACEMENT STRUCTURE PLAN POLICIES APPROPRIATE TO WASTE MANAGEMENT

The current approved Plan is the Adopted Essex and Southend Replacement Structure Plan (April 10th 2001)

The extracts below relevant to waste management represent the latest set of policies to be approved by the Planning Authorities.

POLICY C2 - Development Within the Metropolitan Green Belt

Within the Metropolitan Green Belt there is a general presumption against inappropriate development. Except in very special circumstances, planning permission will not be granted unless for :-

1. development required for agriculture, forestry, and mineral extraction and related restoration;
2. essential small-scale facilities for outdoor sport and outdoor recreation, for cemeteries, and for other uses of land which fulfil the objectives of the Green Belt;
3. limited extension, alteration or replacement of existing dwellings;
4. limited infilling and limited affordable housing for local community needs within existing villages identified in an adopted local plan as suitable for such development in accordance with Policy H5;
5. limited infilling or redevelopment of major existing developed sites identified in adopted local plans in accordance with the criteria included under Policy RE3;
6. the re-use of existing buildings in accordance with the criteria included under Policy RE2.

Development which may be permitted under this policy should preserve the openness of the Green Belt and should not conflict with the main purposes of including land within it. Any development which is permitted should be of a scale, design and siting such that the character of the countryside is not harmed.

POLICY C5 - Rural Areas not in the Green Belt

Within the rural areas outside the Metropolitan Green Belt the countryside will be protected for its own sake, particularly for its landscapes, natural resources and areas of ecological, historic, archaeological, agricultural and recreational value. This will be achieved by the restriction of new uses to those appropriate to a rural area, and the strict control of new building in the countryside outside existing settlements to that required to support agriculture, forestry or other rural uses or development in accordance with Policies H5, RE2 and RE3.

Development should be well related to existing patterns of development and of a scale, siting and design sympathetic to the rural landscape character.

Natural Resources

POLICY NR1 - Landscape Conservation

The natural beauty, amenity and traditional character of the landscape will be protected, conserved and enhanced. Development must respect its landscape setting and will not be permitted if it would cause permanent destruction or damage to the character of the landscape. Development will not be permitted which would have a material adverse impact, even of limited duration, on the character and appearance of the landscape, including specific landscape features of identified importance.

POLICY NR2 - Dedham Vale Area of Outstanding Natural Beauty

The Dedham Vale Area of Outstanding Natural Beauty (AONB) is of national importance and will be subject to the most rigorous protection from inappropriate development. Conservation, enhancement and management measures will be carried out by the local authorities to promote its natural beauty and special character. Within the Area :-

1. Development will not be allowed unless it is compatible with conserving and enhancing the Area's landscape character and the quiet enjoyment of the countryside;
2. Development located outside but near to Dedham Vale AONB will not be permitted if it would seriously detract from views into or out of the Area.

POLICY NR3 - Extension of the Suffolk Coast and Heaths Area of Outstanding Natural Beauty

An extension of the Suffolk Coast and Heaths Area of Outstanding Natural Beauty – to include land on the south side of the River Stour estuary – is strongly supported. Within the Extension:-

1. Development will not be allowed unless it is compatible with conserving and enhancing the Area's landscape character and the quiet enjoyment of the coast and countryside;
2. Development located outside but near to the proposed extension of the Suffolk Coast and Heaths AONB will not be permitted if it would seriously detract from views into or out of the Area.

POLICY NR4 - Landscape Character Assessment

Landscape character assessments should be prepared of District areas, identifying the particular character of different areas of the countryside, to help inform the preparation of Local Plans. Development will not be allowed which would detract from the visual quality of these areas. Until such assessments have been completed, Special Landscape Areas, where they are currently defined in adopted local plans, will be taken to identify areas where conservation or restoration of existing character should be given high priority.

POLICY NR5 - Historic Landscape Features

Development will not be permitted which would have a materially adverse impact upon the historic and archaeological importance, existing landscape character, and physical appearance of Ancient Landscapes, Ancient Woodlands, Registered Parks and Gardens, Registered Battlefields and Protected Lanes. Conservation, enhancement and management measures will be encouraged and implemented within these defined areas so as to retain and promote their historic and landscape interest. Any proposals which would give rise to a material increase in the amount of traffic using Protected Lanes will not be permitted.

POLICY NR6 - Nature Conservation Sites

Wildlife and other natural features will be protected from inappropriate development, conserved and enhanced as follows:-

1. Development or land use change, not directly connected with or necessary to the management of the site, which would adversely affect either designated or candidate sites of international or European significance, will not be permitted unless there is no alternative solution and the development is necessary for imperative reasons of overriding public interest. These sites include Ramsar Sites, Special Protection Areas, Special Areas of Conservation and Marine Special Areas of Conservation;
2. Development which would have an adverse effect, either directly or indirectly on a Site of Special Scientific Interest or National Nature Reserve, will not be permitted unless the need for the development clearly outweighs the national nature conservation importance of the site. If there is a risk of damage to a designated site from development, local authorities may seek to enter into a planning obligation with developers to secure future site management or to make compensatory provision elsewhere for any losses expected when development occurs in accordance with Policy BE5;
3. Local Nature Reserves, Wildlife Sites, Regionally Important Geological/ Geomorphological Sites, other habitats and natural features of local value will be protected from material adverse effects of development, unless it can be clearly demonstrated that the reasons for the proposal outweigh the need to safeguard the nature conservation value of the site and appropriate compensatory measures can be provided;
4. Development will not be permitted which may harm or adversely affect animals and plants protected by law, together with their habitats.

Appropriate management of all sites and features of the landscape that are of defined importance for nature conservation will be encouraged.

POLICY NR7 - Promoting Biodiversity

The local authorities will work in partnership with statutory and voluntary conservation groups and landowners to increase the number, size, quality and diversity of natural habitats to be safeguarded and managed for their nature conservation importance, having regard to the Essex Biodiversity Action Plan, and by identifying new sites in adopted local plans and during the consideration of development proposals.

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POLICY NR8 - Agricultural Land

Development which would result in the permanent loss or degradation of agricultural land classified as Grades 1, 2 and 3A of the Ministry of Agriculture, Fisheries and Food classification will not be permitted unless it can be shown that there is an overriding need for the development and no suitable alternative site of lower agricultural quality is available.

POLICY NR9 - Woodland and Tree Cover

The landscape will be enhanced by increasing the coverage of woodland and hedgerows using locally native species in ways which are in keeping with the character of the landscape, through such measures as grant-aided schemes and taking opportunities provided by the consideration of new development proposals. Where appropriate existing woods, trees and hedgerows will be protected for their wildlife and historic importance.

POLICY NR10 - Thames Chase Community Forest

The establishment of a Community Forest at Thames Chase is supported for the purposes of landscape improvement, outdoor recreation, nature conservation, forestry and farming. Any development proposals within the Forest area will be subject to other policies in this Plan for controlling development in the Metropolitan Green Belt.

POLICY NR12 - Protecting Water Resources

Development will only be permitted where :-

1. Adequate water resources can be provided within the plan period without a materially adverse effect on the environment;
2. There would not be a risk to existing water resources, including the flow and water quality of underground or surface water, or existing abstraction;
3. Such development would not be at direct risk from tidal or fluvial flooding or likely to increase the risk of flooding elsewhere;
4. There would be no materially adverse effect upon fisheries, nature conservation, archaeological remains, landscape and recreation in river and canal corridors, coastal margins and other waterside areas.

In addition, provision will be sought, where appropriate, for water conservation measures in new buildings, conversions or re-use of existing sites and buildings.

Coastal Conservation

POLICY CC1 - The Undeveloped Coast - Coastal Protection Belt

Within the Coastal Protection Belt defined in adopted local plans there shall be the most stringent restrictions on development within the rural and undeveloped coastline situated outside existing built-up areas, and any development which is exceptionally permitted within this Belt shall not adversely affect the open and rural character, historic features or wildlife.

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POLICY CC2 - Development Risk on the Coast

Development will not be permitted in coastal areas which are at risk from flooding, erosion and land instability, particularly where existing flood defences properly maintained would not provide an acceptable standard of safety over the lifetime of the proposed development, or where the construction of new coastal defences would be required.

POLICY CC3 - Coast Protection and Flood Defence

The construction of new or replacement flood defence and coast protection works may be permitted provided they are essential:-

1. to protect human life and existing property; and,
2. to conserve irreplaceable natural habitats.

Consideration of such proposals will also have regard to any material effects on natural coastal processes, sites of nature conservation importance, landscape quality, townscape and traditional character, residential amenities, sites of leisure, tourism and recreational value, and buildings and areas of special architectural, historic or archaeological importance.

POLICY CC4 - Development Requiring a Coastal Location

Development requiring a coastal location should be sited within the already developed areas of the coast defined in adopted local plans, particularly where this can promote urban regeneration and the conservation of areas of special architectural and historic interest, providing that :-

1. there is no material adverse pollution of urban areas, the coastline, or coastal waters;
2. there is no material adverse impact upon the integrity of flood defences, coast protection works, or natural coastal processes;
3. road traffic, parking provision and facilities for non car users can be satisfactorily accommodated;
4. townscape and traditional character, residential amenities, sites of nature conservation importance, landscape quality, sites of leisure, tourism and recreational value, and buildings and areas of special architectural, historic or archaeological importance are protected;
5. the capacity of adjacent water space is sufficient to accommodate any increased recreational or commercial activity.
6. there is no material adverse cumulative impact of criteria 1-5 above.

Where development is acceptable in locational terms, its bulk and scale must be compatible with the special character of the coast.

Heritage Conservation

POLICY HC6 - Archaeological Assessment

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Development proposals which would materially affect a site of archaeological importance will be considered against the following requirements :-

1. Where nationally important archaeological sites and monuments, whether scheduled or not, and their settings, are affected by a proposed development they should be preserved in situ.
2. Where there are grounds for believing that a proposed development would affect important archaeological sites and monuments, developers will be required to arrange for an archaeological field evaluation to be carried out before the planning application can be determined, to assess the character and extent of the archaeological remains, and to allow an informed and reasonable planning decision to be made.
3. In circumstances where preservation is not possible or merited, then development will not be permitted until the developer has ensured that satisfactory provision has been made for a programme of archaeological investigations and recording prior to the commencement of the development, commensurate with the archaeological significance of the site.

Built Environment

POLICY BE1 - Urban Intensification

The environmental quality of existing urban areas will be maintained and improved as attractive places in which to live, work and visit. Where the existing urban fabric provides for high quality in design and local environment by virtue of its existing character, open land-uses, and buildings and areas of architectural, historic and archaeological importance, this will be strongly protected and enhanced. New development in all urban areas which results in over-development, unsympathetic change, and loss of amenity will not be permitted. Subject to these considerations, existing built-up areas will be used in the most efficient way to accommodate new development by the:

1. recycling of vacant, derelict, degraded and under-used land to accommodate new development;
2. re-use of existing buildings by refurbishment, conversions, changes of use, and extensions;
3. re-use of urban sites, which are no longer appropriate to their existing or proposed use in the foreseeable future, for alternative land-uses; and,
4. use of higher densities where compatible with the character of the area concerned and urban design controls.

Development plans will make full use of opportunities to accommodate further development within existing built-up areas defined in adopted local plans, before considering proposals to provide for new development within the countryside.

POLICY BE3 - Retention of Open Space

Within the built-up areas, open land uses will be retained where they have been identified by adopted local plans as being of special importance for amenity, recreation, leisure, archaeology and the quality of the urban environment. The displacement of these open land uses from within built-up areas into the adjacent countryside, so as to provide further land for urban development, will not be permitted.

POLICY BE4 - Sports Grounds and Playing Fields

Existing sports grounds and playing fields which contribute significantly to recreational provision and public open space will be protected. Development will not be permitted where there is a continuing or potential community need for the facility, unless alternative provision of at least equivalent size, accessibility and suitability is provided. The local authorities, wherever possible, will ensure the joint provision and multi-use of all their suitable premises for general community recreational use.

POLICY BE5 - Planning Obligations

Development will not be permitted unless it makes provision for community facilities, public services, transport provision, infrastructure, environmental works and any other requirements which are made necessary by, and are directly related to, the proposed development. The requirements will be set out in adopted local plans, Local Transport Plans and/or development briefs and will be negotiated when determining planning applications.

Developers will be required to finance the full cost, or if appropriate a contribution towards the full cost, of all such provision which is fairly and reasonably related in scale and kind to the proposed development and its impacts on the wider environment. This provision will be subject to planning obligations which will be secured prior to the issue of planning permission. These obligations will specify the nature and timing of all provision, both on and off a development site, made necessary by the development concerned.

POLICY BE6 - Polluting, Hazardous or Noisy Development

Proposals for new development involving potentially polluting, hazardous or noisy activities will be assessed in relation to their impact upon existing land uses, and where incompatibility exists between existing and proposed land uses, then permission will not be given. Similarly, proposed development within the vicinity of existing noisy, hazardous or polluting land uses will not be permitted where this would cause material harm to the health and safety of people.

POLICY BE7 - Minimising pollution Impacts

The adverse impacts of development should be minimised. Where the impacts of a proposed development are likely to be significant, the local planning authority will require developers to prepare an Environmental Assessment, where appropriate. If such an Assessment demonstrates that impacts cannot be reduced to acceptable levels*, or if the cumulative impact is unacceptable taken together with other existing development, then the proposed development will not be permitted.

* acceptable levels in terms of EU Directives, UK legislation, and agencies' advice.

POLICY BIW1 - Employment Land Provision

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Development provision for the expansion of existing firms and the introduction of new employment will be concentrated primarily within the urban areas on sites accessible by a choice of means of transport as set out in Policy CS1. Provision will be made for a net increase of 621 hectares of land for business, industry and warehousing in the urban areas between 1996 and 2011 in accordance with the following distribution and as shown on the Key Diagram:-

District/ Borough	Hectares (Net Increase)
Basildon	87
Braintree	80
Brentwood	1
Castle Point	21
Chelmsford	73
Colchester	103
Epping Forest	24
Harlow	50
Maldon	21
Rochford	35
Southend	30
Tendring	80
Uttlesford	16
ESSEX AND SOUTHEND	621

In accordance with Policy CS3, priority will be given to economic regeneration and renewal within the designated Priority Areas for Economic Regeneration. In particular, priority will be given to these areas for infrastructure investment necessary to facilitate the development of allocated sites.

POLICY BIW2 - Ensuring Land Availability

An adequate range of sites and premises should be provided in terms of size, quality and location to meet the needs of business, industry and warehousing. Where a significant shortfall in the provision of readily available sites and premises is identified through regular monitoring, the local planning authority should consider what action it should take to increase the supply of readily available sites and premises, so that the objectives of Policy CS3 can be achieved and development provision specified in Policy BIW1 is fully developed by the end of the plan period.

POLICY BIW4 - Safeguarding Employment Land

Existing employment sites currently in use or identified in adopted local plans for future business, industry or warehousing use (Use Classes B1-B8 inclusive) will be safeguarded from redevelopment or change of use to other land-uses, particularly within the designated Priority Areas for Economic Regeneration. District Councils should undertake a comprehensive audit at regular intervals of all employment sites/buildings, and changes to other uses will only be permitted in exceptional circumstances such as when a site is poorly located or where development costs are prohibitive. Existing poor quality or constrained sites may be replaced by new allocations of more marketable and well located sites. Where employment land is exceptionally used for other land-uses, it should be replaced by new allocations in

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adopted local plans so that the objectives of Policy CS3 can be achieved and the overall development provision conforms generally with Policy BIW1.

POLICY BIW5 - Business Location

Proposals for new business, industry and warehousing development, in planning applications and adopted local plans, will have regard to Policy BIW3 and to the following principles in relation to business location:-

1. Offices, light industrial development, and campus-style developments such as science and business parks should generally be directed to urban locations which provide for a high level of access by alternative means of travel including by passenger transport, cycling and walking.
2. Distribution, warehousing and manufacturing activities which generate large volumes of freight movement should be located on sites which are readily accessible to the trunk road system, although not with direct access to it; and at locations which are served or with the potential to be served from railway sidings, harbours, or coastal and river wharves.
3. Appropriate sites adjoining railway lines, harbours, or coastal and river wharves will be identified and safeguarded for use by distribution, warehousing and manufacturing activities generating large volumes of freight movement. Other land-uses will not be permitted on these sites unless there is a clear surplus of such sites already in the area, and no prospect of development for their intended purpose in the foreseeable future.

POLICY BIW6 - Small Firms Location

Sites and buildings to meet the specific needs of small firms will be provided in urban areas as part of employment provision within,

1. Larger industrial estates;
2. New mixed-use developments;
3. Small infill sites or through the conversion of existing suitable buildings.

POLICY BIW7 - Stansted Airport

Provision is made for all development directly related to, or associated with, the airport to be located on the site of Stansted Airport itself. Industrial and commercial development unrelated to the airport will not be permitted on the Airport site, but will be directed to other employment sites within nearby towns identified in adopted local plans.

POLICY BIW8 - Southend Airport

Subject to the safeguards listed in Policy BIW9 below, London Southend Airport will be supported in its function as a regional airport serving the London and South East region for passenger services, freight handling, general aviation, aircraft maintenance, and recreational flying; and, the provision of airport-related development within the Airport site will be permitted where this is required to maintain and strengthen this function.

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POLICY BIW9 - Airport Development

Proposals for new development relating to any existing operational airport or airfield, or proposals to establish a new flying site, will be considered having regard to the need for an appropriate hierarchy of aerodrome and aviation sites and determined in relation to the following criteria :-

1. General planning policies for the area;
2. Air travel needs of residents, business and air sports users;
3. Economic benefits to local and regional businesses;
4. Impact upon public health and safety, noise pollution levels, environmental conditions, visual amenity, and residential and urban areas affected by the proposal;
5. Requirement for new housing, commercial development, and associated community facilities arising from the proposal;
6. Demand for the establishment of airport-related facilities outside the airport site itself, to serve both it and its users;
7. Adequacy of the arrangements for surface access to the site by all means of transport.

POLICY BIW10 – Seaports

The port facilities at Harwich and the Thameside wharfage facilities are of national economic importance and will be supported as follows :-

1. Improved access facilities by road and rail will be provided and encouraged;
2. The provision of improved port facilities at Harwich International Port within its existing site, and through the future development of Bathside Bay, will be supported;
3. Existing and potential wharfage facilities with a Thameside frontage will be retained and safeguarded for the future needs of port-related development.

The Rural Economy

POLICY RE2 - Re-Use of Rural Buildings

The re-use and adaptation of existing rural buildings in the countryside, within the Metropolitan Green Belt and beyond, will be permitted provided that:-

1. the buildings are of a permanent and substantial construction, and if in the open countryside, they are capable of conversion without major or complete reconstruction; and
2. they do not damage the amenity of the countryside, or introduce additional activity likely to materially and adversely change the character of the local area or place unacceptable pressures on the surrounding rural road network (in terms of traffic levels, road safety, and amenity); and,
3. conversion does not result in economic activity on such a scale as to prejudice town and village vitality.

To promote rural enterprise and economic activity, preference will be given to the business after-use of any conversions subject to the above criteria.

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The residential conversion of listed farm buildings and the re-use of other rural buildings for residential use on isolated sites within the countryside located well away from existing settlements, will not be permitted.

POLICY RE3 - Major Developed Sites in the Countryside

Proposals for infilling or the complete or partial redevelopment of major developed sites in the countryside, within the Metropolitan Green Belt and beyond, and identified in adopted local plans, will be considered in accordance with site development briefs, the context for which will be determined in adopted local plans. Any such proposals will contribute towards the development provisions specified in this Plan.

Any proposals coming forward for determination outside the Metropolitan Green Belt which are not identified in adopted local plans, may exceptionally be permitted provided they comply with policy criteria concerning the development of such sites set out in adopted local plans and comply with other development plan policies.

POLICY RE4 - New Uses for Former Airfields

The re-use of former airfields and their associated buildings may be permitted for uses related to agriculture, forestry and ancillary purposes, indoor and outdoor recreation, or employment uses which would be compatible with a rural area and support the rural economy, except within the Metropolitan Green Belt, where proposals will be determined in relation to Policy C2. The erection of new buildings or the extension of existing buildings will be permitted if provided for in adopted local plans.

Energy Generation

POLICY EG1 - Proposals for New Power Stations

Proposals for new power stations must be justified on the basis of an identified need for additional generating capacity and should be located on sites which:-

1. are within industrial areas of the main urban areas, or within or adjoining existing power station sites, so as to minimise their impact upon the undeveloped coast and countryside. Proposals will not be permitted on remote isolated sites within the countryside and the undeveloped coast;
2. would not have a materially adverse impact on local environments of special value. Such proposals will not be permitted within Areas of Outstanding Natural Beauty, the Coastal Protection Belt, statutorily protected nature conservation sites, historic settlements, or where there would be a materially adverse impact upon landscape character or buildings/areas of architectural, historic or archaeological importance;
3. are well related to existing electricity supply infrastructure for the distribution of their electricity output;
4. enable the supply of raw materials and disposal of waste to be transported by water, rail or pipeline rather than by road. Where transport by road is unavoidable, appropriate traffic management agreements will be implemented;

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5. do not have a materially adverse impact on adjoining land-uses by reason of pollution, noise, loss of visual amenity, or risk to public health and safety.

POLICY EG2 - Renewable Energy Schemes

Proposals for renewable energy schemes will be permitted provided there is no materially adverse impact upon:-

1. existing land-uses by reason of pollution, odour, noise, or loss of visual amenity;
2. the local highway network including the convenience and safety of road users;
3. telecommunications networks, radar installations and flight paths for aircraft;
4. Areas of Outstanding Natural Beauty, the Coastal Protection Belt, statutorily protected nature conservation sites, landscape character, historic settlements, or buildings/areas of architectural, historic or archaeological importance.

In relation to off-shore schemes, the visual impact of associated on-shore electricity transmission equipment should be minimised, preferably by the undergrounding of cables, and servicing for the development should be from existing local port facilities.

POLICY EG3 - Energy Efficient Power Schemes

Proposals for energy efficient power schemes, such as combined heat and power and district heating, will be permitted within urban areas subject to other policies of the Plan.

POLICY EG4 - Energy Conservation

All new built development should incorporate principles of energy conservation in relation to the design, massing, siting, orientation and layout of buildings. Renewable sources of energy such as solar power systems should be provided within new buildings, where appropriate.

Where appropriate these principles should also be included during conversion or re-use of existing sites and buildings.

Transport

POLICY T1 - Sustainable Transport Strategy

In accordance with Policy CS5, a sustainable transport strategy will continue to be developed and implemented based on managing the demand for travel and distribution, which is integrated with land use planning, and which aims to:

1. reduce the need to travel;
2. reduce the growth in the length, duration and number of motorised journeys;
3. encourage alternative means of travel which have less environmental impact;
and
4. reduce reliance on the private car and road haulage.

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Transport proposals and investment will be prioritised to accord with the provisions of Policy T2.

POLICY T3 - Promoting Accessibility

New development should be designed so as to make appropriate provision for access for both people and goods by all forms of transport including passenger transport, cyclists, pedestrians, the mobility impaired and road traffic. In addition, proposals for new development should promote high standards of road safety within their design for all these forms of transport and should not result in a deterioration of the traffic conditions within the surrounding areas.

The owners of existing developments will be encouraged where appropriate to improve accessibility to their premises according to the same principles.

For all major development, applicants for planning permission will be required to provide a comprehensive Transport Impact Assessment which effectively demonstrates:

1. to what extent the development will minimise the length, duration and number of journeys;
2. how far the development will encourage a greater proportion of journeys by modes other than car;
3. how movement likely to be generated by the development will be properly accommodated on the surrounding transport network; and
4. how the transport needs of the development can be accommodated whilst maintaining or improving road safety and the surrounding environmental conditions for the local community.

In addition, for all major commercial developments, applicants for planning permission will be required to:

- a) provide a 'travel to work' plan (Green Commuter Plan) where appropriate;
- b) demonstrate what measures will be taken to minimise the amount and impact of additional road haulage where such development involves a significant movement of goods.

Commercial development which involves heavy goods vehicles will be required to have good access to the main road system using suitable routes based on the Road Hierarchy as defined in Policy T7.

POLICY T4 - Passenger Transport

In consultation with the transport agencies and operators, a safe, reliable and convenient network of passenger transport services will be promoted to meet the reasonable needs of the community and to provide an attractive alternative to car usage particularly for travel to, and within, urban areas. Particular priorities will include:-

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1. measures to improve the attractiveness of passenger transport services including schemes for bus priority, appropriate park and ride (both road and rail), improvements to passenger transport co-ordination and interchanges, and the development of improved facilities and services for passengers, including quality bus partnerships;
2. improvements to the existing rail network including track infrastructure and passenger facilities at railway stations, and where appropriate the development of improved services, new routes and railway stations. Active support will be given to proposed improvements to the rail network that will help reduce demand for travel by car or lorry within the Plan area, and support the development strategy and economic prosperity;
3. the identification on a periodic basis in consultation with Borough and District Councils, of an appropriate level of bus and rail service provision; such services will be promoted in conjunction with transport operators through a range of financial measures;
4. the promotion of transport mode integration through such measures as improved interchanges, integration of services, through-ticketing and comprehensive travel information;
5. where former or potential public transport corridors or sites are identified as part of a sustainable transport strategy, local authorities will protect these from development which would prejudice that transport role, through the planning process.

POLICY T7 - Road Hierarchy

The road system will be managed, improved and maintained to achieve a functional hierarchy of roads based upon the following categories :-

- Motorway
- Strategic Trunk/Non-Trunk Route
- Regional Route
- County/Urban Distributor
- Secondary Distributor
- Local Road
- Access Road

POLICY T8 - Improvements to the Primary Route Network

The highway network will be managed and maintained to optimise its safety and capacity and, where justified in environmental and economic terms, improvements will be undertaken to:

1. provide an efficient network of Primary and County/Urban Distributor Routes to support the development strategy and economic prosperity and to help regenerate those areas that are economically disadvantaged due to poor accessibility;
2. bypass communities;
3. discourage the use of less suitable routes; and,
4. improve safety and the environment.

Priority for such provision will be in accordance with the provisions of Policies CS3 and T2.

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The Department of the Environment, Transport and the Regions, will be encouraged to pursue the same priorities and provision for the Trunk Road and Motorway Network.

POLICY T9 - Roads in Urban Areas

Major new highway construction and improvement schemes within urban areas will not be permitted, except where they are essential to :-

1. facilitate major new development, comprehensive redevelopment or major urban regeneration;
2. implement a package of measures to support passenger transport, cycling and pedestrians and to improve road safety;
3. support local environmental improvement schemes.

Minor improvement schemes will be implemented primarily to improve road safety, improve conditions for cyclists, pedestrians and the mobility impaired, assist passenger transport movement, and improve the environment of a town centre or residential areas.

POLICY T10 - Environmental Impact of New Transport Infrastructure

Subject to economic considerations the adverse environmental impact of all new road and other transport infrastructure schemes will be minimised as far as possible by :-

1. Selecting routes for major transport infrastructure improvements which follow existing transport corridors, in preference to new routes crossing the countryside;
2. Avoiding areas subject to special policy protection;
3. Selecting routes which avoid severing an existing community;
4. Using existing topographical and landscape features to reduce noise and visual impact;
5. Providing mitigation measures including screening, ground modelling, planting and measures to protect wildlife;
6. Using suitable recycled materials for construction and maintenance to reduce the demand for new areas of mineral extraction and using modes other than road haulage to transport materials to and from the construction site;
7. Using design measures and materials to control noise and light pollution.

The needs of the mobility impaired, pedestrians, cyclists and horse riders will be considered in the design of schemes as appropriate.

POLICY T11 - Traffic Management

In appropriate circumstances, traffic management measures will be used throughout the Plan area to:-

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1. Improve the environment within historic areas, town centres, other shopping centres, residential areas, villages and rural areas;
2. Improve the safety and capacity of existing roads;
3. Improve conditions for passenger transport, cyclists, pedestrians, the mobility impaired and horse riders; and,
4. manage traffic demand.

POLICY T12 - Vehicle Parking

Provision for vehicle parking will be considered within the context of adopted local plans and Local Transport Plans and will have regard to the following principles :-

1. vehicle and cycle parking provision will be made in accordance with parking standards developed within the context of Regional Planning Guidance and Local Transport Plans and issued as Supplementary Planning Guidance, and taking into account the following factors:
 - a) expression as a range of maximum and operational amounts of parking for broad classes of development and location;
 - b) the degree of accessibility by a range of indicators;
 - c) the degree of road traffic congestion in town centres;
 - d) the economic vitality and viability of town centres and village centres;
2. all proposals for new development will be considered against the published parking standards;
3. restrictions upon on-street parking will be introduced where appropriate to improve safety or significantly improve traffic flow;
4. sites may be identified within or on the edge of the main urban areas for the provision of facilities for the overnight parking of lorries and other commercial vehicles and for their drivers. Such sites should have good access to the main road system using suitable routes based on the Road Hierarchy as defined in Policy T7, and will be restricted in sensitive areas.

Appropriate sites may be established for 'park and ride' use within the context of adopted local plans and as part of a sustainable transport package.

POLICY T13 - Freight Movement

The movement of freight will be provided for as follows :-

1. Sites for freight handling which are capable of being well served by both road and by transport modes other than road, such as rail, water, coastal shipping and pipeline, will be identified and safeguarded in adopted local plans. Investment in new infrastructure at such sites will be encouraged;
2. Gauge enhancements to key strategic rail routes will be encouraged;
3. The movement of lorries and other commercial vehicles will be directed on to suitable routes based on the Road Hierarchy, as defined in Policy T7, and will be restricted in sensitive areas, although essential delivery access will be permitted within town centres subject to suitable restrictions;

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4. The movement of mineral aggregates and waste materials will be subject to the appropriate criteria in Policies MIN6 and WM3.

Mineral Extraction

POLICY MIN1 - Minerals Landbank

The Mineral Planning Authorities (MPA) will endeavour to ensure that reserves of land-won sand and gravel are always available, with planning permission, sufficient for at least seven years' extraction or such other period agreed as national policy, based on the production level that may be periodically agreed by the MPA as part of the regional apportionment exercise.

POLICY MIN2 - Need for Mineral Working

Land will be made available for mineral working through the planning process to provide an appropriate contribution to local, regional and national needs.

Where an Environmental Statement is required or where material planning objections are not outweighed by other planning benefits, planning applications for mineral extraction must demonstrate the need for the proposed extraction in terms of the adequacy of the landbank and the potential of sites identified in the Minerals Local Plan (MLP) to maintain it.

In the case of preferred sites in the Minerals Local Plan (MLP), the principle of extraction has been accepted and the need for the release of the mineral proven. Applications will be allowed on such sites unless the proposal fails to meet a pre-condition or requirement in the MLP or there are unforeseen unacceptable environmental or other problems.

POLICY MIN3 - Extraction Outside Preferred Sites

Proposals for sand and gravel working on sites other than those listed in the Minerals Local Plan will only be permitted where :-

1. The reserves comprising the landbank are insufficient and/or there is some other overriding justification or benefit for the release of the site; and,
2. The proposal would be environmentally acceptable.

POLICY MIN4 - Sterilisation and Safeguarding of Mineral Sites

Wherever possible, potentially workable mineral deposits will be safeguarded from surface development that would sterilise the minerals or prejudice their working. If, in the opinion of the Mineral Planning Authority, surface development should be permitted, consideration will be given to the prior extraction of the minerals to the extent that such extraction would not be likely to render the site unsuitable for the development proposed, and that the deposit is, or may become, economically significant.

POLICY MIN5 - Existing and Potential Aggregate Importing Facilities

Existing and potential aggregate importing facilities, such as rail depots and marine

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wharves identified in the Minerals Local Plan, shall be safeguarded from alternative development.

POLICY MIN6 - Development Control

Planning applications for mineral extraction and related development will be refused where there would be an unacceptable effect on any of the following:-

1. the visual and aural environment;
2. local amenity;
3. landscape and the countryside;
4. the highway network;
5. historic and archaeological sites;
6. water resources;
7. nature conservation; and
8. best and most versatile agricultural land.

Waste Management

POLICY WM1 - Provision for Waste Management Facilities

The Waste Planning Authorities fully endorse the Government's hierarchy of waste management (reduction, re-use, recovery, disposal) and will :-

1. Seek to work with the Waste Collection and Disposal Authorities and industrial and commercial organisations to promote waste minimisation, recycling, composting and energy recovery (including anaerobic digestion) so that they can make the fullest possible contribution to waste management in accordance with the targets and objectives of the strategy for managing waste;
2. Through the Waste Local Plan, identify the land use framework for waste management facilities and potential sites and those which require restoration by landfill. Landraising (landfill levels that exceed what is essential for restoration to a beneficial after-use) will not be permitted, unless this would benefit the condition of a damaged site.

POLICY WM2 - The Principle of Self-Sufficiency

For the period 1997-2010, provision will be made for landfill of a proportion of London's waste in accordance with regional advice (currently SERP 160). Beyond 2005, provision will be made for a reduced amount; and beyond 2010 provision will only be made for some of London's pre-treated waste residues in line with the review of regional advice.

Planning applications for waste management facilities with a capacity of over 50,000 tonnes per annum must demonstrate need for the proposal and that the development is required to manage waste arising in the Plan area only. Planning obligations will be sought to achieve this aim when sites come forward for planning permission.

POLICY WM3 - Criteria for Development Control

Proposals for waste management operations and related development will be

considered in the light of the following:

1. the effect of the development on the amenity of neighbouring occupiers, particularly from noise, smell and dust;
2. the effect of the development on landscape and the countryside, particularly in AONBs, Thames Chase Community Forest and areas with special landscape designations;
3. the impact of road traffic generated by the development on the highway network;
4. the availability of different means of transport;
5. the loss of land of agricultural grades 1, 2 and 3a;
6. the effect of the development on historic and archaeological sites;
7. the availability of adequate water supplies and the effect of the development on land drainage;
8. the effect of the development on nature conservation, particularly on or near SSSIs or land with other ecological or wildlife designations;
9. In the Metropolitan Green Belt, the effect of the development on the purposes of the Green Belt as set out in Policy C1 and given effect in Policy C2.

APPENDIX 6 – PERMITTED LANDFILL SITES

PERMITTED LANDFILL SITES AT JULY 2001

List of permitted sites which can take non-inert waste

<i>District</i>	<i>Site</i>	<i>Operator</i>
Uttlesford	Crumps Farm, L Canfield *Elsenham Ugley Park, Ugley *Hollow Road, Widdington	Edwards Waste Management Ltd Brett Waste Management Ltd Hales Waste Management Widdington Contractors Ltd
Colchester	Bellhouse, Stanway	Tarmac Quarry Products (Southern) Ltd/Cory Environmental Ltd
Tendring	*Martells, Ardleigh	Bucbricks Co Ltd
Epping Forest	Leca Works, High Ongar	Waste Recycling Group
Chelmsford	*Sandon *Belsteads Farm, Broomfield Boyton Hall, Roxwell	Brett Waste Management Ltd Mid-Essex Gravel Ltd Lafarge Redland Aggregates Ltd
Basildon	Pitsea	Cleanaway Ltd
Rochford	Barling	Cory Environmental Ltd

**These sites are currently licensed for Type B waste only and higher inert waste input has been assumed. However, their total void is a very small proportion of the total.*

List of permitted sites for inert waste only

<i>District</i>	<i>Site</i>	<i>Operator</i>
Braintree	Barnards Pit, Hatfield Peverel Tile Kiln Farm, Sible Hedingham Beazley End	B Dannatt Ltd/Danbury Haulage P W Keen Ltd G B Finch
Colchester	Warren Lane, Stanway	Tarmac Quarry Products (Southern) Ltd/Cory Environmental Ltd
Tendring	Keelars Lane, Wivenhoe	Lafarge Redland Aggregates Ltd
Epping Forest	Langridge Farm, Nazeing Netherall, Roydon	Lafarge Redland Aggregates Ltd Lafarge Redland Aggregates Ltd
Chelmsford	Great Holts, Boreham	RMC Aggregates (Eastern Counties) Ltd
Maldon	Chigborough	RMC Aggregates (Eastern Counties) Ltd

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Essex (excluding Thurrock UA) totals of permitted voidspace

The total permitted void space for inert waste was 3.7 mcm at the end of 1996 and all is assumed to be available before the end of 2010.

The total permitted void space for non-inert waste was 9.23 mcm at the end of 1996 and all is assumed to be available before the end of 2010.

APPENDIX 7 – WASTE MANAGEMENT SITES

Licensed Waste Management Sites at end of September 1999

1. Civic Amenity Sites
2. Waste Transfer Stations (for A, B and C type waste)
3. Waste Transfer Stations (handling hazardous waste except clinical waste)
4. Treatment/Recycling Facilities
5. Metal Recycling Facilities
6. Composting Facilities
7. Clinical Waste Facilities
8. Major Sewage Treatment Works

KEY TO ACCEPTED WASTE TYPES:

CODE WASTE TYPE

A	CLEAN
B	NON-HAZARDOUS
B1	NON-PUTRESCIBLE WASTE
B2	SCRAP METAL
C	HOUSEHOLD
E	DIFFICULT WASTE
H	HAZARDOUS
L	LIQUID
M	METALS
P	ASBESTOS
Q	SPECIAL LIQUID WASTE
S	SOLID
X	CLINICAL WASTE

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1. CIVIC AMENITY SITES

Licensee	Site Address	District	Grid Ref	Type of Waste	Maximum Capacity pa
G H Vaughan	Pitsea Hall Road, Pitsea	Basildon	TQ745855		
Edwards W M	Perry Road, Witham	Braintree	TL828143		
Edwards W M	Braintree Road, Shalford	Braintree	TL722287		
G H Vaughan	Roman Road, Mountnessing	Brentwood	TQ638981		
G H Vaughan	Coxtie Green Road, Coxtie Green	Brentwood	TQ56959		
G H Vaughan	Newlands, Canvey Island	Castle Point	TQ818237		
Essex County Council	Ferrers Road, South Woodham Ferrers	Chelmsford	TQ801792		5000 households
Essex County Council	Drovers Way, Springfield	Chelmsford	TL720098		25,000 households
Edwards W M	Maldon Road, Shrub End, Colchester	Colchester	TL967230		
G H Vaughan	Mill Lane, Ongar	Epping	TL561026		
G H Vaughan	Town Mead, Waltham Abbey	Epping	TL379999		
G H Vaughan	Luxborough Lane, Chigwell	Epping	TQ425931		
G H Vaughan	Temple Bank, Harlow	Harlow	TL469124		
Essex County Council	Springfield Road, Burnham	Maldon	TQ94366		5000 households
Edwards W M	Park Drive, Maldon	Maldon	TL863060		
Edwards W M	Asheldham CA site, Asheldham	Maldon	TL978014		

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Licensee	Site Address	District	Grid Ref	Type of Waste	Maximum Capacity pa
G H Vaughan	Castle Road, Rayleigh	Rochford	TQ805904		
Edwards W M	Common Road, Great Wakering	Rochford	TQ953884		
G H Vaughan	Common Road, Great Wakering	Rochford	TQ953884		
G H Vaughan	Stock Road, Southend-on- Sea	Southend	TQ881873		
G H Vaughan	Leigh Marsh	Southend	TQ829857		
Edwards W M	Martin Farm, Colchester Road, St Osyth	Tendring	TM114175		
Edwards W M	West End, Hall Lane, Dovercourt	Tendring	TM247301		
Edwards W M	Malting Lane, Kirby-le-Soken	Tendring	TM231221		
Edwards W M	Thaxted Road Saffron Walden	Uttlesford	TL557374		

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2. LICENSED WASTE TRANSFER STATIONS (FOR TYPE ABC WASTE)

Licensee	Site Address	District	Grid Ref	Waste Type	Quantity Limit pa Tonnes
P F Ahern (London) Ltd	19 Heron Court, Cranes Farm Road	Basildon	TQ727906	AB (Cement bonded asbestos)	25,000
PGR Waste Management Ltd	Archers Field	Basildon	TQ734903	AB (Also recycling centre)	75,000
G H Vaughan (Contractors) Ltd	Cranes Close	Basildon	TQ727906	ABC (Batteries)	25,000
A M Stone	Unit 8, Nevendon Ind Estate, Harvey Road	Basildon	TQ737793	AB	25,000
Basildon DC	Barleylands Depot, Barleyland Road	Basildon	TQ694918	ABCD+ (Batteries)	5,000
Victor	Hungary Hall, Colne Engaine	Braintree	TL867321	AB	5,000
Essex County Council	Witham Transfer Station, Perry Road	Braintree	TL828135	ABC	75,000
Commercial Services	Cordons Farm, Long Green, Ashes Road	Braintree	TL780215	AB (Asbestos & Batteries)	5,000
Heatherland Ltd	Hallsford Bridge Ind Estate, Plot 6, Stondon Road, Ongar	Brentwood	TI1583018	AB1B2	75,000
Phillip W Keen Ltd	Hallsford Industrial Estate, Stondon Massey	Brentwood	TL563019	AB	25,000
Transwaste (Essex) Ltd	Brunel Road, Manor Estate, Benfleet	Castle Point	TQ777892	AB	25,000
B W Rice Plant & Skip Hire Ltd	Romainville Way, Charfleets Ind Estate	Castle Point	TQ771831	AB	75,000

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Licensee	Site Address	District	Grid Ref	Waste Type	Quantity Limit pa Tonnes
Mr A P Goldie	27 Vikings Way, Canvey Island	Castle Point	TQ777833	AB	5,000
Mr R Love	Mayphil, Battlesbridge	Chelmsford	TQ775945	AB	5,000
Pharaoh & Company Ltd	14 Boreham Ind Estate, Waltham Road, Boreham	Chelmsford	TL760106	AB	5,000
Lowery Transport Ltd	Templewood Ind Estate, Stock Road	Chelmsford	TL707007	A	5,000
Mr Keith Michael Moss	Templewood Depot, West Hanningfield, Chelmsford	Chelmsford	TL707007	AB	5,000
Eastern Waste Disposal	Morses Lane Ind Estate, Brightlingsea	Colchester	TM086180	ABD	5,000
T J W & H A Price	Morses Lane, Brightlingsea	Colchester	TM086180	AB	5,000
D Wallis	Unit 7, Regal Works, Plummers Road, Fordham	Colchester	TL932301	AB	5,000
T R Slade, P C Slade, M R Slade	Greenacres, Old Packards, Wormingford	Colchester	TL935304	AB (Accepts cement bonded asbestos)	25,000
T J, J C, & M J Watling	63 Straight Road, Boxted	Colchester	TM000314	AB	5,000
D J Cook & D V Cook	Patch Park Farm, Abridge	Epping	TQ484969	AB1	4,999
E D Edwards Waste Management	'Barnfield', Tyler Cross, Roydon	Epping	TL419078	ABC	25,000
Thorn Security Ltd	Unit 3, Langston Road, Prospect Business Park, Loughton	Epping	TQ447962	E	4,999

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Licensee	Site Address	District	Grid Ref	Waste Type	Quantity Limit pa Tonnes
F Darlington	"Threshers", Hastingwood Road, Hastingwood	Epping	TL4840703	AP	28,800
David R Brown	"Rosedene", Magdalen Laver	Epping	TL508074	CQ	4,999
Grange Hill Builders Merchants	183 Manor Road, Chigwell	Epping	TQ449925	AB	25,000
Harlow District Council	Mead Park Depot, Riverway	Harlow	TL545115	AB1P	4,999
D B Gillett, B J Gillett & J W Hammond	10 Burnt Mill, Elizabeth Way, Harlow	Harlow	TL443111	AB1B2	24,999
Mr A Wiseman	Tavern Garage	Maldon	TL853077	AB	5,000
Profitadapt Ltd	The Elms Coal Yard, Main Road, Mundon	Maldon	TL872021	AB	5,000
Mr A J Goodwin	Plot 36, Star Lane	Rochford	TQ935872	AB	5,000
Franklin Hire Ltd	Unit 1, Rawreth Ind Estate	Rochford	TQ796923	AB	25,000
Albert James Dowell	1 and 2 Watts Lane	Rochford	TQ878902	AB	5,000
T Little	Brickfields Way, Purdeys Ind Estate	Rochford	TQ88399	AB	5,000
Mr Frederick H Swift	Carters Yard, Rawreth Ind Estate, Rayleigh	Rochford	TQ796923	AB	25,000
Cleanaway Ltd	Potters Way, Southend-on- Sea	Southend	TQ879884	AB	25,000
PF Ahern (London) Ltd	Plot 9, Stock Road	Southend	TQ878877	AB (Bonded Asbestos)	25,000

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Licensee	Site Address	District	Grid Ref	Waste Type	Quantity Limit pa Tonnes
Southend-on-Sea Borough Council	Southend Cleansing Depot, Eastern Avenue, Southend-on-Sea	Southend	TQ880875	ABC (Recycling Centre & Other Activities including storage small quantities of clinical waste)	75,000
Shotley Holdings Ltd	TP Collar, Martells Pit, Slough Lane, Ardleigh	Tendring	TM049280	AB (Clinical Waste)	25,000
R Danby	Stephenson Road, Gorse Lane Ind Estate, Clacton	Tendring	TM187180	AB	5,000
Onyx LAS Ltd	TDC, Oakwood Bus Park, Stephenson Road, West Clacton	Tendring	TM183182	AB	5,000
A W Mapes	South Strand, Riverside Avenue, Lawford, Manningtree	Tendring	TM100323	AB	5,000
S Malins	Railway Cottage, Station Road, Little Dunmow	Uttlesford	TL664213	AB	5,000

3. LICENSED WASTE TRANSFER STATIONS (handling hazardous except clinical waste)

Licensee	Site Address	District	Grid Ref	Waste Type	Max. Capacity
Safety Kleen UK Ltd	Christy Way, Southfield Ind Estate	Basildon	TQ665893	Solvent	25,000
Oikos Storage Ltd	Canvey Island	Castle Point	TQ779823	Hazardous liquid	75,000

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4. TREATMENT/RECYCLING FACILITIES

Licensee	Site Address	District	Grid Ref	Waste Type	Max. Capacity
Cleanaway	Wat Tyler Way, Pitsea	Basildon	TQ742852	Neutralisation	-
Alpheus Environmental Ltd	Basildon Sewage Treatment, Courtauld Road	Basildon	TQ737908	Oil Recovery 7 Neutralisation	-
Oikos Storage Ltd	Canvey Island	Castle Point	TQ779825	Oil Recovery	-
P J Cars and Plant Ltd & K M Moss	Compounds P&Q, Templewood Est. Stock Road, West Hanningfield	Chelmsford	TL705007	A	75,000
Alpheus Environmental Ltd	Colchester Sewage Treatment Works, Haven Road	Colchester	TM019234	Oil recovery and neutralisation	Not stated
Energyready Ltd	39 High Street, Rowhedge	Colchester	TM031214	Recovery of Refrigerants	5,000
Thorn Security Ltd	Unit 3, Prospect Business Park, Langston Road, Loughton	Epping	TQ447962	Recovery of fire extinguishers	5,000
UK Waste Management Ltd	Key Glass Works, Edinburgh Way	Harlow	TL461119	A	119,999
Mr B G Appleton	Loamylands Farm, Loamy Hill Road, Tolleshunt Major, Maldon	Maldon	TL886132	Composting	5,000 TPA
Primary Organic Recycling Ltd	Stewards Yard, Waking Road, Shoeburyness	Southend	TQ946865	Green waste	5,000

5. LICENSED METAL RECYCLING SITES

Licensee	Site Address	District	Grid Ref	Waste Type	Max. Capacity
Robert Works	Wrexham Road, Laindon	Basildon	TQ677884	Mixed metal recycling	
S Munro	Burford's Yard, Russel Gardens, Wickford	Basildon	TL721054	M	5,000
Mr A R Harter	The Willows, 84 Mashey Road, Little Yeldham, Halstead	Braintree	TL773405	Vehicle dismantling	
Mr B D Moss Thames	Four Oaks Yard, Clapgate Estate, Chivers Road, Stondon Massey	Brentwood	TL573003	Non-hazardous Mixed Metal Recycling	
Holding & Barnes (CI) Ltd	Kings Road, Canvey Island	Castle Point	YQ774831	Vehicle Dismantling	
P Smith	Unit 19, Brunel Road, Manor Trading Estate, South Benfleet	Castle Point	TQ778892	Vehicle Dismantling	5,000
Mr Bernard Street	2 Temple Farm Ind Estate, Ship Road, West Hanningfield	Chelmsford	TL711010	Vehicle dismantling	5,000
Chelmsford Metals Ltd.	Hill Road South, Navigation Road	Chelmsford	TL715075	Metal	5,000
Boreham Scrap Co	Unit 13, Boreham Ind Estate, Waltham Road, Boreham	Chelmsford	TL759109	Mixed metal recycling	
Douglas WS Slessor	Temple Farm Ind Estate, Ship Road, West Hanningfield	Chelmsford	TL11010	Vehicle dismantling	

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Licensee	Site Address	District	Grid Ref	Waste Type	Max. Capacity
Pharaoh & Company Ltd	Unit 14, Boreham Ind Estate, Waltham Road, Boreham	Chelmsford	TL760106	SBAM Paper, plastic, can recycling	
Mr C Anderson	Temple Farm Ind Estate, Ship Road, West Hanningfield	Chelmsford	TL711010	Vehicle dismantling	
Recycled Motorparts Ltd	Unit 15, Boreham Ind Estate, Boreham	Chelmsford	TL759109	Vehicle dismantling	
F Murphy Alloys Ltd	Temple Wood Estate, Stock Road, West Hanningfield	Chelmsford	TL706008	Metals	
Pooles Lane Auto Spares Ltd	Pooles Lane, Highwood	Chelmsford	TL639034	Vehicle dismantling	
T H Loeber & Partners	Trading Estate, Downham, Billericay	Chelmsford	TQ718957	Vehicle dismantling	
B E Turnbridge Hanningfield Metals	Templewood Estate, West Hanningfield	Chelmsford	TL706007	Mixed metal recycling	
Mr J B & Mrs C A Wilburn	Haven Road, Hythe Quay, Colchester	Colchester	TM015241	Vehicle dismantling	
S J Bell	Allshots Farm, Woodhouse Lane, Kelvedon	Colchester	TL829205	Vehicle dismantling	5,000
G D Thornwood Metal Co Ltd	Randall Works, Woodside, Thornwood Common	Epping	TL445474	SM	
Freecomp Limited	Thele, Woolmongers	Epping	TL582018	HM	
D Gillett Metals	37 Burnt Mill	Harlow	TL443110	HM	

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Licensee	Site Address	District	Grid Ref	Waste Type	Max. Capacity
AWA Refiners Ltd	Unit 10, Mead Ind Park, Templefields	Harlow	TL464119	SM	
A Clarke & Sons Ltd	Whitehouse Meadow, Felsted, Dunmow	Maldon	TL700229	M	5,000
F W Dash & W H Dash	Pippin House, Maldon House, Latchingdon	Maldon	TL877005	M	5,000
Mr F C & Mr T F Mitchell	Car Breakers Yard, Russell Road, North Fambridge	Maldon	TQ858982	Vehicle dismantling	
Mr J Rogers & Mrs J M Rogers	Lower Farmer, Steeple Road, Mayland	Maldon	TL926018	Vehicle dismantling	
F Burnham	Unit 12a, Rawreth Ind Estate, Rawreth Lane, Rayleigh	Rochford	TQ796922	Vehicle dismantling	5,000
C W C Kirby Ltd (Metal Merchants)	Brickfields Way, Purdeys Estate, Rochford	Rochford	TQ884900	Vehicle dismantling	
Mr J Acton	Station Goods Yard, Thorrington, Colchester	Tendring	TM093212	Vehicle dismantling	
A J Oliver	Walton Salvage Foundry Yard, Harmers Foundry, Hall Lane, Walton-on-the-Naze	Tendring	TM247229	Vehicle dismantling	5,000
Mr J M Lilley	Whitegates, Lindsell, Great Dunmow	Uttlesford	TL643268	Vehicle dismantling	

6. COMPOSTING FACILITIES

Licensee	Site Address	District	Grid Ref	Waste Type	Max Capacity
Cleanaway Ltd	Pitsea Landfill Site, Pitsea Hall Lane	Basildon	TQ742849	Selected compostable materials	25,000
Heatherland Ltd	Stondon Hall Farm, Ongar Road, Stondon Massey	Brentwood	TL574017	Household	75,000
Composting Recycled Organic Waste Ltd	Old Nursery Site, Mulberry Green	Harlow	TL472121	Household	4,999
Primary Organic Recycling Ltd	Stewards Yard, Wakering Road	Southend		Green waste	

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7. CLINICAL WASTE FACILITIES

Licensee	Site Address	District	Grid Ref	Waste Type	Max Capacity
Personal Hygiene	Plot 6, Hurricane Way, Wickford	Basildon	TQ764923	Storage	5,000 TPA
Mr & Mrs Gemmill	Woods Farm, Moreton Road, Moreton	Epping Forest	TI543058	Pet Crematorium	50 km an hour
Albany Rental Supply Ltd	Eastwood Boulevard, Westcliff	Southend	TQ854868	Storage	5,000 PTA

8. MAJOR SEWERAGE TREATMENT WORKS

Site Address	Operator	District	Grid Ref
Basildon	Thames Water Utilities Ltd	Basildon	TQ73769081
Billericay	Thames Water Utilities	Basildon	TQ69809430
Pitsea	Thames Water Services Ltd	Basildon	TQ73708680
Wickford	Thames Water Utilities Ltd	Basildon	TQ7681401
Bocking	Anglian Water Services Ltd	Braintree	TL77502430
Braintree	Anglian Water Services Ltd	Braintree	TL76692176
Coggeshall	Anglian Water Services Ltd	Braintree	TL85952136
Felstead	Anglian Water Services Ltd	Braintree	TL66812066
Gosfield	Anglian Water Services Ltd	Braintree	TL7825911
Halstead	Anglian Water Services Ltd	Braintree	TL83602970
Shalford	Anglian Water Services Ltd	Braintree	TL72502930
Sible Hedingham	Anglian Water Services Ltd	Braintree	TL79113303
Witham	Anglian Water Services Ltd	Braintree	TL82901420
White Notley	Anglian Water Services Ltd	Braintree	TL 70931823
Doddinghurst	Anglian Water Services Ltd	Brentwood	TQ60639892
Shenfield & Hutton	Anglian Water Services Ltd	Brentwood	TQ65109600
Abbess Roding	Thames Water Utilities Ltd	Brentwood	TL575111
Moreton	Thames Water Utilities Ltd	Brentwood	TL536068
Stanford Rivers	Thames Water Utilities Ltd	Brentwood	TQ54449957
Willingale	Thames Water Utilities Ltd	Brentwood	TL589070
Benfleet	Thames Water Utilities Ltd	Castle Point	TQ768086640
Canvey Island	Thames Water Utilities	Castle Point	TQ7880210
Chelmsford	Anglian Water Services Ltd	Chelmsford	TL74010471
Ingatestone	Anglian Water Services Ltd	Chelmsford	TQ662009920
South Woodham Ferrers	Anglian Water Services Ltd	Chelmsford	TQ80009727
Great Leighs	Anglian Water Services	Chelmsford	TL2481622
Roxwell	Anglian Water Services	Chelmsford	TL6460859
Birch	Anglian Water Services Ltd	Colchester	TL93891968
Brightlingsea, Church Road	Anglian Water Services Ltd	Colchester	TM0701780

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Site Address	Operator	District	Grid Ref
Copford	Anglian Water Services	Colchester	TL93172341
Dedham	Anglian Water Services	Colchester	TM05953352
Eight Ash Green	Anglian Water Services Ltd	Colchester	TL93202688
Fingringhoe	Anglian Water Services Ltd	Colchester	TM03962100
Great Tey	Anglian Water ServicesLtd	Colchester	TL89022536
Great Totham	Anglian Water Services Ltd	Colchester	TL86341157
Langham	Anglian Water Services	Colchester	TM025325
Layer-de-la-Haye	Anglian Water Services	Colchester	TL98642043
Tiptree	Anglian Water Services	Colchester	TL90631654
West Bergholt	Anglian Water Services	Colchester	TL95982572
Colchester	Anglian Water Services Ltd	Colchester	TM01022774
Earls Colne	Anglian Water Services Ltd	Colchester	TL86602934
Epping	Thames Water Utilities	Epping Forest	TL455003
Maldon	Anglian Water Services Ltd	Maldon	TL89030726
Tollesbury	Anglian Water Services Ltd	Maldon	TL96281076
West Mersea	Anglian Water Services Ltd	Maldon	TM0761255
Burnham-on-Crouch	Anglian Water Services Ltd	Maldon	TQ9579547
Steeple Bumpstead	Anglian Water Services Ltd	Maldon	TL68304180
Havengore	Anglian Water Services Ltd	Rochford	TQ96708820
Rayleigh-East	Anglian Water Services Ltd	Rochford	TQ82809050
Rayleigh-West	Anglian Water Services Ltd	Rochford	TQ79709410
Rochford	Anglian Water Services Ltd	Rochford	TQ91009210
Southend	Anglian Water Services Ltd	Southend	TQ88068733
Great Bromley	Anglian Water Services Ltd	Tendring	TM08312591
St. Osyth	Anglian Water Services Ltd	Tendring	TM10561333
Thorington	Anglian Water Services Ltd	Tendring	TM07842055
Walton-on-the-Naze	Anglian Water Services Ltd	Tendring	TM26152433
Great Dunmow	Anglian Water Services Ltd	Uttlesford	TL63682091
Wethersfield	Anglian Water Services Ltd	Uttlesford	TL70623062
Saffron Walden	Anglian Water Services Ltd	Uttlesford	TL53153850

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Site Address	Operator	District	Grid Ref
Great Easton	Anglian Water Services Ltd	Uttlesford	TL59582515
Newport	Anglian Water Services	Uttlesford	TL52403450
Elmdon	Anglian Water Services	Uttlesford	TL47004032
Quendon	Anglian Water Services	Uttlesford	TL52003120
Wendens Ambo	Anglian Water Services Ltd	Uttlesford	TL520363
Audley End	Anglian Water Services Ltd	Uttlesford	TL523378
Bishops Stortford	Thames Water Utilities Ltd	Uttlesford	TL50231947
Clavering	Thames Water Utilities	Uttlesford	TL47683164
Hatfield Heath	Thames Water Utilities	Uttlesford	TL522140
Leaden Roding	Thames Water Utilities	Uttlesford	TL592131
Little Hallingbury	Thames Water Utilities Ltd	Uttlesford	TL494174
Stansted Mountfichet	Thames Water Utilities Ltd	Uttlesford	TL50092428
Takeley	Thames Water Utilities Ltd	Uttlesford	TL54972109
Thornwood	Thames Water Utilities Ltd	Uttlesford	TL569136
White Roding	Thames Water Utilities	Uttlesford	TL569136

APPENDIX 8 – CONSULTATION AND PUBLICITY

CONSULTATION AND PUBLICITY ARRANGEMENTS

1. The WP Consultation Draft was published in May 1996 after approval by the Environment Committee. A period of consultation followed for at least six weeks during Summer 1996.
2. A Second Consultation Draft was published in December 1997 and a period of consultation extended to March 1998.
3. The Deposit Draft was published in November 1998 with a six weeks consultation period that lasted until January 1999.
4. A Modifications document was produced following a Public Inquiry at the end of 1999 into the Deposit Draft. The consultation on this ended on the 25 May 2001.
5. At each stage, wide publicity was given, including statutory press notices and a copy of the Plan was available at all Libraries, District Council Offices and County to enable the public to view the document.
6. The consultees included:
 - i. Statutory consultees - .eg Government Departments
 - ii. District and Parish Councils in Essex
 - iii. Waste Planning Authorities in the South-East Region and SERPLAN
 - iv. Amenity Societies – eg CPRE
 - v. ECC departments
7. In addition, copies of all the Drafts were/are available for purchase.
8. All views were considered and amendments made to the Draft and Modifications documents as appropriate.

APPENDIX 9 – BIBLIOGRAPHY

BIBLIOGRAPHY (ALPHABETICAL)

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APPENDIX 10 – COUNTY MATTERS

DEVELOPMENT INVOLVING COUNTY MATTERS

To whom County Matter Applications should be made

1. Essex County Council and Southend Unitary Authority are the responsible planning authorities for determining “County Matter” applications which are those proposals relating to mineral working, waste disposal and related developments.

Definition of County Matters

2. County Matters are defined by statute (see Town and Country Planning Act 1990, Schedule 1: Town and Country Planning (Prescription of County Matters) Regulations 1980 and guidance is given by the Department of the Environment (see Circular 2/81, Appendix A; PPG12, para 3.23; PPG10, Annex C).

Further clarification of this guidance is given in The Essex Planning Officers’ Association document entitled: “Development Involving County Matters: Guidance Notes”, which is available from the County Planning Division on request (cost £5).

To clarify, the following are prescribed as County Matters.

Minerals

- a. Winning and working of Mineral (see also Notes ii, iii, vi and vii).
- b. The erection of buildings, plant or machinery to be used in connection with the winning and working of minerals, or for the treatment or disposal of minerals on land adjoining mineral workings; (see also Notes vi and vii).
- c. The erection of buildings, plant or machinery (or the use of land) for any process of preparing or adapting a mineral for sale or manufacturing a product from where it
 - i. the development is on or adjoining the mineral workings, or
 - ii. the mineral is to be brought from the mineral workings by pipeline, conveyor belt, aerial ropeway or similar plant or machinery, or by private road, private waterway or private railway (see also Notes vi and vii).
- d. The erection of buildings, plant or machinery which a mineral operator proposes to use for grading, washing, grinding or crushing of minerals (no matter where they are sited) (see also note ix).
- e. The use of land for any purpose required in connection with rail or water transport for aggregates (including manufactured aggregates slags, fuel ash or mineral waste) and the erection of associated buildings, plant and machinery.
- f. The erection of buildings, plant or machinery for use for coating roadstone,

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producing concrete or concrete products or artificial aggregates where:-

- i. the development is on land forming part of or adjoins a mineral workings,
 - or
 - ii. the development is on land forming part of or adjoins land used in connection with rail or water transport of aggregates
- g. Searches and tests for mineral deposits (and the erection of associated buildings, plant and machinery).
- h. Depositing of mineral waste.
- i. Cement works.
- j. Any development, on a current or disused mineral working site which would conflict with or prejudice compliance with a restoration condition imposed in respect of the mineral working; (see also Notes I, ii and vii).

Waste

- k. Waste disposal sites, including waste transfer stations and similar facilities for treating, storing, processing or disposing of refuse or waste materials (see also Notes i-viii inclusive).
- l. The use of land or the carrying out of operations in or on land for the deposit of refuse or waste materials.
- m. The erection of any building, plant or machinery designed to be used wholly or mainly for purpose of treating, storing, processing or disposing of refuse or waste materials.

Notes

3. In Annex C of PPG10 the DETR offers the view that all of the following items will be 'County Matters' if they involve the use of the land or the carrying out of operations in or on the land for the deposit of refuse or waste materials, or if the application concerns the erection of any building plant or machinery designed to be used wholly or mainly for treating, storing, processing or disposing of refuse or waste materials:
 - a. scrapyards;
 - b. clinical and other types of waste incinerator;
 - c. landfill and landraising sites;
 - d. waste storage facilities;
 - e. sewage treatment plants;
 - f. dredging tips;
 - g. recycling and waste reception centres;
 - h. waste processing and composting plants; and
 - i. concrete crushing and blacktop reprocessing facilities.

This list is for general guidance only and is not intended to be exhaustive. (see also Note (w))

Problems may arise in the interpretation of the guidance for some types of development proposal. To assist, the following additional guidance is given:-

- i. The provisions set out in 2(j) relate to current or disused landfill sites as well as mineral working, by virtue of the Planning and Compensation Act I 1991, Schedule 1.
- ii. Where a mineral to be extracted would be a necessary by-product ie foundation excavation or the waste to be imported is a necessary requirement to that development ie sub-base to floor/ground stabilising, and as such is wholly subordinate and ancillary to that development, this is not considered to be a County Matter. Where any proposed mineral extraction or waste importation is of such a scale that a separate operation would be created in its own right, this would require a separate application to the County Council (see *West Bowers Farm Products v Essex County Council*, 1985). Determining the presence of a separate mineral/waste element to a proposal should be the subject of consultation with the County.
- iii. Applications for proposals for the afteruse of mineral/landfill sites which are not related to agriculture, forestry or amenity are not County Matters and should be the subject of a separate planning application to the Borough/District in whose area the site falls. Nevertheless, it is right for the County Council in considering an application for new extraction/landfill to investigate the suitability of the afteruse as far as it affects the landform and restoration proposals. The County Council will, however, stop short of giving permission for afteruses except in the case of agriculture, forestry or amenity. Where the proposed afteruse will dictate the landform, the prior agreement of the Borough/District needs to be established before the development will be approved by the County Council. Should a proposal be for an after-use, and this would need to be made – one to the Borough/District for the use, the other to the County Council for the amendment to the approved restoration/after scheme. The Councils will consult each other to ensure co-ordination of decisions.
- iv. Under the guidance given in PPG10 (Annex C) an application for planning permission for a material change of use of an existing building, or of a building to be used wholly or mainly for the purposes of treating, storing or disposing of refuse or waste materials will be a district matter if the use does not include the deposit of refuse or waste materials. Applications concerning the use of land for the carrying out of operations for collecting, treating, storing, processing or disposing of refuse or waste materials (as opposed to those for erection of a building, plant or machinery for such purposes) will be district matters if they do not end with the depositing of refuse, waste materials or their residuals. This may be taken to mean the use of an existing building or an open use where the refuse or waste does not enter the chain leading to landfill eg reuse of waste in a manufacturing process, but not taken to mean where a reusable material is recover leaving a residue to be disposed of.
- v. Only where the refuse/waste element of a proposal is the primary use will the application by a County Matter. For example, a proposal where skip hire,

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haulage or vehicle maintenance is the primary use of the land the recycling, transfer storage etc of refuse or waste would be a district matter for the avoidance of doubt the County Council should be consulted before an application is registered.

- vi. Built or other development ancillary to a mineral/waste operation on or adjacent to the site of the operations is a County Matter.
- vii. Built or other development (temporary or permanent) on an operational site for a proposal not related to the mineral/waste operations would not be a County Matter where development does not interfere with an aftercare or restoration condition attached to any mineral/waste operations planning permission. However, in all cases the County should be consulted.
- viii. Leachate treatment plants and landfill gas extraction and power generation operations, at or adjacent to waste operation sites are County Matters where they comprise part of the management scheme for the operations and/or where they would affect the approved restoration scheme for the site.

Enforcement

- 4. The allocation of functions in respect of the enforcement provisions within the Town and Country Planning Act 1990 is set out in Schedule I, para II.

The functions in general would be exercisable by the District Planning Authority subject to the following:

- i. In a case where it appears to the District Planning Authority that enforcement would relate to a County Matter, they shall not exercise those functions without first consulting the County Planning Authority.
- ii. Subject to the following paragraph, enforcement functions shall also be exercised by the County Planning Authority in a case where it appears to the County Authority that they relate to a matter which should properly be considered a County Matter.
- iii. In relation to a matter which is a County Matter by virtue of any of the provisions of Schedule I para I(I)(a) to (h) the functions of a local planning authority shall only be exercised by the County Council in their capacity as Mineral Planning Authority.

Other Matters

- 5. Potential applicants are encouraged to carry out pre-submission discussion with both the County Council and the relevant Borough/District Council.
- 6. Minerals and waste development proposals by a District/Borough planning authority within its own area and for its own purposes are not County Matters, although the County Council will be consulted on such proposals. Proposals involving minerals/waste by a local planning authority outside its area or not for its own purposes are County Matters and any application should be made to the County Council (see Town and Country Planning General Regulations 1992).

7. Applications under Sections 191 and 192 of the 1990 Act (as amended by the 1991 Act) in respect of a certificate of lawfulness of existing use or development, or of proposed use or development where the use or development relates to a County Matter, should be made to the County Council.
8. There is no definition of waste in the Town and Country Planning Act, 1990. The Environmental Protection Act 1990 introduced a definition of waste although this has now been amended as a result of the adoption of the EC Framework Directive on Waste.

Guidance in PPG23 provides that developments which may give rise to pollution must be made in accordance with relevant EC Directives – in particular the EC Framework Directive on Waste. Implementation of the Directive is through the Waste Management Licensing Regulations 1994 and Circular 11/94 (Environmental Protection Act 1990: Pt II, Waste Management Licensing. The Framework Directive on Waste.

The Department of the Environment has provided guidance on the definition of waste (Directive waste) in Annex 2 to DoE Circular 11/94 as follows:

“Directive waste means any substance or object set out in Part II of Schedule 4 to the Waste Management Licensing Regulations 1994 which the producer or the person in possession of it discards or intends or is required to discard but with the exception of anything excluded from the scope of the Directive by Article 2 of the Directive.”

The Circular also provides an interpretation of the definition of waste.

9. Applications for hazardous substances consent should be made to the County Council only where the land is used for mineral working or for waste disposal. In all other cases, the Borough/District is the appropriate hazardous substances authority (see Circular 11/92, Annex A, para 9).
10. Guidance for applicants as to the information requirements of the County Council is available from the Planning Helpline at County Hall (01245 437530).
11. In cases of any doubt on any issues relating to County Matters applications, please contact the Planning Helpline at County Hall (01245 437530) or the Planning Department at the District/Borough Council in whose area the proposal would be situated.

APPENDIX 11 - GUIDANCE NOTES FOR WASTE RELATED PLANNING APPLICATIONS

Introduction

The County Council and Southend on Sea Borough Council are the local planning authorities responsible for the determination of applications relating to mineral working, waste handling and disposal within Essex and Southend on Sea respectively. These are invariably contentious issues, introducing activities which are seen as being conspicuous and damaging to the environment. In close proximity to residential development the generation of noise, dust, air, and water borne pollution and heavy goods vehicle movements by mineral and waste developments could seriously jeopardise local amenity. Planning applications for such developments, therefore, need to be thoroughly prepared so the impact can be fully assessed.

These guidance notes are intended to aid applicants in the preparation of their planning applications for waste related developments. For mineral operations and associated developments separate planning application forms and guidance notes are available. The guidance outlines the range of information that may be required by the Waste Planning Authority (ie Essex County Council or Southend on Sea Borough Council, as appropriate) to ensure that sufficient information is available to make a considered judgement on the application.

The content of an effective application depends on the scale, nature and location of the development and on its potential impact. Applicants will, therefore, need to consider the following and provide information as appropriate.

Planning Policy Background

Prospective developers will need to examine their proposals in the light of relevant development plan policies as well as relevant Government Guidance in the form of Planning Policy Guidance Notes (PPGs), from which the Waste Planning Authorities develop development plan policies. PPGs are available from the HMSO Publications Centre, P.O. Box 276, London, SW8 5DT. PPG1 and PPG12 advise that, under the provisions of the current Planning Acts, planning applications should be determined in accordance with the development plan so far as it is relevant to the application unless material considerations indicate otherwise. If an applicant proposes a development which is contrary to the provisions of the development plan, the planning application needs to include sufficient reasons to provide justification for over-riding adopted development plan policies.

In Essex and Southend the development plan consists of the Adopted Essex and Southend on Sea Replacement Structure Plan (April 2001), the Essex and Southend Waste Local Plan and the appropriate adopted District or Borough local plan. Until all these local plans are adopted, it may also be necessary to consider the provisions of various emerging drafts of local plans.

Section 54A of the Town and Country Planning Act 1990 reinforces the importance of planning decisions being made in accordance with the development plan unless material considerations indicate otherwise. Having regard to the aforementioned policy documents, applicants should be aware that appeals which clearly “fly in the

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face” of such policies, and obviously had no reasonable prospect of success will run the risk of an award of costs against them, depending on the circumstances.

Environmental Assessment

Environmental Assessment (E.A.) is a process by which information about the likely environmental effects of certain major projects is collected, assessed and taken into account both by the applicant, as part of his project design, and by the Waste Planning Authorities in deciding whether permission should be granted. The environmental information comes from a wide range of sources which the applicant needs to collect and present in an Environmental Statement which accompanies the planning application. Specialist public bodies provide information and guidance to both the applicant and the planning authority.

The analysis of the environmental information enables an assessment to be made of possible effects of the proposal on the environment and the scope for modifying or mitigating these effects during its design and later before a decision is made.

Guidance is available from the DoE Circular 02/99 entitled “Environmental Impact Assessment”, “Environmental Impact Assessment: A Guide to the Procedures” DETR November 2000, which are available from HMSO Publication Centre, and “The Essex Guide to Environmental Assessment” available from the County Planning Division June 2001 (cost £20).

Making a County Matter Application

Planning applications for County Matter developments should be made direct to the County Council via the Planning Division, County Hall, Chelmsford, CM1 1QH, or to Southend on Sea Borough Council, Technical Services and Environmental Department, PO Box 6, Civic Centre, Southend on Sea, SS2 6ER (if the application is within the Borough of Southend on Sea). Each application must be accompanied by the following:-

To assist the consultation process **eight copies of the application** including the plans and any other supporting material, using the application forms available from the relevant Council are sought. Applications for a variation of a planning condition on an existing permission, may be made by means of a letter which should conform to the provisions of the General Development Procedure Order 1995 as set out in the Town and Country Planning (Application) Regulations 1988. To confirm the location of the site a copy of the original location plan would be of assistance.

Completed certificates as required by Article 7 of the 1995 General Development Procedure Order, this details the applicant’s interest in the land affected by the proposal and ensures others with an interest in the land eg tenants, are aware of the application.

The appropriate application fee; details of the appropriate fee for each type of proposal are listed in the Town and Country Planning (Fees for Applications and Deemed Applications) (Amendment) Regulations 1997. Further guidance on planning application fees for County Matter applications are available from the Planning Authority. Cheques should be made payable to Essex County Council or

Southend on Sea Borough Council respectively.

Generally, County Matter applications will need to be **submitted in full**, detailing exactly what is proposed accompanied by detailed drawings. Outline applications may be submitted for new buildings in order to gauge the Waste Planning Authority's views on the proposal prior to submitting the details for subsequent approval.

Applicants are strongly recommended to discuss their proposals with the Waste Planning Authority and other statutory bodies prior to submitting their application. Applicants need to consider the relevant issues outlined below and within the application form in preparing their proposals and provide the information where necessary.

Exploratory Investigations

Geological information will be needed whenever waste is to be deposited. Data on the characteristics of the site will normally be derived from boreholes or trial pits. Copies of the logs should accompany the application. (Note these may themselves require planning permission in some circumstances specified in the General Permitted Development Order 1995, Schedule 2, Part 22).

The site evaluation will also need to include a hydrological and hydrogeological survey giving details of the level of the watertable from borehole data, the location of any springs, wells or watercourses on or adjacent to the site to allow an assessment of the potential implications of the development on groundwater pollution. This should include the results of consultations with the Environment Agency on the potential effects on land drainage, flooding and surface and ground water protection. Implications of the operations on adjacent land, notably in relation to land drainage, ditches, water courses and wells, should also be specified.

If waste disposal is proposed below the water table there should be accompanying information to show that the effects of the infill on the groundwater levels and the flow paths have been considered. In particular what measures are being taken to prevent unacceptable groundwater build up on the up-gradient side of the site and what measures are being taken to prevent groundwater cut-off to groundwater dependent features or abstractors on the down gradient side.

Plant and Machinery

Details of any proposed ancillary plant associated with, landfill, recycling and waste handling, including buildings, offices and weighbridges and wheel cleaning will also be required including the location, plans and elevations, gross floorspace, lighting, colour and materials. Maintenance would normally be expected to occur during normal working hours. Means of screening visual and aural disturbance will also need to be described.

Dust and Odours

Applicants will need to consider and identify within the application potential sources of dust and odours likely to be generated by the proposed operations and include measures to control and monitor emissions, for example, water sprays on site roads

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and stockpiles to stop dust becoming windborne when dry. Odours can be minimised by proper management of the site which minimises exposure of waste to the air and by the proper control of landfill gas. Developers should be aware of the requirements of other legislation such as the Environmental Protection Act 1990.

Noise and Vibration

Any proposal which is likely to involve the use of heavy plant or machinery should be accompanied by a detailed background noise survey identifying the ambient noise levels at nearby premises occupied during the proposed hours of operation. (PPG24 Planning and Noise and MPG11 The control of noise at surface mineral workings give further guidance). There are a whole range of measures that could be employed to minimise noise generation including making use of the best designs to reduce noise generation, the use of electric motors rather than diesel and selecting an appropriate form of vehicle reversing alarms where necessary.

Working Hours

The hours of operation will normally be limited by the Waste Planning Authority. As a rule operations will be restricted to between 0700 hours and 1830 hours Monday to Friday and 0700 hours and 1300 hours on Saturday with no working allowed on Sundays or Public Holidays. Exceptions will only be made in cases where there is an overriding public need such as Civic Amenity Sites and the disposal of waste arising from them. Any other considerations will be subject to the amenity of local residents not being compromised.

Access and Traffic

Site access will need to be addressed as part of the application and although in most cases this will be via a suitable road based on the Road Hierarchy as defined in Policy T7 of the Adopted Essex and Southend-on-Sea Replacement Structure Plan, consideration should also be given to the possibility of utilising water or rail facilities if practical.

The application should provide details of internal site roads. This may include the provision of haul roads to obtain access to a suitable highway, these should be discrete in the landscape and kept away from residential properties. Details of how the proposed haul road will drain should also be included. As should details of any proposed junction arrangements with any Adopted Highway. The Highway Authority's requirements in respect of new development can be obtained from the relevant Waste Planning/Highway Authority.

In order to fully assess the impact of the proposal, details will be required of the anticipated daily vehicular movements including a breakdown of the types of vehicles showing the total number of large goods vehicles (over 3.5 tonnes gross vehicle weight) and an indication of the maximum hourly rate and anticipated variations during operations.

Included within the proposals, appropriate arrangements will be required to prevent mud and other debris being deposited on the highway. This may include wheel cleaning facilities and/or the provision of a surfaced internal road which will need to be kept clean.

Public Rights of Way

In addition to the site access arrangements, consideration also needs to be given to any Definitive Public Rights of Way which cross the site or are affected by the operations. Applicants should consider how their proposal could be designed to minimise the impact on the public enjoyment of the countryside. The application will need to include details of how the Public Rights of Way will be protected during operations. Any changes to a public path can only be effected by legal order under separate legislation and the development, in so far as it effects the public right of way cannot proceed until the order becomes operative. Where the highway can be restored after the working to a condition not substantially convenient to the public, the diversion should usually be a temporary one. All orders, both temporary and permanent are subject to the normal separate statutory consultation procedures and it is essential that discussions concerning public paths are undertaken at the earliest possible stage in the development process.

Reclamation

Applications involving waste disposal will need to include details of how it is proposed to restore the site to a satisfactory condition to allow a specific afteruse to occur. Restoration proposals should be designed to create a landscape which is in character with the site's landscape context. Emphasis is to be placed on site layout, landform, landscape structure, afteruses and the principles of restoration. Site layout, slopes and materials should be designed to suit a specific afteruse of the site defined at the time of the application. The works should be phased so that restoration and the establishment of planting is achieved during working. The application should indicate which areas are to be restored for agriculture together with the proposed access arrangements, those areas to be restored for landscaping including detailed proposals for new planting and the maintenance of existing trees and hedges, and those areas to be restored for other uses. Consideration also needs to be given to the afteruse of restored land. This will need to address issues such as fencing, provision of water supplies, proposed remedial works where reinstatement is defective and restorative cropping. A 5 year aftercare scheme will also be required, following restoration. Underdrainage is in most cases, necessary on restoration sites. Whilst the actual design can be deferred to the statutory aftercare period, suitable outfalls for the proposed underdrainage should be identified at the time of the application.

Where the site is to be restored to a water feature, careful consideration needs to be given to its design, to encourage a diverse range of habitats to establish. Applicants should have regard to the Essex Biodiversity Action Plan (BAP) and should seek the views of English Nature, the Essex Wildlife Trust and the Environment Agency for advice on the best ways of creating new wetland habitats.

Applicants are reminded that restoration to uses other than agriculture, forestry or amenity, are likely to require separate planning permission from the appropriate District or Borough Council.

Applicants should note that development involving waste will probably require a waste management licence from the Environment Agency, contact should therefore be made with that organisation to ascertain the position (telephone 01473 727712).

Additional Matters

The nature and scale of landfill operations including proposed systems for gas and leachate control may have an effect on the afteruse or statutory aftercare of the site. Applicants should show these systems and demonstrate that restoration to the proposed afteruse is feasible whilst the monitoring/collection facilities are in place.

Landscape

Waste operations can often have a very substantial impact on the area where they are located and thus require significant screening work to be undertaken. The requirements for planting will vary with the nature and duration of the proposal, the proposed afteruse and the sensitivity and prominence of the area. Landscape proposals should not be seen as a cosmetic exercise to be 'applied' to left over areas on a site after the form and external appearance of the development have been decided. Consideration needs to be given at the inception of the project of how the scheme will fit into the landscape rather than planting simply a measure to screen an otherwise unacceptable development.

A scheme should seek to screen the development from public view and incorporate important landscape features. Screening features could include banks or bunds and the planting of trees and shrubs. The application should provide details of height location and specification of screen bunds and fencing. Applicants should consider the possibility of providing planting in advance so that it becomes an established and effective screen. Consideration should also be given to how planting would relate to the afteruse of the site and possibly provide for hedgerows as well as replacement plants. Proposed planting should be designed using primary indigenous species in proportions and arrangements that simulate natural models. Planting should be structured to reflect and complement the landform and any variation in soil types.

A clear structure should be created using woodland blocks, hedges, more open scrubland, grassland areas and other landscape and habitat types. A degree of ecological diversity is also encouraged both to create a good range of habitat and provide a range of seed sources for subsequent natural regeneration. This diversity should be reflected in a variety of planting in a variety of planting mix types and not in a single mixture, containing numerous species, used throughout.

Archaeology

Essex and Southend have has a rich archaeological heritage with a remarkable variety of sites dating from the remains of some of the earliest occupation of this country.

With the publication of PPG16 "Archaeology and Planning" 1990, archaeology has become a material consideration in the planning process. Given the guidance in PPG16 that archaeological sites are a significant part of the nation's heritage and that they should not needlessly be destroyed by planning applications there is a clear need to demonstrate how archaeology will be accommodated within the proposed development. Where preservation is not feasible, the Secretary of State considers it reasonable for developers to pay for the investigation and recording of

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sites in advance of their destruction.

Archaeological sites which are deemed to be nationally important are designated Scheduled Ancient Monuments, under the provisions of the Archaeological Monuments and Areas Act (1979). It is an offence to carry out works on these sites without the prior consent of the Secretary of State for National Heritage.

The Essex County Archaeology Section provides specialist advice on archaeological matters based on the County Sites and Monuments Record which is the most comprehensive and up-to-date record of the County's archaeology. Similar advice is available from the Southend-on-Sea Borough Council in relation to sites within Southend, by the Technical and Environmental Services Department, who maintain the Sites and Monuments Records for the Borough. However, in the case of developments covering large areas there may be many unknown sites which may be at risk and the initial advice may recommend that further research including field work is required to establish whether archaeology exists on the site.

The County or Southend-on-Sea Borough Archaeologist will be consulted on all applications that may affect archaeological sites and may make the following recommendations.

1. Refusal.

If the proposed extraction would destroy archaeological sites of great importance or where applicants are unable to demonstrate that satisfactory provision will be made for the excavation and recording of archaeological sites ahead of destruction when preservation *in situ* is not warranted.

2. Evaluation

If there is insufficient information for an informed decision to be made, the developer will be requested to arrange for an archaeological field evaluation prior to determination of the application

3. Watching brief

This requires the developer to provide notification of the commencement of ground disturbance. Archaeologists can then be present to ensure that, if archaeological remains are disturbed, they can be recorded..

4. Full excavation

Where important archaeological sites are to be destroyed by the proposed development, then a full condition will be recommended to ensure excavation and recording.

To ensure the protection of archaeological sites, potential conflicts should be identified and dealt with as soon as possible. Early consultation is the key to ensuring that this process is as smooth as possible avoiding unnecessary expense and delays. Prospective applicants are therefore advised to discuss their proposals with the respective County or Southend-on-Sea Borough Archaeologist prior to submitting a formal application.

Monitoring and Enforcement

Once planning permission has been granted, sites are regularly visited by the Waste Planning Authority both to provide advice and assistance to operators and the public and to ensure that planning permissions are complied with. Where breaches of planning control are found these are often resolved by negotiation however it is open for the Authority to pursue formal enforcement action. Where appropriate the Authority will use such action.