Nottinghamshire and Nottingham

Waste Core Strategy

Sustainability Appraisal
Report on Proposed Submission Document

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Nottinghamshire County Council

Nottingham City Council

Contents

Non-technical summary

Introduction

This report explains the process and outcomes of the Sustainability Appraisal (SA) of the Nottinghamshire and Nottingham Waste Core Strategy Submission Draft jointly prepared by the County and City Councils.

We are required to carry out this SA process in order to assess the likely effects of the Waste Core Strategy, in line with national and international law. In the UK this includes looking at the likely social and economic, as well as environmental effects. The SA process is therefore a way of ensuring that all plans and programmes which relate to spatial planning and land use are compatible with the aims of sustainable development.

Sustainabiity Appraisal / Strategic Environmental Assessment stages

A number of stages have been completed prior to this to provide the basis for the final SA:

- Review of all relevant plans, policies and programmes;
- Establishing the baseline characteristics of the plan area, the key issues it faces and the SA objectives against which the waste development framework is to be assessed;
- Appraisal of the issues and options;
- Review and update Scoping Report; and
- Appraisal of the further issues and options and preferred approach.

This final SA report in the last stage in the process and will complete the SA of the Nottinghamshire and Nottingham Waste Core Strategy.

Conclusions of SA

The SA concludes that the strategic objectives of the Waste Core Strategy are compatible with the SA objectives. Individual policies offer the potential for significant positive effects on the SA objectives. The potential for some negative impacts was identified but it was considered that these could be avoided or minimised through mitigation measures.

There was uncertainty about the effects of a few policies on some of the objectives, however, this was considered inevitable given the strategic nature of the Waste Core Strategy. Such uncertainty will be resolved in further appraisal,which in the case of sites will be set out in a Site Allocations Development Plan Document.

In terms of cumulative effects, there was uncertainty for some of the policies due to their strategic nature. Most had no significant positive cumulative effects and where there is potential for adverse effects these can be avoided or reduced through mitigation.

Monitoring

The SA makes recommendations on the indicators that should be used to monitor the likely significant impacts of the Waste Core Strategy on the SA objectives. Where these identify adverse impacts remedial action can be taken. Due to the close links between the SA and the Waste Core Strategy, monitoring of both should be based on the same framework. Therefore the indicators recommended in this report will be incorporated into the Annual Monitoring Report for the Waste Core Strategy.

1.0 Introduction

Waste Development Framework

1.1 The County and City Councils are working together to produce a Waste Development Framework to replace the Nottinghamshire and Nottingham Waste Local Plan (2002). It will provide the local policies against which all planning applications for future waste development will be assessed. The Waste Core Strategy will look ahead until 2031. The Framework will comprise a number of Development Plan Documents (DPDs). The first will be the Waste Core Strategy, which will be followed by two documents one covering site allocations the other development management policies.

Requirement for Strategic Environmental Assessment (SEA)

1.2 The EU Strategic Environmental Assessment (SEA) Directive (2001/42/EC) came into force in the UK on 20 July 2004 through the Environmental Assessment of Plans and Programmes Regulations 2004. This requires the assessment of the effects of certain plans and programmes on the environment which includes waste core strategies because of the likely significant effects they might have on the environment

1.3 The Directive and Regulations state that the SEA must consider biodiversity, population, human health, flora and fauna, soil, water, air, climatic factors, material assets, cultural heritage, landscape and the interrelationship between these factors.

Requirement for Sustainability Appraisal

1.4 All local development frameworks, including waste, are required to complete a SA under S19 (5) of the Planning and Compulsory Purchase Act 2004. The purpose of the SA is to promote sustainable development through better integration of sustainability considerations in the preparation and adoption of plans. SA helps local planning authorities to ensure that sustainable development in considered in the preparation of their plans.

Sustainability Appraisal process

1.5 Although the requirements to complete SA and SEA are distinct, the government has issued guidance[1] that states that SA fully incorporates the requirements of the European Directive on SEA and therefore

[1] Planning Policy Statement 12: Local Spatial Planning, Communities and Local Government 2008

providing the SA follows published guidelines[2], there is no need to carry out a separate SEA. This report therefore refers to both processes as SA for simplicity.

1.6 A number of prior stages have been completed to provide the basis for the final SA of the Core Strategy, the findings of which were published in the following reports:

- Sustainability Appraisal Scoping Report September 2005;
- Initial Sustainability Appraisal Report June 2007 (appraisal of issues and options);
- Updated Sustainability Appraisal Scoping Report published January 2012; and
- Sustainability Appraisal and Strategic Environmental Assessment – preferred approach May 2011 (appraisal of further issues and options and preferred approach).

1.7 This final SA report is the last stage in the process and will complete the SA process for the Waste Core Strategy.

1.8 A full list of those consulted is included within the consultation statement submitted with the Waste Core Strategy. The 2012 Scoping Report did not amend the methodology for the appraisal of policies, but updated the information used to create the SA objectives and amended the objectives themselves. This was to incorporate the appraisal of the emerging Minerals Development Framework into the Scoping Report and to update the report following delays in the preparation of the Waste Core Strategy.

1.9 The following chapters look in detail at:

- the overall methodology used for the SA process, and how this has met the requirements of the SEA Directive;
- the appraisal framework for the final assessment of the Waste Core Strategy policies;
- the assessment of the Waste Core Strategy policies; and
- monitoring.

[2] A Practical Guide to the SEA Directive Office of the Deputy Prime Minister September 2005 and the Plan-Making Manual Department for Communities and Local Government and Planning Advisory Service live, online guidance

2.0 Meeting national and international requirements

Meeting the requirements of the SEA Directive

2.1 The tasks undertaken and reports published to meet the requirements of the SEA process at each of the three main stages of the SA process are set out below.

a) Setting objectives and developing the baseline

- All relevant plans, policies and programmes were reviewed to identify the existing relationships between the waste development framework and publications on environmental, social and economic issues.

- The baseline characteristics of the plan area, the key issues it faces and the SA objectives against which the waste development framework is to be assessed were established. This was published, along with the above review, in an initial Scoping Report published in September 2005. This was independently verified by consultants (Scott Wilson) in a report dated October 2005.

- Following delays to the preparation of the Waste Core Strategy, the 2005 Scoping Report was reviewed and updated during 2010 – 2011 with a final version published in January 2012. This revision also took place to allow for the Scoping Report to be used for the basis of appraisal of the Minerals Development Framework.

b) Consulting on the scope of the SA

- Both versions of the Scoping Report were widely consulted upon with Natural England, the Environment Agency and English Heritage as well as with our local stakeholder group. This comprises representatives from the district councils, East Midlands Development Agency, East Midlands Environment Link, Nottinghamshire Wildlife Trust, People Against Incineration, waste companies, NFU, Composting Association and Nottinghamshire Association of Local Councils. Internal experts were consulted on issues such as landscape and biodiversity.

c) Refining the options and assessing the effects

- An appraisal of the issues and options was completed by independent consultants (Scott Wilson) and published in a report dated June 2007. This was based on the SA objectives set out in the 2005 Scoping Report.

- The revised Scoping Report was used to appraise the published ‘further issues and options’ and ‘draft preferred approach’ in May 2011, again by Scott Wilson.

- This assessment and report is the final stage in the SA of the Waste Core Strategy and is also based on the revised Scoping Report.

2.2 The table below sets out how this report and the SA process in general has met specific requirements of the SEA Directive:

Requirements of the SEA Directive (Article 5 (1))	**Where these are met in this SA process**
(a) An outline of the content, main objectives of the plan or programme, and relationship with other relevant plans and programmes	Scoping Report
(b) The relevant aspects of the current state of the environment and the likely evolution thereof without the implementation of the plan or programme	Scoping Report
(c) The environmental characteristics of areas likely to be significantly affected	Scoping Report
(d) Any existing environmental problems which are relevant to the plan or programme including, in particular, those relating to any areas of a particular environmental importance, such as areas designated pursuant to Directives 79/409/EEC and 92/43/EEC	Scoping Report
(e) The environmental protection objectives established at international, community or national level, which are relevant to the plan or programme and the way those objectives and any environmental considerations have been taken into account during its preparation	Scoping Report
(f) The key likely significant effects on the environment, including on issues such as biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscape and the interrelationship between the above factors. (Footnote: These effects should include secondary, cumulative, synergistic, short, medium and long-term permanent and temporary, positive and negative effects).	Chapter 4 and Appendix A of this report
(g) The measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the plan or programme.	Chapter 4 and Appendix A of this report
(h) An outline of the reasons for selecting the alternatives dealt with, and a description of how the assessment was undertaken including any difficulties (such as technical deficiencies or local of know-how) encountered in compiling the required information	Issues and Options SA Report (2007) Preferred Approach SA Report (2011)
(i) A description of measures envisaged concerning monitoring in accordance with Article 10	Chapter 5 of this report
(j) A non-technical summary of the information provided under the above headings	Non-technical summary of this report

Habitats Regulation Assessment

2.3 The EC Habitats Directive (92/43/EEC) on the conservation of natural habitats and of wild flora and fauna came into force in the UK through the Conservation of Habitats and Species Regulations 2010. This requires Habitat Regulation Assessments to be undertaken to ensure the protection of the integrity of European sites through the planning process.

2.4 So far only a preliminary screening exercise has been completed, the results of which were published in the Habitats Regulations Assessment for the Nottinghamshire and Nottingham Waste Core Strategy and Nottinghamshire Minerals Local Plan in July 2011. Further assessment will continue as the level of detail in the Core Strategy and any site allocations document increases.

Strategic Flood Risk Assessment

2.5 A Level 1 Strategic Flood Risk Assessment (SFRA) of the area covered by the Waste Core Strategy has been completed as required by Planning Policy Guidance Note 25: Development and Flood Risk. This has been used to inform the SA process to ensure that the flooding risks of the area have been fully understood so that they can be effectively managed through the planning process.

2.6 During further stages of the Local Development Framework, Level 2 assessments are likely to be carried out to support the SA of site specific proposals.

3.0 Sustainability appraisal methodology

Introduction

3. 1 This is the final SA of the Waste Core Strategy that has been undertaken in accordance with the SA and SEA regulations. This SA has been based on a five stage approach.

Figure 3.1: Stages in the SA process

Stage A • Assess the evidence base to inform the appraisal • Establish the framework for undertaking the appraisal (in the form of sustainability objectives).
Stage B • Appraise the plan objectives, options and preferred options / policies against the framework, taking into account the evidence base. • Propose mitigation measures for alleviating the plan's adverse effects, as well as indicators for monitoring the plan's sustainability
Stage C • Prepare an SA Report documenting the appraisal process and findings
Stage D • Consult stakeholders on the plan and SA report
Stage E • Monitor the implementation of the Plan (including its sustainability effects)

3. 2 As set out in sections 1 and 2 of this report, a substantial amount of work has been undertaken on the SA process to date, including Stage A – Scoping and Stage B – appraisal of both the issues and options and the preferred approach. The consultation responses received at each of these stages has been taken into consideration in the production of this report. In preparing this report, the steps required at Stage B have been followed. This report represents Stage C of the process. Stages D and E will take place from the publication of the Waste Core Strategy and Sustainability Appraisal onwards.

3. 3 In undertaking this final SA, a number of steps have been followed:

- Step 1: Establishing the Assessment Framework
- Step 2: Appraising the policies
- Step 3: Refining and re-appraising policies where necessary
- Step 4: Appraisal of the interactive effects between the SA objectives and the Core Strategy objectives
- Step 5: Compiling a summary of the impacts of each policy, as well as the cumulative and interactive effects.

Step 1: Establishing the Assessment Framework

3. 4 The Scoping Report, as well as the SA and SEA of the Preferred Approach established the principles of the Assessment framework and set out the following SA objectives and decision making criteria by which each topic area was assessed at the time. These objectives, incorporating the changes proposed at the last consultation stage, have been used to appraise each of the proposed policies. The objectives, and potential decision making criteria used in the appraisal are set out in Table 3.1:

Table 3.1: SA objectives and decision making criteria

Objective	Decision making criteria
1. Ensure that adequate provision is made to provide a network of suitable waste management sites for the safe treatment and disposal of waste.	•Will the plan/proposal provide waste treatment/disposal sites close to where the waste is produced? •Will it reduce the distance waste is transported? •Will it reduce the cost of waste treatment/disposal? •Will it help to reduce fly-tipping? •Will the plan identify adequate resources to meet local and national requirements over the plan period?
2. Protect and enhance biodiversity at all levels and safeguard features of geological interest.	• Will the plan/proposal have an adverse affect on internationally, nationally or locally important sites or legally protected species? •Will it affect habitats or species identified within the Nottinghamshire Local Biodiversity Action Plan (LBAP)? •Will it restore or create new habitat in line with LBAP priorities? •Will it support the retention/enhancement of the county's green infrastructure?
3. Promote sustainable patterns of movement and the use of more sustainable modes of transport.	•Will the plan/proposal reduce overall transport distances for waste? •Will it reduce road haulage of waste? •Will it promote alternative forms of transport? •Will it reduce/increase road congestion? •Will it result in sites that are well related to the main highway network? •Will it require new transport infrastructure to be

Objective	Decision making criteria
	developed?
4. Protect the quality of the historic environment above and below ground.	•Will the plan/proposal have an adverse impact upon heritage assets and/or their setting, including archaeological remains and historic buildings? •Will it enhance or increase our understanding of the historic environment?
5. Protect and enhance the quality and character of our townscape and landscape.	•Will the plan/proposal have an adverse impact on local landscape character or areas of important townscape? •Will it have an adverse affect on the openness and visual amenity of the Green Belt? •Will it affect areas of public open space? •Will it lead to landscape/townscape improvements? •Will it result in development that is sympathetic to its surroundings in terms of design, layout and scale? •Will it contribute to the availability of local building materials to enable local distinctiveness to be retained in conservation projects and reflected in new development?
6. Minimise impact and risk of flooding.	•Will the plan/proposal increase the risk of flooding? •Will it help to alleviate flood risk or the impact of flooding?
7. Minimise any possible impacts on and increase adaptability to climate change.	•Will the plan/proposal increase emissions of greenhouse gases from waste activities? •Will it reduce emissions of greenhouse gases? •Will it encourage the use of renewable energy sources? •Will it help to reduce our vulnerability to the impacts of climate change? •Will it help to increase the resilience of flora and fauna to climate change?
8. Protection of high quality agricultural land and soil.	•Will the plan/proposal have an adverse impact on soil quality? •Will it lead to the irreversible loss of best and most

Objective	Decision making criteria
	versatile agricultural land?
9. Promote more efficient use of land and resources	•Will it promote sustainable waste management and encourage movement of waste up the waste hierarchy? •Will it reduce waste/provide for re-use of waste materials? •Will it make use of previous developed land or buildings?
10. Promote energy efficiency and maximise renewable energy opportunities from new or existing development.	•Will the plan/proposal minimise energy needs? •Will it contribute to renewable/low carbon energy targets? •Will it offset the use of fossil fuels?
11. Protect and improve local air quality.	•Will the plan/have an adverse impact on local air quality? •Will it adversely affect a designated Air Quality Management Areas (AQMAs)?
12. Protect and improve water quality and promote efficient use of water.	•Will the plan/proposal have an adverse impact upon water quality? •Will it increase demand for water? •Will it help to improve existing water quality? •Will the proposal incorporate sustainable water management and/or drainage?
13. Support wider economic development and promote local job opportunities.	•Will the plan/proposal help to increase training and employment opportunities in Nottinghamshire? •Will it help to enable wider economic development?
14. Protect and improve human health and quality of life.	•Will the plan/proposal minimise adverse impacts of waste activity on human health and levels of nuisance including dust, particulate emissions, noise (including traffic noise), vibration, visual amenity and light pollution. •Will it promote best practice in the operation and restoration of sites? •Will it help to enhance health and wellbeing through the provision of new or improved public open space and access? •Will it lead to a loss of public open space/reduction in public access?

3. 5 The SA of the preferred approach also sets out a matrix through which the impacts of each policy on the various objectives could be measured, e.g. setting out whether the policy would have a positive, negative, neutral or uncertain impact on the Sustainability Objective. Table 3.2 sets out the potential impacts.

Step 2: Appraisal of the interactive effects between the SA objectives and the Waste Core Strategy objectives

3. 6 To comply with SA and SEA regulations, it was necessary to assess the compatibility between the Waste Core Strategy objectives and the Sustainability Appraisal objectives. Whilst this was undertaken at earlier stages, it was further refined for the purposes of this report. The results are set out in Chapter 4 along with how the policies have been developed to ensure delivery of the Core Strategy objectives.

Step 3: Appraising the policies

3. 7 In order to gain a balanced view in the assessment of the policies, five workshops were held on the following dates at the County Council offices:

- 14th November 2011;
- 16th November 2011;
- 21st November 2011;
- 23rd November 2011;
- 13th December 2011.

3. 8 Officers from both Councils were present at every meeting and Officers from a range of specialist areas also attended. These areas included nature conservation, historic environment, landscape and reclamation, transport, waste management and energy and carbon management.

3. 9 Each policy was assessed individually against each SA objective and only two or three were appraised per workshop to allow a more focussed discussion. The assessment involved discussion of the many complex issues and inter-relationships involved in sustainability and forming a qualitative judgement on the likely effects.

3. 10 A qualitative scale of likely effects, as set out in Table 3.2, was used as the basis of the assessment. This was consistent with the assessment scale used in the Preferred Approach Sustainability Assessment (May 2011).

Table 3.2: Likely effects

Symbol	Likely effect on the SA objective
++	The policy is likely to have a **very positive** impact
+	The policy is likely to have a **positive** impact
0	**No significant effect** / **no clear link**
?	**Uncertain** or **insufficient information** on which to determine impact
-	The policy is likely to have a **negative** impact
- -	The policy is likely to have a **very negative** impact
I	The policy could have a positive or a negative impact depending on **how it is implemented**

3. 11 Where potential negative impacts were identified, mitigation to avoid or reduce these was suggested.

Step 4: Refining and re-appraising policies where necessary

3. 12 As the SA was undertaken in parallel with the development of the policies, in some instances, the appraisal of a policy indicated that certain changes to the wording were needed in order to ensure the policy was more sustainable or could be implemented. In most cases, these amendments were minor and did not influence the meaning of the policy itself. However, there were instances where policies were re-drafted as a result of the SA process. Where this occurred, a new matrix was used to re-appraise the policy. Following the appraisal of each policy, a summary of the findings was produced. Copies of all the completed matrices can be found in Appendix A.

Step 5: Assessing the cumulative effects of the policies on each objective

3. 13 Following the policy appraisal the cumulative effects of all of the policies on each SA objective were assessed. The findings are set out in Chapter 4 of this report.

Other matters not referred to in this report

3. 14 Only the policies in the Draft Waste Core Strategy have been through the full appraisal process at this stage. Other matters that could have an impact on sustainability, such as the Vision and individual objectives, were appraised at previous stages and have not changed substantially since then.

4.0 Appraisal of the Waste Core Strategy policies

Background

4.1 The Waste Core Strategy policies were developed from the preferred approach in order to fulfil the implementation of the Waste Core Strategy's objectives. Table 4.1 shows the compatibility of the Waste Core Strategy's strategic objectives with the SA objectives, whilst Table 4.2 shows how the policies will deliver the Waste Core Strategy's objectives.

Table 4.1: Compatibility of the Waste Core Strategy objectives with the Sustainability Appraisal objectives

Sustainability Appraisal (SA) Objectives / Waste Core Strategy Objectives	1. Make adequate provision	2 .Protect and enhance biodiversity & geological interest	3. Promote sustainable transport	4. Protect the historic environment	5. Protect and enhance landscape and townscape	6. Minimise risk of flooding	7. Mitigate and adapt to climate change	8. Protect agricultural land and soil	9. Promote efficient use of land and resources	10. Promote energy efficiency & renewable energy	11. Protect & improve air quality	12. Protect & improve water quality & efficient use	13. Promote economic development & job opportunities	14. Protect & improve human health and quality of life
Objective 1 Economy	0	0	0	0	0	0	0	0	0	0	0	0	++	0
Objective 2 Environment	0	+	0	+	+	0	0	+	+	0	+	+	0	0
Objective 3 Well-being	0	0	0	0	0	0	0	0	0	0	+	+	0	++
Objective 4 Energy & Climate	0	0	0	0	0	+	++	0	0	0	0	++	0	0
Objective 5 Transport	0	0	++	0	0	0	0	0	0	0	0	0	0	0
Objective 6 Future Needs	++	0	0	0	0	0	0	0	0	0	0	0	0	0
Objective 7 Design & Operation	0	0	0	+	+	+	0	0	0	+	0	0	0	+

Summary	Overall, the proposed objectives of the Waste Core Strategy were found to be compatible with the SA objectives. No incompatibility was found between the SA objectives and the proposed Waste Core Strategy objectives. The Waste Core Strategy objectives seek to manage Nottinghamshire's waste needs in a way that protects the environment (objectives 2 and 3), contributes to economic growth (objective 1) as well as ensuring communities are provided with adequate facilities to meet anticipated needs (objective 6) and that facilities are designed and operated to the highest standards (objective 7). Objective 5 encourages use of sustainable transport modes as well as reducing the need to transport waste significant distances by road. This has the potential to reduce the negative impacts associated with HGV movements, including greenhouse gas emissions, air pollution and noise pollution. Objective 4 seeks to encourage efficient use of resources as well as mitigate and adapt to climate change.

Assessment key

Symbol	Relationship with the Sustainability Appraisal objective
++	Very compatible
+	Compatible
0	Not related
?	Unknown or dependent on implementation
-	Incompatible

Table 4.2: Relationship between the Waste Core Strategy's objectives and policies

Strategic Objective	Waste Core Strategy policy
SO1 Strengthen our economy	**WCS1** promotes waste awareness and resource efficiency which will benefit the local economy and help minimise waste from all development. **WCS2** promotes sustainable waste management by encouraging recycling and recovery above disposal. **WCS3, WCS4, WCS5** and **WCS6** promote appropriate development locations and guide investment decisions by the waste industry. **WCS7** supports the extension of existing waste management facilities where appropriate. **WCS8** supports the use of new or emerging waste management technologies where this will lead to more efficient and sustainable waste management. **WCS14** encourages high quality design which should improve the understanding and acceptance of waste management facilities, helping the waste industry to develop appropriate infrastructure.
SO2 Care for our environment	**WCS3, WCS4, WCS5** and **WCS6** promote appropriate development locations. **WCS12** and **saved policies** in the adopted Waste Local Plan will protect the environment, natural resources and local amenity.
SO3 Community well-being	**WCS3, WCS4, WCS5** and **WCS6** promote appropriate development locations. **WCS12** and **saved policies** in the adopted Waste Local Plan will protect local amenity.
SO4 Energy and climate	**WCS1** promotes waste awareness and resource efficiency. **WCS2** promotes sustainable waste management including energy recovery where appropriate. **WCS13** seeks to minimise impacts on, and increase adaptability to, climate change.
SO5 Sustainable Transport	**WCS3** and **WCS4** promote waste treatment and disposal locations close to where waste is produced which should help to minimise the need to transport waste. **WCS10** specifically seeks to maximise the use of alternative forms of transport and minimise the distance waste is transported by road.
SO6 Meet our future needs	**WCS2** promotes sustainable waste management. **WCS11** ensures sufficient future provision is made to manage at least the equivalent of our own needs and addresses the issue of cross-boundary movements to allow for the reasonable movement of waste where this is sustainable.
SO7 High quality design and operation	**WCS12** and **saved policies** in the adopted Waste Local Plan will protect the environment, natural resources and local amenity. **WCS14** specifically encourages high standards of design, landscaping and sustainable construction in order to improve the acceptance of waste facilities.

Policy appraisal

4.2 This section explains how the policies were appraised and sets out the findings. Each of the Waste Core Strategy's policies was assessed individually against the 14 SA objectives listed in Table 3.1. The predicted significant effects were recorded in accordance with the Assessment Key shown in Table 4.3. This took into account the decision making criteria set out in Table 3.1, together with a commentary explaining the reasoning behind each predicted effect. If the effect was considered negative, the potential for mitigation was also noted. In considering the likely effects of the policies the issues of short, medium and long term impacts and whether they would be temporary or permanent, as well as potential secondary, cumulative and synergistic impacts were discussed. In each case the effect attributed against each SA objective in the policy appraisal matrices reflects a judgement as to what is considered to be the most significant effect overall. The policy appraisal matrices are reproduced in full in Appendix A, but an example of the matrix used can be found in Table 4.3.

Table 4.3: Policy appraisal matrix

POLICY:

Sustainability Appraisal Objectives	**Effect**	**Commentary**	**Mitigation**
1. Ensure that adequate provision is made to provide a network of suitable waste management sites for the safe treatment and disposal of waste.			
2. Protect and enhance biodiversity at all levels and safeguard features of geological interest.			
3. Promote sustainable patterns of movement and the use of more sustainable modes of transport.			
4. Protect the quality of the historic environment above and below ground.			
5. Protect and enhance the quality and character of our townscape and landscape.			
6. Minimise impact and risk of flooding.			
7. Minimise any possible impacts on and increase adaptability to climate change.			
8. Protection of high quality agricultural land and soil.			
9. Promote more efficient use of land and resources			
10. Promote energy efficiency and maximise renewable energy opportunities from new or existing development.			
11. Protect and improve local air quality.			
12. Protect and improve water quality and promote efficient use of water.			
13. Support wider economic development and			

promote local job opportunities			
14. Protect and improve human health and quality of life.			

Summary

Assessment key

Symbol	Likely effect on the SA objective
++	The policy is likely to have a **very positive** impact
+	The policy is likely to have a **positive** impact
0	**No significant effect** / **no clear link**
?	**Uncertain** or **insufficient information** on which to determine impact
-	The policy is likely to have a **negative** impact
- -	The policy is likely to have a **very negative** impact
I	The policy could have a positive or a negative impact depending on **how it is implemented**

4.3 A summary of the predicted significance of effects of each policy is presented in Table 4.4.

Table 4.4: Summary of policy appraisal findings

Policy	Sustainability Appraisal findings
WCS1 Waste awareness, prevention and re-use Nottinghamshire County and Nottingham City Councils will lead by example and work together with district and borough councils, the waste industry, local businesses, communities and voluntary groups to improve waste awareness and encourage measures aimed at waste prevention and re-use. All new development should be designed and constructed to minimise the creation of waste, maximise the use of recycled materials and assist the collection, separation, sorting, recycling and recovery of waste arising from the development.	This policy makes a very important contribution to sustainability as it aims to minimise the creation of waste and maximise re-use in accordance with the principles of the waste hierarchy. There are some areas of uncertainty about the impacts of the policy but this is due to its strategic nature.
WCS2 Future waste management provision Future waste management proposals within Nottinghamshire and Nottingham should accord with our aim to achieve at least 70% recycling or composting of all waste by 2025. Proposals will therefore be assessed as follows: a) priority will be given to the development of new or extended waste recycling, composting and anaerobic digestion facilities; b) new or extended energy recovery facilities will be permitted only where it can be shown that this would divert waste that would otherwise need to be disposed of and the heat and/or power generated can be used locally or fed into the national grid; c) new or extended disposal capacity will be permitted only where it can be shown that this is necessary to manage residual waste that cannot economically be recycled or recovered.	The policy makes an important contribution to sustainability as it aims to ensure that waste management provision moves waste up the hierarchy. There are some areas of uncertainty about the impacts of the policy but this is due to its strategic nature.

Initial proposed policy **WCS3 Broad locations for waste treatment facilities** The development of large-scale waste treatment facilities will be supported in or close to, Nottingham and its surrounding built up areas and the Mansfield/Ashfield area. Smaller/medium sized waste treatment facilities will be supported in the above areas and in, or close to, the built up areas of Newark, Retford and Worksop. Small-scale waste treatment facilities will be supported in all locations, where these will help to meet local needs and fit in with the local character, except within the open countryside and within the Green Belt which should only be considered where there is no reasonable alternative.	The policy has a positive impact on many aspects of sustainability because it directs larger facilities to urban areas but allows for small-scale facilities to meet local needs in appropriate locations. There is the potential for waste facilities to have some negative environmental impacts but mitigation would be applied as set out above. There are some areas of uncertainty about the impacts of the policy but this is due to its strategic nature which addresses broad locations rather than specific sites.
Revised policy **Policy WCS3 Broad locations for waste treatment facilities** The development of large-scale waste treatment facilities will be supported in or close to the built up areas of Nottingham and Mansfield/Ashfield. Smaller/medium sized waste treatment facilities will be supported in the above areas and in, or close to, the built up areas of Newark, Retford and Worksop. Small-scale waste treatment facilities will be supported in all locations where these will help to meet local needs and fit in with the local character. Development of facilities within the open countryside and within the Green Belt will be supported only where such locations are justified by a clear local need, particularly where this would provide enhanced employment opportunities and/or would enable the re-use of existing buildings.	The policy has a positive impact on many aspects of sustainability because it directs larger facilities to urban areas but allows for small-scale facilities to meet local need in appropriate locations. There is the potential for waste facilities to have some negative environmental impacts but mitigation would be applied as set out above. There are some areas of uncertainty about the impacts of the policy but this is due to its strategic nature which addresses broad locations rather than specific sites. The revised policy wording did not result in any changes in its effects on the SA objectives.
WCS4 Disposal sites for non-hazardous and inert waste Where it is shown that additional landfill capacity is necessary, priority will be given to sites within the main shortfall areas around Nottingham, areas, and Mansfield/Ashfield. Development outside this area will be supported where it can be shown that there are no reasonable, closer, alternative. Preference will be given to the development of sites in the following order: a) the extension of existing sites b) the restoration and/or re-working of old colliery tips and the reclamation of	It is inevitable that there will be some negative impacts associated with disposal sites, however allowing for disposal is necessary to ensure adequate provision within the overall waste management network and the policy aims to minimise potential negative impacts. As the policy is not site specific its impact on some environmental receptors is uncertain and will vary between sites.

mineral workings, other voids and derelict land where this would have associated environmental benefits; c) disposal on greenfield sites will be considered only where there are no other more suitable alternatives.	
WCS5 Power station waste/ash Proposals to temporarily stockpile ash within or on land adjacent to coal fired power stations will be permitted where this will help maximise recycling. For ash that cannot be recycled in the foreseeable future, priority will be given to proposals that will use the ash to fill and reclaim mineral workings or other derelict voids. Land-raising of ash for disposal will only be acceptable when no other reasonable options exist.	The overall impact of this policy is not clear cut as its effects are variable, ranging from positive in terms of providing an adequate network of waste management sites and sustainable movement patterns, uncertain in the case of biodiversity and historic environment, positive or negative depending on implementation for townscape/landscape and flooding, to negative for the protection of high quality agricultural land and soil, and with no clear link or significant effect in respect of the remaining SA objectives. However, this policy promotes the recycling of this major local waste source, which will make a valuable contribution to sustainability and mitigation of potential negative effects can be achieved.

Policy WCS6 General Site Criteria	The policy is generally sustainable in nature as it directs

Waste management facilities will be supported in the following general locations, as shown in the matrix below, subject to there being no unacceptable environmental impacts:

	**Community sites** – locations where people already travel for local services e.g. local shopping centres, leisure centres, supermarkets, schools etc.
	**Employment land** – areas which are already used for, or allocated for employment uses such as industrial estates, business or technology parks etc.
	**Derelict land/other previously developed land** – land that is no longer needed or has been abandoned. This could include former colliery land in need of restoration, old quarries, disused railway land etc.
	**Open countryside/agricultural land** – rural land, including farmland, which is not covered by any environmental designation, especially where this enables the re-use of farm or forestry buildings.
	**Green Belt** – land within the Green Belt. This could include derelict or previously developed land, old quarries etc.

different types of facilities to the most appropriate locations which in many cases will also promote sustainable movement patterns. It also has a positive economic and social impact by encouraging economic development and improvement in health and quality of life. There are some potentially negative impacts associated with this policy in terms of the possible effect on townscape, landscape, agricultural land and soil and on use of land and resources. However, such potential negative impacts can be mitigated by the application of other Waste Core Strategy policies or Waste Local Plan Development Management policies.

Combined Facilities					
Resource recovery park		●	●		
Recycling					
Bring sites	o	o			
HWRCs		●	●		
MRF		●	●	o	o
Aggregates		●			
Metal		●			
Composting					
Enclosed/In-vessel		●	●	o	o
Open air				●	●
Energy Recovery					
Anaerobic Digestion		●	●	o	o
MBT		●	●		
RDF processing		●	●		
Incineration		●	●		
Gasification		●	●		
Pyrolysis		●	●		
Waste Transfer					
Transfer station		●	●	o	o
Waste Water Treatment					
Waste water treatment		●	●	o	o
Disposal					
Landfill			●	●	●
Landraise			●	●	

● **large sites (to be defined)** o **small sites (to be defined)**

Policy WCS7 Extensions to existing waste management sites	The policy makes some contribution to sustainability by

The extension, redevelopment or improvement of existing waste management facilities will be supported where this would increase capacity or improve existing waste management methods, and/or reduce existing environmental impacts.	promoting adequate waste management provision and by supporting the use of previously developed land. However, due to its general, rather than site specific nature, it is inevitable that there are many areas of uncertainty over its impact.
WCS8 New and emerging technologies Waste management facilities making use of new or emerging technologies will be supported where this will lead to the more efficient and sustainable management of waste.	This policy is generally sustainable, having positive effects upon the provision of a suitable waste management network, climate change, the efficient use of land and resources, economic development and local job opportunities and human health and the quality of life. The policy may have some uncertain impacts, due to its strategic nature resulting in insufficient information relating to the location and nature of any potential development based on new technologies.
WCS9 Safeguarding waste management sites The following sites will be safeguarded for waste management facilities: a) Existing authorised waste management facilities and sites which have a valid planning permission that has not yet been implemented; or b) Sites allocated or shown as Areas of Search/Preferred Areas in the Site Allocations Document.	The policy will contribute towards the provision of a network of suitable waste management sites for the safe treatment and disposal of waste and the promotion of more efficient use of land and resources. Due to its general nature there is insufficient information to determine how the policy may impact on biodiversity, geological features and flooding.
Initial proposed policy **WCS10 Sustainable Transport** All waste management proposals should seek to maximise the use of alternative forms of transport such as such as rail, water, pipeline or conveyor.	Unsurprisingly, this policy scores very highly in terms of positive effects on the promoting sustainable transport objective. Other positive impacts are anticipated in respect of climate change, air quality and human health/quality of life. The policy may have other impacts, which could be either positive or negative depending on the specific forms of alternative transport used. There was uncertainty about the impact of this policy in relation to promoting more efficient use of land and resources. It was therefore recommended that the policy was

	reworded to address this.
Revised policy **WCS10 Sustainable Transport** All waste management proposals should seek to maximise the use of alternative forms of non-road transport such as such as rail, water, pipeline or conveyor and minimise the distance waste is transported by road.	Unsurprisingly, this policy scores very highly in terms of positive effects on the promotion of the sustainable transport objective. Other positive impacts are anticipated in respect of climate change, air quality and human health/quality of life. The policy may have other impacts, which could be either positive or negative depending on the specific forms of alternative transport to be used. The re-appraisal of the policy following its re-wording has resulted in a positive impact, rather than uncertainty about its impact, in relation to promoting more efficient use of land and resources.
WCS11 Managing our own waste Additional waste management capacity, sufficient to manage at least the equivalent amount of waste produced within Nottinghamshire and Nottingham, will be permitted. Waste management proposals which are likely to treat or dispose of waste from areas outside Nottinghamshire and Nottingham will need to demonstrate that: a) they will make a substantial contribution to meeting the waste management needs of Nottinghamshire and Nottingham; or b) there are wider social, economic or environmental sustainability benefits that clearly support the proposal.	This policy has a very positive effect on the overall provision of an adequate waste management network. Other likely positive impacts include the promotion of sustainable transport, minimising impacts on climate change and local job opportunities. However, additional waste management facilities arising from this policy may have a detrimental impact on local air quality, though this impact could be mitigated. The policy may have other impacts, which are uncertain due to its strategic nature.
WCS12 Protecting our environment New or extended waste treatment or disposal facilities will be supported where it can be demonstrated that there would be no unacceptable impact on overall environmental quality or the quality of life of those living or working nearby and where this would not result in an unacceptable cumulative impact. All waste proposals should seek to maximise opportunities to enhance the local environment through the provision of landscape, habitat or community facilities.	This policy makes an important contribution to sustainability as it sets out the overriding principles for the protection of the environment from the potential adverse effects of waste management facilities. Overall it is likely to have a beneficial impact in terms of biodiversity, the historic environment, townscape and landscape, climate change, local air quality, water quality and human health and quality of life.

Initial proposed policy **WCS13 Managing Climate Change** All new or extended waste management facilities should be located, designed and operated so as to minimise and withstand any potential climate impacts. ***Revised policy*** **WCS13 Managing Climate Change** All new or extended waste management facilities should be located, designed and operated so as to minimise any potential impacts on, and increase adaptability to, climate change.	It was considered that the intention of this policy was to address both mitigation of, and adaptability to, climate change and the policy was appraised as such with the recommendation that the wording of the policy was amended to make this clearer. This policy makes an extremely important contribution to sustainability, having a positive impact in relation to all but two (to which there is no clear link/no significant effect) of the Sustainability Appraisal objectives. .
WCS14 Design of waste management facilities All new or extended waste management facilities should incorporate high standards of design and landscaping, including sustainable construction measures.	This policy has no clear link or significant effect in respect of a number of the SA objectives. However where it does have clear links, as in the case of townscape/landscape, flooding and efficient use of resources, water and energy, the impact is positive and in the case of climate change, very positive. Overall, therefore this policy makes an important contribution towards sustainability.

Cumulative effects

4.4 Following the appraisal of individual policies against the SA objectives the cumulative effects of the policies as a whole on each SA objective were assessed to predict the overall impact of the Core Strategy. This included consideration of secondary effects which would not occur as a direct result of the policies but rather from a more complex pathway. Similarly, where possible, synergistic effects (which could interact to produce an overall effect greater than the sum of the individual effects) were identified. Table 4.5 presents a summary of the findings.

Table 4.5: Cumulative effects of the Waste Core Strategy policies on the Sustainability Appraisal objectives

WCS Policy / SA Objective	Policy 1 Prevention & Re-use	Policy 2 Future Provision	Policy 3 Broad Locations	Policy 4 Disposal sites for non-hazardous/inert waste	Policy 5 Power Station Waste	Policy 6 Site Criteria	Policy 7 Extensions	Policy 8 New Technologies	Policy 9 Safeguarding	Policy 10 Transport	Policy 11 Managing Own Waste	Policy 12 Environment	Policy 13 Climate Change	Policy 14 Design	Comments on Significant Effects
1. Make adequate provision	+	+	++	+	+	++	+	+	+	0	++	0	+	0	There is likely to be a positive cumulative effect resulting from the combination of policy impacts.
2 .Protect and enhance biodiversity & geological interest	?	?	?	I	?	?	?	?	?	I	?	+	+	0	Overall the cumulative effect is uncertain due to the strategic nature of the policies and the fact that impacts would depend on the specific location of the waste management facility in the context of the receiving environment and the nature of the particular technologies used. However, proposals would have to be in accordance with Policy WCS12 which seeks to protect and enhance the environment.
3. Promote sustainable transport	+	0	+	+	+	+	?	I	0	++	+	0	+	0	Promoting a reduction in the need for transport as a secondary effect of the policies which encourage waste minimisation, provide for waste arisings from the Plan area to be managed within that area and direct facilities to sustainable locations, together with encouragement of use of alternative modes is likely to produce a positive cumulative effect.

4. Protect the historic environment	**?**	**?**	**?**	**?**	**?**	**?**	**?**	**?**	**?**	**I**	**?**	**+**	**+**	**0**	The cumulative effect is predominantly uncertain due to the strategic nature of the policies and the fact that impact would be dependent on the specific location of a waste management facility in the context of the receiving environment and the nature of the particular technologies used. However, proposals would have to be in accordance with policy 12 which seeks to protect and enhance the environment.
5. Protect and enhance landscape and townscape	**?**	**?**	**I**	**I**	**I**	**I**	**?**	**?**	**0**	**I**	**?**	**+**	**0**	**+**	Overall the cumulative effect is uncertain due to the strategic nature of the policies and the fact that impact would be dependent on the specific location of a waste management facility in the context of the receiving environment and the nature of the particular technologies used. However, proposals would have to be in accordance with policy 12 which seeks to protect and enhance the environment and policy 14 which requires incorporation of high standards of design and landscaping in all new and extended waste management facilities.
6. Minimise risk of flooding	**?**	**?**	**?**	**?**	**I**	**?**	**?**	**?**	**?**	**0**	**?**	**0**	**+**	**+**	Overall the cumulative effect is uncertain due to the strategic nature of the policies and the fact that impact would be dependent on the specific location of a waste management facility in the context of the receiving environment and the nature of the particular technologies used. However, proposals would have to be in accordance with policy 14 which aims to ensure the use of sustainable

															construction methods, including sustainable drainage systems and policy 13 which requires facilities to be located and designed to minimise potential climate change impacts, including flooding.
7. Mitigate and adapt to climate change	+	+	+	?	0	?	?	+	0	+	+	+	++	++	Positive cumulative effects are likely to result from the combination of impacts of the policies which seek to minimise production of waste, maximise recycling, composting and the treatment of waste close to source, promote new technologies, manage climate change, protect the environment and encourage use of sustainable transport and construction methods.
8. Protect agricultural land and soil	?	?	+	?	-	I	?	?	0	0	?	0	+	0	There are unlikely to be any significant cumulative negative effects on high quality agricultural land and soil. Although there is potential for an adverse effect from disposal of power station combustion waste depending on location, mitigation measures can be implemented to avoid or reduce potential impact. Some uncertainty about the cumulative effects exists due to the strategic nature of the policies and the fact that impact would be dependent on the specific location of a waste management facility in the context of the receiving environment. However, the combination of directing large scale facilities to urban areas (policy 3) and protecting agricultural land and soil by minimising impacts on climate change (policy 13) is likely to have a positive secondary effect.

9. Promote efficient use of land and resources	++	+	0	-	+	I	+	+	+	+	0	0	+	+	There is potential for an adverse effect associated with disposal sites, but such provision is necessary to ensure adequate provision overall within the waste management network and this is offset by the positive cumulative effects of a number of other policies. Policies which promote the sustainable management of waste are likely to interact to produce a positive synergistic effect.
10. Promote energy efficiency & renewable energy	+	+	0	0	0	0	?	?	0	0	0	0	+	+	The combination of promotion of sustainable waste management principles and sustainable design and operation of waste management facilities is likely to produce a positive cumulative effect.
11. Protect & improve air quality	I	I	-	-	0	?	I	?	0	+	-	+	+	0	Overall it is unlikely that there will be any significant adverse cumulative effects. Although there is potential for negative effects through the provision for the necessary disposal sites (policy 4), directing large scale facilities to urban areas (policy 3) and provision for additional facilities within the Plan area (policy11), mitigation measures can be implemented to avoid or reduce potential impact. There is also equal potential for positive combined impacts from protecting environmental quality (policy 12), designing and operating facilities to minimise impacts on climate change (policy 13) and encouraging the use of sustainable transport (policy 10).

12. Protect & improve water quality & efficient use	**?**	**?**	**?**	**-**	**0**	**?**	**I**	**?**	**0**	**I**	**0**	**+**	**+**	**+**	Overall the cumulative effect is uncertain due to the strategic nature of the policies and the fact that impact would be dependent on the specific location of a waste management facility in the context of the receiving environment and the nature of the particular technologies used. There is potential for an adverse effect as a result of provision for disposal (policy 4) however, mitigation measures can be implemented to avoid or reduce potential impact. There is also potential for positive effects resulting from the combination of protecting the environment (policy 12), minimising impacts on climate change (policy 13) and sustainable design (policy 14).
13. Promote economic development & job opportunities	**+**	**+**	**+**	**0**	**0**	**+**	**?**	**+**	**0**	**0**	**+**	**0**	**0**	**0**	Provision for development of an appropriate network of waste management facilities (policies 1, 2, 3, 6 and 11) coupled with promotion of the use of new and emerging technologies (policy 8) is likely to produce a positive cumulative secondary effect in creating local job opportunities and opportunities for wider economic development.
14. Protect & improve human health and quality of life	**+**	**+**	**+**	**-**	**0**	**+**	**?**	**+**	**0**	**+**	**?**	**+**	**+**	**0**	Positive cumulative effects are likely to result from the combination of impacts of the policies which promote sustainable management of waste (policies 1, 2 and 8), manage climate change (policy 9), protect the environment and encourage use of sustainable transport. There is potential for an adverse effect as a

															result of provision for disposal (policy 4) however, mitigation measures can be implemented to avoid or reduce potential impact.

Assessment key

Symbol	Likely effect on the SA Objective
++	The policy is likely to have a **very positive** impact
+	The policy is likely to have a **positive** impact
0	**No significant effect** / **no clear link**
?	**Uncertain** or **insufficient information** on which to determine impact
-	The policy is likely to have a **negative** impact
- -	The policy is likely to have a **very negative** impact
I	The policy could have a positive or a negative impact depending on **how it is implemented**

5.0 Monitoring

5.1 Monitoring is an important, and ongoing, part of the overall SA and SEA process. It will highlight trends and issues which can identify specific performance issues and significant effects from the adoption of the Waste Core Strategy. It should also identify unforeseen adverse impacts and enable remedial action to be taken. It will contribute to more informed decision making on future DPDs and contribute to baseline data for future planning documents requiring Sustainability Appraisal.

5.2 SA monitoring will include the measuring of indicators covering social, economic and environment effects and should be able to establish a link between the implementation of the Waste Core Strategy and the effect being monitored.

5.3 Guidance on SA and requirements for SEA emphasise the monitoring of those policies where the appraisal identified either a significant positive or negative impact. This is in order to assess whether the plan is performing sustainably and whether mitigation measures are functioning in the expected manner.

5.4 The appraisal identified significant positive impacts against the following SA objectives when assessing the cumulative impacts of the policies:

- Objective 1. Ensure that adequate provision is made to provide a network of suitable waste management sites for the safe treatment and disposal of waste
- Objective 3. Promote sustainable patterns of movement and the use of more sustainable modes of transport
- Objective 7. Minimise any possible impacts on and increase adaptability to climate change
- Objective 10. Promote energy efficiency and maximise renewable energy opportunities from new or existing development
- Objective 13. Support wider economic development and promote local job opportunities
- Objective 14. Protect and improve human health and quality of life

5.5 The monitoring of the SA and the Waste Core Strategy itself should be closely linked. An Annual Monitoring Report will monitor the latter and should incorporate the indicators set out in Table 5.1. This is to ensure the impacts on the SA objectives are considered. These indicators were established in the Scoping Report and are designed to monitor significant effects identified through the SA process and any unforeseen adverse impacts.

5.6 The proposed indicators may need to be reviewed following consultation on this document and following any changes made to policies during the independent examination. Additionally, once site specific allocations are confirmed, effects currently identified as insignificant or of uncertain significance may become significant. Therefore, the monitoring framework is subject to future change and refinement.

Table 5.1: Sustainability Appraisal objectives and proposed indicators

Objective	Proposed indicators[3]
1. Ensure that adequate provision is made to provide a network of suitable waste management sites for the safe treatment and disposal of waste.	•Annual waste arisings •Estimated permitted treatment and disposal capacity •Average distance municipal waste is transported for treatment/disposal (figures for other waste streams unlikely to be available) •Number of 'bring sites' per 100,000 population •Cost per tonne of municipal waste treatment/disposal •Number of fly-tipping incidents •Annual production figures (where available) •Annual apportionment level (where applicable) •Level of permitted reserves •Land bank requirement
2. Protect and enhance biodiversity at all levels and safeguard features of geological interest.	•Area of UKBAP and LBAP habitats created as part of minerals/waste development •Area of designated sites lost to minerals/waste development mineral extraction. •Number of developments judged to have a harmful impact on legally protected species/habitats or those listed in the LBAP. •Area of UKBAP and LBAP habitat lost to minerals/waste development.
3. Promote sustainable patterns of movement and the use of more sustainable modes of transport.	•Number of permitted sites that would result in less haulage of minerals/waste. •Number of permitted sites that use alternative means of transport other than road. • Number of permitted sites judged to reduce/increase HGV numbers. •Average distance travelled by minerals/waste (no

[3] The proposed indicators make reference to and include specific indicators on minerals due to the Scoping Report covering both the minerals and waste development frameworks.

Objective	Proposed indicators[3]
	local data currently available) •Number of permitted sites requiring new access/road improvements
4. Protect the quality of the historic environment above and below ground.	•Number of archaeological sites lost or damaged. •Number of designated heritage assets (including conservation areas, listed buildings, SAMs, registered parks and gardens and battlefields) adversely affected by development. •Number of developments with watching briefs?
5. Protect and enhance the quality and character of our townscape and landscape.	Number of permitted sites judged to have a major overall adverse impact on local landscape character/conservation areas •Number of permitted sites resulting in landscape/townscape improvements •Area of Green Belt lost to minerals/waste development •Area of public open space lost to minerals/waste development •Number of conservation areas adversely affected by minerals/waste development
6. Minimise impact and risk of flooding.	•Number of permitted sites with flood alleviation benefits •Number of sites permitted against EA flood advice • Number of permitted sites with flood management plans in place
7. Minimise any possible impacts on and increase adaptability to climate change.	•Number of permitted sites that include specific carbon reduction measures. • Estimated output of greenhouse emissions from new mineral/waste sites and related transport. •Average distance travelled by minerals/waste (no local data currently available) •Amount of CO^2 produced per tonne of sand and gravel •Amount of fossil fuel use offset by use of waste for energy •Number of permitted sites that include climate adaptation measures (e.g. to cope with heat, flood,

Objective	Proposed indicators[3]
	storms)
8. Protection of high quality agricultural land and soil.	•No of developments permitted which will have an adverse impact on soil quality •No of sites with soil management plans. (where available) •Area of best and most versatile land permanently lost to mineral extraction/development. •Amount lost as % of total agricultural land area.
9. Promote more efficient use of land and resources	•Number and capacity of new aggregate and other mineral recycling plants permitted. •Amount of recycled/secondary aggregates produced. •Percentage of recycled and secondary aggregates. •Number and capacity of new waste facilities by type •No. of buildings re-used as part of minerals/waste development •Area of previously developed land used for minerals/waste development
10. Promote energy efficiency and maximise renewable energy opportunities from new or existing development.	•No. of sites permitted that incorporate energy efficiency measures •Amount of renewable/low carbon energy produced from minerals/waste sites
11. Protect and improve local air quality.	•Number of sites permitted that are judged to have an adverse impact on air quality •Number of sites permitted within AQMAs
12. Protect and improve water quality and promote efficient use of water.	• Local surface/groundwater quality (where data exists) •No. of sites permitted within groundwater protection zones. •Changes in ground water levels. •Volume of water abstracted for and discharged from minerals/waste developments

Objective	Proposed indicators[3]
	• No of new/improved water treatment plants permitted • No of schemes with Sustainable Urban Drainage • No of schemes with rainwater harvesting
13. Support wider economic development and promote local job opportunities.	• Data on existing job numbers related to minerals/waste • No. of new jobs created by new mineral/waste sites. • Minerals production by type • Waste arisings by type
14. Protect and improve human health and quality of life.	• Amount of public open space/ publicly accessible land created by minerals/waste development. • Number of permissions granted contrary to advice from health protection agency. • Number of properties within 250m of mineral working proposals. • Number of properties affected by noise • Number / length of ROW affected by minerals/waste development • No. of confirmed complaints

6.0 Conclusions

6.1 The strategic objectives of the Waste Core Strategy are compatible with the SA objectives. The purpose of policy development was to ensure that the Waste Core Strategy's strategic objectives could be delivered. The policies do offer the potential for significant positive effects on the SA objectives. These encompass the environmental, economic and social aspects which together comprise overall sustainability.

6.2 Whilst potential for some negative impacts was identified it was considered that these could be could be avoided or minimised through mitigation, largely by the effective implementation of other policies, in particular the development management policies (which will be the subject of a further DPD) It will also be possible to assess the significance of negative effects and the mitigation required in more detail through the appraisal of specific sites in the future Site Allocations DPD.

6.3 There is uncertainty about the effects of some policies on some objectives, particularly those related to the impact on environmental receptors, such as biodiversity and landscape. However, this was considered inevitable given the strategic, rather than site specific, nature of the Waste Core Strategy. In the case of sites, such uncertainty will be resolved in further appraisal of the Site Allocations DPD.

6.4 In many cases the cumulative effects of policies on each SA objectives were found to be significantly positive Where there was potential for adverse effects these could be avoided or reduced through mitigation. In some cases the cumulative effects were uncertain due to the strategic nature of the policies and the fact that impacts would be dependent on the specific location and nature of the waste management facility.

Appendix A: Waste Core Strategy policy appraisal matrices

POLICY: WCS1 Waste Awareness, Prevention and Re-use

Sustainability Appraisal Objectives	Effect	Commentary	Mitigation
1. Ensure that adequate provision is made to provide a network of suitable waste management sites for the safe treatment and disposal of waste.	+	The policy seeks to ensure that there is provision for waste management associated with new development in accordance with the waste hierarchy.	
2. Protect and enhance biodiversity at all levels and safeguard features of geological interest.	?	The policy is not site specific and encompasses a range of waste management technologies. Impact would be dependent on the location of any facility in relation to habitats/species/geological features and the technologies used.	
3. Promote sustainable patterns of movement and the use of more sustainable modes of transport.	+	Waste prevention, re-use and on-site facilities in new development will reduce the overall requirement for movement of waste.	
4. Protect the quality of the historic environment above and below ground.	?	The policy is not site specific and encompasses a range of waste management technologies. Impact would be dependent on the location of any facility in relation to heritage assets and the technologies used.	
5. Protect and enhance the quality and character of our townscape and landscape.	?	The policy is not site specific and encompasses a range of waste management technologies. Impact would be dependent on the location of any facility in relation to townscape/landscape character and the technologies used.	
6. Minimise impact and risk of flooding.	?	The policy is not site specific and encompasses a range of waste management technologies. Impact would be dependent on the location of any facility and the technologies used.	
7. Minimise any possible impacts on and increase adaptability to climate change.	+	Waste prevention and re-use will minimise the use of resources and reduce the overall requirement for transportation of waste and for disposal, consequently reducing greenhouse gas emissions. However the policy does not have any bearing on adaptability to climate change, therefore its impact is positive rather than very positive.	
8. Protection of high quality agricultural land and soil.	?	The policy is not site specific and encompasses a range of waste management technologies. Impact would be dependent on the location of any facility and the technologies used.	
9. Promote more efficient use of land and resources	++	Waste prevention and re-use will reduce the need for land take for disposal.	
10. Promote energy efficiency and maximise renewable energy opportunities from new or existing development.	+	The policy seeks to encourage the recovery of waste, in line with the waste hierarchy, arising from new development which can be used to produce renewable energy.	
11. Protect and improve local air quality.	I	Providing facilities to deal with waste within new developments	Application of other Waste Core

		could have a positive impact by reducing need to transport waste away from the site, thus reducing emissions. However it is also possible that there could be a negative impact as a result of the waste treatment on site, for example dust from sorting and baling.	Strategy policies, for example site criteria and environmental protection policies, and saved Development Management policies in the Waste Local Plan (to be replaced in due course by a development management policies DPD). Local Authorities' Air Quality Strategies would also be taken into account.
12. Protect and improve water quality and promote efficient use of water.	**?**	The policy is not site specific and encompasses a range of waste management technologies. Impact would be dependent on the location of any facility and the technologies used.	
13. Support wider economic development and promote local job opportunities	**+**	Provision for waste management within new development has the potential to create local job opportunities.	
14. Protect and improve human health and quality of life.	**+**	The policy encourages overall better management of waste and treating waste close to source which should, for e.g., reduce fly tipping, and have wider benefits for health and quality of life.	

Summary

This policy makes a very important contribution to sustainability as it aims to minimise the creation of waste and maximise re-use in accordance with the principles of the waste hierarchy. There are some areas of uncertainty about its impacts but this is due to its strategic nature.

POLICY: WCS 2 Future Waste Management Provision			
Sustainability Appraisal Objectives	**Effect**	**Commentary**	**Mitigation**
1. Ensure that adequate provision is made to provide a network of suitable waste management sites for the safe treatment and disposal of waste.	**+**	The policy aims to ensure that waste management provision will be in accordance with the waste hierarchy.	
2. Protect and enhance biodiversity at all levels and safeguard features of geological interest.	**?**	The policy is not site specific and encompasses a range of waste management technologies. Impact would be dependent on the location of any facility in relation to habitats/species/geological features and the technologies used.	
3. Promote sustainable patterns of movement and the use of more sustainable modes of transport.	**0**	There is no significant impact overall impact on wider patterns of movement or modes of transport.	
4. Protect the quality of the historic environment above and below ground.	**?**	The policy is not site specific and encompasses a range of waste management technologies. Impact would be dependent on the location of any facility in relation to heritage assets and the technologies used.	
5. Protect and enhance the quality and character of our townscape and landscape.	**?**	The policy is not site specific and encompasses a range of waste management technologies. Impact would be dependent on the location of any facility in relation to townscape/landscape character and the technologies used.	
6. Minimise impact and risk of flooding.	**?**	The policy is not site specific and encompasses a range of waste management technologies. Impact would be dependent on the location of any facility and the technologies used.	
7. Minimise any possible impacts on and increase adaptability to climate change.	**+**	The policy aims to ensure that waste management provision will be in line with moving waste up the hierarchy. This will reduce the overall requirement for transportation of waste and for disposal, consequently reducing greenhouse gas emissions, however the policy does not have any bearing on adaptability to climate change, therefore its impact is positive rather than very positive.	
8. Protection of high quality agricultural land and soil.	**?**	The policy is not site specific and encompasses a range of waste management technologies. Impact would be dependent on the location of any facility and the technologies used.	
9. Promote more efficient use of land and resources	**+**	The policy aims to ensure that waste management provision will be in line with moving waste up the hierarchy. This should result in better use of resources and reduce the amount of land take required for new facilities, particularly for disposal.	
10. Promote energy efficiency and maximise renewable energy	**+**	More recycling is likely than in Version B of this policy due to the inclusion of the 70% target within the policy, which would reduce	

opportunities from new or existing development.		the capacity for energy recovery so the impact would be positive rather than very positive.	
11. Protect and improve local air quality.	**I**	There is potential to impact negatively on local air quality depending on the type of waste management facilities implemented and the transport movements associated with them. However there is also potential for a positive impact on local air quality by prioritising moving waste up the hierarchy which could reduce transportation requirements, thus reducing emissions.	Application of other Waste Core Strategy policies, for example site criteria and environmental protection policies, and saved Development Management policies in the Waste Local Plan (to be replaced in due course by a development management policies DPD). Local Authorities' Air Quality Strategies would also be taken into account.
12. Protect and improve water quality and promote efficient use of water.	**?**	The policy is not site specific and encompasses a range of waste management technologies. Impact would be dependent on the location of any facility and the technologies used.	
13. Support wider economic development and promote local job opportunities	**+**	The types of facilities which are prioritised, for example. recycling, have greater job creation potential than disposal facilities.	
14. Protect and improve human health and quality of life.	**+**	The policy encourages overall better management of waste and prioritises facilities in line with moving waste up the hierarchy have wider benefits for health and quality of life.	

Summary

The policy makes an important contribution to sustainability as it aims to ensure that waste management provision will be in line with moving waste up the hierarchy. There are some areas of uncertainty about its impacts but this is due to its strategic nature.

POLICY: WCS 3 Broad Locations for Future Waste Sites *Initial proposed policy*

Sustainability Appraisal Objectives	Effect	Commentary	Mitigation
1. Ensure that adequate provision is made to provide a network of suitable waste management sites for the safe treatment and disposal of waste.	++	The policy seeks to ensure that there is a network of appropriate sites in locations close to where waste is produced – both in terms of large-scale facilities in the major waste producing areas and smaller facilities to meet local needs.	
2. Protect and enhance biodiversity at all levels and safeguard features of geological interest.	?	The policy addresses broad locations rather than being site specific and encompasses a range of waste management technologies. Impact would be dependent on the location of any facility in relation to habitats/species/geological features and the technologies used.	
3. Promote sustainable patterns of movement and the use of more sustainable modes of transport.	+	The policy promotes more sustainable patterns of movement than might otherwise be the case by directing large-scale facilities to the urban areas of the County where the greatest amount of waste is produced.	
4. Protect the quality of the historic environment above and below ground.	?	The policy addresses broad locations rather than sites and encompasses a range of waste management technologies. Impact would be dependent on the location of any facility in relation to heritage assets and the technologies used.	
5. Protect and enhance the quality and character of our townscape and landscape.	I	Impact would be dependent on location and design of facilities.	Application of other Waste Core Strategy policies, for example site criteria and environmental protection policies, and saved Development Management policies in the Waste Local Plan (to be replaced in due course by a development management policies DPD).
6. Minimise impact and risk of flooding.	?	The policy addresses broad locations rather than sites and encompasses a range of waste management technologies. Impact would be dependent on the location of any facility and the technologies used.	
7. Minimise any possible impacts on and increase adaptability to climate change.	+	The policy aims to ensure that the majority of waste is treated close to its source which will reduce traffic movements thus reducing greenhouse gas emissions.	
8. Protection of high quality agricultural land and soil.	+	The policy seeks to focus facilities in urban areas and restricts development in the countryside.	
9. Promote more efficient use of land	0	Although there may be a greater likelihood of development on	

and resources		previously developed land this will not necessarily be the case as a direct result of the policy.	
10. Promote energy efficiency and maximise renewable energy opportunities from new or existing development.	**0**	There is no clear link.	
11. Protect and improve local air quality.	**-**	The focus on urban areas could result in concentrating impacts in locations which are more likely to already have poor air quality.	Application of other Waste Core Strategy policies, for example site criteria and environmental protection policies, and saved Development Management policies in the Waste Local Plan (to be replaced in due course by a development management policies DPD). Local Authorities' Air Quality Strategies would also be taken into account.
12. Protect and improve water quality and promote efficient use of water.	**?**	The policy addresses broad locations rather than sites and encompasses a range of waste management technologies. Impact would be dependent on the location of any facility and the technologies used.	
13. Support wider economic development and promote local job opportunities	**+**	Local job opportunities will be created in areas where waste facilities are developed.	
14. Protect and improve human health and quality of life.	**+**	The policy allows for a network of appropriate facilities in locations where people live and work, which provides greater convenience.	

Summary

The policy has a positive impact on many aspects of sustainability as it seeks to direct larger facilities to urban areas but allows for small-scale facilities to meet local need in appropriate locations. There is the potential for waste facilities to have some negative environmental impacts but mitigation would be applied as set out above. There are also some areas of uncertainty about the impacts of the policy but this is due to the strategic nature of the policy which addresses broad locations rather than being site specific.

POLICY: WCS 3 Broad Locations for Future Waste Sites (REVISED) ***Revised following internal consultation***

Sustainability Appraisal Objectives	**Effect**	**Commentary**	**Mitigation**
1. Ensure that adequate provision is made to provide a network of suitable waste management sites for the safe treatment and disposal of waste.	**++**	The policy seeks to ensure that there is a network of appropriate sites in locations close to where waste is produced – both in terms of large-scale facilities in the major waste producing areas and smaller facilities to meet local needs.	
2. Protect and enhance biodiversity at all levels and safeguard features of geological interest.	**?**	The policy addresses broad locations rather than being site specific and encompasses a range of waste management technologies. Impact would be dependent on the location of any facility in relation to habitats/species/geological features and the technologies used.	
3. Promote sustainable patterns of movement and the use of more sustainable modes of transport.	**+**	The policy promotes more sustainable patterns of movement than would otherwise be the case by directing large-scale facilities to the urban areas of the County where the greatest amount of waste is produced.	
4. Protect the quality of the historic environment above and below ground.	**?**	The policy addresses broad locations rather than being site specific and encompasses a range of waste management technologies. Impact would be dependent on the location of any facility in relation to heritage assets and the technologies used.	
5. Protect and enhance the quality and character of our townscape and landscape.	**I**	Impact would be dependent on location and design of facilities.	Application of other Waste Core Strategy policies, for example site criteria and environmental protection policies, and saved Development Management policies in the Waste Local Plan (to be replaced in due course by a development management policies DPD).
6. Minimise impact and risk of flooding.	**?**	The policy addresses broad locations rather than being site specific and encompasses a range of waste management technologies. Impact would be dependent on the location of any facility and the technologies used.	
7. Minimise any possible impacts on and increase adaptability to climate change.	**+**	The policy aims to ensure that the majority of waste is treated close to its source which will reduce traffic movements thus reducing greenhouse gas emissions.	
8. Protection of high quality agricultural land and soil.	**+**	The policy seeks to focus facilities in urban areas and restricts development in the countryside to instances where very specific circumstances apply.	
9. Promote more efficient use of land	**0**	Although there may be a greater likelihood of development on	

and resources		previously developed land this will not necessarily be the case as a direct result of the policy.	
10. Promote energy efficiency and maximise renewable energy opportunities from new or existing development.	**0**	There is no clear link.	
11. Protect and improve local air quality.	**-**	The focus on urban areas could result in concentrating impacts in locations which are more likely to already have poor air quality.	Application of other Waste Core Strategy policies, for example site criteria and environmental protection policies, and saved Development Management policies in the Waste Local Plan (to be replaced in due course by a development management policies DPD). Local Authorities' Air Quality Strategies would also be taken into account.
12. Protect and improve water quality and promote efficient use of water.	**?**	The policy addresses broad locations rather than being site specific and encompasses a range of waste management technologies. Impact would be dependent on the location of any facility and the technologies used.	
13. Support wider economic development and promote local job opportunities	**+**	Local job opportunities will be created in areas where waste facilities are developed.	
14. Protect and improve human health and quality of life.	**+**	The policy allows for a network of appropriate facilities in locations where people live and work, which provides greater convenience.	

Summary

The policy has a positive impact on many aspects of sustainability as it seeks to direct larger facilities to urban areas but allows for small-scale facilities to meet local need in appropriate locations. There is the potential for waste facilities to have some negative environmental impacts but mitigation would be applied as set out above. There are also some areas of uncertainty about the impacts of the policy but this is due to the strategic nature of the policy which addresses broad locations rather than being site specific. The revised wording of the policy did not result in any changes in the effects of the policy on the SA objectives.

POLICY: WCS 4 Disposal Sites for Non-hazardous and Inert Waste

Sustainability Appraisal Objectives	Effect	Commentary	Mitigation
1. Ensure that adequate provision is made to provide a network of suitable waste management sites for the safe treatment and disposal of waste.	+	The policy makes provision for disposal sites for non-hazardous and inert waste, which will contribute towards adequate provision in the overall waste management network.	
2. Protect and enhance biodiversity at all levels and safeguard features of geological interest.	I	The policy when implemented will limit unacceptable environmental impacts and result in associated environmental benefits such as restoration. However the policy may also result in a negative impact development from, for example disposal on greenfield sites.	Application of other Waste Core Strategy policies, for example site criteria and environmental protection policies, and saved Development Management policies in the Waste Local Plan (to be replaced in due course by a development management policies DPD).
3. Promote sustainable patterns of movement and the use of more sustainable modes of transport.	+	The policy prioritises provision for disposal close to the main sources of waste thus promoting more sustainable movement patterns.	
4. Protect the quality of the historic environment above and below ground.	?	The policy is not site specific so the impact would be dependent on location in relation to heritage assets.	
5. Protect and enhance the quality and character of our townscape and landscape.	I	A positive impact could result from, for example, restoration of sites such as old colliery tips but a negative impact could arise from, for example, land raise on greenfield sites.	Application of other Waste Core Strategy policies, for example site criteria and environmental protection policies, and saved Development Management policies in the Waste Local Plan (to be replaced in due course by a development management policies DPD).
6. Minimise impact and risk of flooding.	?	The policy is not site specific so impact would depend on location.	
7. Minimise any possible impacts on and increase adaptability to climate change.	?	Details of actual proposals would be needed to determine impact.	
8. Protection of high quality agricultural land and soil.	?	The policy is not site specific. Impact would depend on location.	
9. Promote more efficient use of land and resources	-	The policy does not promote sustainable waste management.	Application of other Waste Core Strategy policies which do promote movement up the waste hierarchy.

10. Promote energy efficiency and maximise renewable energy opportunities from new or existing development.	**0**	No significant effect.	
11. Protect and improve local air quality.	**-**	Dust from operations at landfill sites could have a negative impact on local air quality.	Application of other Waste Core Strategy policies, for example site criteria and environmental protection policies, and saved Development Management policies in the Waste Local Plan (to be replaced in due course by a development management policies DPD). Local Authorities' Air Quality Strategies would also be taken into account.
12. Protect and improve water quality and promote efficient use of water.	**-**	Potential seepage from extended and new landfill sites into watercourses could have a negative impact.	Application of other Waste Core Strategy policies, for example site criteria and environmental protection policies, and saved Development Management policies in the Waste Local Plan (to be replaced in due course by a development management policies DPD).
13. Support wider economic development and promote local job opportunities	**0**	No significant effect.	
14. Protect and improve human health and quality of life.	**-**	Dust created by operations at landfill sites could have a negative impact.	Application of other Waste Core Strategy policies, for example site criteria and environmental protection policies, and saved Development Management policies in the Waste Local Plan (to be replaced in due course by a development management policies DPD). Local Authorities' Air Quality Strategies would also be taken into account.

Summary

It is inevitable that there will be some negative impacts associated with disposal sites, however allowing for disposal is necessary to ensure adequate provision within the overall waste management network and the policy aims to minimise potential negative impacts. As the policy is not site specific, its impact on some environmental receptors is uncertain and will vary between sites.

POLICY: WCS 5 Power Station Waste/Ash

Sustainability Appraisal Objectives	Effect	Commentary	Mitigation
1. Ensure that adequate provision is made to provide a network of suitable waste management sites for the safe treatment and disposal of waste.	+	The policy addresses the need for a specific type of waste management, without which there would be inadequate provision within the network.	
2. Protect and enhance biodiversity at all levels and safeguard features of geological interest.	?	The policy is not site specific and impact would be dependent on the location of a disposal site.	
3. Promote sustainable patterns of movement and the use of more sustainable modes of transport.	+	The policy prioritises disposal on sites adjacent to the sources of the waste thus minimising the need for transportation.	
4. Protect the quality of the historic environment above and below ground.	?	The policy is not site specific and impact would be dependent on the location of a disposal site.	
5. Protect and enhance the quality and character of our townscape and landscape.	I	Stockpiling may have a negative impact by creating an alien feature in the landscape where this is flat, but disposal in mineral voids which is also allowed for and this could have a positive impact by allowing the original landscape, or something close to it, to be restored.	Application of other Waste Core Strategy policies, for example environmental protection policies and saved Development Management policies in the Waste Local Plan (to be replaced in due course by a development management policies DPD).
6. Minimise impact and risk of flooding.	I	As power stations are located on flood plains stockpiling nearby could impede floodwater flows resulting in a negative impact and ash disposal in sand and gravel lagoons can affect ground water flows and flood risk. However a positive impact is also possible if the ash is used to form bunds which could act as flood defences.	Application of other Waste Core Strategy policies, for example environmental protection policies and saved Development Management policies in the Waste Local Plan (to be replaced in due course by a development management policies DPD).
7. Minimise any possible impacts on and increase adaptability to climate change.	0	No clear link.	
8. Protection of high quality agricultural land and soil.	-	There is potential for harm to soils and agricultural land depending on the location of the disposal site.	Application of other Waste Core Strategy policies, for example environmental protection policies and saved Development Management policies in the Waste Local Plan (to be replaced in due course by a development management policies DPD).

			Environment Agency regulations would also provide safeguards.
9. Promote more efficient use of land and resources	**+**	The policy ensures that the waste materials are available for recycling and the re-use of mineral voids would also have a positive impact.	
10. Promote energy efficiency and maximise renewable energy opportunities from new or existing development.	**0**	No clear link.	
11. Protect and improve local air quality.	**0**	No significant effect.	
12. Protect and improve water quality and promote efficient use of water.	**0**	No significant effect.	
13. Support wider economic development and promote local job opportunities	**0**	No significant effect.	
14. Protect and improve human health and quality of life.	**0**	No clear link.	

Summary

The overall impact of this policy is not clear cut as its effects are variable, ranging from positive in terms of providing an adequate network of waste management sites and sustainable movement patterns, uncertain in the case of biodiversity and historic environment, positive or negative depending on implementation for townscape/landscape and flooding, to negative for the protection of high quality agricultural land and soil, and with no clear link/no significant effect in respect of the remainder of the SA objectives. However, this policy promotes the recycling of this major local waste source thus making a valuable contribution to sustainability and mitigation can be achieved in respect of potential negative effects as set out above.

POLICY: WCS 6 General Site Criteria

Sustainability Appraisal Objectives	Effect	Commentary	Mitigation
1. Ensure that adequate provision is made to provide a network of suitable waste management sites for the safe treatment and disposal of waste.	++	The policy directs different types of facilities to the most appropriate general locations and, in doing so, allows for additional capacity overall in the network of sites.	
2. Protect and enhance biodiversity at all levels and safeguard features of geological interest.	?	The policy is not site specific and encompasses a range of waste management technologies. Impact would be dependent on the location of any facility in relation to habitats/species/geological features and the technologies used.	
3. Promote sustainable patterns of movement and the use of more sustainable modes of transport.	+	The policy directs most types of facilities to locations which should contribute towards sustainable movement patterns. For example, directing bring sites to 'community sites' allows for linked trips and directing many types of facilities to employment and previously developed land is likely to concentrate such development around existing transport networks.	
4. Protect the quality of the historic environment above and below ground.	?	The policy is not site specific and encompasses a range of waste management technologies. Impact would be dependent on the location of any facility in relation to heritage assets and the technologies used.	
5. Protect and enhance the quality and character of our townscape and landscape.	I	There could be a positive impact in terms of matching the scale of facilities with appropriate locations and limiting the types of development in the countryside and Green Belt. However without high quality design of buildings the effect could be negative.	Application of other Waste Core Strategy policies, for example environmental protection policies and saved Development Management policies in the Waste Local Plan (to be replaced in due course by a development management policies DPD).
6. Minimise impact and risk of flooding.	?	The policy is not site specific and encompasses a range of waste management technologies. Impact would be dependent on the location of any facility and the technologies used.	
7. Minimise any possible impacts on and increase adaptability to climate change.	?	The policy is not site specific and encompasses a range of waste management technologies. Impact would be dependent on the location of any facility and the technologies used.	
8. Protection of high quality agricultural land and soil.	I	A positive impact is possible through the direction of many types of facility to previously developed land and employment land but facilities such as composting on farmland could have a negative impact.	Application of other Waste Core Strategy policies, for example environmental protection policies and saved Development

			Management policies in the Waste Local Plan (to be replaced in due course by a development management policies DPD).
9. Promote more efficient use of land and resources	**I**	The policy does not refer to the waste hierarchy and allows for some facilities on green field land but it directs many types of facilities to previously developed land. The overall thrust of directing the facilities to the most appropriate locations could have a positive impact. However, the policy, implemented in isolation, could give rise to negative impacts subject to site details and the nature of the development.	Application of other Waste Core Strategy policies, for example environmental protection policies and saved Development Management policies in the Waste Local Plan (to be replaced in due course by a development management policies DPD).
10. Promote energy efficiency and maximise renewable energy opportunities from new or existing development.	**0**	The policy makes provision for, but does not promote, energy efficiency and renewable energy opportunities.	
11. Protect and improve local air quality.	**?**	The policy is not site specific and encompasses a range of waste management technologies. Impact would be dependent on the location of any facility and the technologies used.	
12. Protect and improve water quality and promote efficient use of water.	**?**	The policy is not site specific and encompasses a range of waste management technologies. Impact would be dependent on the location of any facility and the technologies used.	
13. Support wider economic development and promote local job opportunities.	**+**	The policy provides some certainty for investment in terms of what types of facilities will be considered favourably in which general locations. Development of waste management facilities offers opportunities to enable wider economic development and would give rise to local investment and job opportunities where implemented. There may also be positive knock-on effects in the case of resource recovery parks.	
14. Protect and improve human health and quality of life.	**+**	By directing development to appropriate locations, resulting in better management of waste management generally, and limiting the types of development which may be acceptable in more sensitive locations the policy should overall have a positive impact.	

Summary

The policy is generally sustainable in nature as it directs different types of facilities to the most appropriate locations, which in many cases will also promote sustainable movement patterns. It has positive economic and social impacts in terms of encouraging economic development and improving health and quality of life. There are some potentially negative impacts in terms of the possible effect on townscape, landscape, agricultural land and soil and on use of land and resources. However, such potential negative impacts can be mitigated by the application of other policies.

POLICY: WCS 7 Extensions to Existing Waste Management Sites			
Sustainability Appraisal Objectives	**Effect**	**Commentary**	**Mitigation**
1. Ensure that adequate provision is made to provide a network of suitable waste management sites for the safe treatment and disposal of waste.	+	The policy allows for extension of existing waste management facilities subject to effect on existing capacity and the environment. Extensions often raise fewer issues and can be more viable and easier to develop than new sites so score well in deliverability terms and meeting this objective. Increasing capacity and contributing to improvement of existing facilities will have a positive impact on the network.	
2. Protect and enhance biodiversity at all levels and safeguard features of geological interest.	?	The policy is not site specific and encompasses a range of waste management technologies. Impact would be dependent on the location of any facility and the technologies used.	
3. Promote sustainable patterns of movement and the use of more sustainable modes of transport.	?	The policy is not site specific and encompasses a range of waste management technologies. Impact would be dependent on the location of any facility and the technologies used.	
4. Protect the quality of the historic environment above and below ground.	?	The policy is not site specific and encompasses a range of waste management technologies. Impact would be dependent on the location of any facility and the technologies used.	
5. Protect and enhance the quality and character of our townscape and landscape.	?	The policy is not site specific and encompasses a range of waste management technologies. Impact would be dependent on the location of any facility and the technologies used.	
6. Minimise impact and risk of flooding.	?	The policy is not site specific and encompasses a range of waste management technologies. Impact would be dependent on the location of any facility and the technologies used.	
7. Minimise any possible impacts on and increase adaptability to climate change.	?	The policy is not site specific and encompasses a range of waste management technologies. Impact would be dependent on the location of any facility and the technologies used.	
8. Protection of high quality agricultural land and soil.	?	The policy is not site specific and encompasses a range of waste management technologies. Impact would be dependent on the location of any facility and the technologies used.	
9. Promote more efficient use of land and resources	+	The policy supports the efficient use of previously developed land.	
10. Promote energy efficiency and maximise renewable energy opportunities from new or existing development.	?	The policy is not site specific and encompasses a range of waste management technologies. Impact would be dependent on the location of any facility and the technologies used.	
11. Protect and improve local air quality.	I	Extension of facilities such as incinerators could have a cumulative impact on air quality. However, improving efficiency of existing	Application of other Waste Core Strategy policies, for example

		facilities could have a positive effect.	site criteria and environmental protection policies, and saved Development Management policies in the Waste Local Plan (to be replaced in due course by a development management policies DPD). Local Authorities' Air Quality Strategies would also be taken into account.
12. Protect and improve water quality and promote efficient use of water.	**I**	Waste water treatment proposals arising as a result of this policy could result in a positive impact. However, extensions to existing landfill sites could result in a negative impact from leachates affecting groundwater.	Application of other Waste Core Strategy policies, for example site criteria and environmental protection policies, and saved Development Management policies in the Waste Local Plan (to be replaced in due course by a development management policies DPD).
13. Support wider economic development and promote local job opportunities	**?**	The policy is not site specific and encompasses a range of waste management technologies. Impact would be dependent on the location of any facility and the technologies used.	
14. Protect and improve human health and quality of life.	**?**	The policy is not site specific and encompasses a range of waste management technologies. Impact would be dependent on the location of any facility and the technologies used.	

Summary

The policy makes some contribution to sustainability in terms of its positive impact on ensuring the there is adequate waste management provision and in its support for the use of previously developed land. However, due to the fact that it is a general, rather than a site specific policy, it is inevitable that there are many areas of uncertainty over its impact.

POLICY: WCS 8 New and Emerging Technologies			
Sustainability Appraisal Objectives	**Effect**	**Commentary**	**Mitigation**
1. Ensure that adequate provision is made to provide a network of suitable waste management sites for the safe treatment and disposal of waste.	+	The policy gives flexibility in the development of waste management facilities to make use of new/emerging technologies where this will enhance the waste management network	
2. Protect and enhance biodiversity at all levels and safeguard features of geological interest.	?	The policy is not site specific and encompasses a range of waste management technologies. Impact would be dependent on the location of any facility in relation to habitats/species/geological features and the technologies used.	
3. Promote sustainable patterns of movement and the use of more sustainable modes of transport.	I	New/emerging technologies, such as in conveyance of waste (e.g. vacuum pipe technology) may lead to reduction in the need to transport waste by road. However, a new technology may have particular site requirements resulting in development in unsustainable locations.	Application of other Waste Core Strategy policies, for example site criteria and environmental protection policies, and saved Development Management policies in the Waste Local Plan (to be replaced in due course by a development management policies DPD).
4. Protect the quality of the historic environment above and below ground.	?	The policy is not site specific and encompasses a range of waste management technologies. Impact would be dependent on the location of any facility in relation to heritage assets and the technologies used.	
5. Protect and enhance the quality and character of our townscape and landscape.	?	The policy is not site specific and encompasses a range of waste management technologies. Impact would be dependent on the location of any facility in relation to townscape/landscape character and the technologies used.	
6. Minimise impact and risk of flooding.	?	The policy is not site specific and encompasses a range of waste management technologies. Impact would be dependent on the location of any facility and the technologies used.	
7. Minimise any possible impacts on and increase adaptability to climate change.	+	The policy will support the development of more efficient and sustainable waste management which will result in climate change	

		benefits.	
8. Protection of high quality agricultural land and soil.	**?**	The policy is not site specific and encompasses a range of waste management technologies. Impact would be dependent on the location of any facility and the technologies used.	
9. Promote more efficient use of land and resources	**+**	The policy supports more efficient and sustainable management of waste.	
10. Promote energy efficiency and maximise renewable energy opportunities from new or existing development.	**?**	Impact would be dependent on the specifics of the technologies used.	
11. Protect and improve local air quality.	**?**	The policy is not site specific and encompasses a range of waste management technologies. Impact would be dependent on the location of any facility and the technologies used.	
12. Protect and improve water quality and promote efficient use of water.	**?**	The policy is not site specific and encompasses a range of waste management technologies. Impact would be dependent on the location of any facility and the technologies used.	
13. Support wider economic development and promote local job opportunities	**+**	The promotion of new and emerging technologies could have a wider economic benefit and result in local jobs creation.	
14. Protect and improve human health and quality of life.	**+**	The efficient and sustainable management of waste supported by this policy could result in improvements to health and quality of life.	

Summary

This policy is generally sustainable in nature, having positive effects upon the provision of a suitable waste management network, climate change, the efficient use of land and resources, economic development and local job opportunities and human health and the quality of life. The policy may have other impacts, which are uncertain due to the strategic nature of the policy resulting in insufficient information relating to the location and nature of any potential development based on new technologies.

POLICY: WCS 9 Safeguarding Waste Management Sites			
Sustainability Appraisal Objectives	**Effect**	**Commentary**	**Mitigation**
1. Ensure that adequate provision is made to provide a network of suitable waste management sites for the safe treatment and disposal of waste.	**+**	The policy will serve to protect existing sites and allocations which will make a positive contribution towards the overall provision of a suitable network.	
2. Protect and enhance biodiversity at all levels and safeguard features of geological interest.	**?**	The policy is not site specific and encompasses a range of waste management technologies. Impact would be dependent on the location of any facility in relation to habitats/species/geological features and the technologies used.	
3. Promote sustainable patterns of movement and the use of more sustainable modes of transport.	**0**	No clear link.	
4. Protect the quality of the historic environment above and below ground.	**?**	The policy is not site specific and encompasses a range of waste management technologies. Impact would be dependent on the location of any facility in relation to heritage assets and the technologies used.	
5. Protect and enhance the quality and character of our townscape and landscape.	**0**	No significant effect. There would be no change in respect of existing sites and decisions on allocations would have taken baseline information into account.	
6. Minimise impact and risk of flooding.	**?**	The policy is not site specific and encompasses a range of waste management technologies. Impact would be dependent on the location of any facility in relation to flood risk and the technologies used.	
7. Minimise any possible impacts on and increase adaptability to climate change.	**0**	No clear link.	
8. Protection of high quality agricultural land and soil.	**0**	No clear link.	
9. Promote more efficient use of land and resources	**+**	Protecting existing sites should minimise the number of new sites required thus reducing potential land take. The risk of existing waste development sites becoming derelict due to encroachment	

		by adjacent sensitive development would also be reduced.	
10. Promote energy efficiency and maximise renewable energy opportunities from new or existing development.	**0**	No clear link.	
11. Protect and improve local air quality.	**0**	No clear link.	
12. Protect and improve water quality and promote efficient use of water.	**0**	No clear link.	
13. Support wider economic development and promote local job opportunities	**0**	No clear link.	
14. Protect and improve human health and quality of life.	**0**	No clear link.	

Summary

The policy is positive in its contribution towards the provision of a network of suitable waste management sites for the safe treatment and disposal of waste and the promotion of more efficient use of land and resources. Due to the general nature of the policy there is insufficient information to determine how the policy may impact on biodiversity and geological features, and on flooding.

POLICY: WCS 10 Sustainable Transport ***Initial proposed policy***

Sustainability Appraisal Objectives	**Effect**	**Commentary**	**Mitigation**
1. Ensure that adequate provision is made to provide a network of suitable waste management sites for the safe treatment and disposal of waste.	**0**	There is no significant overall impact on the waste management network.	
2. Protect and enhance biodiversity at all levels and safeguard features of geological interest.	**I**	The policy could reduce the need for new road infrastructure which may have a beneficial impact on biodiversity. However, the development of new rail haulage routes may have a negative impact if it involves reuse of disused biodiversity rich rail corridors.	Application of other Waste Core Strategy policies, for example site criteria and environmental protection policies, and saved Development Management policies in the Waste Local Plan (to be replaced in due course by a development management policies DPD).
3. Promote sustainable patterns of movement and the use of more sustainable modes of transport.	**++**	The policy requires all proposals for waste management to maximise alternatives to road transport. This will have a very significant positive effect on the promotion of sustainable forms of transportation.	
4. Protect the quality of the historic environment above and below ground.	**I**	The policy could reduce the need for new road building which could have a beneficial impact on the historic environment. However, subject to how the policy is implemented, alternative forms of transport may result in a negative impact.	Application of other Waste Core Strategy policies, for example site criteria and environmental protection policies, and saved Development Management policies in the Waste Local Plan (to be replaced in due course by a development management policies DPD).
5. Protect and enhance the quality and	**I**	The policy could contribute towards a reduced need for new road	

character of our townscape and landscape.		building which could have a beneficial impact on townscape and landscape. However, subject to how the policy is implemented, alternative forms of transport may result in a negative impact.	
6. Minimise impact and risk of flooding.	**0**	There is no significant overall impact on flooding issues.	
7. Minimise any possible impacts on and increase adaptability to climate change.	**+**	The policy promotes alternatives to road transport, resulting in more sustainable forms of transport. This will have a positive effect in helping to minimise impacts on climate change.	
8. Protection of high quality agricultural land and soil.	**0**	There is no significant overall impact on high quality agricultural land and soil.	
9. Promote more efficient use of land and resources	**?**	It was uncertain as to what impact the policy would have as its wording was not clear enough, however it was considered that re-wording could result in the policy being likely to have a positive impact. (See suggested wording in Summary below).	
10. Promote energy efficiency and maximise renewable energy opportunities from new or existing development.	**0**	There is no significant overall impact the promotion of energy efficiency/renewable energy.	
11. Protect and improve local air quality.	**+**	The promotion of sustainable forms of transport should have a positive effect on local air quality.	
12. Protect and improve water quality and promote efficient use of water.	**I**	Increased use of water borne transport risks contamination of water courses but reduction in road transport would minimise contamination from run-off.	Application of other Waste Core Strategy policies, for example site criteria and environmental protection policies, and saved Development Management policies in the Waste Local Plan (to be replaced in due course by a development management policies DPD).
13. Support wider economic development and promote local job opportunities	**0**	There is no significant overall impact on wider economic development or the promotion of local job opportunities.	
14. Protect and improve human health and quality of life.	**+**	The promotion of sustainable forms of transportation would contribute towards a reduction in road traffic congestion which would reduce vehicle emissions resulting in a positive effect on local air quality.	

Summary

Unsurprisingly, this policy, requiring that new waste management proposals maximise the use of sustainable forms of transportation, scores very highly in terms of positive effects on the promotion of sustainable transport objective. Other positive impacts are anticipated in respect of climate change, air quality and human health/quality of life. The policy may have other impacts, which could be either positive or negative

depending on the specific forms of alternative transport to be used. There was uncertainty about the impact of the policy in relation to promoting more efficient use of land and resources but it was considered that re-wording could result in the policy being likely to have a positive impact. It is therefore recommended that the policy is re-worded along the following lines:
'All waste management proposals should seek to *minimise use of the road network* and maximise the use of *existing or new* alternative forms of transport such as rail, water, pipeline or conveyor.'

POLICY: WCS 10 Sustainable Transport (REVISED) ***Revised as a result of SA***

Sustainability Appraisal Objectives	Effect	Commentary	Mitigation
1. Ensure that adequate provision is made to provide a network of suitable waste management sites for the safe treatment and disposal of waste.	**0**	There is no significant overall impact on the waste management network.	
2. Protect and enhance biodiversity at all levels and safeguard features of geological interest.	**I**	The policy could reduce the need for new road infrastructure which may have a beneficial impact on biodiversity. However, the development of new rail haulage routes may have a negative impact if it involves reuse of disused biodiversity rich rail corridors.	Application of other Waste Core Strategy policies, for example site criteria and environmental protection policies, and saved Development Management policies in the Waste Local Plan (to be replaced in due course by a development management policies DPD).
3. Promote sustainable patterns of movement and the use of more sustainable modes of transport.	**++**	The policy requires all proposals for waste management to maximise alternatives to road transport. This will have a very significant positive effect on the promotion of sustainable forms of transportation.	
4. Protect the quality of the historic environment above and below ground.	**I**	The policy could reduce the need for new road building which could have a beneficial impact on the historic environment. However, subject to how the policy is implemented, alternative forms of transport may result in a negative impact.	Application of other Waste Core Strategy policies, for example site criteria and environmental protection policies, and saved Development Management policies in the Waste Local Plan (to be replaced in due course by a development management policies DPD).
5. Protect and enhance the quality and	**I**	The policy could contribute towards a reduced need for new road	

character of our townscape and landscape.		building which could have a beneficial impact on townscape and landscape. However, subject to how the policy is implemented, alternative forms of transport may result in a negative impact.	
6. Minimise impact and risk of flooding.	**0**	There is no significant overall impact on flooding issues.	
7. Minimise any possible impacts on and increase adaptability to climate change.	**+**	The policy promotes alternatives to road transport, resulting in more sustainable forms of transport. This will have a positive effect in helping to minimise impacts on climate change.	
8. Protection of high quality agricultural land and soil.	**0**	There is no significant overall impact on high quality agricultural land and soil.	
9. Promote more efficient use of land and resources	**+**	Minimising use of road transport and maximising use of alternative forms of transport would result in more efficient use of land and resources.	
10. Promote energy efficiency and maximise renewable energy opportunities from new or existing development.	**0**	There is no significant overall impact the promotion of energy efficiency/renewable energy.	
11. Protect and improve local air quality.	**+**	The promotion of sustainable forms of transport should have a positive effect on local air quality.	
12. Protect and improve water quality and promote efficient use of water.	**I**	Increased use of water borne transport risks contamination of water courses but reduction in road transport would minimise contamination from run-off.	Application of other Waste Core Strategy policies, for example site criteria and environmental protection policies, and saved Development Management policies in the Waste Local Plan (to be replaced in due course by a development management policies DPD).
13. Support wider economic development and promote local job opportunities	**0**	There is no significant overall impact on wider economic development or the promotion of local job opportunities.	
14. Protect and improve human health and quality of life.	**+**	The promotion of sustainable forms of transportation would contribute towards a reduction in road traffic congestion which would reduce vehicle emissions resulting in a positive effect on local air quality.	

Summary

Unsurprisingly, this policy requiring that new waste management proposals maximise the use of sustainable forms of transportation scores very highly in terms of positive effects on the promotion of sustainable transport objective. Other positive impacts are anticipated in respect of climate change, air quality and human health/quality of life. The policy may have other impacts, which could be either positive or negative

depending on the specific forms of alternative transport to be used. The re-appraisal of the policy following its re-wording as recommended when it was first appraised has resulted in a positive rather than an uncertain impact, in relation to promoting the more efficient use of land and resources.

POLICY: WCS 11 Managing Our Own Waste

Sustainability Appraisal Objectives	Effect	Commentary	Mitigation
1. Ensure that adequate provision is made to provide a network of suitable waste management sites for the safe treatment and disposal of waste.	++	The policy sets out a commitment to provide adequate waste management capacity to serve the needs of the Plan area.	
2. Protect and enhance biodiversity at all levels and safeguard features of geological interest.	?	The policy is not site specific and encompasses a range of waste management technologies. Impact would be dependent on the location of any facility and the technologies used.	
3. Promote sustainable patterns of movement and the use of more sustainable modes of transport.	+	The provision of additional waste management capacity within the Plan area to serve the needs of the Plan area should reduce the distances over which waste has to be transported, in accordance with the proximity principle, leading to more sustainable patterns of movement.	
4. Protect the quality of the historic environment above and below ground.	?	The policy is not site specific and encompasses a range of waste management technologies. Impact would be dependent on the location of any facility and the technologies used.	
5. Protect and enhance the quality and character of our townscape and landscape.	?	The policy is not site specific and encompasses a range of waste management technologies. Impact would be dependent on the location of any facility and the technologies used.	
6. Minimise impact and risk of flooding.	?	The policy is not site specific and encompasses a range of waste management technologies. Impact would be dependent on the location of any facility and the technologies used.	
7. Minimise any possible impacts on and increase adaptability to climate change.	+	The promotion of more sustainable patterns of movement as identified in relation to SA objective 3 above, as well as any wider sustainability benefits promoted by the policy, such as minimising vehicle emissions due to shorter trip distances, will help to minimise impacts on climate change.	
8. Protection of high quality agricultural land and soil.	?	The policy is not site specific and encompasses a range of waste management technologies. Impact would be dependent on the	

		location of any facility and the technologies used.	
9. Promote more efficient use of land and resources.	**0**	There is no significant overall impact on the promotion of efficient use of land and resources.	
10. Promote energy efficiency and maximise renewable energy opportunities from new or existing development.	**0**	There is no significant overall impact the promotion of energy efficiency/renewable energy.	
11. Protect and improve local air quality.	**-**	The development of additional waste management facilities within the Plan area may have a detrimental impact on local air quality.	Application of other Waste Core Strategy policies, for example site criteria and environmental protection policies, and saved Development Management policies in the Waste Local Plan (to be replaced in due course by a development management policies DPD). Local Authorities' Air Quality Strategies would also be taken into account.
12. Protect and improve water quality and promote efficient use of water.	**0**	There is no significant overall impact on water quality or the efficient use of water.	
13. Support wider economic development and promote local job opportunities.	**+**	The development of additional waste management facilities within the Plan area is likely to promote local job opportunities.	
14. Protect and improve human health and quality of life.	**?**	The policy is not site specific and encompasses a range of waste management technologies. Impact would be dependent on the location of any facility and the technologies used.	

Summary

By supporting the necessary additional waste management capacity within the Plan area to deal with the area's own waste, this policy has a very positive effect on the overall provision of an adequate waste management network. Other likely positive impacts would include the promotion of sustainable transport, minimising impacts on climate change and the promotion of local job opportunities. However, additional waste management facilities arising from this policy may have a detrimental impact on local air quality, though this impact could be mitigated as set out above. The policy may have other impacts, which are uncertain due to the strategic nature of the policy resulting in insufficient information relating to the location and nature of any potential development.

POLICY: WCS 12 Protecting our Environment			
Sustainability Appraisal Objectives	**Effect**	**Commentary**	**Mitigation**
1. Ensure that adequate provision is made to provide a network of suitable waste management sites for the safe treatment and disposal of waste.	**0**	There is no significant impact overall on the provision of a suitable network of waste management.	
2. Protect and enhance biodiversity at all levels and safeguard features of geological interest.	**+**	Biodiversity could be protected under this policy which supports the development of new or extended waste management facilities where there is no unacceptable impact on overall environmental quality. There could also be improvements to biodiversity resulting from the policy's requirement to seek enhancement of the local environment. Inevitably, there is an element of compromise inherent in this policy as there are many factors which contribute to environmental quality. For example, biodiversity may have to be balanced against heritage, or local versus wider geographic benefits. Any particular aspect of environmental quality may therefore not be fully enhanced by applying this policy but rather an appropriate balance of protection and enhancement across all aspects will have to be sought. This is why the policy refers to 'overall environmental quality'. Consequently the policy can only be considered to have a positive impact rather than a very positive impact on many of the appraisal objectives.	
3. Promote sustainable patterns of movement and the use of more sustainable modes of transport.	**0**	There is no significant impact overall on wider patterns of movement or modes of transport.	
4. Protect the quality of the historic environment above and below ground.	**+**	The quality and character of the historic environment could be protected under this policy which supports the development of new or extended waste management facilities where there is no unacceptable impact on overall environmental quality.	
5. Protect and enhance the quality and character of our townscape and landscape.	**+**	The quality and character of townscape /landscape could be protected under this policy which supports the development of new or extended waste management facilities where there is no unacceptable impact on overall environmental quality. There could also be improvements from the policy requirement to seek	

		enhancement of the local environment.	
6. Minimise impact and risk of flooding.	**0**	There is no significant impact overall on flooding issues.	
7. Minimise any possible impacts on and increase adaptability to climate change.	**+**	Protecting and enhancing the environment is linked to mitigation and adaptation in respect of climate change, for example, retaining/planting trees.	
8. Protection of high quality agricultural land and soil.	**0**	There is no significant impact overall on high quality agricultural land and soil.	
9. Promote more efficient use of land and resources.	**0**	There is no significant impact overall on the efficient use of land and resources.	
10. Promote energy efficiency and maximise renewable energy opportunities from new or existing development.	**0**	There is no significant impact overall on the promotion of energy efficiency and renewable energy from new of existing development.	
11. Protect and improve local air quality.	**+**	Air quality could be protected under this policy which supports the development of new or extended waste management facilities where there is no unacceptable impact on overall environmental quality. Air quality could be improved by the policy's requirement to seek enhancement of the local environment.	
12. Protect and improve water quality and promote efficient use of water.	**+**	Water quality could be protected under this policy which supports the development of new or extended waste management facilities where there is no unacceptable impact on overall environmental quality. Water quality could be improved by the policy's requirement to seek enhancement of the local environment.	
13. Support wider economic development and promote local job opportunities	**0**	There is no significant impact overall on wider economic development and local job opportunities.	
14. Protect and improve human health and quality of life.	**+**	The policy supports waste management development of new or extended waste management facilities where there is no unacceptable impact on the quality of life of those living or working nearby.	

Summary

This policy makes an important contribution to sustainability as it sets out the overriding principles for the protection of the environment from the potential adverse effects of a new waste facility or proposed extension to an existing waste facility. Overall it is likely to have a beneficial impact in terms of biodiversity, the historic environment, townscape and landscape, climate change, local air quality, water quality and human health and quality of life.

POLICY: WCS 13 Managing Climate Change

NB It was considered that the intention of this policy was to address both mitigation of, and adaptability to, climate change and the policy was appraised as such with the recommendation that the wording of the policy was amended to make this clearer. The policy wording was subsequently amended in line with the SA recommendation.

Sustainability Appraisal Objectives	Effect	Commentary	Mitigation
1. Ensure that adequate provision is made to provide a network of suitable waste management sites for the safe treatment and disposal of waste.	+	The policy aims to ensure that new development is in sustainable locations which could reduce the distance travelled for waste transfer and would avoid, for e.g., areas of flood risk, thus making a contribution towards ensuring that waste management sites are suitable and safe.	
2. Protect and enhance biodiversity at all levels and safeguard features of geological interest.	+	By minimising impacts on climate change the policy would make an important contribution to protecting biodiversity.	
3. Promote sustainable patterns of movement and the use of more sustainable modes of transport.	+	The policy seeks to ensure that new development is located in sustainable locations which should contribute to encouraging sustainable movement patterns.	
4. Protect the quality of the historic environment above and below ground.	+	By minimising impacts on climate change the policy would make an important contribution to protecting the historic environment.	
5. Protect and enhance the quality and character of our townscape and landscape.	0	There is no significant overall impact on the quality and character of the townscape/landscape.	
6. Minimise impact and risk of flooding.	+	The policy would require that waste management facilities be located and designed in order to minimise and withstand potential climate change impacts, including flooding.	
7. Minimise any possible impacts on and increase adaptability to climate change.	++	The aims of the policy are compatible with and strongly supportive of this climate change objective.	
8. Protection of high quality agricultural land and soil.	+	Minimising impacts on climate change will contribute to protecting agricultural land and soil as the increased frequency of extreme weather events associated with climate change would cause soil erosion.	
9. Promote more efficient use of land and resources.	+	The policy seeks to ensure that new development is located in sustainable locations which should contribute to efficient use of	

		land and the operation of facilities in accordance with the policy should encourage efficient use of resources.	
10. Promote energy efficiency and maximise renewable energy opportunities from new or existing development.	**+**	Design and operation of facilities in accordance with the policy would promote energy efficiency and renewable energy.	
11. Protect and improve local air quality.	**+**	Design and operation of facilities to reduce emissions would not only reduce production of greenhouse gases but also of particulates thus protecting air quality.	
12. Protect and improve water quality and promote efficient use of water.	**+**	The design of facilities should, in accordance with this policy, promote efficient water usage.	
13. Support wider economic development and promote local job opportunities	**0**	No clear link.	
14. Protect and improve human health and quality of life.	**+**	Minimising impacts on climate change will help to protect human health and quality of life which could otherwise be adversely affected by the increasing effects of climate change.	

Summary

This policy makes an extremely important contribution to sustainability, having a positive impact in relation to all but two (to which there is no clear link/no significant effect) of the SA objectives. The recommended revised wording of the policy was as follows:
'All new or extended waste management facilities should be located, designed and operated so as to minimise *any potential impacts on, and increase adaptability to, climate change*.'

POLICY: WCS 14 Design of Waste Management Facilities

Sustainability Appraisal Objectives	Effect	Commentary	Mitigation
1. Ensure that adequate provision is made to provide a network of suitable waste management sites for the safe treatment and disposal of waste.	**0**	No clear link.	
2. Protect and enhance biodiversity at all levels and safeguard features of geological interest.	**0**	No significant effect.	
3. Promote sustainable patterns of movement and the use of more sustainable modes of transport.	**0**	No clear link.	
4. Protect the quality of the historic environment above and below ground.	**0**	No clear link.	
5. Protect and enhance the quality and character of our townscape and landscape.	**+**	The policy seeks to ensure that new or extended waste management facilities incorporate high standards of design and landscaping.	
6. Minimise impact and risk of flooding.	**+**	The policy aims to ensure that sustainable construction methods are used and such measures would be expected to incorporate sustainable drainage systems.	
7. Minimise any possible impacts on and increase adaptability to climate change.	**++**	The policy aims to ensure that sustainable construction methods are used and such measures should result in minimising impacts on climate change and increasing adaptability.	
8. Protection of high quality agricultural land and soil.	**0**	No clear link.	
9. Promote more efficient use of land and resources	**+**	The policy aims to ensure that sustainable construction methods are used and such measures should result in more efficient use of resources.	
10. Promote energy efficiency and maximise renewable energy opportunities from new or existing development.	**+**	The policy aims to ensure that sustainable construction methods are used and such measures should result in greater energy efficiency.	
11. Protect and improve local air quality.	**0**	No clear link.	

12. Protect and improve water quality and promote efficient use of water.	**+**	The policy aims to ensure that sustainable construction methods are used and such measures should result in more efficient use if water.	
13. Support wider economic development and promote local job opportunities	**0**	No clear link.	
14. Protect and improve human health and quality of life.	**0**	No significant effect.	

Summary

This policy has no clear link or no significant effect in respect of a number of the SA objectives, however where it does have clear links as in the case of townscape/landscape, flooding and efficient use of resources, water and energy, the impact is positive and in the case of climate change, very positive. Overall, therefore this policy makes an important contribution towards sustainability.

Assessment Key

Symbol	Likely effect on the SA Objective
++	The policy is likely to have a **very positive** impact
+	The policy is likely to have a **positive** impact
0	**No significant effect** / **no clear link**
?	**Uncertain** or **insufficient information** on which to determine impact
-	The policy is likely to have a **negative** impact
- -	The policy is likely to have a **very negative** impact
I	The policy could have a positive or a negative impact depending on **how it is implemented**

Sustainability Appraisal and Strategic Environmental Assessment of the Nottinghamshire and Nottingham Waste Core Strategy Submission Draft

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