Gloucestershire
COUNTY COUNCIL

Waste Core Strategy Preferred Options Sustainability Appraisal Report

January 2008

Note: A **Non-Technical Summary** of this report is included at the start of this document and is also available as a separate document and should provide you with all the information you need in brief…

NOTE ON THE USE OF ACRONYMS:

The main acronyms used within the main part of this report are the following:

- **SA** – Sustainability Appraisal.
- **SEA** – Strategic Environmental Assessment.
- **MCS –** Minerals Core Strategy.
- **MWDF** – Minerals & Waste Development Framework.

As far as possible all other terms are written out in full.

Contents:

Non-Technical Summary

The Background

Under new planning laws that came into force in 2004, Gloucestershire's Waste Local Plan and Minerals Local Plan are being replaced by the Gloucestershire Minerals and Waste Development Framework. This will contain a range of documents containing policies relating to minerals and waste development in the County. Work on these documents will continue over a 10 year period. The South West Regional Spatial Strategy is due to be adopted in 2008 and the Minerals and Waste Development Framework is required to be in general conformity with it.

Sustainable Development

The UK Government is committed to Sustainable Development. It's aim is to "enable all people throughout the world to satisfy their basic needs and enjoy a better quality of life without compromising the quality of life of future generations." (Securing the Future – delivering UK sustainable development strategy – 2005).

More Sustainable Plans

It is a statutory requirement for plans within the Minerals and Waste Development Framework to undergo a Sustainability Appraisal (SA) whereby potential social, economic and environmental impacts of plans are identified and carefully considered. The SA should inform and influence the development of plans early in the process with the aim of making them more sustainable. SA as a process incorporates the rigorous requirements of European law, the Strategic Environmental Assessment (SEA) Directive, which ensures that certain plans and programmes are scrutinised for their potential environmental impact.

The Initial Stages of the SA

The initial stages of SA involve gathering evidence and building a framework against which relevant plans within the suite of the Minerals and Waste Development Framework can be tested. Gloucestershire County Council has completed these initial stages with the publication of a Context Report and a Scoping Report (plus updates) which should be read in conjunction with this report. They are available at the following web address: http://www.gloucestershire.gov.uk/index.cfm?articleid=11577 These reports will be further updated early in 2008.

The Waste Core Strategy Issues & Options

Documents presenting Issues and Options (including an SA Report and an Appropriate Assessment (AA) Report) went out to public consultation over an eight week period between the weeks of the 17th July and the 15th September 2006. The following 12 key issues were presented, with a number of options under each issue:

- **W1.** Setting an appropriate spatial vision and objectives for the WCS;
- **W2.** Determining the time period over which the WCS operates;

◆ **W3.** Implementing the waste hierarchy – reducing the amount of all types of waste we produce, but where waste does arise to increase recycling and divert it from landfill;
◆ **W4.** Adopting a strategy for making appropriate provision for waste management facilities;
◆ **W5.** Setting out a spatial strategy – selecting criteria to use for identifying suitable sites for waste management operations;
◆ **W6.** Implementing the Joint Municipal Waste Management Strategy for Gloucestershire's household waste;
◆ **W7.** Determining what factors should be used in assessing the cumulative impact on local communities;
◆ **W8.** Making an appropriate contribution to local, regional and national hazardous waste management requirements;
◆ **W9.** The appropriateness of proposals for new waste management facilities in the Green Belt;
◆ **W10.** Policies for dealing with proposals for new waste management facilities in other nationally designated areas;
◆ **W11.** The SA Report;
◆ **W12.** Any other key issues.

■ *The Waste Core Strategy Preferred Options (an outline of the content and main objectives)*

The Waste Core Strategy Preferred Options Paper contains the following sections:

◆ **Section 1:** A general introduction.
◆ **Section 2:** 'This is Gloucestershire' - a spatial portrait of the County.
◆ **Section 3:** The Vision & Strategic Objectives.
◆ **Section 4:** Waste reduction (Strategic Objective A).
◆ **Section 5:** Re-use, recycling & composting (Strategic Objective B).
◆ **Section 6:** Locational Strategy (Strategic Objectives C, D & E).
◆ **Section 7:** Monitoring / Implementation.
Annex A: Glossary.
Annex B: Regional Targets for Gloucestershire.

The 'Vision' is as follows:

"By 2026 Gloucestershire will be a clean, green and a safe place in which to live, work and visit. It will be a County whose inhabitants proactively minimise waste production to achieve zero growth by 2020 and where opportunities for re-using and recycling waste are maximised."

This will be delivered through a sustainable waste management system that: raises public awareness about waste minimisation; views waste as a resource; provides everyone with localised access to recycling facilities; supports markets for recyclable materials; and delivers a network of sites that enable maximum diversion of waste from landfill.

Sufficient waste management facilities will be provided to enable all households in Gloucestershire to recycle and compost at least 70% of their rubbish by April 2010, with an 80% participation rate by 2020.

Gloucestershire's communities, key landscape / environmental assets and land liable to flooding will be safeguarded from the adverse impacts from waste management activities. Major waste facilities will be located in the central area of Gloucestershire proximate to the main urban areas along the M5 corridor. Smaller supporting facilities will be dispersed around the County.

The Strategic objectives are as follows:

A. *To influence Gloucestershire's residents to reduce the amount of waste they produce, through raising awareness of waste issues. And then subsequently to encourage them to view any waste they do generate as a resource for which they must take communal responsibility.*

B. *To make the best use of Gloucestershire's waste by encouraging competitive markets for goods made from recycled materials and obtaining a benefit (value) from left over (residual) waste materials.*

C. *To preserve and enhance the quality of Gloucestershire's environment and to avoid undesirable environmental effects, including risks to human health and unacceptable impacts on designated landscapes / nature conservation sites.*

D. *To reduce the environmental impacts of transporting waste by managing the majority of Gloucestershire's waste within a reasonable distance from its source of arising, and to encourage the use of sustainable means of transporting waste.*

E. *To co-locate similar or related facilities on existing waste sites or previously developed sites in preference to undesignated green-field locations (where appropriate) and to safeguard such land from development that may prevent this use.*

◘ The current state of the environment and how it might be affected without the plan being in place

Gloucestershire is an attractive rural county, with a high quality environment. The Royal Forest of Dean and Wye Valley Area of Outstanding Natural Beauty lie to the west, the Cotswold Area of Outstanding Natural Beauty and Cotswold Water Park to the east, and the Stroud valley to the south of the County. Running down the middle is the Severn Vale, containing Gloucester and Cheltenham, which are divided by Green Belt land as well as the M5 motorway. The County has a rich natural and historic heritage, which needs to be protected, but which is increasingly under pressure from various forms of development. Every year in Gloucestershire around 1.2 million tonnes of controlled waste is managed and levels of waste produced and managed in the County have been increasing in recent years with the majority of it still going to landfill. The main waste streams are:

- Municipal Solid Waste
- Commercial and Industrial Waste
- Construction and Demolition Waste
- Hazardous Waste

A key issue for the County is the treatment of the residual (i.e. left over after recycling and composting) element of Municipal waste. This issue is being addressed through the Council's Joint Municipal Waste Management Strategy (JMWMS) but the Waste Core Strategy has close links with it, in terms of planning for locations for the facilities needed. Without a robust strategy for the future management of waste, this situation is unlikely to improve with resulting negative social, economic and environmental repercussions.

Everyone in the County produces waste and it is to everyone's benefit that issues surrounding waste are properly planned and managed. The options which are presented in the Preferred Options paper will potentially affect the whole of Gloucestershire and possibly surrounding counties. It is unlikely that large waste management facilities will be located in environmentally sensitive and protected areas. One of the main locational considerations is locating facilities reasonably close to where the waste is produced, so as to reduce the distance that it travels. This should help to reduce vehicle emissions that pollute the air and contribute to climate change.

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◘ The environmental characteristics of the areas likely to be significantly affected

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reduce the distance that it travels. This should help to reduce vehicle emissions that pollute the air and contribute to climate change.

■ *Existing environmental problems in Gloucestershire*

There are a number of existing environmental problems in Gloucestershire including:

- ❑ increasing levels of traffic congestion and associated pollution;
- ❑ the increased potential for flooding (as seen in the Summer 2007 flood events) and other climate change related impacts;
- ❑ rising levels of waste being produced;
- ❑ the decline in certain bird species; and
- ❑ some incidents of serious pollution.

The detail on these issues, including their relationship to areas of particular environmental importance and sensitivity, is available in the SA Context and Scoping Reports (see the most updated versions).

■ *Ways in which the environment is already protected*

Gloucestershire contains a wide range of natural and man-made environmental assets, which are considered to be of international, national or local importance, and protected accordingly. For example:

■ Nature Conservation Assets:
The County has 6 Special Areas of Conservation (SAC) covering 5,907 hectares and 2 Special Protection Areas (SPA) covering 4660 hectares. SPAs are also designated as Ramsar* sites, which are wetlands of international importance under the 1971 Ramsar Agreement). These International sites are protected by law under a European Directive called the Habitats Directive.

■ Landscape Assets: Gloucestershire has 3 Areas of Outstanding Natural Beauty covering about 51% of the County.

■ The Historic Environment:
There are over 400 Scheduled Ancient Monuments in the County.

The environmental protection measures (at all levels) which are relevant to the WCS are included in detail in the SA Context and Scoping Reports which are due to be further updated early in 2008.

■ *The likely significant effects on the environment*

The purpose of the WCS is to provide a framework for sustainable waste management in Gloucestershire over the next ten years. It contains objectives based on government guidance and principles of sustainability which will form the basis for preparing policies and a framework for identifying sites for waste management facilities. Ideally waste should be prevented and minimised, but the waste that is produced by society needs to be effectively managed. There is no doubt that waste management facilities can and do have significant effects on the environment. For instance landfill sites produce leachates and methane gas that need to be carefully managed and controlled. Energy from waste facilities produce some emissions and toxic ash residues. Many other waste management facilities such as waste transfer stations, scrap yards, recycling centres and composting facilities have associated heavy lorry traffic which is detrimental to the environment and to local communities. Through a policy framework, the WCS will aim to mitigate against and reduce harmful effects and, provide a sound framework for further work to identify sites that are most appropriate for the effective and sustainable management of waste. The following table is a brief summary of the negative effects envisaged through the SA of the Waste Core Strategy Preferred options:

Option	Potential negative impact
WPO3A, WPO3B, WPO3C: Minimising Waste options	Potentially negative impacts in terms of mineral site restoration and the availability of material
WPO4A: A criteria based approach on a case by case basis for strategic / local composting facilities	Negative impacts in terms of safeguarding suitable sites for waste management
WPOD: Area of Search approach - strategic and local composting and recycling facilities	Negative impacts in terms of safeguarding suitable sites for waste management
WPO12A: A specific AONB policy based on a combination of the proposed Issues & Options policy and stakeholder recommendations	Potentially negative impacts on the provision of employment opportunities related to the provision of facilities in rural areas, particularly in AONB
WPO12B: Following national policy in PPS7 but referring to key relevant sections of specific AONB management plans	Potentially negative impacts on the provision of employment opportunities related to the provision of facilities in rural areas, particularly in AONB

■ Measures to prevent or reduce adverse effects on the environment

Various mitigation measures are outlined within the policies outlined. Stakeholders have the opportunity through the Preferred Options consultation, as they did on the Issues & Options consultation to assess the appropriateness of these measures. The SA report that will accompany the WCS at Submission will outline mitigation measures in greater detail. However at this stage some generic mitigation measures may potentially include:

■ Mitigation through appropriate and sensitive design measures or landscaping which may enable waste management facilities to function with less visual impact and less detrimental impact of amenity;

■ The co-location of facilities helping to minimise the number of areas where new impacts will be introduced;

■ The possible use of in-vessel or tunnel composting technology in order to limit odour and dust problems particularly for urban facilities, should these come forward;

■ The effective pre-treatment and management of wastes in storage leading to the prevention of contamination by dust, leachate, and run-off of materials such as nitrates from biodegradable and agricultural wastes in store;

■ The effective use of planning conditions imposing appropriate design and operational controls on new facilities;

■ The continued screening and scoping of proposals to assess the need for an Environmental Impact Assessment;

■ Making the best use of existing waste management infrastructure with current permissions to reduce the number of areas affected by new impacts.

■ Reasons for selecting the options and alternatives & any problems encountered

The Waste Core Strategy Issues and Options consultation represented an early attempt to present ideas about the way in which waste is managed, and should be managed in Gloucestershire. On March 22nd 2006 a forum event was hosted jointly by the Waste Planning Authority and the Waste Disposal Authority in which broad strategic options for future waste management in Gloucestershire were considered. The outcomes of the forum were collated by *Entec* (the consultants facilitating the event) and views and ideas were incorporated, for example changes were made to the vision and to the key objectives. In terms of internal County Council input, there has been significant input from the Waste Management Unit in terms of options and data relating to municipal waste management.

The Preferred Options have built upon the Issues and Options consultation. A further waste forum was held in Gloucester on the 30th October 2007 to discuss key options and a large amount of evidence gathering and technical work has been undertaken in producing the main strategic options. A series of Technical Evidence Papers has been produced highlighting the level of joint working and evidence gathering that has been undertaken since the end of the Issues and Options consultation in September 2006. These Evidence Papers detail how and why these options have been chosen. See also Appendix 2 of this SA Report which highlights the links between the options considered at Issues and Options stage and the Preferred Options.

See the accompanying separate Non-Technical Summary and this document Section 5.2 for summaries of the Preferred Options including a sustainability summary resulting from the various tests of the options.

■ Monitoring

Any proposed policies in the WCS need to be effectively monitored. The Minerals & Waste Planning Policy Team already produce an Annual Monitoring Report (AMR) which includes a number of monitoring objectives, indicators and targets related to minerals and waste development. Monitoring also need to be undertaken through the Sustainability Appraisal process. Government guidance on Sustainability Appraisal states that it is not necessary to monitor everything, but that it should be focused on the significant

sustainability effects that may give rise to irreversible damage. This is with a view to identifying trends before damage is caused. In terms of the Gloucestershire's WCS SA process, a full schedule of monitoring measures proposed (focusing on significant effects) will be included in the final SA Report that will accompany the Waste Core Strategy Submission Document. However at this stage a range of monitoring proposals against each option is presented in the WCS SA document. The following is a selection of monitoring proposals included in the WCS SA Report:

- Percentage of total waste (or by type) going to landfill.
- Recycling & composting rates in the County, facility numbers and the performance of Household Recycling Centres.
- Average life expectancy in the County and the percentage of % of people describing their health as good.
- Percentage of SSSIs and other designations in a good or favourable condition.
- Number of planning consents in AONB by type.
- Number of 'Major' applications being submitted with a Waste Minimisation Statement (WMS).
- Recycling & composting rates in the County for various waste streams.
- Number of planning applications for facilities processing recyclable materials.
- Number of businesses / industries producing goods of recycled origin.
- Extent of Floodplain, AONB, SSSIs and other sensitive designations.
- Number of planning consents issued adversely affecting nature conservation designations.
- Number of planning consents issued adversely affecting historic environment designations.
- Number of planning consents issued contrary to advice of Environment Agency on grounds of flood risk or water quality.

Environmental Report requirements[1]	Section of this or other report
(a) an outline of the contents, main objectives of the plan or programme and relationship with other relevant plans and programmes.	Context Report / Scoping Report (For original reports and all updates see): http://www.gloucestershire.gov.uk/index.cfm?articleid=11577 Sections 2 & 3 of this report
(b) the relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan or programme.	Context Report / Scoping Report
(c) the environmental characteristics of areas likely to be significantly affected.	Context Report / 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.	Context Report / Scoping Report
(e) the environmental protection objectives, established at international, Community or Member State 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.	Context Report / Scoping Report
(f) the likely significant effects[2] 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.	Context Report / Scoping Report, Appendix 3, 4 & 5 of this Report and Section 5 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.	Section 5 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 lack of know-how) encountered in compiling the required information.	All sections of this Report, but in particular Sections 4 (Appraisal Methodology) and Section 5 (Preferred Options). Also Appendix 2 and relevant Waste Technical Evidence Reports and Joint Minerals & Waste Technical Evidence Reports
(i) a description of the measures envisaged concerning monitoring in accordance with Article 10.	Not required at this stage, to be included in subsequent SA Reports
(j) a non-technical summary of the information provided under the above headings.	The Non-Technical Summary is available at the front of this report and as a separate document

1. As listed in Annex I of the SEA Directive (Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment).
2. These effects should include secondary, cumulative, synergistic, short, medium and long-term permanent and temporary, positive and negative effects.

Section 1. Introduction & consultee responses on the Issues and Options SA Report

1.1 Introduction

This report is the SA Report of Gloucestershire's Waste Core Strategy Preferred Options Paper. It is issued along with the Preferred Options document(s) for the public to comment on and it presents information on the likely effects of the plan. An easy to read Non-Technical Summary is available as a separate document. The process of appraisal has been carried out in accordance with Office of the Deputy Prime Minister guidance (now the Department for Communities and Local Government Guidance), namely – *Sustainability Appraisal of Regional Spatial Strategies and Local Development Documents – November 2005.*

1.2 Consultation responses on the Issues & Options SA Report

An SA Report on the Waste Core Strategy Issues & Options Paper went out to consultation with the Issues & Options for a period of 8 weeks ending on the 15th September 2006. In the spirit of 'front-loading' additional comments were sought and received after this date. A Sustainability Appraisal Consultation Response report was produced and made available – see the report via the downloads at the following link:

http://www.gloucestershire.gov.uk/index.cfm?articleid=13349

The table below details all the comments on the Issues & Options SA Report and the Officer responses.

Respondent:	Summary Comments:	Response:
COUNCIL FOR THE PROTECTION OF RURAL ENGLAND (GLOUCESTERSHIRE - WASTE)	Would like to see any WCS satisfy national/local waste policies or CPRE. Whilst the WCS is inevitably 'time limited', CPRE must look to the environmental issue 'in perpetuum'. [sic].	Agree that this is important. The SA tests options that are developed in conformity with national waste policies. This is an important starting point for any plan.
GARY KENNISON – COUNTY ECOLOGIST	Issue W11 (SA Report) - I direct you to a table I have compiled with David Ingleby entitled 'Appropriate Assessment (AA) Screening of Gloucestershire County Council's Waste Core Strategy Issues and Options (Summer 2006)' which is relevant to Appendix 5 of the SA Report. I presume you are aware of this document already. Section 5 (Plan issues and options) is useful and I would not question the summarised commentary provided at 5.2, as it is a reasonable appraisal of the issues and options under consideration.	The Minerals & Waste Planning Policy Team produced and consulted on: • An AA Baseline Report for Gloucestershire. • An AA Report for the Waste Core Strategy Issues & Options.
EGERTON, JO	I have lived in an area where green recycling bins were used, and black bins were only collected on a 2 weekly basis. This had a massive impact on the residential area, due to the lack of recycling to support the 2 week bin collection – to accompany a 2 week collection also needs food waste recycling, plastic collection (i.e. milk cartons, plastic bottles etc.) also cardboard allowance in with garden rubbish.	The aim of the Waste Core Strategy is to increase recycling and to move waste up the waste hierarchy away from landfill.
GILL PAWSON PLANNING	Can't honestly feel the resources and work involved have added much to the main problem, or solving it.	Comments noted. The SA process *is* time and resource 'hungry' but it does add value and is a key element of plan

		making under the Planning and Compulsory Purchase Act 2004.
GOSW - LOCAL PLANNING TEAM	Although the SA goes some way to inform the document, some of the justifications for its assessment are unclear and therefore undermines the suitability of the options put forward. The SA states that Vision 'Option 2' will meet a number of objectives but doesn't explain why or how – for example, protecting the environment, preventing development in the floodplain etc. It is not clear from your explanation in your SA on this subject as to why the 2026 date is uncertain in respect of a number of objectives – on what evidence or advice are these uncertainties based on? Are there any possible mitigation measures that could overcome them? Whilst we do not comment in detail on the Sustainability Appraisal we have made a couple of observations which you may wish to consider. As expressed in our response to Question 2 above, you may wish to revisit some of your explanations so that your SA better articulates your reasoning for marking in the way that you have. For example, page 50, W2, Options 2, 3 and 4, SA Objective 12, seems to suggest that if fuel technology results in less CO2 emissions then lorry movement will not need to be reduced, but surely CO2 emission are not the only adverse impact of lorry traffic on communities - what about safety, noise etc? You appear to have taken a slightly different approach to the same issue in W3 (page 53). We feel there are a number of such cases throughout the document which would benefit from clarification / justification.	The Minerals & Waste Planning Policy Team responded to GOSW with a detailed letter of justification using evidence from Government guidance on SA and peer review reports by Levett-Therivel Consultants. This letter can be made available on request. In a meeting with GOSW on 17/11/2006 the following was agreed: (GCC): We are aware that the level of explanation in the SA is somewhat brief in places but the justification is: (a) It is a core strategy; (b) ODPM SA Guidance states that the required level of detail at Issues & Options is less than at Preferred Options stage; (c) The SA has been tested and audited by expert consultants and they are happy with our approach. (GOSW): GOSW acknowledge that they are not experts in this area, and that their response was inaccurate in respect of the level of detail / inconsistencies etc. Their intention was to flag up a few issues in order to help Gloucestershire progress the plan – and they are generally happy with the SA approach. *GCC = Gloucestershire County Council – Minerals & Waste Team. *GOSW = Government Office for the South West.
RADWAY, T, MR.	Sustainability and economics go hand-in-hand. 15% of sorted waste in a WTS HAS to go to landfill because it cannot be used elsewhere. The LPA MUST be flexible in finding/allowing land in the Severn Vale to be used for that purpose. It is not SUSTAINABLE to take the residue to the Water Park or beyond.	Comments noted. The WCS is looking at the most appropriate broad strategic locations for various waste facilities. The sustainability of hauling waste long distances is considered in the appraisal as it is covered by SA Objectives 12 and 15.
STROUD DISTRICT GREEN PARTY	It is not emphasised nearly enough in the SA that landfill is a fundamentally unsustainable process in the medium to long term. Any process is by definition unsustainable if it piles up large quantities of material in sites that will admittedly be full within a few years. Regarding Issue W10 of the WSC (page 28), it is not true that Option 2 is the most positive. The table on P105 shows no difference except a marginal one for flooding, which seems irrelevant in this case.	The whole trust of the WCS (and the scoring reflected in the SA report) is to move waste up the hierarchy away from landfill. Government recognises that landfilling is unsustainable in the long term and the WCS reflects Government guidance. We accept that the scoring between Issue 10, Options 1 and 2 is marginal.

TEWKESBURY OFFICE ENVIRONMENT AGENCY	We are generally satisfied with the SA assessment of the WCS.	Comments noted.
WASTE MANAGEMENT UNIT	Very detailed and seems thorough.	Comments noted.
WOODCHESTER PARISH COUNCIL	Generally support conclusions in the SA report but the adverse effects of environmental change (e.g. flooding) due to global warming and any unanticipated economic downturn on employment/housing/transport in the next 20 years, need to be given greater emphasis.	The adverse effects of environmental change – especially flooding are taken very seriously. These comments are particularly apt given the serious flooding in Gloucestershire in June / July 2007. The County along with the District Councils is also undertaking Strategic Flood Risk Assessment (SFRA).

1.3 The links between Issues & Options and Preferred Options

Some of the options that were presented at the Issues and Options stage have been carried forward into the Preferred Options paper. Some have been altered or amended as a result of comments from stakeholders and the SA process. Other options have not been taken forward and have therefore been rejected in terms of being considered to be viable, sustainable and appropriate ways forward; again this was as a result of the consultation at Issues and Options and the SA process. The full details of the links between the Waste Core Strategy Issues and Options and the Preferred Options are available in Appendix 2. of this report.

1.4 Statement on the likely significant effects of the plan

There is no doubt that waste management and waste operations of various descriptions can have significant effects on the environment. However, if we accept the premise that the waste that everyone in society produces needs to be well managed, not having an appropriate plan in place may result in even greater environmental impacts. This assessment of the options and the scoring contained in the SA report is based on the premise that there is a serious waste problem that needs to be appropriately and effectively addressed. The predicted likely significant effects of the options presented in detail in Section 5 of this report and in Appendix 5. The below table provides a brief summary of these results:

SEA Directive Article 5 (1) Annex 1 (f) Statutory Instrument 2004 No.1633 Schedule 2 (6)	Revised SA Objectives	Likely significant effects of the plan as a whole – depending on option(s) taken
Biodiversity	8	Potential impacts on biodiversity – but not important protected species (depending on site specifics)
Population	1, 3, 4, 5, 6, 7, 12	Impacts on certain communities in Gloucestershire, particularly those that are close to sites or on busy lorry routes
Human Health	3, 5, 12	Potential impacts related to amenity issues
Fauna	8,11,13	Possible impacts on Fauna which will require mitigation. (Unlikely in terms of protected species)
Soil	8,11,13	Possible impacts which will require mitigation
Water	8, 10, 11,13	Possible impacts on water regimes – pollution threat from landfill leachate
Air	11, 12	Potential pollution and air quality issues, particularly from lorries transporting waste
Climatic factors	11, 12, 15	Contributions to climate change related to lorry traffic, landfill emissions, Energy from Waste
Material assets	1, 2, 5, 6, 9	Potential impacts on material assets such as high grade agricultural soils

Cultural heritage including architectural and archaeological heritage	9	Potential impacts on architectural and archaeological heritage from inappropriate and poorly located waste development.
Landscape	8	Impacts which will require mitigation and restoration (particularly for landfill)

The following table highlights the particular negative impacts (not including 'neutral' or 'uncertain' scores) that have been highlighted in the main assessment in Appendix 5:

Option	Potential negative impact
WPO3A, WPO3B, WPO3C: Minimising Waste options	Potentially negative impacts in terms of mineral site restoration and the availability of material
WPO4A: A criteria based approach on a case by case basis for strategic / local composting facilities	Negative impacts in terms of safeguarding suitable sites for waste management
WPOD: Area of Search approach - strategic and local composting and recycling facilities	Negative impacts in terms of safeguarding suitable sites for waste management
WPO12A: A specific AONB policy based on a combination of the proposed Issues & Options policy and stakeholder recommendations	Potentially negative impacts on the provision of employment opportunities related to the provision of facilities in rural areas, particularly in AONB
WPO12B: Following national policy in PPS7 but referring to key relevant sections of specific AONB management plans	Potentially negative impacts on the provision of employment opportunities related to the provision of facilities in rural areas, particularly in AONB

1.5 Statement on the difference the process has made to date

The SA of the Waste Core Strategy Issues & Options has already influenced the options that are presented as Preferred Options. This is detailed in the Waste Core Strategy Issues & Options SA Report and in Appendix 2 of this report. An early draft of the Preferred Options paper included a small number of policy options / approaches that (following SA scoring) were amended, dropped or added, as detailed in the table contained in Paragraph 5.3 'Other options considered and why these were rejected'.

1.6 How to comment on this report

We welcome your comments and observations on this SA Report, including the various tests of the options in the appendices. If you wish to send in a representation, this can be done by completing Question 16 of the accompanying questionnaire (which can be filled in on-line) or responses can be sent by post to:

Mr. Kevin Phillips – Team Leader
Minerals & Waste Planning Policy
Gloucestershire County Council
Shire Hall
Westgate Street
Gloucester
GL1 2TH

or by email to:

m-wplans@gloucestershire.gov.uk

The end date for consultation is **Thursday 13th March 2008.**

Section 2. Background

2.1 Purpose of the SA and the SA report

According to Government guidance on SA, sustainable development is central to the reformed planning system. The purpose of Sustainability Appraisal is to promote sustainable development through the integration of social, environmental and economic considerations into the preparation of revisions of Regional Spatial Strategies and for new or revised Development Plan Documents and Supplementary Planning Documents. SA essentially broadens the concept of Strategic Environmental Assessment (SEA) which involves the systematic identification and evaluation of the environmental impacts of a strategic action (e.g. a plan or programme). In 2001, the European Union adopted Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the environment (the 'SEA Directive'). The Directive entered into force in the UK on 21 July 2004 and applies to a range of English plans and programmes including Minerals & Waste Development Frameworks.

Under the Planning and Compulsory Purchase Act 2004, Planning Authorities must undertake SA for Development Plan Documents and Supplementary Planning Documents included in their Local Development Frameworks including Minerals and Waste Development Frameworks. The Government's approach is to incorporate the requirements of the SEA Directive into a wider SA process and, to this end, it has published guidance on undertaking combined SEA / SA for development frameworks. The specific purpose of this SA report is to ensure that the options presented are tested for their sustainability. This will help in the process of refining options that will be included in the submission WCS.

2.2 Preferred Options Document objectives and outline of contents

This report is the Sustainability Appraisal (SA) Report for Gloucestershire County Council's Waste Core Strategy Preferred Options Paper. It is issued along with the Preferred Options for the public to comment on, and it presents information on the likely effects of the plan. The process of appraisal has been carried out in accordance with Office of the Deputy Prime Minister guidance (now the Department for Communities and Local Government), namely – *Sustainability Appraisal of Regional Spatial Strategies and Local Development Documents - November 2005.*

The aim of the Waste Core Strategy Preferred Options Paper is to set out the Preferred Options relating to the management of waste in Gloucestershire. It will provide the framework for sustainable waste management in the County. It represents a significant step towards developing new spatial waste policies for Gloucestershire and it building on work done, and evidence gathered at the Issues & Options stage. However it should be noted that it does not deal with specific sites, this will be done through the Waste Site Allocations Development Plan Document at a later stage or once the Waste Core Strategy is adopted. The Waste Core Strategy Preferred Options has been written and presented in such a way as to be accessible to the general public. The more complex and technical issues supporting the Preferred options are presented in a series of Technical Evidence papers.

The Waste Core Strategy Preferred Options Paper is comprised of the following sections:

- **Section 1:** A general introduction.
- **Section 2:** 'This is Gloucestershire' - a spatial portrait of the County.
- **Section 3:** The Vision & Strategic Objectives.
- **Section 4:** Waste reduction (Strategic Objective A).
- **Section 5:** Re-use, recycling & composting (Strategic Objective B).
- **Section 6:** Locational Strategy (Strategic Objectives C, D & E).
- **Section 7:** Monitoring / Implementation.

Annex A: Glossary.
Annex B: Regional Targets for Gloucestershire.

The Preferred Spatial Vision for Gloucestershire is as follows:

*"**By 2026 Gloucestershire will be a clean, green and a safe place in which to live, work and visit. It will be a County whose inhabitants proactively minimise waste production to achieve zero growth by 2020 and where opportunities for re-using and recycling waste are maximised.***

This will be delivered through a sustainable waste management system that: raises public awareness about waste minimisation; views waste as a resource; provides everyone with localised access to recycling facilities; supports markets for recyclable materials; and delivers a network of sites that enable maximum diversion of waste from landfill.

Sufficient waste management facilities will be provided to enable all households in Gloucestershire to recycle and compost at least 70% of their rubbish by April 2010, with an 80% participation rate by 2020.

Gloucestershire's communities, key landscape / environmental assets and land liable to flooding will be safeguarded from the adverse impacts from waste management activities. Major waste facilities will be located in the central area of Gloucestershire proximate to the main urban areas along the M5 corridor. Smaller supporting facilities will be dispersed around the County."

The Preferred Strategic Objectives are as follows:

***A.** To influence Gloucestershire's residents to reduce the amount of waste they produce, through raising awareness of waste issues. And then subsequently to encourage them to view any waste they do generate as a resource for which they must take communal responsibility.*

***B.** To make the best use of Gloucestershire's waste by encouraging competitive markets for goods made from recycled materials and obtaining a benefit (value) from left over (residual) waste materials.*

***C.** To preserve and enhance the quality of Gloucestershire's environment and to avoid undesirable environmental effects, including risks to human health and unacceptable impacts on designated landscapes / nature conservation sites.*

***D.** To reduce the environmental impacts of transporting waste by managing the majority of Gloucestershire's waste within a reasonable distance from its source of arising, and to encourage the use of sustainable means of transporting waste.*

***E.** To co-locate similar or related facilities on existing waste sites or previously developed sites in preference to undesignated green-field locations (where appropriate) and to safeguard such land from development that may prevent this use.*

2.3 Compliance with the SEA Directive / Regulations

This SA Report as well as the associated SA Context and Scoping Reports are in compliance with the SEA Directive (2001/42/EC) *'on the assessment of the effects of certain plans and programmes on the environment'* and with the Environmental Assessment of Plans and Programmes Regulations 2004 (Statutory Instrument 2004 No.1633). The 'Environmental Report requirements' table on page 3 details where the material required for the purposes of Article 5(1) of the SEA Directive (2001/42/EC) may be found within this document, the Non-Technical Summary and the supporting SA Context and Scoping Reports.

Section 3. Sustainability objectives, baseline and context

3.1 Links to other policies, plans and programmes and sustainability objectives and how these have been taken into account (Stage A1)

The main steps covered in this chapter are the 'A' stages from the Office of the Deputy Prime Minister Guidance: *(Sustainable Appraisal of Regional Spatial Strategies and Local Development Documents, November 2005)* (See also Section 4 of this report).

A1: Identifying other relevant policies, plans and programmes, and sustainability objectives.
A2: Collecting baseline information.
A3: Identifying sustainability issues and problems.
A4: Developing the SA framework.

Stage A1 of the SA process involved identifying other relevant policies, plans, programmes and sustainability objectives. This is the main stage within the SA process where links to other policies, plans and programmes are considered. A large number of relevant plans and programmes were reviewed, the full details of which, along with detailed commentaries, are contained in the SA Context Report. (Please see the following website address for the most up to date versions of both the SA Context and Scoping Reports):

http://www.gloucestershire.gov.uk/index.cfm?articleid=11577

Note: It is envisaged that the SA Context and Scoping Reports will be further updated early in 2008, this will be 'Update 3' of the SA Framework and will include all the latest data on plans and programmes, baseline and updated SA Objectives.

The list of plans and programmes ranges from those at the International / European level e.g. various European Union Directives, to Regional plans and those at a County & Local level. They have been taken into account in that the relevant issues they highlight and consider to be important and significant have fed into the SA Framework - the identification of key issues and problems in Gloucestershire and consequently into the process of formulating SA Objectives. The key plans and programmes that relate specifically to waste planning and to the WCS include:

- EU Landfill Directive
- EU Waste Framework and Hazardous Waste Directives
- EU Waste Electrical and Electronic Equipment Directives
- EU Packaging and Packaging Waste Directive
- EU Incineration Directive
- EU End of Life Vehicles Directive
- EU Animal By-Products Regulation
- PPG10: Planning and Waste Management
- PPS10: Planning for Sustainable Waste Management (Adopted)
- PPS23: Planning and Pollution Control (plus annexes)
- Waste Strategy 2000
- Changes to Waste Strategy 2000
- Waste Strategy for England 2007 (Note: the WCS Preferred Options has taken account of this document and it will be added to the Context Report during its next update (Spring 2008)
- Waste not, Want not – A Strategy for Tackling the Waste Problem in England
- Planning for Waste Management Facilities
- Regional Waste Strategy for the South West
- Municipal Waste Management Strategy for Gloucestershire
- Gloucestershire Waste Partnership Joint Strategy Statement
- Gloucestershire's Community Strategy & the Community Strategies of the six districts within Gloucestershire

Summary list of main messages from the Waste Core Strategy Preferred Options Paper:
Foster communal ownership of waste whilst providing a framework for determining planning applications.
Move waste management practices away from landfill towards more sustainable methods of waste management and resource recovery by reflecting the waste hierarchy.
Manage waste in such a way that we can assist in reducing the emissions that contribute to climate change.
Proactively minimise waste production to achieve zero growth by 2020.
Maximize opportunities for re-use and recycling.
Support markets for recyclable materials.
Protect and enhance environmental assets.
Reduce the environmental impacts of transporting waste.
Co-locate facilities and focus on existing and previously developed sites.

The above main messages / strategic objectives have links with all of the plans and programmes detailed above as well as with many of the plans and programmes which are detailed in full in the SA Context Report. Additionally, the WCS Preferred Options Paper (Section 1) highlights the planning policy context at a National, Regional, and Local level and are referred to in greater detail in the accompanying Technical Evidence Papers. These papers also include information on links with Community strategies, the Local Transport Plan and District Local Development Frameworks.

3.2 Description of the social, environmental and economic baseline characteristics and the predicted future baseline (Stage A2)

A study of the baseline related to key aspects of Gloucestershire has been undertaken as part of the SA process. It is repeated here, but further detail and the bulk of this information is supplied in the SA Context and Scoping Reports, particularly in Section 6 and Appendix 3 of the Scoping Report. It should be noted that both the Scoping Report and the Context Report will be updated in early 2008 and thus the baseline contained in this section may be more up-to-date.

Character of the County
The heritage, culture and environment of the County helps support the County's quality of life and economy. Gloucestershire is substantially a rural county with the main urban focus in Gloucester and Cheltenham. It supports a wealth of international, national and locally important environmental assets, which need the appropriate level of protection from minerals and waste development.

Population
There are approximately 575,000 people living in Gloucestershire. The County's population grew by 29,000 between 1991 and 2001 and is expected to continue to increase. The following table (based on Table 4.1 in the Draft RSS) details the housing totals and phasing for Districts within Gloucestershire.

	2006-2026 Overall Annual Average Net Dwelling Requirement	2026-2016 Annual Average Net Dwelling Requirement	2016-2026 Annual Average Net Dwelling Requirement
Cheltenham	425	425	425
Gloucester	575	575	575
Tewkesbury	525	525	525
Cotswold	300	340	260
Forest of Dean	270	300	240
Stroud	335	435	235
Gloucester & Cheltenham Housing Market Area	2,430	2,600	2,260

The Examination in Public (EiP) of selected matters arising from representations on the Draft RSS for the South West was held before an independent panel appointed by the First Secretary of State between 16 January 2007 and 6th July 2007. The panel report was published in January 2008 and Proposed Modifications will follow in Spring 2008. The RSS is likely to be adopted in the Autumn of 2008.

Population projections are used to estimate how many residential units might be required in future years. Figures will be influenced by planning policy in the Regional Spatial Strategy and Local Development Frameworks. Under a system of 'plan, manage and monitor', an identification of need may require plans to be reviewed in light of new projections. The purpose of modernising the planning system is to move away

from the limitations of the land-use remit and to develop policy spatially. Therefore minerals, and more particularly waste planning policy, will need to support the sustainable development aims of emerging spatial strategies.

Economy and Labour Supply
Key economic indicators show Gloucestershire in a favourable light. The County has historically low levels of unemployment, and gross value added per head similar to the national average. However, according to Government Indices of Deprivation (2004) there are pockets of deprivation mainly in the urban areas of Gloucester and Cheltenham. The County's Rural Economy Advisory Panel has highlighted significant problems of isolation and low household incomes in some rural communities, particularly in some parts of the Forest of Dean. Gloucestershire's Gross Domestic Product per head is above average for the South West. In the five years leading up to 2001 the demand for labour in Gloucestershire was consistently greater than the supply of labour in the County. However supply is likely to outstrip demand due to a rise in working population. Over the period 1991 – 2015 the County is likely to see a 10.7% increase in the size of its workforce to just below 297,000 with an 11% increase in jobs.

At a sectoral level the growth in the service sector and the decline in manufacturing over the last 10 years will continue up to 2015. Unemployment in Gloucestershire is low at 1.8% in August 2003, well below the national average at 2.3%. The average County income was £19,857 in 2003 almost £1000 lower than the national average. However the average income in Tewkesbury and Cheltenham are well above the national average with the Forest of Dean well below. While average earnings in the County rose by 18.6% between 1999 and 2003, average property prices rose by 81.5% in the same period.

Health
In 2001, 91,164 people in Gloucestershire (16% of the total population) suffered from a Limiting Long-Term Illness (up from a 1991 figure of 59,895). 38,000 of the 2001 figure were of working age. 42,743 of the County's population also noted that their health was 'Not Good' over the 12 months leading up to the 2001 Census night. Life expectancy in the County is slightly higher than the national average for both men and women.

UK and County Life Expectancy (2001)

Life Expectancy	UK – National Average	Gloucestershire
Men	75.9	77.3
Women	80.6	81.6

Transport Links
Gloucestershire is well served by the motorway network. The M5 acts as the main north - south route through the County, running roughly parallel to the River Severn. It links with east-west routes and key crossing points over the Severn. The M50 is on the County's northern boundary and the M4 and M48 pass just below the southern boundary.

The rail network in Gloucestershire was reduced significantly during the Beeching era and there are now just four trunk lines. The mainline bisects Gloucestershire north to south with tracks from Gloucester running to South Wales and from Stonehouse towards the South East. A line passes through Moreton-in-Marsh in the north east of the County. In the last decade however, the County Council and district/parish councils have supported the building and re-opening of stations at Ashchurch (Tewkesbury) and at Cam/Dursley and (with Avon County Council) at Charfield.

In recent years Gloucester station has been under threat and serious consideration is being given to a new mainline station and multi-modal transport interchange at Elmbridge court between Cheltenham and Gloucester. This has taken the form of a Major Scheme bid, supported by Gloucestershire County Council, Gloucester City Council, Tewkesbury Borough Council and the Strategic Rail Authority.

In terms of waterborne transport potential, at present the majority of traffic on the river Severn consists of privately owned small craft, although in early 2005 movement of sand and gravel has taken place from Ryall Quarry in Worcestershire to Gloucester. The river and canals (including the Gloucester and Sharpness canal) provide Gloucestershire with the possibility to develop sustainable waterborne freight transport.

Public Rights of Way
Gloucestershire has almost 3,500 miles of footpaths, bridleways and green lanes that make up its public rights of way network. They are an important landscape element in both rural and urban areas of the County,

playing an important part in the daily lives of many people who use them for leisure, exercise and the up-keep of health, or as part of their daily routine.

Nationally 15 per cent of all visitors to the countryside go walking, which brings many benefits from supporting the rural economy to improving the health and well being of participants. Three national routes run through Gloucestershire namely; the Thames Path, the Gloucestershire Way and Offa's Dyke Path.

The public right of way network is managed by the County Council who maintain a definitive map of all paths and rights of way in the County. Volunteers and local conservation groups assist in the maintenance of the network.

Landscape, Biodiversity and the Natural Environment

Gloucestershire's landscape is characterised by three distinct areas. From west to east these are: the Forest of Dean, the Severn Vale and the upland limestone areas of the Cotswolds and Stroud. In terms of a more detailed landscape character assessment, the County is divided into 33 distinct areas (See the SA Scoping Report Appendix 3).

The different geological formations and soils of each area have determined the nature of the vegetation within the County as well as its building styles and settlement patterns. Many local industries have also left their particular mark on the landscape.

The Forest of Dean is situated on an upland trough of old red sandstone that has been overlaid twice by carboniferous limestone, and then by millstone grit containing iron ores and coal measures. It lies in a hilly area between the Rivers Wye and Severn and is still heavily forested with constrained access.

The Wye Valley, on the Forest of Dean's western boundary, is a designated Area of Outstanding Natural Beauty and contains some of the most important semi-natural woodland in Britain and some of the scarcest trees. The River Wye itself is also important as a largely natural system of high water quality and conservation interest. Settlement in the Forest has tended to be linear, following the watercourses and coal measures and villages are built of the grey-brown and red stone local to the area.

The Forest of Dean is one of England's largest ancient forests containing over 11,000 hectares of woodland. This area forms the largest single area of public access in the County, attracting over 1.5 million visits per year. The area of the Royal Forest still contains extensive areas of old oak woods with abundant flora and fauna in a variety of different habitats.

The area also has a range of habitats on the coal measures and sandstone, which are scarce in the County as a whole. The historic industries of tin mining and coal mining have left local features such as abandoned spoil heaps and dismantled railways that, now regenerated, give distinctive character. 'Free miners' continue to operate very small coal mines in the area and there are many kilometres of old underground mine workings and extensive natural cave systems which have contributed to a nationally important population of rare lesser and greater horseshoe bats.

The Severn Vale is an area created by the floodplain of the River Severn between the foot of the Cotswold escarpment and the hilly area of the Forest of Dean. It is this area of the County that is most urbanised with Cheltenham and Gloucester and major transport routes concentrated through it. The designated Green Belt between Gloucester and Cheltenham has been successful in defining limits to urban areas, but in recent years it has come under increasing pressure in terms of the need for sustainable communities and efficient transport networks.

The Severn Vale is of particular significance for bird life, with several sites in the floodplain of the River Severn seasonally providing ideal conditions for wintering wildfowl. As an estuarine system the Severn Estuary is an internationally important site.

The area known as 'The Cotswolds' contains a number of different landscape character areas. The dramatic edge landscape of the main escarpment runs south west to north east and is very steep in places, resulting in a strong visual impact. The many indentations within the escarpment run into the Cotswolds. On the north west side of the escarpment are five hills known as outliers. Around Stroud and Winchcombe the landscape is more incised. In the northern part of the Cotswolds there is an area of high wold where the topography is softer with smaller and narrower valleys and broad plateau tops, which merge into a dip slope in the middle of the Cotswolds.

The Oolitic limestone belt from which the Cotswolds are formed has also resulted in unimproved limestone grassland habitat of great wildlife value. The grassland of commons, valleys and scarp contain ancient turf formed by grazing over many centuries and now support an abundance of attractive wild flowers and butterflies. They are also home to one of the prime areas of beech woodland in Britain. Beech woods are habitats for many scarce species.

In addition, the unmistakable vernacular of Cotswold villages and towns has made it an international target for recreation and tourism.

The Upper Thames Valley, to the south / south east of the Cotswolds is dominated by the physical impacts of sand and gravel extraction. The development of recreation and natural areas in the Cotswold Water Park provide an excellent example of sensitive restoration of mineral workings. The lakes and wetland areas are gaining in wildlife importance, and increasing in national and international recognition.

Statutory Designations
Gloucestershire has a wide array of nature conservation designations ranging from the International level to the Local. International nature conservation designations include Ramsar sites, Special Protection Areas and Special Areas of Conservation. Note: In accordance with the the Conservation (Natural Habitats, & c.) Regulations 1994 wich transposes Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora (EC Habitats Directive) into UK law, Gloucestershire County Council Minerals & Waste Planning Policy has produced:
• An AA, or Habitat Regulations Assessment (HRA) Baseline Report for Gloucestershire.
• An AA, or Habitat Regulations Assessment (HRA) Report on the Waste Core Strategy Issues & Options Paper.
• An AA, or Habitat Regulations Assessment (HRA) Report on the Waste Core Strategy Preferred Options Paper.

Ramsar sites are wetland areas of international importance while Special Protection Areas are designated under the European Union Birds Directive (79/409/EEC) in order to conserve the habitats of vulnerable species (listed in Annex I of the Directive) and of migratory birds. Gloucestershire has 2 Special Protection Areas / Ramsar sites: Walmore Common and the Severn Estuary - a collective area of almost 5,000 hectares.

All Special Protection Areas and Special Areas of Conservations are also designated Sites of Special Scientific Interest. They are designated by English Nature (now Natural England) to provide statutory protection for the best examples of the UK's flora, fauna, or geological or physiographical features. Consultation is required if they are threatened in any way. There are over 100 Sites of Special Scientific Interest in Gloucestershire. Three of these have been additionally designated National Nature Reserves.

The largest designation in terms of extent are the three Areas of Outstanding Natural Beauty in the County: the Cotswolds, part of the Wye Valley and a very small section of the Malvern Hills. Areas of Outstanding Natural Beauty cover 136,400 hectares or 51.4% of the County area. Their primary purpose is to conserve and enhance natural beauty while taking into account the economic and social needs of the area.

In addition to the above designation a large area of the Cotswolds Area of Outstanding Natural Beauty has been designated as an Environmentally Sensitive Area. This designation is intended to protect landscapes that are at risk due to changing farming practices.

In addition to the International and National designations listed above there are a range of local designations including Key Wildlife Sites, Local Nature Reserves, Private Nature Reserves (for example those managed by the Wildlife Trust, Woodland Trust and Royal Society for the Protection of Birds), Regionally Important Geological Sites, Special Landscape Areas, Ancient Woodland Sites, and Registered Commons.

Flora and Fauna
Despite the large number of statutory and local designations, Gloucestershire has suffered from large-scale habitat and species loss over the last 50 years. This has largely been due to changes in farming practices. Among the species that have suffered from decline are farmland birds. At present approximately 100 species identified in the UK Biodiversity Action Plan are thought to occur in Gloucestershire. The Gloucestershire Biodiversity Action Plan provides a framework for the conservation of biodiversity based on targeting resources towards protecting priority habitats. It contains individual action plans for 17 identified habitats and a total of 38 species of invertebrates, vertebrates, plants, fungi and lichens.

Many of these species are also listed for protection under the European Union Habitats Directive including: the European Otter, the Dormouse, the Lesser Horseshoe and Greater Horseshoe Bat and the Pipistrelle Bat.

Over 60 bird species listed under the EU Birds Directive have been recorded in Gloucestershire. Wetlands areas such as the Severn Estuary, Slimbridge Wildfowl Centre and the Cotswolds Water Park centre provide important habitats for over-wintering and migratory birds.

Soil, Air and Water

Soil erosion is an increasing problem throughout the UK. About 50% of all land in the South West is thought to be at risk and about 6% of agricultural soils already suffer from erosion. Certain soils found in the far south west of the County, straddling the boundary with South Gloucestershire are listed as having an inherent vulnerability to high or severe structural problems. Such soils are easily sealed by heavy rain increasing the likelihood of local flooding and mud on roads. The increased sediment in rivers caused by soil runoff also poses a threat to aquatic ecosystems.

Air quality is a less significant issue in Gloucestershire than in some counties as a result of the largely rural nature of the County. However, road transport is a major source of local air pollution and both Gloucester City and Cheltenham Borough both exhibit significantly higher concentrations of pollutants associated with road traffic than the more rural districts.

The issue of air quality has been considered within the Gloucestershire Local Transport Plan. The six district authorities in conjunction with Gloucestershire County Council have undertaken individual air quality reviews and assessments. These have examined the extent of any potential exceedances of national air quality objectives for nitrogen dioxide and particulate matter. The results from local authority air quality review and assessment work indicate that the contribution of road traffic emissions to local air quality is potentially significant within the County. However, an overall reduction of between 20 to 30%, and in some cases even greater, in the annual mean nitrogen dioxide was predicted between 1998 and 2005 across the County. For particulate matter concentrations, the predicted reduction in the annual mean between 1998 and 2004 was even greater, with a reduction of almost 50% predicted. Results from Stage 2 of this assessment work, indicate that exceedances are envisaged along the M5 motorway corridor, at receptors within 50 meters of the carriageway. A small number of road links have also been identified as having the potential to cause future exceedances of the air quality objectives.

The table below lists the Local Air Quality Management Areas that have been declared in the County. An Air Quality Management Area is defined where members of the public are likely to be exposed to exceedances in the levels of pollutant. The higher the number of Air Quality Management Areas in a District would indicate generally higher levels of air pollution.

Local Air Quality Management Areas in Gloucestershire.

Gloucester City	Barton Street Air Quality Management Area
Gloucester City	Priory Road Air Quality Management Area
Tewkesbury	Withy Bridge Air Quality Management Area
Forest of Dean	None
Cheltenham	None
Stroud	None
Cotswold	None

River water quality in the South West is good. The latest survey of river water quality in 2003 revealed that the South West had the highest proportion of 'very good' quality rivers and the lowest proportion of 'bad' quality rivers in England.

In 2004, almost all of the region's rivers were of good or fair quality, 96.7% being of good or fair chemical quality (compared to 97.02% in 2003) and 98.81% being of good or fair biological quality (compared to 98.87% in 2003). A high percentage of the region's rivers were classed in the 'good' category - 77.92% for chemical and 87.74% for biological (compared with 79.77% and 96.99% respectively in 2003).

Gloucestershire has around 690 km of rivers (11% of the total in the South West), which are monitored by the Environment Agency for river quality. This is done using a system known as the General Quality Assessment which measures four aspects of river quality, namely: biology, chemistry, nutrient content

and aesthetic quality. The biological quality of rivers in Gloucestershire has declined in recent years. In 1990 68.53% of rivers were of 'good' biological quality, but in 2004 the figure had declined to 66.62%.

The chemical quality of rivers in Gloucestershire has fluctuated between 1999 and 2004. In 1990 56.59% of rivers were of good quality, in 2001 this figure had improved to 84.02. However in 2004 only 68.33% of rivers in the County were of 'good' chemical quality. (Source: All river water quality data: Environment Agency 2005).

Much of Gloucestershire is underlain by major aquifers and groundwater is an important source of public water supply. The vulnerability of groundwater reserves to pollution can be assessed according to various factors such as the water level, soil type, the thickness of overlying deposits, aquifer productivity and chemical analyses from boreholes. Much of Gloucestershire is underlain by a major aquifer with high to intermediate vulnerability. Groundwater is particularly susceptible to nitrate pollution caused by agricultural fertilizer. In order to protect groundwater against nitrate pollution certain areas of the County have been identified as groundwater nitrate vulnerable zones.

As a result of the European Union Water Framework Directive the system for managing water resources in England and Wales is currently undergoing a process of change. Catchment Abstraction Management Strategies make more information on water resource allocation publicly available and allow a balance between the needs of abstractors and those of the aquatic environment to be determined in consultation with local interested parties. The Severn Corridor Catchment Abstraction Management Strategy is currently being prepared and will cover the entire length of the River Severn down to the Severn Estuary. It will also include the Gloucestershire and Sharpness Canal.

Climactic Factors in Gloucestershire

Climate change is recognised as one of the greatest threats facing the world today. It is now widely accepted that man-made emissions of greenhouse gases are responsibly for the increase in temperatures and that temperatures are rising faster than previously thought (UK Climate Impacts Programme, 2002). In the South West, 8 of the 10 warmest years have occurred since 1990, with the 1990s being the warmest decade on record. As shown in the below table, the changes resulting from global warming are likely to result in warmer, drier summers and milder, wetter winters.

The following table summarises likely / potential changes to the climate of the South West by the 2050s:

Potential Changes to the Climate in the South West by the 2050s.

Temperature	• Annual warming of 1.0 to 2.5°C (annual warming of 1.5 to 4.5°C in the 2080s) • Greater night-time than day-time warming in winter • Years as warm as 1999 (+1.2°C hotter than average) more common • Greater warming in summer and autumn than in winter and spring • Greater day-time than night-time warming in summer
Precipitation	• Winters 5 to 15% wetter (winters 10 to 30% wetter by the 2080s) • Heavy rainfall in winter becomes more common • Summers as dry as 1995 (37% drier than average) become more common • Snowfall totals decrease significantly • Summers 15 to 30% drier (summers 25 to 50% drier by the 2080s) • Greater contrast between summer (drier) and winter (wetter) seasons • Winter and spring precipitation becomes more variable
Cloud cover	• Reduction in summer and autumn cloud and increase in radiation • Small increase in winter cloud cover
Humidity	• Relative humidity decreases in summer • Specific humidity increases throughout the year
Soil moisture	• Decreases in summer • Slight increase in winter soil moisture

Storm tracks	• Winter depressions become more frequent including deepest ones
North Atlantic Oscillation	• North Atlantic Oscillation may become more positive in the future, bringing more wet, windy and mild winters

Source: UK Climate Impacts Programme (2002).

It is likely that such changes will have significant and far-reaching effects on the man-made and natural environment. Changes in temperature are likely to alter habitats and it is likely that many species will not be able to adapt quickly enough to survive. Recent published research indicates that there has been a decline in over-wintering birds from Arctic areas. Increasing sea temperatures are likely to alter the balance in marine species and alter the marine food chain.

Rising sea levels and wetter winters will also increase the likelihood of flooding in low-lying areas. This issue is of particular relevance in Gloucestershire with significant numbers of people living close to, or in, the floodplain of the River Severn. Increased soil compaction arising as a result of drier summers could result in increased runoff and consequently greater flood risk. But there is also the increased risk of flooding as a result of extreme summer rainfall as demonstrated by the severe flooding events in Gloucestershire in June and July 2007. In early 2008, Gloucestershire County Council in conjunction with District Councils have commissioned specialist consultants to undertake a Strategic Flood Risk Assessment (SFRA) to inform Local Development Frameworks (including the MWDF) in the County.

Material Assets in the County

Motorways and major roads

The M5 runs through the County linking, northbound, to Birmingham and the West Midlands and, to the south, to Bristol, the South West and Wales. A dual-carriageway (A417/419) provides access to Swindon and the M4 with a two-hour drive time to Heathrow, three hours to the South East and channel ports.

Airports

Gloucestershire Airport is centrally located between Gloucester and Cheltenham providing facilities for air transport, executive jets, helicopters, charter flights, flying schools, aero engineering and maintenance.

Docks

Gloucester Docks in the heart of the city is now a focal point for residential development and water-based leisure activities. Two working dry docks continue to provide ship repair and refit facilities with access to the sea through the Gloucester and Sharpness Canal. Sharpness Docks on the Bristol Channel provides extensive cargo-handling facilities and port-related services accommodating vessels up to 6,000 Tonnes.

Tourist assetts

The landscape and historic villages and towns of Gloucestershire are clearly a major material asset. Tourism accounts for about £500 million spending per year in the County and an estimated 11% of County employment is dependent on tourism.

Minerals resources

In terms of mineral reserves the figures are as follows:

- Crushed rock (limestone): 28.85 million tonnes. (as of 31st December 2005).
- Non-aggregate limestone: (principally for building stone and agricultural lime) 4.41million tonnes. (as of 31st December 2004).
- Sand & gravel: 7.85 million tonnes. (as of 31st December 2005).
- Non-aggregate sandstone: 0.50 million tonnes (as of 31st December 2004).
- Clay reserves: 1 million tonnes (as of 31st December 2004).

The Historic Environment

The historic environment of the County has been formed as a result of the activities of human communities over many thousands of years in clearing, farming and settling the landscape. There is extensive evidence of the past in the form of prehistoric settlement and burial sites, Roman towns and villas, medieval churches and other features of more local importance. The historic legacy of agriculture, industry, architecture and social organisation makes a significant contribution to the distinctive landscapes found in Gloucestershire.

There are around 18,000 archaeological sites recorded in the Gloucestershire Sites and Monuments Record. Approximately 400 of these are Scheduled Ancient Monuments of national importance. Archaeological

investigations continue to reveal many sites of historical importance in all areas of the County. These range from Neolithic and Iron Age sites, through extensive Roman and Romano British Settlements, important medieval sites, Regency and Georgian buildings, and the legacy of past industrial activities.

Conservation areas and the register of listed buildings held by district councils affords protection to areas of particular architectural or historic interest. The Cotswold district has by far the highest number of conservation areas of any district local authority in Great Britain at 144.

Gloucestershire's natural and historic environment makes an important contribution to the local economy in terms of its tourism value. Both minerals and waste development can have major impacts on their surroundings. Great care must be taken to ensure that such development does not intrude on the archaeological legacy of the County and does not result in damage to their wider settings, or alter their relationship with the wider rural area around them.

The Inter-relationship between Various Issues / Factors

There are obviously numerous and complex inter-relationships between all the baseline issues and factors that have been considered in Section 5. of this report. For instance the protection, preservation and enhancement of Gloucestershire's natural environment – its biodiversity, landscape, flora, fauna, soil /air /water quality has a direct relationship with people's quality of life and the benefit to the local economy in terms of the numbers of tourists who visit the County. Population increases will have a significant impact in coming years. Gloucestershire may see pressure for houses and services having an impact on the environment. More people produce more waste and this has to be managed, and there are numerous inter-linkages with other factors and issues. Waste management facilities can have a detrimental impact on the environment and communities, but everyone in Gloucestershire produces waste and it needs to be managed. The landfilling of waste is becoming increasingly expensive as well as socially and environmentally unacceptable. Moving waste up the waste hierarchy, focusing on reduction, reuse and recycling is likely to be (and certainly should be) the focus in coming years. However there needs to be a realistic attitude to the disposal of residual waste.

In terms of mineral development a balance has to be struck between protecting Gloucestershire's environment, the amenity of its residents and visitors and providing minerals which are needed by society and from which we all derive benefit. Progress needs to be made in reducing the levels of primary minerals that are extracted, through the reduction, reuse and recycling of appropriate materials.

Arguably, of all the issues dealt with in this review of baseline, climate change has the greatest potential to have wide-spread and long lasting social, economic and environmental impacts.

In relation to the summary of baseline in Gloucestershire, the following table indicates some potential effects on the environment of minerals and waste development and also the likely future environmental status in the absence of the Minerals Core Strategy and the Waste Core Strategy (which are being prepared concurrently). This information is also contained against the indicators in the baseline table in Appendix 3 of the SA Scoping Report.

The following table shows the potential environmental effects of minerals & waste development and the likely future environmental status in the absence of the Minerals Core Strategy and the Waste Core Strategy.

SEA Topic (SEA Directive 2001/42/EC Annex 1 (f))	**Potential effects of minerals and waste development & likely future environmental (or other) status in the absence of the Minerals Core Strategy and the Waste Core Strategy**
Biodiversity (covered in this document & in the SA Scoping Report paragraphs 6.36 to 6.54 & in Appendix 3 – Baseline table) **Flora** (covered in this document & in the SA Scoping Report paragraphs 6.55 to 6.57 & in Appendix 3 – Baseline table) **Fauna** (covered in this document & in the SA Scoping Report paragraphs 6.55 to 6.57 & in Appendix 3 – Baseline table) **Soil** (covered in this document & in the SA	Gloucestershire is a highly diverse County with a great variety of wildlife reflected in the large number of sites that have international, national or local designations. Biodiversity outside these areas should also not be neglected as habitats that have a linking function are very important. Potential negative effects are: ▪ Potential loss of species / habitats. ▪ Habitat loss and fragmentation due to land take. ▪ Changes in soil conditions and or quality. ▪ Changes in the quality of air and water. Pollution potential in terms of noise, vibration, light, dust. ▪ Creation of barriers or obstacles affecting wildlife.

Scoping Report paragraph 6.58 & in Appendix 3 – Baseline table)	▪ Changes in methods of habitat management. ▪ Introduction of new species / habitats. ▪ Changes in ecological balances of prey and predators. ▪ Changes in patterns of human activity. ■ Comment on the likely future environmental status in the absence of the Minerals Core Strategy & the Waste Core Strategy: Minerals and waste plans aim to provide for the needs of society (i.e. minerals which we all use, and facilities for handling waste that we all produce). But in the process there may be damage to the natural environment. However plans contain policies which aim to protect the environment. Without these plans it is more likely that environmental designations would be damaged by un-regulated development.
Water (covered in this document & in the SA Scoping Report paragraphs 6.64 to 6.69 & in Appendix 3 – Baseline table)	▪ Quarrying may have significant negative impacts on the water table and on surface water regimes. This is a particularly pertinent issue in Gloucestershire in relation to sand and gravel extraction in the Upper Thames Valley. ▪ In terms of landfill sites – most modern sites have engineered cells with an appropriate lining system that will seal waste from the surrounding rock, soil strata and water table. ■ Comment on the likely future environmental status in the absence of the Minerals Core Strategy & the Waste Core Strategy: In the absence of the Core Strategies and policies aimed at the protection of the water environment, rivers, streams, lakes as well as subterranean hydrological regimes are more likely to be damaged as a result of un-regulated and environmentally insensitive development.
Air (covered in this document & in the SA Scoping Report paragraphs 6.59 to 6.63, Table 12. & in Appendix 3 – Baseline table)	▪ Traffic associated with mineral sites or waste collection / management facilities can increase dust and odour. Incineration, recycling and waste transfer can also lead to harmful impacts on air quality. Communities situated close to landfill sites / composting facilities may experience a loss of amenity due to dust and odour. ■ Comment on the likely future environmental status in the absence of the Minerals Core Strategy & the Waste Core Strategy: Air quality may deteriorate in the County in the absence of policies which aim at the control and mitigation of the problem.
Climatic factors (covered in this document & in the SA Scoping Report paragraphs 6.70 to 6.73, Table 13 & in Appendix 3 – Baseline table)	▪ Landfill sites release greenhouse gases to the atmosphere. In the UK, about 2% of total greenhouse gas emissions are from landfill sites. ▪ Both minerals and waste products are, to a large extent, carried by road transport – emissions from which have negative impacts on the climate. ■ Comment on the likely future environmental status in the absence of the Minerals Core Strategy & the Waste Core Strategy: In the absence of the Core Strategies and specific policies aimed at combating climate change and reducing the impacts, it is likely that contributions to climate change from minerals and waste development will not be appropriately controlled and mitigated.

Material assets (covered in this document & in the SA Scoping Report paragraphs 6.74 to 6.79 & in Appendix 3 – Baseline table)	▪ Minerals and waste development may affect the value of nearby land and property. This may also apply to land and property that lies on a lorry route. ■ Comment on the likely future environmental status in the absence of the Minerals Core Strategy & the Waste Core Strategy: In the absence of the Core Strategies there may be negative impacts on material assets as a result of un-regulated, un-mitigated or poorly planned development.
Population (covered in this document & in the SA Scoping Report paragraphs 6.24 to 6.25 & in Appendix 3 – Baseline table)	▪ Populations may potentially be affected by both mineral workings and associated transportation and waste management activities. Communities can be very sensitive to increases in noise, traffic levels, odour, visual impacts and other negative impacts on amenity. Certain facilities e.g. those handling hazardous wastes may pose a threat to human heath if conditions and controls are not rigorous. ▪ Population increases, either natural increase or through migration may lead to increased levels of waste resulting in the rate at which landfill void space is depleted, and the need for more waste management facilities. ■ Comment on the likely future environmental status in the absence of the Minerals Core Strategy & the Waste Core Strategy: In the absence of the Core Strategies and appropriate policies there may be negative impacts on populations and communities as a result of un-regulated, un-mitigated or poorly planned development.
Human health (covered in this document & in the SA Scoping Report paragraph 6.28 & in Appendix 3 – Baseline table)	Minerals and waste development can have various negative impacts. In physical terms waste management facilities can cause congestion, noise, odours, visual impact which may lead to psychological / stress effects on individuals and communities. Noise from quarry working or associated traffic may disturb individuals sleep patterns – causing stress. Communities may feel that the fundamental nature of their community has changed as a result of a nearby waste disposal facility. ■ Comment on the likely future environmental status in the absence of the Minerals Core Strategy & the Waste Core Strategy: In the absence of the Core Strategies there may be negative impacts on human health as a result of un-regulated, un-mitigated or poorly planned development.
Cultural heritage including architectural & archaeological heritage (covered in this document & in the SA Scoping Report paragraphs 6.80 to 6.83 & in Appendix 3 – Baseline table)	Waste management facilities and minerals sites along with ancillary development such as road construction, soil bunds and screening, processing and storage areas can potentially damage or destroy artefacts / sites of cultural and archaeological heritage. Indirect effects may include: ▪ A reduction in the legibility of archaeological landscapes as a result of the interruption of features extending beyond the extraction area. ▪ Dewatering and potential disruption to drainage regimes may damage waterlogged archaeological deposits and destroy a sites environmental potential. ▪ Subsidence or ground settlement on upstanding monuments and historic buildings. ▪ Dust from workings can have a detrimental impact on historic buildings and monuments – especially if

	the dust particles are chemically active. ▪ In the long term the setting and character of a historic monument / archaeological landscape / listed building might be affected by extraction. Apart from visual aspects, there may be a detraction of amenity resulting from the disruption of rights of way and access and increased noise and heavy traffic. ■ Comment on the likely future environmental status in the absence of the Minerals Core Strategy & the Waste Core Strategy: In the absence of the Core Strategies and appropriate policies there may be damage to Gloucestershire's cultural heritage (including architecture and archaeology) as a result of un-regulated, un-mitigated or poorly planned development.
Landscape (covered in this document & in the SA Scoping Report paragraphs 6.36 to 6.54 & in Appendix 3 – Baseline table)	Landscapes may be damaged where a development changes the physical character of a particular area. Changes to, or the physical removal of landscape elements e.g. trees, slopes, hedges, field boundaries may change the character of the landscape and how it is experienced. Views may be damaged, both in terms of composition and extent. Potential landscape / visual effects as a result of quarrying / landraise / landfill development may include: ▪ Natural topography being permanently damaged. ▪ Geological exposures in old disused quarries may be lost if they are backfilled. ▪ Loss of hedgerows and hedgerow trees. ▪ Rural character eroded as a result of operational areas, litter trapping fences, stockpiles and mounds, plant and buildings. ▪ Insensitive restoration may weaken the local distinctiveness of a landscape. ▪ On the positive side, mineral operations can create new landscape features such as lakes, ponds and wetlands. A good example being the Cotswold Water Park. ■ Comment on the likely future environmental status in the absence of the Minerals Core Strategy & the Waste Core Strategy: In the absence of the Core Strategies and appropriate policies there may be damage to valued landscapes within Gloucestershire as a result of un-regulated, un-mitigated or poorly planned development.
The **inter-relationship** between the issues referred to above (covered in this document & in the SA Scoping Report paragraphs 6.84 to 6.86 & in Appendix 3 – Baseline table)	There are numerous, complex inter-relationships between all the aspects of the natural and built environment and all the other social and economic factors that have been considered. ■ Comment on the likely future environmental status in the absence of the Minerals Core Strategy & the Waste Core Strategy: In the absence of the Core Strategies and appropriate policies, development may cause unforeseen damage or produce knock-on negative impacts as a result of un-regulated, un-mitigated or poorly planned development.

Minerals & Waste related baseline in Gloucestershire

Gloucestershire's geology

Gloucestershire has a diverse geological base with significant deposits of economic value. The County may be conveniently subdivided into the following resources areas:

Resource Area	Mineral Type
Forest of Dean	Limestone (Carboniferous), Sandstone, Clay, Iron Ore, Coal
Cotswolds	Limestone (Jurassic)
Upper Thames Valley	Sand and Gravel, Clay, Cornbrash (Jurassic Limestone)
Vale of Moreton	Sand and Gravel
Severn Vale	Sand and Gravel, Clay

Mineral resources

The county's mineral resources are of local, regional and national importance. They include – limestone used as crushed rock and sand & gravel aggregates; limestone and sandstone for building stone; coal for energy generation; and clay used in brick making and civil engineering. Potential resources of gas and oil have also been surveyed in parts of the County. Historically, iron ore has also been worked, however this has not taken place since the Second World War. There are also records of working other metaliferous resources but this has been on a very historic basis.

Mineral working and infrastructure

During 2005, just over 3 million tonnes of minerals were worked in Gloucestershire. The majority of this total *(98%)* was made up of aggregate minerals – limestone used as a crushed rock and sand & gravel. The average annual production *(between 2001-2005)* of crushed rock supplies from Gloucestershire is calculated at 1.97 million tonnes per annum. For sand & gravel over the same period, average annual production is calculated at 1.03 million tonnes per annum. During 2005, nearly 70% of the county's crushed rock working occurred from quarries located within the Forest of Dean. The remainder was sourced from Cotswolds. Over the same year, almost all of Gloucestershire's sand & gravel working *(95%)* took place within the Upper Thames Valley. The remainder occurred across a small number of sites along the Severn Vale Corridor. There are two main concentrations of mineral workings for building & roofing stone – the Forest of Dean and the northern Cotswolds. During 2005, the Cotswold supplied most of the County's *(91%)* building & roofing stone.

Waste planning in Gloucestershire

***This information is the latest waste data available. It is taken from: *Technical Evidence Paper (WCS-A) Data*. See this paper for more details. Note: as this is updated data it will differ from the figures in the SA Scoping Report (April 2006 Update 2). This Scoping Report, along with the Context Report will be fully updated early in 2008. This section principally considers waste arisings and levels of waste being managed for MSW, C&D, C&I and hazardous waste. It does not consider targets, current capacity and capacity gap issues in detail. For this level of detail see the above mentioned Evidence Paper.**

A large percentage of waste produced in Gloucestershire is still disposed of in landfill or landraising sites. The amount of waste managed in Gloucestershire in 2005 was around 1.26 million tonnes. The tonnage split between waste streams is set out below:

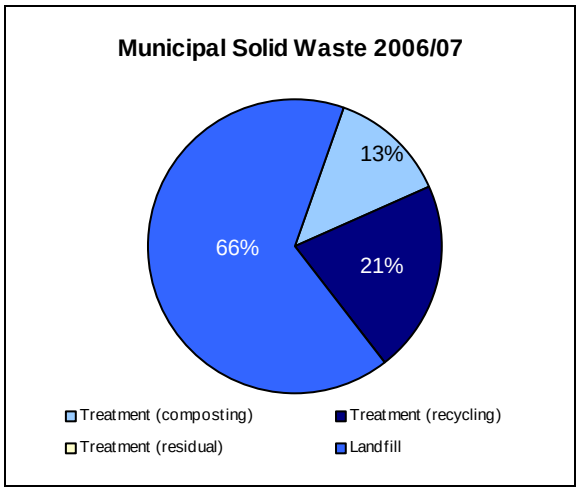
Licensed Waste Management in Gloucestershire ('000 tonnes)

Waste Stream	Base Year	Total
MSW	2006/07*	324
C&I (including metals)	2005	462
C&D	2005	403
Hazardous	2004	72
Total		**1,261**

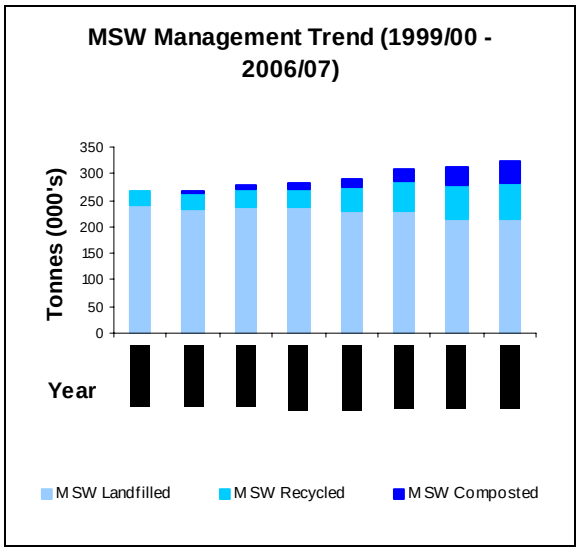
**Environment Agency data combines MSW and C&I biodegradable waste therefore to compare similar years the 2004/05 MSW figure was 309kt.*

Municipal Solid Waste (MSW)
Municipal solid waste (MSW) comes from households (96%) together with a small amount of 'trade' waste collected by local authorities from shops and businesses. MSW data is provided by the County Council's Waste Management Team - also referred to as the Waste Disposal Authority (WDA). In the year 2004/05 Gloucestershire's households produced 301kt of waste, and there was around 8kt of trade waste (309kt total MSW). The total rose in 2005/06 to around 312kt and to 324kt in 2006/07.

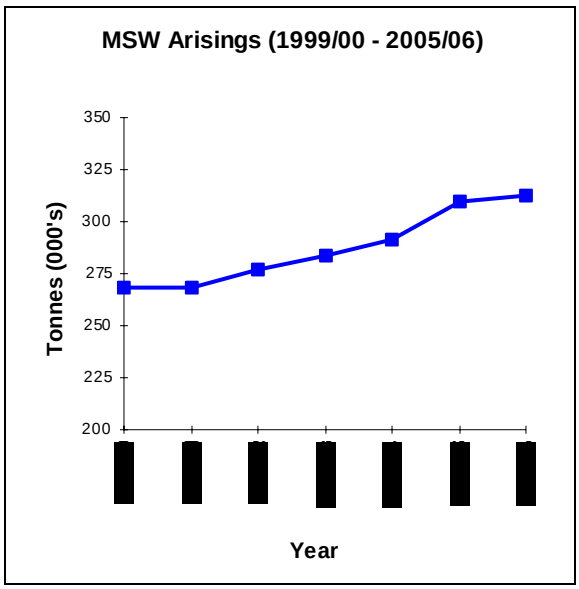
Around 1,220kg of household waste is generated per household each year. The District Councils collected 11kt of commercial waste and the County Council received just over 11kt of DIY waste through its Household Recycling Centres (HRCs).



In 2004/05 the County had a household recycling and composting rate of 26%. This rose to around 30% in 2005/06 and 32% in 2006/07. The graph (right) shows that although the quantity of MSW is increasing, the amount going to landfill is steadily decreasing. In 2006/07, 215kt was landfilled compared with 228kt in 2004/05.



Over the last 5 years, the amount of municipal waste collected has increased on average by over 3% each year. The continued growth in population and number of households will directly impact on the quantity of waste generated year on year. If waste continues to grow at 3% we would double the amount of waste produced in the next 25 years.



Total MSW arisings are predicted to grow from 324,000 tonnes per year in 2006/07 to some 457,000 tonnes by 2030/31. This is equivalent to an annual growth rate of 1.6%. It is based on recent and future waste growth and analysis of whether increases can be attributed to events such as, the recent introduction of kerbside collection of green waste, changes and improvements at HRCs, the possible future introduction of reduced residual waste collection by all authorities by 2010/11, new recycling and composting schemes, household/population growth.

Commercial and Industrial (C&I) Waste

C&I waste is made up of waste generated by businesses, shops, offices, manufacturers etc. It is predominantly biodegradable material or metal wastes. The data in this section is based on WPA analysis of Environment Agency (EA) license returns for the calendar year 2005.

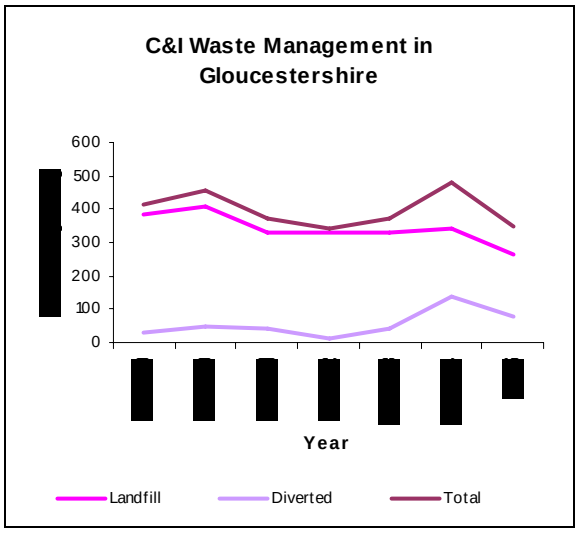
In 2005 there was around 348,000 tonnes of biodegradable non-metal C&I waste managed in Gloucestershire. 267,000 tonnes of this went to landfill, 81,000 tonnes was diverted from landfill and 114,000 tonnes of metal went to metal recycling sites.

It is difficult to distinguish a trend in C&I waste management from the figures and the graph below.

C&I Waste Management in Gloucestershire
[not including metals] (000's tonnes)

	Landfill	Diverted	Total
1998/99	382	32	414
1999/00	407	50	457
2000/01	330	41	371
2001/02	333	11	344
2002/03	330	40	370
2003/04*	343	136	479
2005	267	81	348

**The data for this year has been provided by the EA in a non-aggregated format (from their response to the WCS I&O papers) and the 'diverted' figure has been calculated by combining the treated biodegradable waste + 25% of the transferred figure.*



Construction and Demolition (C&D) Waste
Construction and demolition (C&D) waste comprises mainly inert materials (brick, concrete, sub-soils etc.). Whilst biodegradable elements (timber, metal and plastic) will also be present these are in comparatively small quantities. This counter-balances the approach taken with C&I waste, which is largely biodegradable but with small amounts of inert material.

Data on construction & demolition (C&D) waste management has been provided by the Environment Agency (EA). The EA figures split the data into four broad categories: landfill; treated; transferred; and inert material from metal recycling sites.

During 2005 there was around 403,000 tonnes of C&D waste managed by licensed facilities in the County of which 222,000 tonnes was landfilled, 62,000 tonnes was recycled* and 238,000 tonnes went through transfer facilities of which a proportion will have been double counted (i.e. it will have been sent on for further management or disposal).

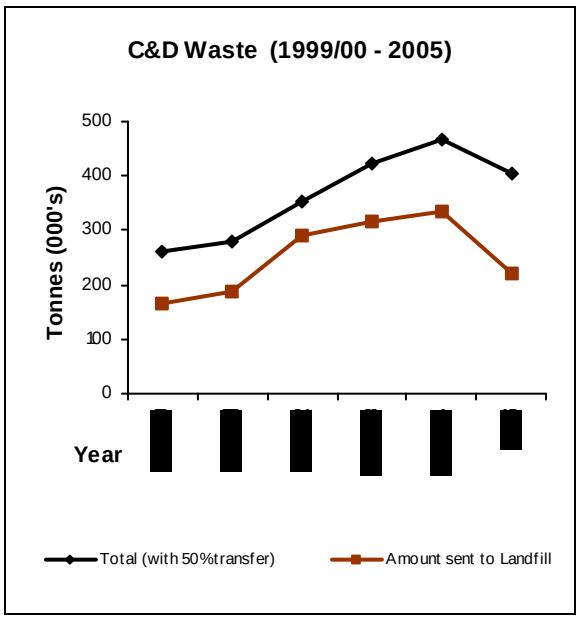
**EA advice on the transferred element is that some will have been sent on to landfill sites (and thus double-counted as part of the 'landfill' returns) and the remainder will have been recycled (and thus not included in other figures as the EA do not have a C&D 'recycled' category).*

In addition to waste that passes through licensed facilities there is also material that is managed on sites that have an EA waste management license exemption. In Gloucestershire there are 2,139 such 'exemptions' of which there are two types: *simple* and *complex.*

A *'simple exemption'* is one that the EA considers is a relatively low risk waste handling activity. Examples include: burning waste oil as a fuel in an engine; treatment of waste at place of production; and deposit of mineral exploration waste.

'Complex exemptions', whilst being exempt from licensing, still need to be checked to ensure that they will not harm the environment. The information required as part of this assessment must demonstrate that the proposals will meet the objectives of the exemption and will not cause pollution. The type and quality of information may well require advice from a technical specialist.

The graph below illustrates a six year period of C&D waste management in Gloucestershire. The amount being managed over the latest three years indicates considerable instability in levels.



Data for the South West indicates that regionally C&D waste arisings have fluctuated. For the purposes of planning, the Regional Waste Management Strategy (RWMS) and the adopted Gloucestershire Waste Local Plan (WLP) both assume future C&D waste growth to be zero. However, the figures in the graph indicate that for Gloucestershire this is not necessarily the case.

Hazardous Waste

The hazardous waste managed in Gloucestershire is primarily at one site: Wingmoor Farm East, Bishops Cleeve, Cheltenham. The County's landfill voidspace for disposing of hazardous is contained at this one site, the current planning permission for which expires in 2009.

Hazardous waste data for Gloucestershire, provided by the EA. The latest data is set out in the table below.

Table 14: Hazardous Waste Managed in Gloucestershire (000's tonnes)

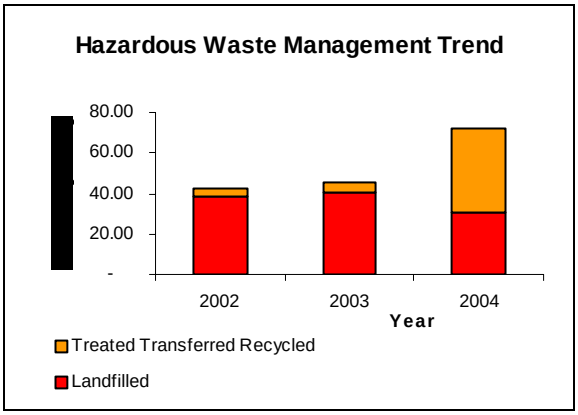
	2000	2001	2002	2003	2004
Arose in Gl'shire	53	37	25	28	39
Exported from Gl'shire	36	23	22	27	38
Imported into Gl'shire	69	49	39	44	71
Total Managed in Gl'shire	**86**	**63**	**42**	**46**	**72**

* These figures have been rounded, hence 2003 not adding up to 46.

The data for 2004 (the most recent available) indicates that there are variations year to year in the amount being managed. The method of management (indicated in Table 15) similarly varies, with the amount being landfilled decreasing but that the treated figure rising markedly (see below).

Table 15: Comparative Hazardous Waste Management Methods in Gloucestershire (000's tonnes) – EA figures

	2002	2003	2004
Landfilled	38.94	40.44	31.09
Treated	0.02	2.58	38.18
Transferred	3.16	2.75	2.85
Recycled	0.13	0.09	0.06
Total	**42.25**	**45.86**	**72.18**



3.3 Main social, environmental and economic issues and problems identified (Stage A3)

The following are considered to be the key sustainable issues/problems for Gloucestershire. In keeping with the principles of SA and SEA; social, economic and environmental issues are taken into account. It is a general list and certain issues are likely to have greater significance to the development of minerals and waste policy in Gloucestershire. This list was amended slightly following comment resulting from the consultation on the Context and Scoping Report (25th August – 29th September 2005). The detailed list can be viewed in the SA Scoping Report.

1. High house prices.	10. Growing levels of waste in Gloucestershire.
2. Low average income.	11. Recycling / composting rates (Poor in comparison with some areas / authorities).
3. Crime levels (High in certain areas).	12. Minerals restoration (A potential lack of inert materials).
4. Health (Poor for certain segments of the population).	13. Protecting Gloucestershire's environment whilst providing minerals needed by society (Potential conflicts of interest).
5. Traffic impacts and congestion.	14. Renewable energy (A relatively low proportion of

	renewable energy generated in Gloucestershire).
6. Rural economy (Certain areas in need of support).	15. The general state of Gloucestershire's biodiversity, the condition of SSSIs, sites protected under the Habitat's Directive and locally designated sites
7. Areas of deprivation and social exclusion.	16. Decline in species biodiversity (in particular of certain bird species in Gloucestershire).
8. Potential for flooding (High in certain areas of the County).	17. Increases in serious pollution incidents.
9. Waste to landfill (Increasing levels).	18. Possible damage to the historic environment.
	19. Detrimental changes to landscape character.

The following is a summary of the sustainability issues and problems that are particularly related to the Preferred Options document. For a full and detailed list of baseline see the Scoping Report, particularly Appendix 2 and Section 6. More detail on these issues is contained in the above section of this report 'Waste planning in Gloucestershire' and in even greater depth in *Technical Evidence Paper (WCS-A) Data*.

► Issue 9. Increasing levels of waste to landfill

For some waste streams in the County e.g. MSW and C&I, levels of waste going to landfill are steadily but slowly decreasing. The situation is complicated by the fact that the general amount of waste we produce is increasing (for MSW by 3% per year). In 2006/07 66% of MSW arising in Gloucestershire still went to landfill.

The table below sets out the projected indicative tonnages of MSW that are likely to require managing up to 2026. The bold figures represent the final Landfill Allowance Trading Scheme (LATS) target year 2020. The County Council is aiming to minimise waste arisings, and improve source-segregation of waste at the kerbside to increase recycling and composting to 60% by 2020. However, modelling has indicated that there will still be a LATS deficit in 2009/10. Waste costs are rising rapidly. The Waste Unit budget is currently about £16m and it has been forecast that if the County Council carries on landfilling on current trends, this will escalate to over £80m by 2020. (This is based on in-house modelling and assumes that recycling and composting rates remain the same, waste growth continues to rise at 3% per annum, and the County Council must pay £150 per tonne of biodegradable waste going to landfill.).

Yearly MSW Facility Requirements
(Figures provided by Gloucestershire County Council's Waste Management team)

Year	Arising Estimate	Average Annual Growth rate	Composting		Recycling	Residual Treatment	Transfer (see Section 8)	Landfill		
		%	Windrow	IVC		Range (000s tonnes)		Residual after treatment	LATS targets	Possible Capacity needed
2005/06	312,118	-	32,276	-	66,590		48,154	213,252		
2006/07	324,143	3.85	41,602	-	67,572		47,057	214,969	158,634	262,360
2007/08	332,000	2.42	42,000	50	77,142		46,000	212,808	150,100	256,340
2008/09	337,312	1.6	41,260	3,500	79,456		49,040	213,096	138,721	246,661
2009/10	342,709	1.6	13,000	51,260	107,265		64,418	171,184	124,497	234,164
2010/11	348,192	1.6	13,390	52,798	110,483		64,879	171,521	107,428	218,849
2011/12	353,763	1.6	13,792	54,382	113,798		65,355	171,792	95,471	208,675
2012/13	359,424	1.6	14,205	56,013	117,212		65,844	171,993	83,513	198,529
2013/14	365,174	1.6	14,632	57,694	120,728		66,348	172,121	71,555	188,411
2014/15	371,017	1.6	15,071	59,424	124,350	150-270	66,867	12,172	68,486	187,211
2015/16	376,953	1.6	15,523	61,207	128,080	150-270	67,402	12,143	65,416	186,041
2016/17	382,985	1.6	15,988	63,043	131,923	150-270	67,953	12,030	62,347	184,902
2017/18	389,112	1.6	16,468	64,935	135,881	150-270	68,520	11,829	59,277	183,793
2018/19	395,338	1.6	16,962	66,883	139,957	150-270	69,105	11,537	56,208	182,716
2019/20	401,664	1.6	17,471	68,889	144,156	150-270	69,707	11,148	53,139	181,671
2020/21	**408,090**	**1.6**	**17,995**	**70,956**	**148,480**	**150-270**	**70,327**	**10,659**	**50,069**	**180,658**
2021/22	414,620	1.6	18,535	73,085	152,935	150-270	70,965	10,066		132,678
2022/23	421,254	1.6	19,091	75,277	157,523	150-270	71,623	9,363		134,801
2023/24	427,994	1.6	19,664	77,535	162,248	150-270	72,301	8,546		136,958
2024/25	434,842	1.6	20,254	79,861	167,116	150-270	72,998	7,611		139,149
2025/26	441,799	1.6	20,861	82,257	172,129	150-270	73,717	6,551		141,376
2026/27	448,868	1.6	21,487	84,725	177,293	150-270	74,457	5,363		143,638
2027/28	456,050	1.6	22,132	87,267	182,612	150-270	75,220	4,039		145,936

The WDA figures presented in the above table indicate that by 2020/21 Gloucestershire will require as a minimum the following capacity to manage its MSW arisings:

- 18kt windrow composting capacity

- 71kt in-vessel composting capacity

- 149kt recycling capacity

- 150kt – 270kt residual treatment capacity

- 71kt transfer capacity

- 3.1 million m^3 landfill capacity (over the period 2006/07-2020/21)

▶ Issue 10. Growing levels of waste in Gloucestershire

Municipal Solid Waste – growth rates

MSW in Gloucestershire is growing by about 3% per year. If this continues we would double the amount of waste produced in the next 25 years.

Construction and Demolition Waste – growth rates

Data for the South West indicates that regionally C&D waste arisings have fluctuated. For the purposes of planning, the Regional Waste Management Strategy (RWMS) and the adopted Gloucestershire Waste Local Plan (WLP) both assume future C&D waste growth to be zero.

Commercial and Industrial Waste – growth rates

Determining an appropriate growth rate for C&I waste is difficult. The figures fluctuate. The South West Regional Waste Management Strategy has assumed a 0% growth rate, as has the adopted Waste Local Plan.

▶ Issue 11. Recycling / composting rates

In its National Waste Strategy 2007 the Government has set national household waste recycling and composting rates at:

40% in 2010

45% in 2015

50% in 2020

Gloucestershire has met its 2005/6 Best Value household recycling and composting target of 30%. The individual performance of each District Council can be seen in the table below:

Table 3: Recycling Targets Council	Actual Recycling Rate (%) 2006/07	BVPI recycling target (%) 2007/8
Cheltenham Borough	28%	24%
Cotswold District	41%	30%
Gloucester City	23%	20%
Forest of Dean District	36%	30%
Stroud District	24%	30%
Tewkesbury Borough	26%	21%
Gloucestershire County	32%	30%

But clearly there are significant variations in performance between the best performing councils and the worst, and even the best rates need to be improved upon in order to match up with the UK's best performing Local Authorities.

3.4 Limitations of the information, assumptions made etc

The availability and quality of baseline data for Gloucestershire is generally good and this has been comprehensively detailed in the SA Scoping Report, in particular in Section 6 and Appendix 3. As has already been mentioned in this report, this data is due to be fully updated early in 2008. In terms of waste data, the County Council's Minerals & Waste Planning Policy team works closely with the Municipal Waste Management Unit and consequently data on the municipal waste stream is current and generally very robust. Complete data sets for Municipal Solid Waste are available for 2006/07. The data on other (non-municipal) waste streams, provided by the Environment Agency, is less comprehensive and less up to date. Data is compiled from waste management licensing returns sent by operators of waste management facilities. Information provided includes waste category types, input/output details and details on process mode and location. Returns allow an 'unknown' option to be entered for these latter categories. As a result, Environment Agency advice is that where 'unknown' is given in the return as a final destination this should be assumed to be Gloucestershire, and where the mode is 'unknown' this should be taken as being disposed of to landfill. The Environment Agency also have to trust that the returns are accurate.

Information on facility capacity is derived from a Waste Planning Authority assessment of planning permissions and waste management license data. Where the planning permission has not placed a limit on the tonnages of material that can be handled (usually those sites with older planning permissions), Environment Agency license returns were used to give an indicative capacity. In addition a survey of waste operators was undertaken to provide an industry perspective on the current situation.

Data has been prepared by the Waste Planning Authority following liaison with both Waste Disposal Authority and Environment Agency officers. It is considered by these three parties to represent the most up to date and accurate picture of waste management in Gloucestershire that is currently available and is consequently a robust basis for land-use planning purposes in the County.

3.5 The SA framework, including objectives, targets and indicators (Stage A4)

The SA Framework consists of sustainability objectives which are distinct from the objectives of the plan, but may in some cases overlap with them. They provide a way of checking whether the Development Plan Document objectives are the best possible ones in terms of sustainability and can be seen as a methodological yardstick against which the social, environmental and economic effects of the plan can be tested.

The SA Framework Objectives were developed on the basis of:
- The objectives / priorities for action contained in the Government's national sustainability strategies – 1999 and 2005.
- The objectives in "Just Connect" the Integrated Regional Strategy for the South West 2004 –2026.
- Identifying other relevant plans and programmes, resulting key messages and the identification of sustainability issues.
- Office of the Deputy Prime Minister Guidance.
- Changes were made to a small number of SA Objectives following the statutory 5 week period of consultation on the Context and Scoping Reports.

These original SA Framework Objectives are as follows:

1. To promote development that is socially, economically and environmentally sustainable.
2. To give the opportunity to everyone to live in an affordable and sustainably designed and constructed home.
3. To safeguard sites suitable for the location of waste management facilities, or future mineral development from other proposed development.
4. To protect and improve the health and well-being of people living and working in Gloucestershire as well as visitors to the County.
5. To contribute to a sustainable Gloucestershire which provides excellent opportunities for education, economic development, employment and recreation to people from all social and ethnic backgrounds.

6. To safeguard the amenity of local communities from the potential adverse impacts of minerals and waste development.
7. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society.
8. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.
9. To protect, conserve and enhance Gloucestershire's biodiversity, natural environment, landscape and tourist assets including the historic environment.
10. To prevent flooding, in particular preventing inappropriate development in the floodplain and to ensure that development does not compromise sustainable sources of water supply.
11. To protect and enhance Gloucestershire's environment – (the land, the air and water) from pollution and to apply the precautionary principle.
12. To reduce the adverse impacts of lorry traffic on communities, through reducing the need to travel, promoting more sustainable means of transport (including through sensitive routing and the use of sustainable alternative fuels) and to promote the management of waste in one of the nearest appropriate installations.
13. To restore mineral sites to a high standard in order to achieve the maximum environmental and nature conservation benefits.
14. To reduce waste to landfill and in dealing with all waste streams to actively promote the waste hierarchy (i.e. Prevent, Reduce, Reuse, Recycle, Dispose) to achieve the sustainable management of waste.
15. To reduce contributions to and to adapt to Climate Change.

Very few comments were received on these SA objectives at the scoping stage and the changes that were recommended e.g. from statutory consultees such as the Environment Agency and others were incorporated. However following the Issues and Options consultations on both the Minerals Core Strategy & the Waste Core Strategy a small number of consultees expressed the view that some of the objectives were too complex. Additionally a report from Land Use Consultants following a minerals forum on the 16th October 2007 highlighted the same sorts of issues in relation to a number of the objectives. In the spirit of accommodating the views of stakeholders and following emerging best practice* the wording and structure of a few of the objectives has been amended. It should be noted that stakeholders have not questioned the areas or the topics that the objectives cover, merely their wording and their structure. The revised objectives still cover the SEA topics as per SEA Directive Article 5 (1) Annex 1 (f). and have not altered the initial suggestions of statutory consultees. These changes will be detailed in full in the 'Update 3' version of the SA Context and Scoping Reports which will be produced early in 2008.

*The SEA Directive refers to *"information that may reasonably be required taking into account current knowledge and methods of assessment."*

The table below detail these changes:

Original SA Objective	Amendment	Reasoning
1. To promote development that is socially, economically and environmentally sustainable. **2.** To give the opportunity to everyone to live in an affordable and sustainably designed and constructed home.	To promote sustainable development and sustainable communities in Gloucestershire in particular giving people the opportunity to live in an affordable and sustainably designed and constructed home. <u>SEA topic covered as per</u>	A number of stakeholders considered that the original Objective 1 was too imprecise. The original Objective 2 was originally included as it was scoped as an important issue in Gloucestershire. The two objectives have been combined. The reference to 'sustainable communities' reflects central

	SEA Directive Article 5 (1) Annex 1 (f). Population, Material Assets.	government requirements in the UK Government's Sustainable Development Strategies.
3. To safeguard sites suitable for the location of waste management facilities, or future mineral development from other proposed development.	No amendment. SEA topics as per SEA Directive Article 5 (1) Annex 1 (f). Material Assets.	
4. To protect and improve the health and well-being of people living and working in Gloucestershire as well as visitors to the County.	No amendment. SEA topics as per SEA Directive Article 5 (1) Annex 1 (f). Human Health.	
5. To contribute to a sustainable Gloucestershire which provides excellent opportunities for education, economic development, employment and recreation to people from all social and ethnic backgrounds.	To promote education and economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds. SEA topic covered as per SEA Directive Article 5 (1) Annex 1 (f). Population, Material Assets.	A number of stakeholders found that this objective was a bit complicated and overlapped to some extent with Objective 1. It has thus been simplified.
6. To safeguard the amenity of local communities from the potential adverse impacts of minerals and waste development.	No amendment. SEA topic covered as per SEA Directive Article 5 (1) Annex 1 (f). Population, Health.	
7. To conserve minerals resources from	No amendment.	

inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society.	SEA topic covered as per SEA Directive Article 5 (1) Annex 1 (f). Material Assets.	
8. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.	No amendment. SEA topic covered as per SEA Directive Article 5 (1) Annex 1 (f). Population, Material Assets.	
9. To protect, conserve and enhance Gloucestershire's biodiversity, natural environment, landscape and tourist assets including the historic environment.	To protect, conserve and enhance Gloucestershire's wildlife and natural environment – its landscape and biodiversity. SEA topic covered as per SEA Directive Article 5 (1) Annex 1 (f). Biodiversity, Fauna, Landscape. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets including its architectural and archaeological heritage. SEA topic covered as per SEA Directive Article 5 (1) Annex 1 (f). Material Assets, Cultural heritage including architectural and archaeological heritage.	A number of stakeholders found that this objective was a bit complicated and included too many aspects within it. It has thus been split into two objectives one focusing on landscape and biodiversity and one focusing on cultural heritage, including architectural and archaeological heritage.
10. To prevent flooding, in particular preventing inappropriate development in the floodplain and to ensure that development does not compromise sustainable sources of water supply.	No amendment. SEA topic covered as per SEA Directive Article 5 (1) Annex 1 (f). Water, Climatic Factors.	
11. To protect and enhance	To prevent the pollution of	This objective has been simplified

Gloucestershire's environment – (the land, the air and water) from pollution and to apply the precautionary principle.	land, air and water in Gloucestershire and to apply the precautionary principle. SEA topic covered as per SEA Directive Article 5 (1) Annex 1 (f). Soil, Water, Air.	and focuses on pollution prevention.
12. To reduce the adverse impacts of lorry traffic on communities, through reducing the need to travel, promoting more sustainable means of transport (including through sensitive routing and the use of sustainable alternative fuels) and to promote the management of waste in one of the nearest appropriate installations.	To reduce the adverse impacts of lorry traffic on communities through means such as: a) reducing the need to travel b) promoting more sustainable means of transport c) sensitive lorry routing d) the use of sustainable alternative fuels e) promoting the management of waste in one of the nearest appropriate installations. SEA topic covered as per SEA Directive Article 5 (1) Annex 1 (f). Population, Human Health, Climatic Factors.	This objective has been restructured to provide greater clarity.
13. To restore mineral sites to a high standard in order to achieve the maximum environmental and nature conservation benefits.	To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity. SEA topic covered as per SEA Directive Article 5 (1) Annex 1 (f). Biodiversity, Fauna, Soil, Air, Water, Landscape.	This objective has been slightly modified to provide greater clarity.
14. To reduce waste to landfill and in dealing with all waste streams to actively promote the waste hierarchy (i.e. Prevent, Reduce, Reuse, Recycle, Dispose) to achieve the sustainable	No amendment. SEA topic covered as per SEA Directive Article 5 (1) Annex 1 (f).	

management of waste.	Soil, Air, Water, Landscape, Population, Human Health.	
15. To reduce contributions to and to adapt to Climate Change.	No amendment. Water, Climatic Factors.	

Section 4. Appraisal Methodology

4.1 Developing and appraising options

The Waste Core Strategy Issues and Options were tested and an SA Report went out to consultation over an eight week period between the weeks of 17th July and the 15th September 2006. The test of the issues and options has informed the development of the Preferred Options (see paragraphs 1.2 and 1.3 of this report and also Appendix 2. for more details). The WCS Preferred Options document itself is quite a slim document, designed to be easily readable and accessible for all interested parties. However it is backed up by a series of detailed Technical Evidence Papers as follows:

Waste Technical Evidence Papers
- WCS-A Waste Data
- WCS-B Spatial Portrait and Vision
- WCS-C Broad Locational Analysis
- WCS-D Implementing the Waste Hierarchy
- WCS-E Hazardous Waste
- WCS-F Making Provision
- WCS-G Waste Facility Types
- WCS-H Sewage Treatment Facilities
- WCS-I Waste Facilities in the Green Belt
- WCS-J Waste Industry Involvement
- WCS-K Joint Working with the WDA
- WCS-L Cumulative Impact
- WCS-M Environmental Acceptability

Joint Minerals & Waste Technical Evidence Papers
- WCS-MCS-1 Transport
- WCS-MCS-2 Links with Districts & Neighbouring Authorities
- WCS-MCS-3 Flooding & Hydrological Issues
- WCS-MCS-4 Landscape & AONB
- WCS-MCS-5 Biodiversity
- WCS-MCS-6 Archaeology
- WCS-MCS-7 Implementation & Monitoring
- WCS-MCS-8 Glossary

These reports are referenced throughout the Preferred Options document and are available on the County Council's website. They form the substantive part of the 'Evidence Base' and, amongst other things, they detail various meetings, forums and joint-working initiatives that the Minerals and Waste Policy team have initiated as a crucial element in term of drafting the Preferred Options.

The detailed tests and assessments of the Preferred Options and their potentially significant effects are contained in the Appendix 4 and 5 of this report. The assessments are based on a symbol based scoring system, which indicates the degree to which there will be positive or negative effects in relation to the 15 SA Objectives.

■ Appendix 1: Details the scoring systems (the keys) used in the appraisal of the plan objectives and the options presented.

■ Appendix 2: Details the links between the options considered at Issues & Options stage and those considered at Preferred Options.

■ Appendix 3: Contains the compatibility test with the key planning objectives of PPS10.

■ Appendix 4: Contains the test of the strategic plan objectives against the SA objectives.

■ Appendix 5: Contains the test of the options and the prediction of effects.

Appendix 5 is the principal test of the options and within this the following is included.

1. A test against the 15 SA Objectives.

2. Possible effects in terms of (i) whether they are likely to be temporary or permanent (ii) their likely geographic scale (iii) the significance / likelihood of the potential effect.

3. Cumulative / secondary / synergistic Impacts.

4. A sustainability summary.

4.2 When the SA was carried out

The following table from Office of the Deputy Prime Minister Guidance *Sustainability Appraisal of Regional Spatial Strategies and Local Development Documents (2005)* details the various SA stages and tasks and progress to date:

DPD Stage	Progress
Stage A: Setting the context and objectives, establishing the baseline and deciding on the scope	⬇
A1: Identifying other relevant policies, plans and programmes, and sustainability objectives.	Complete
A2: Collecting baseline information.	Complete / ongoing
A3: Identifying sustainability issues and problems.	Complete
A4: Developing the SA framework.	Complete
A5: Consulting on the scope of the SA.	Complete
Stage B: Developing and refining options and assessing effects	
B1: Testing the Development Plan Document objectives against the SA framework.	Complete for Issues & Options
B2: Developing the Development Plan Document options.	Complete for Issues & Options
B3: Predicting the effects the Development Plan Document.	Complete for Issues & Options
B4: Evaluating the effects of the Development Plan Document.	Complete for Issues & Options
B5: Considering ways of mitigating adverse effects and maximising beneficial effects.	Complete for Issues & Options
B6: Proposing measures to monitor the significant effects of implementing the Development Plan Document.	Complete for Issues & Options
Stage C: Preparing the Sustainability Appraisal Report	
C1: Preparing the SA Report.	Complete for Issues & Options
Stage D: Consulting on the preferred options of the DPD and SA Report	
D1: Public participation on the preferred options of the Development Plan Document and the SA Report.	This is the current stage
D2(i): Appraising significant changes.	Forthcoming
D2(ii): Appraising significant changes resulting from representations.	Forthcoming
D3: Making decisions and providing information.	Forthcoming
Stage E: Monitoring the significant effects of implementing the DPD	
E1: Finalising aims and methods for monitoring.	Forthcoming
E2: Responding to adverse effects.	Forthcoming

The following table indicates in more detail the timeframe in which the SA was developed.

Stage of the SA	Date 🕓
Collection of baseline and collection and initial reviews of other plans and programmes.	April – August 2005.
Original Context Report & Scoping Report out to consultation with The Countryside Agency / English Heritage / English Nature / The Environment Agency and other stakeholders	25th August – 29th September 2005.
Changes and amendments made to Context Report & Scoping Report following consultation and Response Report produced. Letters and Response	October 2005.

Reports sent out to consultees.	
Updated versions of Context Report & Scoping Report as well as Response Report posted on the website.	8th November 2005.
Consultants review of the Context & Scoping Report – Levett -Therivel Appropriate changes made – additions to baseline etc.	18th – November 2005.
Newsletter 4. sent out to stakeholders giving people information and the opportunity to contribute to option development on core strategies. The newsletter contained an update on the SA process and links to specific SA information on the Council website.	Mid – November 2005.
Updated Context & Scoping Report published and posted on website.	April 2006.
SA Report on Core Strategy Issues and Options paper sent to *Levett Therivel* (sustainability consultants) for peer review.	23rd May 2006.
SA Report returned from consultants and appropriate changes made.	Early June 2006.
SA Report on Waste Core Strategy Issues & Options out to public consultation for 8 weeks.	17th July – 15th September 2006.
Evidence gathering and work on Technical Evidence Papers & drafting of WCS Preferred Options documents.	September 2006 to November 2007.
Minerals Core Strategy forum at Gloucester Guild Hall at which SA issues and Objectives were discussed via presentations / workshops.	16th October 2007.
Waste Core Strategy forum at Gloucester Guild Hall at which SA issues and Objectives were presented.	30th October 2007.
Minor changes made to SA Framework Objectives following comments from stakeholders and recommendations from *Land Use Consultants* (independent facilitators of the two October forums).	November 2007.
- Scoring of draft or initial Waste Core Strategy Preferred Options. - SA 'Sounding Board' review. - Levett Therivel – sustainability consultants peer review.	November 2007 to start of consultation – end of January 2008.

4.3 Who carried out the SA

The SA was carried out by officers from Gloucestershire's Minerals and Waste Planning Policy Team through a series of roundtable workshops / meetings. It is recognised that such tests are reliant to some degree on qualitative viewpoints, but the judgments made are based on expert opinion, professional expertise and experience as well as a good knowledge of the County and its waste sites and operations. Following the initial officer scoring the various matrices were reviewed by an SA 'sounding board' (see Appendix 7 for details). The reports were then sent to *Levett Therivel* sustainability consultants for peer review.

4.4 Who was consulted, when and how

Consultation on the initial stages of the SA i.e. the Context Report and the Scoping Report was carried out for 5 weeks (in accordance with Office of the Deputy Prime Minister Guidance) from 25th August to the 29th September 2005. 48 consultees were sent copies of the reports, including internal consultees within the County Council, and 12 responses were received, the majority being reasonably supportive, providing constructive comments and additional baseline data. This list of consultees was produced in line with Office of the Deputy Prime Minister SA Guidance and Planning Policy Statement 12. The reports were also made available on the County Council's website, for information purposes, and as a result, two groups (Forest of Dean Friends of the Earth and Friends of the Forest), who were not on the original consultation list, made representations which were considered. Following the amendments that were made to the initial Context and

Scoping Reports a Response Report was produced and sent to all those who had made comments. The revised Context and Scoping Reports as well as the Response Report were then placed on the County Council's website.

Following the publication of Office of the Deputy Prime Minister Guidance on SA (November 2005) and a review of the process by Levett -Therivel Consultants (also in November 2005) further amendments and additions were made to the baseline data contained in the reports. In April 2006 (Update 2) of the Context and Scoping Reports were published and placed on the Council's website. A letter was sent out to all the consultees who received the original reports informing them that the update was available. Update 3 will be produced in early 2008.

In terms of consultation on the SA Reports themselves (at Issues & Options and Preferred Options) every stakeholder on a database of over 1400 is consulted and has the opportunity to make representations.

4.5 Difficulties encountered in compiling information or carrying out the assessment

A large number of options have been tested both at the Issues and Options stage and at this current stage (Preferred Options). They have been tested to a degree that allows specific stakeholders and members of the public to come to an opinion as to which options are likely to be the most appropriate and sustainable. There were no particular problems or difficulties encountered apart from the fact that the options assessment was not an easy process due primarily to the fact that at a core strategy level (i.e. strategic and non-site specific in nature) the issues can be rather subjective. It is more difficult to score a 'broad spatial vision' or a 'broad long term objective' than a site or a more focus policy.

It is also true to say that there were a few problems in terms of the take up for the SA Sounding Board. A fairly large / representative group of officers was selected, but due no doubt to time and resource pressures the number of takers was not as high as it could have been. (See Appendix 7 of this report for more details).

Section 5. The Preferred Options

5.1 Main strategic options considered and how they were identified

The Waste Core Strategy Issues and Options represented an early attempt to present options and ideas about the way in which waste is managed in Gloucestershire and how it should be managed in the future. The main strategic options were identified by members of Gloucestershire Minerals and Waste Planning Policy Team. In November 2005 Minerals & Waste Newsletter 4. was sent to stakeholders specifically asking for input and ideas in terms of issues and options for minerals and waste planning in Gloucestershire. There was a limited response from external stakeholders and it is hoped that there will be more involvement through consultation on the Issues and Options Paper. On March 22nd 2006 a forum event was hosted jointly by the Waste Planning Authority and the Waste Disposal Authority in which broad strategic options for future waste management in Gloucestershire were considered. The outcomes of the forum were collated by *Entec* (the consultants facilitating the event) and views and ideas were incorporated, for example changes were made to the vision and to the key objectives. In terms of internal County Council input, there has been significant input from the Waste Management Unit in terms of options and data relating to municipal waste management.

The Preferred Options detailed below have built upon the Issues and Options. A large amount of evidence gathering and technical work has been undertaken in producing the main strategic options. The Technical Evidence Papers listed in paragraph 4.1 of this report highlight the level of joint working and evidence gathering that has been undertaken since the end of the Issues and Options consultation in September 2006. These Evidence Papers also support how and why these options have been chosen. See also Appendix 2 of this report which highlights the links between the options considered at Issues and Options stage and the Preferred Options.

On the advice of the Government Office for the South West (GOSW) meetings have been held with all Districts in Gloucestershire, neighbouring authorities, major waste operators in the county and other groups. On the 30th October 2007 a Waste Core Strategy forum was held in Gloucester to discuss progress on the Preferred Options. The event was independently facilitated by *Land Use Consultants* and their recommendations (reflecting the views of stakeholders) were incorporated into the WCS document.

5.2 Comparison of the social, environmental and economic effects of the options

The detailed assessment of the options is provided in Appendix 5. A summarised commentary is provided here:

The Spatial Vision and Strategic Objectives

OPTION WPO1: ***By 2026 Gloucestershire will be a clean, green, healthy and a safe place in which to live, work and visit. It will be a County whose inhabitants proactively minimise waste production to achieve zero growth by 2020 and where opportunities for re-using and recycling waste are maximised:***

This will be delivered through a sustainable waste management system that: raises public awareness about waste minimisation; views waste as a resource; provides everyone with localised access to recycling facilities; supports markets for recyclable materials; and delivers a network of sites that enable maximum diversion of waste from landfill.

Sufficient waste management facilities will be provided to enable all households in Gloucestershire to recycle and compost at least 70% of their rubbish by April 2010, with an 80% participation rate by 2020.

Gloucestershire's communities, key landscape / environmental assets and land liable to flooding will be safeguarded from the adverse impacts from waste management activities. Major waste facilities will be located in the central area of Gloucestershire proximate to the main urban areas along the M5 corridor. Smaller supporting facilities will be dispersed around the County.

Sustainability summary:
The vision is a very well balanced and comprehensive statement of how Gloucestershire should look in 2026. It is aspirational in terms of seeking to achieve zero waste growth by 2020. It recognises local distinctiveness such as the County's acclaimed landscape assets, but it also in accordance with the national waste strategy and the Regional Spatial Strategy. The vision scores very well in terms of the SA Objectives; the only SA objectives that do not have a positive or major positive score are the neutral scores on objectives that are predominantly minerals related. It is positive and proactive; setting broad targets and encouraging communities to take more responsibility for the waste they produce. It is not unrealistic or undeliverable.

Evidence:
The vision has developed through stakeholder consultation e.g. the public waste forum in March 2006 and comments through the Issues and Options consultation. The vision also draws on a number of key strategies such as: The Gloucestershire Waste Local Plan, the WCS Issues and Options paper, the Draft Gloucestershire Joint Municipal Waste Management Strategy and the Sustainable Community Strategy for Gloucestershire. Further details are available in Technical Evidence Paper WCS-B 'Spatial Portrait and Vision'.

OPTION WPO2: 5 Strategic objectives:

- **A.** *To influence Gloucestershire's residents to reduce the amount of waste they produce, through raising awareness of waste issues. And then subsequently to encourage them to view any waste they do generate as a resource for which they must take communal responsibility.*
- **B.** *To make the best use of Gloucestershire's waste by encouraging competitive markets for goods made from recycled materials and obtaining a benefit (value) from left over (residual) waste materials.*
- **C.** *To preserve and enhance the quality of Gloucestershire's environment and to avoid undesirable environmental effects, including risks to human health and unacceptable impacts on designated landscapes / nature conservation sites.*
- **D.** *To reduce the environmental impacts of transporting waste by managing the majority of Gloucestershire's waste within a reasonable distance from its source of arising, and to encourage the use of sustainable means of transporting waste.*
- **E.** *To co-locate similar or related facilities on existing waste sites or previously developed sites in preference to undesignated green-field locations (where appropriate) and to safeguard such land from development that may prevent this use.*

Sustainability summary:

The test of these strategic objectives, the sustainability summary and further evidence is found in Appendix 4.

Waste Reduction

OPTION WPO3A: An option that effectively rolls forward WLP Policy 36 with a few word changes to strengthen the policy:

Proposals for major development requiring planning permission must include a scheme for sustainable management of the waste generated by the development during construction and during subsequent occupation. The scheme will include measures to:

i. Minimise, re-use and recycle waste; and
ii. Minimise the use of construction materials; and
iii. Minimise the pollution potential of unavoidable waste; and
iv. Dispose of waste that cannot satisfactorily be re-used/recycled in an environmentally acceptable manner.

The WPA will proactively pursue initiatives to reduce waste generation in Gloucestershire.

Sustainability summary:

Clearly it a very positive option, as might be expected due to the fact that it is directly addressing on of the most significant and serious environmental issues that faces Gloucestershire and many other local authorities. Positive or major positive scores are recorded against 11 of the 15 SA Objectives. There are negative scores in terms of SA Objective 13 – the restoration of minerals sites, due to the fact that minimising e.g. C&D waste in particular could logically result in a lack of soils and other inert material that is currently used in quarry restoration – be that for hard rock quarries or sand and gravel pits that are not 'wet restored'. It is a complex issue. Because C&D waste is often crushed and screened and used on site it may not enter the waste stream and so figures for tonnes arising may be difficult to gauge accurately. However broadly despite this issue this policy is hugely valuable and important for sustainable waste management in the County.

Evidence:
Evidence and further details are contained in the WCS itself (Section 4) and in Technical Evidence Paper WCS-A 'Data' and Technical Evidence Paper WCS-D 'Implementing the Waste Hierarchy'.

OPTION WPO3B: This approach is led by the principles of waste minimisation and as such provides a flexible approach to waste minimisation:

All development requiring planning permission shall abide by the principles of waste minimisation. This includes development that produces hazardous waste as a by-product of its processes.

Development exceeding the Government's 'major development' threshold will be required to submit a statement alongside the application setting out how waste arising during the demolition, construction and occupation (including operational processes) of the development is to be minimised and managed. The statement should also demonstrate how the developer has incorporated recycling provision into the occupational life of the development.*

*[*for residential development the term 'recycling' also refers to home composting activities – either individual or communal]*

Sustainability summary:
This options is scored identically to WPO3A although comments against each objective differ reflecting the slightly different approach to waste minimisation. Broadly very positive option, addressing a key environmental problem in the County. For further comments see the Sustainability Summary for WPO3A.

Evidence:
Evidence and further details are contained in the WCS itself (Section 4) and in Technical Evidence Paper WCS-A 'Data' and Technical Evidence Paper WCS-D 'Implementing the Waste Hierarchy'.

OPTION WPO3C: This approach is more rigid than the first two policy options in that it states exactly what the applicant/developer needs to provide in support of their proposals:

Planning applications for major development shall be accompanied by a statement setting out how waste generated during construction/ demolition and subsequent occupation of the development is to be managed. The statement shall include:

- *Evidence that the scheme's design has incorporated reasonable steps to eliminate waste and that sustainable construction techniques have been considered.*
- *A commitment to use materials comprised of recycled content.*
- *The tonnage of waste materials likely to arise, set out by material type (e.g. wood, brick/concrete, soils, plastics etc)*
- *A method for auditing construction and demolition waste including how waste materials arising during demolition and construction will be segregated and re-used on-site wherever possible, or, where this is not possible, re-used off-site.*
- *Evidence that hazardous waste arisings have been minimised, and where unavoidable suitable provision been made for handling on-site.*
- *Demonstration that waste collection authority advice has been obtained on recycling box /*

residual bin requirements and that there is adequate access for waste collection vehicles and their operatives.

- *Where appropriate developers will be expected to contribute towards managing the waste likely to be generated from their proposal.*

Sustainability summary:
Broadly this option is very positive and it addresses a serious environmental problem that many (if not all local authorities) are faced with. The proposed policy is detailed and prescriptive, requiring developers to supply a lot of information about their proposals including tonnages. Generally the scores for this option are very similar to Option WPO3A & WPO3B but in the medium to longer term there may be issues with a lack of flexibility. Waste is a rapidly moving field and an overly prescriptive policy approach may soon become out of date or priorities may change. There may be problems with implementation as it is potentially placing the responsibility on District Development Control and Waste Collection Authorities who may already be stretched in terms of resources and the sheer volume of considerations that need to be looked at when developers submit planning applications for various development projects.

Evidence:
Evidence and further details are contained in the WCS itself (Section 4) and in Technical Evidence Paper WCS-A 'Data' and Technical Evidence Paper WCS-D 'Implementing the Waste Hierarchy'.

Re-use, Recycling, Composting and Recovery Strategy

OPTION WPO4A: A criteria based approach on a case-by-case basis (strategic & local composting/recycling facilities):

Proposals for recycling and composting facilities will be approved subject to meeting the following criteria:

i. *The impact on neighbouring land uses is acceptable (proposals for composting must be at least 250m from sensitive land-uses unless it can be satisfactorily demonstrated it can operate in closer proximity).*
ii. *The highway access is suitable for the proposed vehicle movements.*
iii. *They contribute towards providing a sustainable waste management system for Gloucestershire.*

Sustainability summary:
The option is broadly positive. It maybe that a criteria based approach may be more effective than a sites approach for smaller local facilities in terms of getting what is required 'on the ground' to increase recycling rates and to meet targets. As the scoring indicates, major positive effects are likely in terms of reducing waste to landfill and in terms of reducing climate change impacts. Less energy is needed in the recycling process than that used producing new products from virgin material. Glass is a good example. Potentially negative effects are anticipated in the longer term in terms of the safeguarding of sites. Clearly this policy approach is moving away from allocating small local sites.

Evidence:
Evidence and further information is detailed in the WCS itself (Section 5) and in Technical Evidence Paper WCS-A 'Data' (including information on recycling composting targets & capacity gaps etc) and Technical Evidence Paper WCS-D 'Implementing the Waste Hierarchy'.

OPTION WPO4B: Criteria for site identification in a DPD (strategic & local composting/recycling facilities):

Sites for composting and recycling in Gloucestershire will be identified in a site specific development plan document. Physical and environmental constraints, including the impact on neighbouring land uses, will be a key consideration.

The following search criteria will be used as the basis for selecting sites with priority being given to:

i. *Previously developed land and redundant rural buildings, including farm diversification opportunities.*
ii. *Co-location with complementary or similar existing operations.*
iii. *Sites within or on the edge of towns.*
iv. *Sites in the central Severn Vale that can serve a wide market area.*

Sustainability summary:
In terms of the scoring against the SA Objectives, this option performs better than WPO4A. There are major positive scores against 7 of the 15 SA Objectives. The sites approach seems to be so positive because it provides certainty and, due to the rigorous process of identifying sites, many amenity and environmental concerns are addressed at an early stage. The site would not be allocated if a decision maker or an Inspector had serious concerns as to its appropriateness in landuse terms and its broad sustainability credentials.

Evidence:
Evidence and further information is detailed in the WCS itself (Section 5) and in Technical Evidence Paper WCS-A 'Data' (including information on recycling composting targets & capacity gaps etc) and Technical Evidence Paper WCS-D 'Implementing the Waste Hierarchy'. See also Technical Evidence Paper WCS-C 'Broad Locational Analysis' in terms of where sites in a future DPD may be appropriately located.

OPTION WPO4C: A combination approach (requires two policies, one for local scale and another for strategic composting/recycling facilities):

Strategic Site Policy
Sites for strategic composting and recycling facilities in Gloucestershire will be identified in a site specific development plan document. Physical and environmental constraints, including the impact on neighbouring land uses, will be a key consideration. The following search criteria will be used as the basis for selecting sites with priority being given to:

i. *Previously-developed land and redundant rural buildings, including farm diversification opportunities.*
ii. *Co-location with complementary or similar existing operations.*
iii. *Sites within or on the edge of towns.*
iv. *Sites in the central Severn Vale that can serve a wide market area.*

Local Site Policy
Proposals for local recycling and composting facilities will be approved subject to meeting the following criteria:

i. *The impact on neighbouring land uses is acceptable (proposals for composting must be at least 250m from sensitive land-uses).*
ii. *The highway access is suitable for the proposed vehicle movements.*
iii. *They contribute towards providing a sustainable waste management system for Gloucestershire.*

Sustainability summary:
Of all the WPO4 options this scores the highest in terms of the test against the SA Objectives. This combination approach provides certainty for larger strategic facilities for composting and recycling as well as the required flexibility for smaller local facilities. There are no negative scores and major positive scores against 12 of the 15 SA Objectives. From an SA standpoint this is the favoured option.

Evidence:
Evidence and further information is detailed in the WCS itself (Section 5) and in Technical Evidence Paper WCS-A 'Data' (including information on recycling composting targets & capacity gaps etc) and Technical Evidence Paper WCS-D

'Implementing the Waste Hierarchy'. See also Technical Evidence Paper WCS-C 'Broad Locational Analysis' in terms of where strategic sites may be appropriately located when allocated in a waste sites DPD.

OPTION WPO4D: An Area of Search approach (strategic & local composting/recycling facilities):

Areas of search for locating composting and recycling facilities in Gloucestershire will be identified in a site specific development plan document. Strategic physical and environmental constraints will be a key consideration. The following search criteria will be used as the basis for selecting sites with priority being given to:

i. *Areas with little or no current provision for composting recycling.*
ii. *Areas with large waste arisings.*
iii. *Sites on the edge of towns.*
iv. *Sites in the central Severn vale that can serve a wide market area.*

Sustainability summary:
The area of search approach for strategic and local composting and recycling facilities is broadly positive in terms of the test against the SA Objectives. However it does not have the certainty of a sites based approach. Negative scores are given against SA Objective 2 – Safeguarding sites, as the option clearly does not facilitate this. There are also some potential concerns about employment issues for rural communities and in terms of the diversification of the rural economy. It depend on the areas of search that are identified, but clearly rural areas may be the most appropriate places for certain composting operations, particularly given that standoff distances may have to be adhered to.

Evidence:
Evidence and further information is detailed in the WCS itself (Section 5) and in Technical Evidence Paper WCS-A 'Data' (including information on recycling composting targets & capacity gaps etc) and Technical Evidence Paper WCS-D 'Implementing the Waste Hierarchy'. See also Technical Evidence Paper WCS-C 'Broad Locational Analysis' in terms of where areas of search may be identified in a future waste sites DPD.

OPTION WPO5A: A policy encouraging the development of a resource economy:

The waste planning authority will encourage development of a 'resource economy'. Proposals for the development of markets for recycled materials, in particular, initiatives to assist small to medium sized businesses to re-use/recycle their discarded materials will be supported by the WPA.

Sustainability summary:
The option addresses an issue which is often raised by stakeholders who are keen to see increased recycling. It is an area in which traditional land use planning has had difficulty influencing. In terms of the scores of this option against the SA Objectives, it is generally very positive, with no negative scores and major positive scores against a number of objectives. It is particularly strong in terms of the economic development objectives; less so in terms of the environmental protection objectives although the results are neutral rather than negative. It may be that environmental benefits may be more marked than this broad SA anticipates.

Evidence:
Evidence and further information is detailed in the WCS itself (Section 5) and in Technical Evidence Paper WCS-D 'Implementing the Waste Hierarchy'.

OPTION WPO5B: A policy encouraging the development of a resource economy, working in partnership with other organisations:

In encouraging the development of a 'resource economy' the waste planning authority will work in partnership with other organisations (for example Gloucestershire First, the Gloucestershire Waste Partnership, the Waste Disposal Authority,

the Gloucestershire Environment Partnership) to promote the development of markets for recycled and recovered materials and products.

Sustainability summary:
Broadly similar scores as for Option 5A. This option is likely to have major positive impacts particularly in the medium to long term as markets develop and as partnerships develop to encourage their formation. Organisations such as *Gloucestershire First* will be key may be key progress in this area and it is likely that there will have to be increasing levels of coordination and effective working between the Gloucestershire Waste Partnership and other business interests.

Evidence:
Evidence and further information is detailed in the WCS itself (Section 5) and in Technical Evidence Paper WCS-D 'Implementing the Waste Hierarchy'. See also Technical Evidence Paper WCS-J 'Waste Industry Involvement' for comments about the formation of markets for recyclables.

OPTION WPO6A: A general 'recovery' policy (i.e. not process-specific) that applies county-wide. For example rolling forward the existing WLP Policy 15 taking into account the National Waste Strategy:

Proposals for the development of residual waste facilities will be permitted in appropriate locations where it can be demonstrated that:

- *the facility would be part of a sustainable waste management system; and*
- *in demonstrating sustainablity the facility will not manage waste that could reasonably be recycled or composted; and*
- *it would realise energy recovery and disposal routes for residues would be satisfactory; and*
- *the facility would meet the relevant policies and criteria of the development plan.*

Sustainability summary:
This is a broad, non process specific option. In general, given the criteria within the policy seeking to demonstrate sustainability and 'be part of a sustainable waste management system' it is positive. Many of the scores against the SA Objectives are neutral. Effectively this means that the option is not clearly related to the objective or that while there may be some negative impacts for some communities, other communities (or Gloucestershire as a whole) will benefit. Major positive scores are given in terms of the objectives to reduce waste to landfill and reduce contributions to climate change – related to energy from waste potential and also reducing methane emissions from landfill. The comments against SA objective are important: 'Potentially negative effects may be identified in any assessment of sites and / or technologies'.

Evidence:
Evidence and further information is detailed in the WCS itself (Section 5) in the recovery section and in Technical Evidence Paper WCS-D 'Implementing the Waste Hierarchy', Technical Evidence Paper WCS-F 'Making Provision for Waste Management Facilities' and Technical Evidence Paper WCS-C 'Broad Locational Analysis'.

OPTION WPO6B: The addition of a paragraph to the end of Option WPO6a to address specific MSW requirements from the JMWMS Residual Action Plan:

Proposals for the development of residual waste facilities will be permitted in appropriate locations where it can be demonstrated that:

- *the facility would be part of a sustainable waste management system; and*
- *in demonstrating sustainablity the facility will not manage waste that could reasonably be recycled or composted; and it would realise energy recovery and disposal routes for residues would be satisfactory; and*
- *the facility would meet the relevant policies and criteria of the development plan.*

Proposals for the development of _____ (INSERT PREFERRED TECHNOLOGY AS STATED IN RESIDUAL ACTION PLAN) to manage municipal solid waste will be permitted in appropriate locations provided it accords with the above criteria.

Sustainability summary:
The SA scores are identical to Option WPO6A. This SA is not focused on assessing a particular technology. It assesses strategic options, in this case an option containing a number of criteria. It is not an option which considers sites. Gloucestershire County Council as the Waste Disposal Authority (WDA) will eventually have a preferred technology or preferred technologies for residual waste and this is detailed in their Joint Municipal Waste Management Strategy (JMWMS) Residual Action Plan. An SEA and technical work has been conducted of this plan to date (as outlined in the Preferred Options and Evidence Papers) and these should be should be referred to for specific impacts. This Core Strategy SA is not conducted at a level of depth or analysis to either contradict or confirm the results of the WDA's technical work and their SEA.
The JMWMS SEA does state on page: xv that 'None of the treatment technologies will result in no environmental issues, with each having potentially negative impacts against a number of the SEA criteria – in particular land contamination and landscape, air pollution and energy issues, water resources and nuisance. However, the extent to which these impact upon Gloucestershire and beyond can be mitigated to a large extent (although not totally) through the use of advanced abatement technologies, careful monitoring and appropriate site management.'

Evidence:
Further evidence and information is detailed in the JMWMS Residual Action Plan and SEA, Appendix 8 of this report, the WCS itself (Section 5) in the recovery section and in Technical Evidence Paper WCS-D 'Implementing the Waste Hierarchy', Technical Evidence Paper WCS-F 'Making Provision for Waste Management Facilities' and Technical Evidence Paper WCS-C 'Broad Locational Analysis'.

OPTION WPO6C: Site Specific Approach – strategic sites will be allocated in a Waste Site Allocations DPD based on the following criteria:

Strategic sites for waste treatment facilities will be allocated in a site specific development plan document. Such facilities will be located in accordance the broad locational approach identified in the Waste Core Strategy, and accord with the following criteria:

a) industrial estates and employment land (allocated or permitted for B2 uses);

b) previously developed land;

c) existing waste management facilities and mineral sites.

Planning applications for local residual waste treatment facilities will be determined using the three criteria set out above.

Physical and environmental constraints, including the impact on neighbouring land uses, will be key considerations for both local and strategic sites.

Sustainability summary:
This is an option which is testing the approach of allocating strategic sites for the management of residual waste. Any facility in any location may have the potential to pollute, facilities are thus highly regulated through planning and the through licensing and regulation by the Environment Agency. What the options presented in the WCS are trying to achieve is an improvement on the current situation, and the scoring is given in this context. Clearly other assessments at site level and even at EIA level will produce their own results. Allocating a strategic site in a Waste Site Allocations document is likely to provide a degree of certainty and the site's sustainability will be rigorously tested. The scores relate to the broad principle of allocating sites – not the sites themselves. Positive or major positive effects are envisaged in terms of 11 of the 15 SA Objectives. There are uncertainties in terms of lorry impacts, conserving mineral resources and employment issues.

Evidence:
Evidence and further information is detailed in the WCS itself (Section 5) in the recovery section and in Technical Evidence Paper WCS-D 'Implementing the Waste Hierarchy', Technical Evidence Paper WCS-F 'Making Provision for Waste Management Facilities' and Technical Evidence Paper WCS-C 'Broad Locational Analysis'.

OPTION WPO6D: Broad Locational Approach:

Strategic sites for accommodating waste treatment facilities should be situated within the broad

locational area identified in the Waste Core Strategy. Within that area facilities are directed towards:

a) industrial estates and employment land (allocated or permitted for B2 uses);

b) previously developed land;

c) existing waste management facilities and mineral sites.

Planning applications for local residual waste treatment facilities will be determined using the three criteria set out above.

Physical and environmental constraints, including the impact on neighbouring land uses, will be key considerations for both local and strategic sites.

Sustainability summary:
In the assessment of this option there are broadly positive effects in terms of a number of the SA Objectives, but there is less certainty than the allocated sites approach (WPO6C). There are no 'major positive' effects anticipated and there are uncertainties over SA Objectives 6, 7 & 12 – conservation of the County's mineral resources, employment issues (related to diversification) and lorry impacts.

Evidence:
Evidence and further information is detailed in the WCS itself (Section 5) in the recovery section and in Technical Evidence Paper WCS-D 'Implementing the Waste Hierarchy' and . Technical Evidence Paper WCS-F 'Making Provision for Waste Management Facilities' and Technical Evidence Paper WCS-C 'Broad Locational Analysis'.

Locational Strategy

OPTION WPO7A: A broad Search Area:

A broad search area based on the full 16km Regional Policy W2 (using the search criteria outlined for Options WPO7b-d). Under this approach, strategic sites that are remote from arisings could be appropriate if they are able to demonstrate sustainable transport linkages.

Sustainability summary:
This option is not time specific and so has only been scored in one column. Broadly positive effects anticipated in terms of sustainable development as long as sustainable transport linkages can be demonstrated. This option is difficult to score as it is not focused on a particular technology and the 16km radius around the main urban areas includes practically the whole of Gloucestershire, only excluding the far north west of the County. The other WPO6 options are also difficult due to the fact that more detailed criteria/constraints need to be developed. No negative effects are highlighted against the SA Objectives but there are a number of 'uncertain' scores.

Evidence:
Evidence and further information is detailed in the WCS itself (Section 6) and in Technical Evidence Paper WCS-C 'Broad Locational Analysis'.

OPTION WPO7B: Urban Locations & Zone C:

Use urban locations and the area labelled Zone C as the broad locational area in which strategic waste management facilities should be sited.

Sustainability summary:
This option is not time specific and so has only been scored in one column. Broadly positive effects likely. Zone C avoids the floodplain and the Cotswold AONB and is near to major sources of waste arising – Gloucester and Cheltenham and Tewkesbury. Major positive effects are given against SA Objective 8 – the conservation of the natural environment, Objective 10 – preventing flooding, Objective 12 – reducing lorry impacts and Objective 15 – reducing climate change impacts.

Evidence:

Evidence and further information is detailed in the WCS (Section 6) and in Technical Evidence Paper WCS-C 'Broad Locational Analysis'.

OPTION WPO7C: Urban Locations & Zones C2, C3 and C4:

Use urban locations and areas labelled C2, C3 and C4 as the broad locational area in which strategic waste management facilities should be sited.

Sustainability summary:
This option is not time specific and so has only been scored in one column. This option is scored identically to Option WPO7B as at this broad level of assessment Zone C will not be *substantially* different from C2, C3 & C4.

Evidence:
Evidence and further information is detailed in the WCS (Section 6) and in Technical Evidence Paper WCS-C 'Broad Locational Analysis'.

OPTION WPO7D: Area C4

Use area C4 as the broad locational area for strategic waste management facilities. If land is not forthcoming then the fall-back position is to search in areas C2 and C3 and then the wider Zone C.

Sustainability summary:
This option is not time specific and so has only been scored in one column. This option is scored identically to Options WPO7B & C as at this broad level of assessment the differences between the zones are not marked.

Evidence:
Evidence and further information is detailed in the WCS (Section 6) and in Technical Evidence Paper WCS-C 'Broad Locational Analysis'.

OPTION WPO8A: Environmental Acceptability – an option derived from Waste Local Plan policies 16 and 37:

Proposals for hazardous waste development at existing hazardous waste facilities in Gloucestershire must demonstrate
'environmental acceptability'. In order to do this the following criteria will need to be met:

There should be no significant adverse impact on the environment – on land, air or water that are not capable of stringent and successful mitigation measures. Where the effects are uncertain the precautionary principle should be invoked.

There should be no significant adverse impact (including any cumulative impacts), on the following that cannot be successfully controlled, mitigated or attenuated:

- The quality of life, amenity and health of local residents and other land users;

- Any designated site for nature conservation;

- The countryside and the traditional landscape character of Gloucestershire;

- Access and the local highway network;

- The potential for successful land restoration.

Sustainability summary:

The SA Objective 1 commentary for this option states that: 'Ideally hazardous waste should be minimized and this is encouraged in the WCS. Positive scores are given as the policy is seeking to manage the hazardous waste produced by society in an environmentally acceptable way'. The scoring reflects the fact that if the sites and processes are 'environmentally acceptable' then people's health and well-being and the natural environment should be protected. Clearly if sites are not environmentally acceptable they should not be operating and would not be granted a license by the Environment Agency. Major positive scores are given against SA Objective 11 – pollution prevention - as this is the specific aim of the policy and there is reference in it to the 'precautionary principle'.

Evidence:
Evidence and further information is detailed in the WCS (Section 6) and in Technical Evidence Paper WCS-E 'Hazardous Waste', Technical Evidence Paper WCS-F 'Making Provision' and Technical Evidence Paper WCS-L 'Environmental Acceptability'.

OPTION WPO8B: Environmental Acceptability – An option derived from stakeholder views through consultation with local community representatives:

Proposals for hazardous waste development at existing hazardous waste facilities in Gloucestershire must demonstrate 'environmental acceptability'. In order to do this the following criteria will need to be met:

There should be no significant adverse impact on the environment – on land, air or water that are not capable of stringent and successful mitigation measures. Cumulative impact should also be considered. Where the effects are uncertain the precautionary principle should be invoked.

Factors that should be included in an assessment of 'environmental acceptability include:

- The quality of life, amenity and health of local residents and other land users;

- Impacts on neighbouring land-uses (including the local road network) and the potential for the achievement of appropriate 'stand-off distances' between the facility and residential properties;

- The type and scale of the facility taking account of best available technologies (not involving excessive costs);

- The need for the facility, the way it sits with existing activities and the potential wider environmental implications of not managing the waste stream;

- Potential for successful land restoration issues.

Sustainability summary:
This option would appear to be more positive, more sustainable in the medium to long term than Option 8A due to stronger protection of amenity with the inclusion of appropriate standoff distances and taking account of best available technologies. Positive or major positive scores are given against 6 of the 15 SA Objectives. There are 7 scores of 'neutral'. Effectively this means that the option is not clearly related to the objective or that while there may be some negative impacts for some communities / environments, other communities (or Gloucestershire as a whole) will benefit.

Evidence:
Evidence and further information is detailed in the WCS (Section 6) and in Technical Evidence Paper WCS-E 'Hazardous Waste', Technical Evidence Paper WCS-F 'Making Provision' and Technical Evidence Paper WCS-L 'Environmental Acceptability'.

OPTION WPO9A: A generic waste water infrastructure topic policy:

The development or expansion of water supply or waste water facilities will normally be permitted, either where needed to serve existing or proposed development in accordance with the provisions of the development plan, or in the interests of long term water supply and waste water management, provided that the need for such facilities outweigh any adverse land use or environmental impact and that any such adverse impacts can be satisfactorily mitigated.

Sustainability summary:
Broadly positive effects. Waste water infrastructure is an essential service for society helping to maintain sustainable communities and homes. Major positive impacts are likely in terms of SA Objective 3 as without waste water infrastructure serious public health issues would arise. There are a number of uncertain scores, in relation to flooding, transport issues and climate change.

Evidence:
Evidence and further information is detailed in the WCS (Section 6) and in Technical Evidence Paper WCS-H 'Sewage Treatment Facilities'.

OPTION WPO9B: Defer policy to Development Control DPD:

Sustainability summary:
This option is scored identically to WPO9A. Similar comments apply. Waste water infrastructure is vital for society. The option is broadly positive but with a number of uncertainties.

Evidence:
Evidence and further information is detailed in the WCS (Section 6) and in Technical Evidence Paper WCS-H 'Sewage Treatment Facilities'.

OPTION WPO10A: Roll forward the existing Waste Local Plan Policy 7 into the WCS:

Existing sites in permanent waste management use (including sewage and water treatment works) and proposed sites for waste management use will be safeguarded by local planning authorities. The waste planning authority will normally oppose proposals for development within or in proximity to these sites where the proposed development would prevent or prejudice the use of the site for waste management development.

Sustainability summary:
Broadly positive effects are likely given that if sites are not protected from encroachment or sterilisation by incompatible land-uses then the value of allocating sites in lessened. significantly. Obviously major positive scores against SA Objective 2 – safeguarding sites, against the rest of the objectives scores are positive or neutral.

Evidence:
Further information and evidence on this option is available in Technical Evidence Paper WCS-H 'Sewage Treatment Works' which considers wider safeguarding issues as well as issues related to sewage treatment.

OPTION WPO10B: Revise the Waste Local Plan Policy 7 to reflect the outcome of recent planning decisions and the notion of 'consultation areas':

Existing and allocated sites for waste management use will be safeguarded by local planning authorities, who must consult the waste planning authority where there is likely to be incompatibility between land-uses. Proposals that may either adversely affect, or be adversely affected by, waste management uses should not be permitted unless it can be satisfactorily demonstrated by the applicant that there would be no conflict. The waste planning authority will oppose proposals for development that would prejudice the use of the site for waste management.*

*[*this includes sewage treatment works]*

Sustainability summary:
From the SA scoring, this option appears to be more positive and more sustainable than WPO10A. There is more detail in WPO10B and it is stronger in that the phrase 'will normally oppose' has been altered to 'will oppose'. There are no

negative impacts highlighted and 12 of the 15 SA Objectives are positive or major positive.

Evidence:
Further information and evidence on this option is available in Technical Evidence Paper WCS-H 'Sewage Treatment Works' which considers wider safeguarding issues as well as issues related to sewage treatment.

OPTION WPO11A: Cumulative impacts could be included as part of the delivery mechanism for Strategic Objective 5:

To co-locate complementary facilities together, reflecting the concept of resource recovery parks, where the cumulative impact is not unacceptable on the host location.'

The following wording could be added to the end of the bullet point:

'…in terms of significant adverse impacts on environmental quality, social cohesion and inclusion or economic potential.'

Sustainability summary:
Considering cumulative impact is a requirement of PPS10. The option does not propose a specific policy; it adds wording to the delivery mechanism for WCS Strategic Objective 5. In terms of 'sustainable development' the option scores well (major positive scores against SA Objective 1). This is a result of the inclusion of the wording 'environmental quality, social cohesion and inclusion or economic potential' which covers the three broad components of sustainability. Nine scores of positive or major positive are recorded against the 15 SA Objectives. There are uncertainties over Objective 9 in terms of how material, cultural and recreational assets are potentially covered by 'impacts on environmental quality, social cohesion and inclusion or economic potential.'

Evidence:
Further information and evidence on this option is available in Technical Evidence Paper WCS-L 'Cumulative Impact'.

OPTION WPO11B: A separate cumulative impact policy in the WCS:

As part of the process to identify suitable sites and areas for waste management for new or enhanced waste management facilities, the cumulative effects of previous and existing waste disposal facilities on the well-being of local communities will be considered alongside the potential benefits of co-locating complementary facilities together. For facilities that come forward on unallocated sites, a similar cumulative impact assessment will be required.

In terms of any significant cumulative impacts, careful consideration should be given to potential adverse impacts on:

- Environmental quality;
- Social cohesion and inclusion; and
- Economic potential.

Within these broad categories, the following impacts on local communities should be given particular attention, both in terms of any individual impact and in terms of any potential cumulative impacts:

- Impact of noise
- Impact of smell
*- Traffic impact**
- Visual impact
- Impact of dust
- Health impacts

**Traffic impacts should be afforded particular attention as they are diffuse by their nature and thus not contained on sites.*

Sustainability summary:

This option is more detailed than WPO11A; it proposes wording proposed by stakeholders at waste forums, meetings and through formal consultation. There are major positive or positive scores against 10 of the 15 SA Objectives. It is likely to be a better option than WPO11A in terms of Objective 5 – protecting amenity and Objective 11 – reducing traffic impacts. Traffic impacts are afforded particular attention within the policy due to their potential for widespread off site impacts on communities and local environments.

Evidence:
Further information and evidence on this option is available in Technical Evidence Paper WCS-L 'Cumulative Impact'.

OPTION WPO12A: Policy approach based on a combination of the proposed Issues & Options policy and stakeholder representations:

Proposals for waste development within or affecting the setting of areas of outstanding natural beauty will only be permitted where:
- *There is a lack of alternative sites not affecting the AONB to serve the market need; and*
- *The impact on the special qualities of the AONB (including the landscape setting and recreational opportunities) can be successfully mitigated.*

In the case of major development proposed in the AONB a proven national interest needs to be demonstrated. Approval will only be granted in exceptional circumstances following the most rigorous examination.

Sustainability summary:
The option is broadly positive and major positive effects are anticipated in terms of SA Objective 8 – the protection of the natural environment, landscape and biodiversity and SA Objective 9 – protecting material, cultural and recreational assets. Negative effects are recorded against Objective 7 – employment, as the policy could have the effects of restricting employment opportunities in rural areas of Gloucestershire. In terms of transport issues and potential mitigation measures, there are lorry management schemes proposed and operating in the Cotswolds AONB.

Evidence:
Further information and evidence on this option is available in Joint Minerals & Waste Technical Evidence Paper WCS-MCS-4 'Landscape & AONB'.

OPTION WPO12B: An option using national guidance on AONBs as set out in PPS7:

Sustainability summary:
Broadly positive effect anticipated. At this broad level of assessment the scoring for this option (following national guidance in PP7) is the same WPO12A.

Evidence:
Further information and evidence on this option is available in Joint Minerals & Waste Technical Evidence Paper WCS-MCS-4 'Landscape & AONB'.

OPTION WPO13A: Policy solely for national archaeological issues:

Proposals for waste management which would cause damage to or involve significant alteration to nationally important archaeological remains or their settings, whether scheduled or not, will not be permitted.

Sustainability summary:
Gloucestershire is rich in important archaeological remains and historic monuments. The effects of this option as tested against the SA Objectives are broadly positive or neutral. A large number of neutral scores are given due to the fact that the policy is a focused one. Major positive effects are likely (as expected) in terms of SA Objective 9 - To protect conserve and enhance Gloucestershire's material, cultural and recreational assets including its architectural and

archaeological heritage.

Evidence:
Further information and evidence on this option is available in Joint Minerals & Waste Technical Evidence Paper WCS-MCS-6 'Archaeology '.

OPTION WPO13B: No specific policy in the WCS but text in the WCS to state that waste development proposals will be determined in accordance with national policy set out in PPG15 and PPG16 for national archaeological issues:

Sustainability summary:
This option advocates following national guidance in PPG15 and PPG16 rather than including a specific policy in the WCS. It is likely that archaeological issues will be fully considered in subsequent DPDs – to be produced, in particular the Waste Development Control Policies DPD. Clearly archaeology will also be an important consideration in terms of any sites assessment, as it is at the planning application stage. This option is scored identically to WPO13A. No negative impacts are envisaged through the SA scoring.

Evidence:
Further information and evidence on this option is available in Joint Minerals & Waste Technical Evidence Paper WCS-MCS-6 'Archaeology '.

OPTION WPO14A: No specific policy in the WCS but text in the WCS to state that waste development in the green belt is to be in accordance with PPG2 & PPS10:

Sustainability summary:
Some of the County's key waste management sites (e.g. hazardous and non hazardous landfills, Material Recovery Facilities (MRFs) are located within the Gloucester / Cheltenham Green Belt. This option essentially follows government policy in PPG2 and PPS10. In the test against the SA Objectives the results are broadly positive / neutral. A neutral effect may indicate that effects may be negligible or unrelated or that some communities / environments may be affected whilst others (such as the wider community of Gloucestershire or 'the South West') may benefit. Positive scores are given in terms of broad sustainability, protection of health and well being, conserving and enhancing assets and the restoration of minerals sites. But potential unsustainable elements include the issue of transport and development being deflected beyond Green Belts.

Evidence:
Further information and evidence on this option is available in Technical Evidence Paper WCS-I 'Waste Facilities in the Green Belt'.

OPTION WPO14B: Revise WLP Policy 35 to reflect guidance in PPS10 in relation to waste management in Green Belts:

(Part A) Waste management in the Green Belt (not re-using an existing building)
Waste management development in the green belt (not re-using an existing building) will need to demonstrate a particular identified locational need to contribute to sustainable waste management in Gloucestershire. This would require rigorous justification against the following criteria:

It will only be permitted in very special circumstances where it does not conflict with the purposes of the green belt designation. For Gloucestershire, the following may constitute 'very special circumstances':

- The facility is of a type that can demonstrate particular locational needs by being:

a)Proximate to major sources of waste arisings; or

b)Directly linked to landfill or other waste management operations enabling significantly reductions in the amount of waste going to landfill.

The wider environmental and economic benefits of sustainable waste management in the green belt are also material considerations that should be given significant weight.

(Part B) The re-use of a building for waste management purposes in the Green Belt
The re-use of a building for waste management purposes in the green belt will be permitted provided:

a) It does not have a materially greater impact than the present use on the openness of the green belt and the purpose of including land in it;

b) The building is of permanent and substantial construction and is capable of conversion without major or complete reconstruction; and

c) The form, bulk and general design of the buildings is in keeping with its surroundings. Poor design will be rejected.

Sustainability summary:
This option is in the form of a detailed policy to be included in the WCS. The policy covers 'Waste management in the Green Belt not re-using an existing building' and 'The re-use of a building for waste management purposes in the Green Belt. The policy reflects the views of consultees / stakeholders, takes account of local circumstances and accords with Government policy in PPG2 and PPS10. In the test of the option against the SA Objectives, the results are broadly positive / neutral. As for WPO 14A, A neutral effect may indicate that effects may be negligible or unrelated or that some communities / environments may be affected whilst others (such as the wider community of Gloucestershire or 'the South West') may benefit. This option is scored very similarly to WPO14A, but it is more positive in terms of reflecting local circumstances and waste management need in Gloucestershire.

Evidence:
Further information and evidence on this option is available in Technical Evidence Paper WCS-I 'Waste Facilities in the Green Belt'.

OPTION WPO14C: A statement in the WCS requiring alterations to the defined green belt boundary, by means of appropriate 'inset' sites, to meet any specific identified need for waste management facility(s):

Sustainability summary:
This option is not a policy as such but is presented in the form of a statement. It is an option that may be pursued in conjunction with Options WPO14A and WPO14B. It closely follows requirements in PPS10 to recognize the particular locational needs of some types of waste management facilities when defining Green Belt boundaries. In the test against the 15 SA Objectives the results were broadly positive or neutral (see WPO14A &B for comments on neutral scores). Clearly assessments for any sites work or any Green Belt review will address the issues that have been raised here at a broad strategic level in greater detail.

Evidence:
Further information and evidence on this option is available in Technical Evidence Paper WCS-I 'Waste Facilities in the Green Belt'.

OPTION WPO15A: This option follows the PPS9 approach for nationally designated sites (SSSIs) but is proposed to make users of the WCS explicitly aware of the approach that the WPA will take in assessing proposals that affect such designations:

For proposals affecting Sites of Special Scientific Interest the precautionary principle will be followed. Planning permission will not be granted for waste development which would conflict with the conservation, management and enhancement of Sites of Special Scientific Interest unless the harmful aspects can be successfully mitigated. The benefits of the development need to clearly outweigh the impact it is likely to have on the features of the site that make it of special scientific interest and/or any broader impacts on the national network of SSSIs.

Sustainability summary:
Against the test of the 15 SA Objectives Option WPO15A is broadly positive. There are major positive scores in terms of

Objectives 8 - protect, conserve and enhance Gloucestershire's wildlife and natural environment and Objective 11 - preventing pollution. In terms of Objective 11, the score is 'major positive' due to the fact that the policy refers to the precautionary principle. There are a number of neutral / unrelated scores but this is because the policy has a very specific environmental / SSSI focus.

Evidence:
For further information / evidence see Joint Minerals & Waste Evidence Paper WCS-MCS-5 'Biodiversity'.

OPTION WPO15B: This option relies on national policy in PPS9:

Sustainability summary:
In terms of the test of this option against the SA Objectives the results are broadly positive. The scores and comments for this option are broadly the same as for WPO15A although the scores for Objective 11 are positive rather than major positive. Similar comments apply as for WPO15A.

Evidence:
For further information / evidence see Joint Minerals & Waste Evidence Paper WCS-MCS-5 'Biodiversity'.

5.3 Other options considered, and why these were rejected

Option / policy approach in early draft of the WCS Preferred Options:	Change following SA scoring exercise and officer discussion:
Three policies relating to sewage infrastructure provision as follows: ▪ WPO9a: To set out a generic topic policy concerning provision of waste infrastructure for new / existing development, with elaboration on criteria in the supporting text. ▪ WPO9b: To set out criteria in a generic topic policy on waste infrastructure. ▪ WPO9c: To set out a strategic topic related policy on waste infrastructure provision that identifies preparation of the Development Control development plan document as the appropriate place to set out the criteria.	Rationalisation into two policies: ▪ WPO9a: Set out a generic waste water infrastructure topic policy concerning provision of new/existing development, with PPS10 (Annex E) criteria to be referred to in the supporting text. The development or expansion of water supply or waste water facilities will normally be permitted, either where needed to serve existing or proposed development in accordance with the provisions of the development plan, or in the interests of long term water supply and waste water management, provided that the need for such facilities outweigh any adverse land use or environmental impact and that any such adverse impacts can be satisfactorily mitigated. ▪ WPO9b: Defer preparation of a policy on waste water infrastructure to the development control development plan document, where specific criteria will be provided for determining proposals.
An option on regionally and locally important landscapes as follows: ▪ WPO13b: An option including regionally and locally important landscapes alongside other areas requiring protection: Proposals for waste development which are likely to have a significant adverse effect on the following must, where appropriate, make provision to safeguard or satisfactorily mitigate those impacts and, where possible, enhance their attributes in the long-term:	This option was tested against the SA Objectives and it became apparent that at a Core Strategy level this policy would not be appropriate. During the Issues and Options consultation it was indicated that only nationally designated landscapes (and other designations) would be considered. Regional and local landscapes will be covered in the subsequent Development Control DPD.

2. Local Nature Reserves; 3. Key Wildlife Sites; 4. Wildlife corridors; 5. Regionally Important Geological/Geomorphological Sites (RIGS); 6. Ancient Semi Natural Woodland; 7. Locally Important Archaeological Sites and Settings, and other features of the historic environment; 8. Locally Important Parks & Gardens.	
Early drafts lacked appropriate policies on the protection of nationally important archaeology.	Appropriate policies were added and went through the SA scoring exercise.
Early drafts lacked appropriate policies SSSI protection (although there was no requirement to consider International sites and species which are protected by law and through the Appropriate Assessment (AA) / Habitat Regulations Assessment process).	Through the SA scoring exercise and through meetings with the County ecologist policies were formulated and they went through a further SA scoring exercise.

5.4 Any proposed mitigation measures

Various mitigation measures are outlined within the policies outlined. Stakeholders have the opportunity through the Preferred Options consultation, as they did on the Issues & Options consultation to assess the appropriateness of these measures. The SA report that will accompany the WCS at Submission will outline mitigation measures in greater detail. However at this stage some generic mitigation measures may potentially include:

■ Mitigation through appropriate and sensitive design measures or landscaping which may enable waste management facilities to function with less visual impact and less detrimental impact of amenity;

■ The co-location of facilities helping to minimise the number of areas where new impacts will be introduced;

■ The possible use of in-vessel or tunnel composting technology in order to limit odour and dust problems particularly for urban facilities, should these come forward;

■ The effective pre-treatment and management of wastes in storage leading to the prevention of contamination by dust, leachate, and run-off of materials such as nitrates from biodegradable and agricultural wastes in store;

■ The effective use of planning conditions imposing appropriate design and operational controls on new facilities;

■ The continued screening and scoping of proposals to assess the need for an Environmental Impact Assessment;

■ Making the best use of existing waste management infrastructure with current permissions to reduce the number of areas affected by new impacts.

Section 6. Next stages & implementation matters

6.1 Uncertainties and risks

There are potentially a number of uncertainties and risks in terms of all of the options presented in the WCS. One of the more significant risks relates to the work of the Waste Disposal Authority (WDA) and their pressing need to meet Landfill Allowance Trading Scheme (LATS) targets. This matter is considered in Paragraph / Section 3.3 and relates to Options WPO6A, B, C & D. Further details on uncertainties and risks will be in the included in the SA report that will accompany the WCS Submission document.

6.2 Links to other tiers of plans and programmes and the project level

The SA Framework has demonstrated numerous links with other plans and programmes at the plan making level, see the Context Report (Update 2) and Paragraph 3.1 of this report. In terms of the project level the WCS details (in Section 7) how the policies will be implemented and what sort of delivery mechanisms are, or will be in place. The Waste Core Strategy will form the broad strategy for subsequent DPDs that are programmed, namely, the Development Control Policies DPD and the Waste Site Allocations DPD. Clearly with these subsequent DPDs (particularly for DC Policies) there are links to the Environmental Impact Assessment (EIA) regulations. There are also links to the work of the Waste Disposal Authority (WDA) in terms of the Joint Municipal Waste Management Strategy and the Residual Action Plan.

6.3 Proposal for monitoring

The strategic vision, objectives and policies of the WCS DPD will be delivered in the context of the MWDF as a whole, and the wider policy framework which sits alongside the planning system. Gloucestershire County Council is required under the Planning and Compulsory Purchase Act to prepare an Annual Monitoring Report (AMR) to assess the extent to which policies DPD are being implemented. The most recent AMR (2006-2007) includes the following:

- Monitoring Objectives – aligned to SA Objectives.
- Contextual Indicators.
- Output Indicators – 'Core' and 'Local'.
- Targets.

In Article 10.1, the SEA Directive requires that '*member states shall monitor the significant environmental effects of the implementation of plans or programmes… in order, inter alia, to identify at an early stage, unforeseen adverse effects, and be able to undertake appropriate remedial action'* and that the Environmental Report should provide information on *'a description of the measures envisaged concerning monitoring'* (Annex 1 (i)). The ODPM's SA Guidance states that monitoring proposals should be designed to provide information that can be used to highlight specific issues and significant effects, and which could help decision-making. This represents Task E1 in the ODPM's SA Guidance. The guidance states that it is not necessary to monitor everything, rather that monitoring should be focussed on the significant sustainability effects that may give rise to irreversible damage. This is with a view to identifying trends before damage is caused. In terms of the Gloucestershire's WCS SA process Stage E1 has not yet been reached. A full schedule of monitoring measures proposed (focusing on significant effects) will be included in the final SA Report that will accompany the Waste Core Strategy Submission Document. However at this stage the table below considers the range of monitoring proposals against each option presented in the WCS.

WCS Preferred Options	**Proposed Monitoring*** (Details on monitoring are contained in Joint Technical Evidence Paper WCS-MCS-7 and in statutory Annual Monitoring Reports) *Changes may be made prior to the submission of the WCS
OPTION WPO1: The Vision - 'By 2026 Gloucestershire will be a clean, green, healthy and a safe place in which to live, work and visit. It will be a County whose inhabitants proactively minimise waste production to achieve zero	Percentage of total waste (or by type) going to landfill. Recycling & composting rates in the County, facility numbers and the performance of Household Recycling Centres.

growth by 2020 and where opportunities for re-using and recycling waste are maximised'.	Average life expectancy and % of people describing their health as good. % of SSSIs and other designations in a good or favourable condition. Number of planning consents in AONB by type.
OPTION WPO2: 5 Strategic objectives.	Similar to the above for the proposed vision.
OPTION WPO3A: An option that effectively rolls forward WLP Policy 36 with a few word changes to strengthen the policy.	Number of 'Major' applications being submitted with a Waste Minimisation Statement (WMS). Recycling & composting rates in the County for various waste streams.
OPTION WPO3B: This approach is led by the principles of waste minimisation and as such provides a flexible approach to waste minimisation.	Broadly as for WPO3A.
OPTION WPO3C: This approach is more rigid than the first two policy options in that it states exactly what the applicant/developer needs to provide in support of their proposals.	Broadly as for WPO3A.
OPTION WPO4A: A criteria based approach on a case-by-case basis (strategic & local composting/recycling facilities).	Percentage of recyclable / compostable waste going to landfill. Recycling & composting rates in the County for various waste streams. Numbers of strategic recycling / composting facilities in the County. Numbers of local recycling / composting facilities in the County.
OPTION WPO4B: Criteria for site identification in a DPD (strategic & local composting/recycling facilities).	Broadly as for WPO4A.
OPTION WPO4C: A combination approach (requires two policies, one for local scale and another for strategic composting/recycling facilities).	Broadly as for WPO4A.
OPTION WPO4D: An Area of Search approach (strategic & local composting/recycling facilities).	Broadly as for WPO4A.
OPTION WPO5A: A policy encouraging the development of a resource economy.	Number of planning applications for facilities processing recyclable materials. Number of businesses / industries producing goods of recycled origin.
OPTION WPO5B: A policy encouraging the development of a resource economy, working in partnership with other organisations.	Broadly as for WPO5A. Levels of partnership working / joint initiatives.
OPTION WPO6A: A general 'recovery' policy (i.e. not process-specific) that applies county-wide. For example rolling forward the existing WLP Policy 15 taking into account the National Waste Strategy.	Permitted capacity of residual waste facilities contributing to reducing waste to landfill.
OPTION WPO6B: The addition of a paragraph to the end of Option WPO6a to address specific MSW requirements from the JMWMS Residual Action Plan.	Permitted capacity of MSW residual waste facilities contributing to reducing waste to landfill and meeting LATS targets.
OPTION WPO6C: Site Specific Approach – strategic sites will be allocated in a Waste Site Allocations DPD based on criteria.	Broadly as for WPO6B.
OPTION WPO6D: Broad Locational Approach.	Broadly as for WPO6B.
OPTION WPO7A: A Broad Search Area.	Number of waste facilities within this area. Extent of Floodplain, AONB, SSSIs and other sensitive designations. Number of planning consents issued adversely affecting nature conservation designations. Number of planning consents issued adversely affecting historic environment designations. Number of planning consents issued contrary to advice of Environment Agency on grounds of flood risk or water quality.

	Number/extent of planning consents issued contrary to advice of Environment Agency or local environmental health officers on air quality grounds.
OPTION WPO7B: Urban Locations & Zone C.	Broadly as for WPO7A.
OPTION WPO7C: Urban Locations & Zones C2, C3 and C4.	Broadly as for WPO7A.
OPTION WPO7D: Area C4.	Broadly as for WPO7A.
OPTION WPO8A: Environmental Acceptability – an option derived from Waste Local Plan policies 16 and 37.	Monitoring of existing Hazardous waste sites, by the Environment Agency, District Environmental Health and the County Council as Waste Planning Authority in line with regulation, planning consents and criteria in policy.
OPTION WPO8B: Environmental Acceptability – An option derived from stakeholder views through consultation with local community representatives.	As above.
OPTION WPO9A: A generic waste water infrastructure topic policy.	Number of Sewage Treatment Works / pumping stations and associated infrastructure permitted / refused. Number of incidents of river or other pollution associated with waste water infrastructure.
OPTION WPO9B: Defer policy to Development Control DPD.	As above.
OPTION WPO10A: Roll forward the existing Waste Local Plan Policy 7 into the WCS.	Number of sites allocated safeguarded. To be monitored following completion of Waste Site Allocations DPD.
OPTION WPO10B: Revise the Waste Local Plan Policy 7 to reflect the outcome of recent planning decisions and the notion of 'consultation areas'.	As above.
OPTION WPO11A: Cumulative impacts could be included as part of the delivery mechanism for Strategic Objective 5.	Cumulative impacts of waste facilities as per the proposed delivery mechanism / policy.
OPTION WPO11B: A separate cumulative impact policy in the WCS.	Cumulative impacts of waste facilities as per the proposed delivery mechanism / policy.
OPTION WPO12A: Policy approach based on a combination of the proposed Issues & Options policy and stakeholder representations.	Number of planning consents in AONB by type.
OPTION WPO12B: An option using national guidance on AONBs as set out in PPS7.	Number of planning consents in AONB by type.
OPTION WPO13A: Policy solely for national archaeological issues.	Number of waste planning consents issued adversely affecting historic environment designations.
OPTION WPO13B: No specific policy in the WCS but text in the WCS to state that waste development proposals will be determined in accordance with national policy set out in PPG15 and PPG16 for national archaeological issues.	As above.
OPTION WPO14A: No specific policy in the WCS but text in the WCS to state that waste development in the Green Belt is to be in accordance with PPG2 & PPS10.	Extent of Green Belt coverage. Number of general planning consents issued in the Green Belt. Number of waste planning consents issued in the Green Belt.
OPTION WPO14B: Revise WLP Policy 35 to reflect guidance in PPS10 in relation to waste management in Green Belts.	As above.
OPTION WPO14C: A statement in the WCS requiring alterations to the defined Green Belt boundary, by means	Extent of Green Belt coverage.

of appropriate 'inset' sites, to meet any specific identified need for waste management facility(s).	
OPTION WPO15A: This option follows the PPS9 approach for nationally designated sites (SSSIs) but is proposed to make users of the WCS explicitly aware of the approach that the WPA will take in assessing proposals that affect such designations.	Although a policy on International sites is not required (due to their protection in law) they should be monitored along with SSSIs. Number of International, National and Local environmental designations in the County. Number of waste or other planning consents potentially affecting SSSIs and other sites. Reported levels of damage to SSSIs from development. Number and area of local nature reserves resulting from the plan.
OPTION WPO15B: This option relies on national policy in PPS9.	As above for WPO15A.

Appendix 1. Scoring systems

▶ The scoring system used in Appendix 3 and 4.

Key	
++	The Aim / Objective directly promotes the SA Objective
+	The Aim / Objective indirectly promotes the SA Objective
0	The Aim / Objective has no clear link to the SA Objective
-	The Aim / Objective indirectly contradicts the SA Objective
--	The Aim / Objective directly contradicts the SA Objective
?	Uncertain

▶ The scoring system used in Appendix 5.

Key	
++	Major positive effect
+	Positive effect
0	Neutral effect
-	Negative effect
--	Major negative effect
?	Uncertain

▶ Definition of terms in Appendix 5.

S = Short term effects – Broadly up to 5 years	**M =** Medium term effects – Broadly 5 to 10 years	**L =** Long term effects – Broadly 10 years or more

● **Significant** - "extensive or important enough to merit attention."
Reference: http://www.askoxford.com/concise_oed/significant?view=uk

● **Cumulative effects** arise, for instance, where several developments each have insignificant effects but together have a significant effect; or where several individual effects (e.g. noise, dust and visual) have a combined effect.

● **Secondary or indirect effects** are effects that are not a direct result, but occur away from the original effect or as a result of a complex pathway. Examples of secondary effects are a development that changes a water table and thus affects the ecology of a nearby wetland; and construction of one project that facilitates or attracts other developments.

● **Synergistic effects** interact to produce a total effect greater than the sum of the individual effects. Significant synergistic effects often occur as habitats, resources or human communities get close to capacity. For example, a wildlife habitat can become progressively fragmented with limited effects on a particular species until the last fragmentation makes the areas too small to support the species at all. On the other hand, beneficial synergistic effects may occur when a series of major transport, housing and employment developments in a sub-region, each with their own effects, collectively reach a critical threshold so that both the developments as a whole and the community benefiting from them become more sustainable.

Reference: (Office of the Deputy Prime Minister 2005) Sustainability Appraisal of Regional Spatial Strategies and Local Development Documents.

Appendix 2. Options considered at Issues & Options stage and the links with the Preferred Options

Issue W1: The Spatial vision.

■ **Option 1:** (Business as usual) Current vision in the adopted Waste Local Plan.

■ **Option 2:** "A sustainable and educational waste management system for Gloucestershire that reduces waste produced from businesses and households as a priority and diverts waste from landfill."

As detailed in the Waste Core Strategy Issues & Options Paper SA Report (July 2006) the option that was favoured in terms of the various SA tests and scoring exercises was Option 2. The vision in the Preferred Options paper is significantly more detailed than the favoured vision at Issues and Options. Full details of how the revised vision came about can be found in **Technical Evidence Paper WCS-B 'Spatial Portrait and Vision'**. There has been a considerable amount of stakeholder engagement in discussing and determining what is an appropriate Vision for the County. Additionally it is based on a number of documents including the Gloucestershire Waste Local Plan, the Gloucestershire Community Strategy and the Joint Municipal Waste Management Strategy.

Issue W2: Determining the time period over which the WCS operates.

■ **Option 1:** (Business as usual) Gloucestershire Waste Local Plan to 2012.

■ **Option 2:** Up to the year 2018.

■ **Option 3:** Up to the year 2020.

■ **Option 4:** Up to the year 2026.

At Issues & Options stage the SA revealed some uncertainties in terms of the longer time frames, but a number of stakeholders, not least the Government Office for the South West (GOSW) considered that 2026 was appropriate given that it ties in with RSS timescales. Thus the vision in the Preferred Options looks to 2026 and seeks to achieve zero waste growth by 2020.

Issue W3: Implementing the waste hierarchy.

■ **Option 1:** (Business as usual) Proactively minimising waste generation.

■ **Option 2:** Focus on recycling.

■ **Option 3:** Recovering value (energy) from waste.

It was stated at Issues & Options that these options were not mutually exclusive. The 'Proactively minimising waste generation' approach has been incorporated into Strategic Objective A and options within the 'Waste Reduction' section of the Preferred Options paper through Policies WPO3A, B & C. The 'Focus on recycling' approach has been incorporated into Strategic Objectives A & B and options within the 'Re-use, recycling, composting and recovery' section of the Preferred Options paper. 'Recovering value (energy) from waste' is addressed in the Preferred Options by means of Strategic Objective B and the options within the 'Re-use, recycling, composting and recovery' section.
Further details are provided in **Technical Evidence Paper WCS-D 'Implementing the Waste Hierarchy'**.

Issue W4: Making appropriate provision.

■ **Option 1:** (Business as usual)

■ **Option 2:** Identifying sites in a DPD.

■ **Option 3:** Not identifying sites – having a criteria based policy.

■ **Option 4:** A mix of identifying some sites and also using criteria based policies.

At Issues & Options stage the SA Report summary stated: *'The option over which there is considerable uncertainty is Option 3. Options 1 & 2 are identically scored as identifying sites in the plan is the current practice. Option 4 is the most positive option in terms of the tests against the SA Objectives'.* In terms of the Preferred Options these broad approaches have been taken forward and are now incorporated as Preferred Options in: WPO4A, B, C & D (in relation to strategic and local composting facilities) and WPO6A, B, C & D (in relation to recovery facilities). All these options are integrally linked to the Locational Strategy (Section 6 of the WCS Preferred Options paper). Further detail are provided in **Technical Evidence Paper WCS-A 'Waste Data', Technical Evidence Paper WCS-C 'Broad Locational Analysis'** and **Technical Evidence Paper WCS-D 'Implementing the Waste Hierarchy'**.

Issue W5: Setting out a spatial strategy.

■ **Option 1:** Town locations.

■ **Option 2:** Edge of town locations.

■ **Option 3:** Rural locations.

■ **Option 4:** Centralised facilities.

■ **Option 5:** Dispersed facilities.

■ **Option 6:** A combination of facilities. (Business as usual).

At Issues & Options stage the SA indicated that a combination of facilities was likely to be the most sustainable approach. This approach has been further refined and developed through the Locational Strategy in the Preferred Options document (Section 6) and options WPO7A, B, C & D. A number of diagrams are associated with these options. Further details are provided in **Technical Evidence Paper WCS-C 'Broad Locational Analysis'**.

Issue W6: Implementing the Joint Municipal Waste Management Strategy.

■ **Option 1:** (Business as usual)

■ **Option 2:** A flexible criteria based approach.

■ **Option 3:** A prescriptive approach with particular facility types at particular locations.

■ **Option 4:** A combination approach.

At Issues & Options stage the SA indicated that in terms of implementing the Joint Municipal Waste Management Strategy a combination approach was the most sustainable option. The Waste Disposal Authority (WDA) and the Waste Planning Authority (WPA) have liaised closely in the preparation of their respective strategies (The Joint Municipal Waste Management Strategy (JMWMS) and the Residual Procurement Plan) in order to ensure a joined up approach for delivering sustainable waste management appropriate to its particular circumstances. In terms of the Preferred Options the approach at Issues and Options has been taken forward and is now incorporated in Options WPO6A, B, C & D found in Section 5 'Re-use, recycling, composting and recovery'. Further details are provided in **Technical Evidence Paper WCS-A 'Waste Data', Technical Evidence Paper WCS-C 'Broad Locational Analysis'** and **Technical Evidence Paper WCS-D 'Implementing the Waste Hierarchy'**.

Issue W7a: Cumulative impact.

■ **Option 1:** Having a policy framework against which cumulative impact can be assessed.

■ **Option 2:** Having a policy framework where cumulative impacts are not a specific consideration.

At Issues & Options stage the SA indicated that having a policy framework addressing cumulative impact would be the most sustainable option. The option scored as 'positive' or 'major positive' against 8 of the 15 SA Objectives. It was particularly positive in terms of 'protecting health and well-being'. The WCS Preferred Options carries this forward in presenting two options WPO11A and WPO11B. WPO11B is a detailed policy reflecting the views of stakeholders through consultation, forums and other meetings. For full details see: **Technical Evidence Paper WCS-L 'Cumulative Impact'**.

Issue W7b: Safeguarding sites.

■ **Option 3:** (Business as usual) Safeguarding sites.

■ **Option 4:** Not safeguarding sites.

In relation safeguarding options, at Issues & Options stage the SA indicated that having a policy framework that did safeguard some sites was the sustainable way ahead. This has been reflected in the Preferred Options through options WPO10A and WPO10B. This issue is fully consistent with PPS10 and further details are provided in **Technical Evidence Paper WCS-H 'Sewage Treatment Facilities'**.

Issue W8: Making an appropriate contribution to local, regional and national hazardous waste management requirements.

■ **Option 1:** (Business as usual).

■ **Option 2:** Safeguarding current hazardous waste management capacity if deemed to be environmentally acceptable.

■ **Option 3:** Minimising hazardous waste at source.

At Issues & Options stage the SA Report summary stated that: *'These options are not mutually exclusive. Minimising waste at source scores very highly against the SA Objectives as would be expected.'* The 'Safeguarding current hazardous waste capacity…' approach has been incorporated into the Preferred Options paper by means of Policies WPO8A and WPO8B which both deal with 'environmental acceptability' as referred to in Draft Regional Spatial Strategy (RSS) Policy W3. In terms of the issue of minimising hazardous waste at source, this clearly scored very well in the SA tests at Issues and Options. Thus it is reflected in the Preferred Options document in Section 4 'Waste Reduction' and in particular in Option WPO3C. further details are provided in **Technical Evidence Paper WCS-A 'Waste Data'**, **Technical Evidence Paper WCS-E 'Hazardous Waste'** and **Technical Evidence Paper WCS-M 'Environmental Acceptability'**.

Issue W9: The appropriateness of proposals for new waste management facilities in the Green Belt.

■ **Option 1:** (Business as usual)

■ **Option 2:** New waste management facilities in the Green Belt.

■ **Option 3:** No new waste management facilities in the Green Belt.

■ **Option 4:** Redefining the Green Belt.

At Issues & Options stage the SA Report indicated that Option 4, Redefining the Green Belt was the most sustainable option. There we a number of negative scores against the SA Objectives for Option 3: 'No new waste management facilities in the Green Belt'. In terms of the how issues have been carried forward into the Preferred Options, they are covered in Policies WPO14A, B, C. For more details see **Technical Evidence Paper WCS-I 'Waste Facilities in the Green Belt'**.

Issue W10: Policies for dealing with proposals for new waste management facilities in other nationally designated areas.

■ **Option 1:** (Business as usual) Rolling forward current policies.

■ **Option 2:** Amending and adding to currently saved policies.

At Issues & Options stage the SA Report indicated that amending and adding to the saved policies in the plan would be the most sustainable approach. The Preferred Options document has reflected this in Section 6 'Locational Strategy' and the following policies:
- WPO12A & WPO12B (Relating to proposals for waste management in Areas of Outstanding Natural Beauty -AONB).
- WPO13A & WPO13B (Relating to nationally important archaeology).
- WPO15A & WPO15B (Relating to Sites of Special Scientific Interest - SSSI).

For more details see **Joint Minerals & Waste Technical Evidence Paper WCS-MCS-4 'Landscape & AONB'**, **Joint Minerals & Waste Technical Evidence Paper WCS-MCS-5 'Biodiversity'**, **Joint Minerals & Waste Technical Evidence Paper WCS-MCS-6 'Archaeology'**.

Issue W11: The SA Report.

An SA Report was produced at Issues and Options stage and consulted on along with the WCS Issues and Options document. This is the SA Report for the WCS Preferred Options.

Issue W12: Other issues.

Sewage treatment is an issue that was not addressed in detail in the Issues and Options document, but following the consultation and subsequent evidence gathering meetings, two policy options have been included in the Preferred Options document. See **Technical Evidence Paper WCS-H 'Sewage Treatment Facilities'** for further details.

Appendix 3. Compatibility with the key planning objectives of Planning Policy Statement 10 (PPS10)

1. Help deliver sustainable development through driving waste management up the waste hierarchy, addressing waste as a resource and looking to disposal as the last option, but one which must be adequately catered for.
2. Provide a framework in which communities take more responsibility for their own waste, and enable sufficient and timely provision of waste management facilities to meet the needs of their communities.
3. Help implement the national waste strategy, and supporting targets, are consistent with obligations required under European legislation and support and complement other guidance and legal controls such as those set out in the Waste Management Licensing Regulations 1994.
4. Help secure the recovery or disposal of waste without endangering human health and without harming the environment, and enable waste to be disposed of in one of the nearest appropriate installations.
5. Reflect the concerns and interests of communities, the needs of waste collection authorities, waste disposal authorities and business, and encourage competitiveness.
6. Protect green belts but recognise the particular locational needs of some types of waste management facilities when defining detailed green belt boundaries and, in determining planning applications, that these locational needs, together with the wider environmental and economic benefits of sustainable waste management, are material considerations that should be given significant weight in determining whether proposals should be given planning permission.
7. Ensure the design and layout of new development supports sustainable waste management.

Key Planning Objectives of PPS10 ➔ **Waste Core Strategy Options ⬇**	Key Planning Objective 1	Key Planning Objective 2	Key Planning Objective 3	Key Planning Objective 4	Key Planning Objective 5	Key Planning Objective 6	Key Planning Objective 7
WPO1	++	++	++	++	++	++	++
WPO2 A	++	++	++	++	++	++	+
B	+	+	+	+	+	+	0
C	+	+	+	+	+	+	+
D	+	+	+	++	+	+	0
E	+	+	+	++	+	+	0
WPO3A	++	++	++	++	++	++	++
WPO3B	++	++	++	++	++	++	++
WPO3C	++	++	++	++	++	++	++
WPO4A	++	++	++	++	++	+	0
WPO4B	++	++	++	++	++	+	0
WPO4C	++	++	++	++	++	+	0
WPO4D	++	++	++	++	++	+	0
WPO5A	++	++	++	++	++	+	+

WPO5B	++	++	++	++	++	+	+
WPO6A	++	++	++	++	++	+	0
WPO6B	++	++	++	++	++	+	0
WPO6C	++	++	++	++	++	+	0
WPO6D	++	++	++	++	++	+	0
WPO7A* (see additional comments on scores below)	++	++	++	?	?	+	0
WPO7B* (see additional comments on scores below)	++	++	++	++	?	?	0
WPO7C* (see additional comments on scores below)	++	++	++	++	?	?	0
WPO7D* (see additional comments on scores below)	++	++	++	++	?	+	0
WPO8A* (see additional comments on scores below)	++	?	?	+	+	+	0
WPO8B* (see additional comments on scores below)	++	?	?	++	+	+	0
WPO9A	++	++	++	++	++	+	++
WPO9B	++	++	++	++	++	+	+
WPO10A	++	++	++	++	++	+	0
WPO10B	++	++	++	++	++	+	0
WPO11A	+	+	++	++	+	0	0
WPO11B	+	+	++	++	++	0	0
WPO12A	+	+	+	++	+	0	0
WPO12B	+	+	+	++	+	0	0
WPO13A	+	+	+	++	+	0	0
WPO13B	+	+	+	++	+	0	0
WPO14A	+	+	+	+	+	++	0
WPO14B	+	+	+	+	+	++	0
WPO14C	+	+	+	+	+	++	0
WPO15A	0	0	0	++	+	0	+
WPO15B	0	0	0	++	+	0	+

Additional comments on certain scores above:

Option:	Comment:
WPO7A	Uncertain scores are given for PPS10 Key Planning Objective 4 because the broad 16km area of search (following RSS Policy W2) may result in facilities being located at some distance from waste arisings and thus perhaps not fully in the spirit of this objective. Uncertain scores are given for 5 because the concerns and interests of local communities may be different on this matter to the needs of waste collection and waste disposal authorities. It depends to some degree on the definition of 'communities'. Gloucestershire could be described as a community, thus it is not clear within this option whom the affected 'communities' might be. Positive scores are given for PPS10 Key Planning Objective 6 because the option is a wide one (in locational terms), and thus it may be less likely that Green Belt land will be utilised.
WPO7B	The same comments as for WPO7A broadly apply to WPO7B in terms of 'the concerns and interests of communities'. In terms of impacts on the Green Belt, there are uncertainties because there is Green Belt land within Zone C.
WPO7C	The same comments as for WPO7B broadly apply to WPO7C.
WPO7D	Uncertainties in terms of whom the affected 'communities' might be. Positive score in terms of the Objective 6 because Zone C4 does not contain Green Belt. (However this could change depending on policy in the RSS).
WPO8A	Uncertain scores are given for PPS10 Key Planning Objectives 2 because some types of hazardous waste are imported into Gloucestershire (and thus does this represent communities taking responsibility for the waste that they produce?). However Gloucestershire also exports certain hazardous wastes. In terms of Key Planning Objectives 3 hazardous waste does not fit neatly into the waste hierarchy and there are no national targets.
WPO8B	Same comments as for WPO8A apply.

Appendix 4. Testing the strategic plan objectives against the SA objectives

Waste Core Strategy Objectives → / **SA Objectives** ↓	**A.** To influence Gloucestershire's residents to reduce the amount of waste they produce, through raising awareness of waste issues. And then subsequently to encourage them to view any waste they do generate as a resource for which they must take communal responsibility.	**B.** To make the best use of Gloucestershire's waste by encouraging competitive markets for goods made from recycled materials and obtaining a benefit (value) from left over (residual) waste materials.	**C.** To preserve and enhance the quality of Gloucestershire's environment and to avoid undesirable environmental effects, including risks to human health and unacceptable impacts on designated landscapes / nature conservation sites.	**D.** To reduce the environmental impacts of transporting waste by managing the majority of Gloucestershire's waste within a reasonable distance from its source of arising, and to encourage the use of sustainable means of transporting waste.	**E.** To co-locate similar or related facilities on existing waste sites or previously developed sites in preference to undesignated green-field locations (where appropriate) and to safeguard such land from development that may prevent this use.
Objective 1 To promote sustainable development and sustainable communities in Gloucestershire giving people the opportunity to live in an affordable and sustainably designed and constructed home.	++	++	++	++	+
Objective 2 To safeguard sites suitable for the location of waste management facilities, or future mineral development from other proposed development.	0	0	0	0	++
Objective 3 To protect and improve the health and well-being of people living and working in Gloucestershire as well as visitors to the County.	++	++	++	++	+

Objective 4 To promote education and economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds.	+	++	+	+	+
Objective 5 To safeguard the amenity of local communities from the potential adverse impacts of minerals and waste development.	++	++	++	++	+

Objective 6 To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society.	**0**	**0**	**0**	**0**	**0**
Objective 7 To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.	**+**	**++**	**0**	**0**	**?**
Objective 8 To protect, conserve and enhance Gloucestershire's wildlife and natural environment – its landscape and biodiversity.	**+**	**+**	**++**	**++**	**++**
Objective 9 To protect conserve and enhance Gloucestershire's material, cultural and recreational assets including its architectural and archaeological heritage.	**+**	**++**	**+**	**+**	**+**

Objective 10 To prevent flooding, in particular preventing inappropriate development in the floodplain and to ensure that development does not compromise sustainable sources of water supply.	+	0	+	0	+
Objective 11 To prevent the pollution of land, air and water in Gloucestershire and to apply the precautionary principle.	++	+	++	++	++

Objective 12 To reduce the adverse impacts of lorry traffic on communities through means such as: a) reducing the need to travel b) promoting more sustainable means of transport c) sensitive lorry routing d) the use of sustainable alternative fuels e) promoting the management of waste in one of the nearest appropriate installations.	++	?	++	++	++
Objective 13 To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity.	0	0	+	?	?

Objective 14 To reduce waste to landfill and in dealing with all waste streams to actively promote the waste hierarchy (i.e. Prevent, Reduce, Reuse, Recycle, Dispose) to achieve the sustainable management of waste	++	++	++	++	0
Objective 15 To reduce contributions to and to adapt to Climate Change	++	++	++	++	++

Sustainability summary:
Against the 15 SA Objectives none of the plan's strategic objectives produce negative results. However there are a number of neutral or uncertain scores and these could potentially be negative in some circumstances, but the majority of scores are major positive or positive. Neutral scores are given against all the strategic objectives for Objective 6 'To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society' and for most of the strategic objectives in terms of the test against Objective 2 **'**To safeguard sites suitable for the location of waste management facilities, or future mineral development from other proposed development.'

Evidence:
Further details are available in Technical Evidence Paper WCS-B 'Spatial Portrait and Vision'.

Appendix 5. Testing the options and predicting effects (Note: see Section 5.2 for the policies in full)

THE VISION AND STRATEGIC OBJECTIVES [WPO1] THE PREFERRED SPATIAL VISION FOR GLOUCESTERSHIRE

1. Test of the Option:

SA Objectives	S	M	L	Comments & Explanation	SA Objectives	S	M	L	Comments & Explanation
1. To promote sustainable development and sustainable communities in Gloucestershire giving people the opportunity to live in an affordable and sustainably designed and constructed home.	+ +	+ +	+ +	Generally very positive in the short, medium and long term.	9. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets including its architectural and archaeological heritage.	+	+	+	Broadly positive in terms of delivering a 'sustainable waste management system' and aiming to locate facilities in the most appropriate locations.
2. To safeguard sites suitable for the location of waste management facilities, or future mineral development from other proposed development.	+	+	+	Positive – delivered through a 'sustainable waste management system' delivering a network of sites.	10. To prevent flooding, in particular preventing inappropriate development in the floodplain and to ensure that development does not compromise sustainable sources of water supply.	+ +	+ +	+ +	Major positive – specifically mentions avoiding areas subject to flooding, thus applying the principles of spatial planning.
3. To protect and improve the health and well-being of people living and working in Gloucestershire as well as visitors to the county.	+ +	+ +	+ +	Very positive in terms of this objective – aiming for Gloucestershire to be a 'health and safe…' place.	11. To prevent the pollution of land, air and water in Gloucestershire and to apply the precautionary principle.	+ +	+ +	+ +	Major positive in the short, medium and long term, particularly in terms of aiming for zero waste growth by 2020.
4. To promote education and economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds.	+ +	+ +	+ +	Very positive in terms of this objective – 'raising public awareness'.	12. To reduce the adverse impacts of lorry traffic on communities through means such as: a) reducing the need to travel b) promoting more sustainable means of transport c) sensitive lorry routing d) the use of sustainable alternative fuels e) promoting the management of waste in one of the nearest appropriate installations.	+ +	+ +	+ +	Major positive in terms of efforts to reduce waste – so less to transport and also in terms of the locational strategy.
5. To safeguard the amenity of local communities from the potential adverse impacts of minerals and waste development.	+ +	+ +	+ +	Amenity issues are fully covered at a broad level.	13. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity.	0	+	+	Potentially positive impacts in the longer term if more inert waste can be utilized for mineral site restoration.
6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society.	0	+	+	Neutral in the short term. Potentially positive effects in the medium to long term given the fact that, with increased reuse and recycling of C&D waste less primary mineral may be needed.	14. To reduce waste to landfill and in dealing with all waste streams to actively promote the waste hierarchy (i.e. Prevent, Reduce, Reuse, Recycle, Dispose) to achieve the sustainable management of waste.	+ +	+ +	+ +	Major positive in the short, medium and long term, particularly in terms of aiming for zero waste by 2020.
7. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.	+	+	+ +	Broadly positive against this objective. Waste operations provide employment opportunities – particularly more labour intensive recycling activities.	15. To reduce contributions to and to adapt to Climate Change.	+ +	+ +	+ +	Major positive effects in the short, medium and long term, linked to SA Objectives 12 and 14.
8. To protect, conserve and enhance Gloucestershire's wildlife and natural environment – its landscape and biodiversity.	+ +	+ +	+ +	Very positive in terms of this objective.	/				

2. Nature of Effects:

Temporary or permanent effect:	**Geographic scale:**	**Significance and Likelihood:**
Effects could be permanent or at the least long term.	Countywide, neighboring authorities and potentially further afield.	The effects of this vision in guiding the Core strategy and the management of waste in Gloucestershire are likely to be significant over any reasonable length of time.

3. Cumulative / Secondary / Synergistic Impacts:

Potential cumulative / secondary / synergistic effects of the option	**Potential CI receptors & past / present / future human activities that have affected or will possibly affect these receptors**	**Predicted impacts on the receptor as a result of the plan in combination with other human activities, and the significance of the impacts**	**Possible mitigation measures & management suggestions and pointers for other plans & strategies**
There are potentially many positive secondary effects of the vision these may include energy and cost savings for Local Authorities and taxpayers / a cleaner environment / increased well-being for communities.	• All communities in Gloucestershire. • The natural environment. • The global climate. Human activities that have or will affect these receptors include: Waste development, minerals development, industry & commerce, retail park development, house building, increased car use.	Positive impacts may include: Possible reduced costs to Local Authorities meaning that Council Tax may be allocated to other areas of need. A cleaner environment both in urban areas and the countryside – promoting health and well-being. Potentially more visitors to the County to experience and enjoy a high quality environment – boosting the local economy. Impacts on mineral sites – potentially problems completing restoration schemes due to lack of inert materials.	Positive effects – mitigation not necessary. Other plans and strategies should actively promote the vision - aiming to minimise waste and manage that which is produced in the most sustainable way.

4. Sustainability Summary:

The vision is a very well balanced and comprehensive statement of how Gloucestershire should look in 2026. It is aspirational in terms of seeking to achieve zero waste growth by 2020. It recognises local distinctiveness such as the County's acclaimed landscape assets, but it also in accordance with the national waste strategy and the Regional Spatial Strategy. The vision scores very well in terms of the SA Objectives; the only SA objectives that do not have a positive or major positive score are the neutral scores on objectives that are predominantly minerals related. It is positive and proactive; setting broad targets and encouraging communities to take more responsibility for the waste they produce. It is not unrealistic or undeliverable.

Evidence:
The vision has developed through stakeholder consultation e.g. the public waste forum in March 2006 and comments through the Issues and Options consultation. The vision also draws on a number of key strategies such as: The Gloucestershire Waste Local Plan, the WCS Issues and Options paper, the Draft Gloucestershire Joint Municipal Waste Management Strategy and the Sustainable Community Strategy for Gloucestershire. Further details are available in Technical Evidence Paper WCS-B 'Spatial Portrait and Vision'.

WASTE REDUCTION [WPO3A] MINIMISING WASTE – ROLLING FORWARD WLP POLICY 36

1. Test of the Option:

SA Objectives	S	M	L	Comments & Explanation	SA Objectives	S	M	L	Comments & Explanation
1. To promote sustainable development and sustainable communities in Gloucestershire giving people the opportunity to live in an affordable and sustainably designed and constructed home.	+	+ +	+ +	Very positive effects for Gloucestershire, particularly in the medium to long term.	9. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets including its architectural and archaeological heritage.	+ +	+ +	+ +	Major positive effects in terms of this objective. Similar comments as those for Objective 8.
2. To safeguard sites suitable for the location of waste management facilities, or future mineral development from other proposed development.	0	0	0	Neutral impact in terms of this objective.	10. To prevent flooding, in particular preventing inappropriate development in the floodplain and to ensure that development does not compromise sustainable sources of water supply.	0	0	0	Neutral impact.
3. To protect and improve the health and well-being of people living and working in Gloucestershire as well as visitors to the county.	+ +	+ +	+ +	Minimising waste is likely to lead to health benefits in a number of ways.	11. To prevent the pollution of land, air and water in Gloucestershire and to apply the precautionary principle.	+ +	+ +	+ +	Major positive scores. Minimising waste will help to minimise pollution.
4. To promote education and economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds.	+	+ +	+ +	Potential economic benefits in the medium to long term in terms of the development of new eco-businesses etc.	12. To reduce the adverse impacts of lorry traffic on communities through means such as: a) reducing the need to travel b) promoting more sustainable means of transport c) sensitive lorry routing d) the use of sustainable alternative fuels e) promoting the management of waste in one of the nearest appropriate installations.	+ +	+ +	+ +	Major positive scores. Minimising waste will help to reduce the need to travel and reduce the amount of waste being transported on the roads.
5. To safeguard the amenity of local communities from the potential adverse impacts of minerals and waste development.	+	+ +	+ +	Broadly positive in that minimizing waste could lead to fewer sites and facilities and thus reduced amenity impacts.	13. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity.	?	?	-	Potentially minimising waste production could have an adverse impact on the availability of inert material for mineral restoration.
6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society.	+	+ +	+ +	Increased use of inert C&D waste should help to conserve mineral resources. This is a key objective of the Minerals Core Strategy.	14. To reduce waste to landfill and in dealing with all waste streams to actively promote the waste hierarchy (i.e. Prevent, Reduce, Reuse, Recycle, Dispose) to achieve the sustainable management of waste.	+ +	+ +	+ +	Major positive effects in the short, medium and long term. Broadly this options scores very highly as it is promoting action right at the top of the waste hierarchy.
7. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.	0	0	0	Neutral impact likely.	15. To reduce contributions to and to adapt to Climate Change.	+ +	+ +	+ +	Major positive effects in the short, medium and long term due to reduced transport and energy use and the potential for less methane release from landfill.
8. To protect, conserve and enhance Gloucestershire's wildlife and natural environment – its landscape and biodiversity.	+ +	+ +	+ +	Positive in that minimizing waste could lead to fewer sites and facilities and thus reduce landscape/biodiversity impact.	/				

2. Nature of Effects:

Temporary or permanent effect: The positive effects could be permanent or at the least long term.	**Geographic scale:** Gloucestershire wide and potentially further a field.	**Significance and Likelihood:** The effects are highly significant and it is very likely that waste minimization will become increasingly important and necessary as (for Municipal waste) Council's are faced with increasingly severe fines and penalties. For other forms of waste the costs of landfilling (through the landfill tax) are increasing.

3. Cumulative / Secondary / Synergistic Impacts:

Potential cumulative / secondary / synergistic effects of the option	Potential CI receptors & past / present / future human activities that have affected or will possibly affect these receptors	Predicted impacts on the receptor as a result of the plan in combination with other human activities, and the significance of the impacts	Possible mitigation measures & management suggestions and pointers for other plans & strategies
Positive secondary effects may include energy and cost savings for Local Authorities and tax payers / a cleaner environment / increased well-being for communities. Possible negative secondary impacts on quarry restoration schemes.	• All communities in Gloucestershire. • The natural environment. • Mineral sites. • The global climate. Human activities that have or will affect these receptors include: Waste development, minerals development, industry & commerce, retail park development, house building, increased car use, supermarket marketing and packaging strategies, consumer behaviour.	Positive impacts may include: Possible reduced costs to Local Authorities meaning that Council Tax may be allocated to other areas of need. A cleaner environment both in urban areas and the countryside – promoting health and well-being. Potentially more visitors to the County to experience and enjoy a high quality environment – boosting the local economy. Impacts on mineral sites – potentially problems completing restoration schemes due to lack of inert materials.	Positive effects – mitigation not necessary. Other plans and strategies should actively promote waste minimisation for all waste streams. District Councils in Gloucestershire, and the County Council in terms of its own development, should continue to use the SPD 'Waste Minimisation in Development Projects (Adopted September 2006).

4. Sustainability Summary:

Clearly it a very positive option, as might be expected due to the fact that it is directly addressing on of the most significant and serious environmental issues that faces Gloucestershire and many other local authorities. Positive or major positive scores are recorded against 11 of the 15 SA Objectives. There is a negative score in the long term in terms of SA Objective 13 – the restoration of minerals sites, due to the fact that minimising e.g. C&D waste in particular could logically result in a lack of soils and other inert material that is currently used in quarry restoration – be that for hard rock quarries or sand and gravel pits that are not 'wet restored'. It is a complex issue. Because C&D waste is often crushed and screened and used on site it may not enter the waste stream and so figures for tonnes arising may be difficult to gauge accurately. However broadly despite this issue this policy is hugely valuable and important for sustainable waste management in the County.

Evidence:
Evidence and further details are contained in the WCS itself (Section 4) and in Technical Evidence Paper WCS-A 'Data' and Technical Evidence Paper WCS-D 'Implementing the Waste Hierarchy'.

WASTE REDUCTION [WPO3B] MINIMISING WASTE – AN APPROACH LEAD BY THE PRINCIPLES OF WASTE MINIMISATION

1. Test of the Option:

SA Objectives	S	M	L	Comments & Explanation	SA Objectives	S	M	L	Comments & Explanation
1. To promote sustainable development and sustainable communities in Gloucestershire giving people the opportunity to live in an affordable and sustainably designed and constructed home.	+	+ +	+ +	Positive effects in the short term, major positive in terms of longer timeframes. The scores for this option are the same as for Option 3A. The main difference in the options is that 3B provides a bit more flexibility.	9. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets including its architectural and archaeological heritage.	+ +	+ +	+ +	Major positive effects in terms of this objective. Similar comments as those for Objective 8.
2. To safeguard sites suitable for the location of waste management facilities, or future mineral development from other proposed development.	0	0	0	Neutral impact in terms of this objective.	10. To prevent flooding, in particular preventing inappropriate development in the floodplain and to ensure that development does not compromise sustainable sources of water supply.	0	0	0	Neutral impact.
3. To protect and improve the health and well-being of people living and working in Gloucestershire as well as visitors to the county.	+ +	+ +	+ +	Minimising waste is likely to lead to a number of broad health benefits.	11. To prevent the pollution of land, air and water in Gloucestershire and to apply the precautionary principle.	+ +	+ +	+ +	Major positive scores. Minimising waste will help to minimise pollution.
4. To promote education and economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds.	+	+ +	+ +	Potential economic benefits in the medium to long term in terms of the development of new eco-businesses etc.	12. To reduce the adverse impacts of lorry traffic on communities through means such as: a) reducing the need to travel b) promoting more sustainable means of transport c) sensitive lorry routing d) the use of sustainable alternative fuels e) promoting the management of waste in one of the nearest appropriate installations.	+ +	+ +	+ +	Major positive scores. Minimising waste will help to reduce the need to travel and reduce the amount of waste being transported on the roads.
5. To safeguard the amenity of local communities from the potential adverse impacts of minerals and waste development.	+	+ +	+ +	Broadly positive in that minimizing waste could lead to fewer sites and facilities and thus reduced amenity impacts.	13. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity.			-	Potentially minimizing waste production could have an adverse impact on the availability of inert material for mineral restoration.
6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society.	+	+ +	+ +	Increased use of inert C&D waste should help to conserve mineral resources. This is a key objective of the Minerals Core Strategy.	14. To reduce waste to landfill and in dealing with all waste streams to actively promote the waste hierarchy (i.e. Prevent, Reduce, Reuse, Recycle, Dispose) to achieve the sustainable management of waste.	+ +	+ +	+ +	Major positive effects in the short, medium and long term. Broadly this options scores very highly as it is promoting action right at the top of the waste hierarchy.
7. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.	0	0	0	Neutral impact likely.	15. To reduce contributions to and to adapt to Climate Change.	+ +	+ +	+ +	Major positive effects in the short, medium and long term due to reduced transport and energy use and the potential for less methane release from landfill.
8. To protect, conserve and enhance Gloucestershire's wildlife and natural environment – its landscape and biodiversity.	+ +	+ +	+ +	Positive in that minimizing waste could lead to fewer sites and facilities and thus reduce landscape/biodiversity impact.	/				

2. Nature of Effects:

Temporary or permanent effect:	**Geographic scale:**	**Significance and Likelihood:**
The positive effects could be permanent or at the least long term.	Gloucestershire wide and potentially further a field.	The effects are highly significant and it is very likely that waste minimisation will become increasingly important and necessary as (for Municipal waste) Council's are faced with increasingly severe fines and penalties. For other forms of waste the costs of landfilling (through the landfill tax) are increasing.

3. Cumulative / Secondary / Synergistic Impacts:

Potential cumulative / secondary / synergistic effects of the option	**Potential CI receptors & past / present / future human activities that have affected or will possibly affect these receptors**	**Predicted impacts on the receptor as a result of the plan in combination with other human activities, and the significance of the impacts**	**Possible mitigation measures & management suggestions and pointers for other plans & strategies**
Positive secondary effects may include energy and cost savings for Local Authorities and tax payers / a cleaner environment / increased well-being for communities. Possible negative secondary impacts on quarry restoration schemes.	• All communities in Gloucestershire. • The natural environment. • Mineral sites. • The global climate. Human activities that have or will affect these receptors include: Waste development, minerals development, industry & commerce, retail park development, house building, increased car use, supermarket marketing and packaging strategies, consumer behaviour.	Positive impacts may include: Possible reduced costs to Local Authorities meaning that Council Tax may be allocated to other areas of need. A cleaner environment both in urban areas and the countryside – promoting health and well-being. Potentially more visitors to the County to experience and enjoy a high quality environment – boosting the local economy. Impacts on mineral sites – potentially problems completing restoration schemes due to lack of inert materials.	Positive effects – mitigation not necessary. Other plans and strategies should actively promote waste minimisation for all waste streams.

4. Sustainability Summary:

This options is scored identically to WPO3A although comments against each objective differ reflecting the slightly different approach to waste minimisation. Broadly very positive option, addressing a key environmental problem in the County. For further comments see the Sustainability Summary for WPO3A.

Evidence:
Evidence and further details are contained in the WCS itself (Section 4) and in Technical Evidence Paper WCS-A 'Data' and Technical Evidence Paper WCS-D 'Implementing the Waste Hierarchy'.

WASTE REDUCTION [WPO3C] MINIMISING WASTE – A MORE RIGID APPROACH STATING WHAT THE APPLICANT / DEVELOPER NEEDS TO PROVIDE IN SUPPORT OF THEIR PROPOSALS

1. Test of the Option:

SA Objectives	S	M	L	Comments & Explanation	SA Objectives	S	M	L	Comments & Explanation
1. To promote sustainable development and sustainable communities in Gloucestershire giving people the opportunity to live in an affordable and sustainably designed and constructed home.	+	+ +	?	Generally the scores for this option are the similar to Option WPO3B but in the medium to longer term there are issues with a lack of flexibility.	9. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets including its architectural and archaeological heritage.	+ +	+ +	+ +	Major positive effects in terms of this objective. Similar comments as those for Objective 8.
2. To safeguard sites suitable for the location of waste management facilities, or future mineral development from other proposed development.	0	0	0	Neutral impact in terms of this objective.	10. To prevent flooding, in particular preventing inappropriate development in the floodplain and to ensure that development does not compromise sustainable sources of water supply.	0	0	0	Neutral impact.
3. To protect and improve the health and well-being of people living and working in Gloucestershire as well as visitors to the county.	+ +	+ +	+ +	Minimising waste is likely to lead to a number of broad health benefits.	11. To prevent the pollution of land, air and water in Gloucestershire and to apply the precautionary principle.	+ +	+ +	+ +	Major positive scores. Minimising waste will help to minimise pollution.
4. To promote education and economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds.	+	+ +	+ +	Potential economic benefits in the medium to long term in terms of the development of new eco-businesses etc.	12. To reduce the adverse impacts of lorry traffic on communities through means such as: a) reducing the need to travel b) promoting more sustainable means of transport c) sensitive lorry routing d) the use of sustainable alternative fuels e) promoting the management of waste in one of the nearest appropriate installations.	+ +	+ +	+ +	Major positive scores. Minimising waste will help to reduce the need to travel and reduce the amount of waste being transported on the roads.
5. To safeguard the amenity of local communities from the potential adverse impacts of minerals and waste development.	+	+ +	+ +	Broadly positive in that minimizing waste could lead to fewer sites and facilities and thus reduced amenity impacts.	13. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity.	?	?	-	Potentially minimizing waste production could have an adverse impact on the availability of inert material for mineral restoration.
6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society.	+	+ +	+ +	Increased use of inert C&D waste should help to conserve mineral resources. This is a key objective of the Minerals Core Strategy.	14. To reduce waste to landfill and in dealing with all waste streams to actively promote the waste hierarchy (i.e. Prevent, Reduce, Reuse, Recycle, Dispose) to achieve the sustainable management of waste.	+ +	+ +	+ +	Major positive effects in the short, medium and long term. Broadly this options scores very highly as it is promoting action right at the top of the waste hierarchy.
7. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.	0	0	0	Neutral impact likely.	15. To reduce contributions to and to adapt to Climate Change.	+ +	+ +	?	Lack of flexibility in the longer term. Questions over being able to readily adapt to Climate Change?
8. To protect, conserve and enhance Gloucestershire's wildlife and natural environment – its landscape and biodiversity.	+ +	+ +	+ +	Positive in that minimizing waste could lead to fewer sites and facilities and thus reduce landscape/biodiversity impact.	/				

2. Nature of Effects:

Temporary or permanent effect:	**Geographic scale:**	**Significance and Likelihood:**
The positive effects could be permanent or at the least long term.	Gloucestershire wide and potentially further a field.	The effects are highly significant and it is very likely that waste minimisation will become increasingly important and necessary as (for Municipal waste) Council's are faced with increasingly severe fines and penalties. For other forms of waste the costs of landfilling (through the landfill tax) are increasing.

3. Cumulative / Secondary / Synergistic Impacts:

Potential cumulative / secondary / synergistic effects of the option	**Potential CI receptors & past / present / future human activities that have affected or will possibly affect these receptors**	**Predicted impacts on the receptor as a result of the plan in combination with other human activities, and the significance of the impacts**	**Possible mitigation measures & management suggestions and pointers for other plans & strategies**
Positive secondary effects may include energy and cost savings for Local Authorities and tax payers / a cleaner environment / increased well-being for communities. Possible negative secondary impacts on quarry restoration schemes. Possible negative effects in terms of the financial burden on small developers.	• All communities in Gloucestershire. • The natural environment. • Mineral sites. • The global climate. Human activities that have or will affect these receptors include: Waste development, minerals development, industry & commerce, retail park development, house building, increased car use, supermarket marketing and packaging strategies, consumer behaviour.	Positive impacts may include: Possible reduced costs to Local Authorities meaning that Council Tax may be allocated to other areas of need. A cleaner environment both in urban areas and the countryside – promoting health and well-being. Potentially more visitors to the County to experience and enjoy a high quality environment – boosting the local economy. Impacts on mineral sites – potentially problems completing restoration schemes due to lack of inert materials.	Generally positive effects – mitigation not necessary. Other plans and strategies should actively promote waste minimisation for all waste streams.

4. Sustainability Summary:

Broadly this option is very positive and it addresses a serious environmental problem that many (if not all local authorities) are faced with. The proposed policy is detailed and prescriptive, requiring developers to supply a lot of information about their proposals including tonnages. Generally the scores for this option are very similar to Option WPO3A & WPO3B but in the medium to longer term there may be issues with a lack of flexibility. Waste is a rapidly moving field and an overly prescriptive policy approach may soon become out of date or priorities may change. There may be problems with implementation as it is potentially placing the responsibility on District Development Control and Waste Collection Authorities who may already be stretched in terms of resources and the sheer volume of considerations that need to be looked at when developers submit planning applications for various development projects.

Evidence:
Evidence and further details are contained in the WCS itself (Section 4) and in Technical Evidence Paper WCS-A 'Data' and Technical Evidence Paper WCS-D 'Implementing the Waste Hierarchy'.

RE-USE, RECYCLING, COMPOSTING AND RECOVERY [WPO4A] A CRITERIA BASED APPROACH ON A CASE BY CASE BASIS FOR STRATEGIC / LOCAL COMPOSTING AND RECYCLING FACILITIES

1. Test of the Option:

SA Objectives	S	M	L	Comments & Explanation	SA Objectives	S	M	L	Comments & Explanation
1. To promote sustainable development and sustainable communities in Gloucestershire giving people the opportunity to live in an affordable and sustainably designed and constructed home.	+	+	+	Broadly positive but there is an uncertain element in terms of where the proposal is in the County, and this applies to a number of the objectives.	9. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets including its architectural and archaeological heritage.	+	+	+	Similar comments as for Objective 8.
2. To safeguard sites suitable for the location of waste management facilities, or future mineral development from other proposed development.	-	-	- -	This criteria based approach will clearly not safeguard sites suitable for the location of waste management facilities.	10. To prevent flooding, in particular preventing inappropriate development in the floodplain and to ensure that development does not compromise sustainable sources of water supply.	+	+	+	Broadly positive impacts. The floodplain should be avoided if it is contributing to 'a sustainable waste management system.'
3. To protect and improve the health and well-being of people living and working in Gloucestershire as well as visitors to the county.	+	+	+	Broadly positive effects in relation to health and well-being particularly given the proposed 250m buffer zone.	11. To prevent the pollution of land, air and water in Gloucestershire and to apply the precautionary principle.	+	+	+	Broadly positive. The 250m buffer zone is an important precautionary element.
4. To promote education and economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds.	0	0	+	Likely neutral impact in terms of this objective in the short to medium term. There may be positive economic benefits in the longer term if e.g. recycling facilities are successful and provide employment opportunities for local people. Eco-business spin-offs?	12. To reduce the adverse impacts of lorry traffic on communities through means such as: a) reducing the need to travel b) promoting more sustainable means of transport c) sensitive lorry routing d) the use of sustainable alternative fuels e) promoting the management of waste in one of the nearest appropriate installations.	+	+	+	Broadly positive effects given that the highway access has to be suitable and that proposals will have to contribute to 'a sustainable waste management system.'
5. To safeguard the amenity of local communities from the potential adverse impacts of minerals and waste development.	+	+	+	Broadly positive, but some uncertainty in terms of exactly where the proposals will be sited. But in saying this the criteria proposed should be fit for purpose.	13. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity.	0	0	0	Neutral impact in terms of this objective.
6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society.	0	0	0	Likely neutral impact.	14. To reduce waste to landfill and in dealing with all waste streams to actively promote the waste hierarchy (i.e. Prevent, Reduce, Reuse, Recycle, Dispose) to achieve the sustainable management of waste.	+ +	+ +	+ +	Major positive effects anticipated given that biodegradable waste is being diverted from landfill.
7. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.	+	+	0	Broadly positive, but some uncertainties about levels of employment in both rural & urban areas.	15. To reduce contributions to and to adapt to Climate Change.	+ +	+ +	+ +	Major positive score linked strongly to Objective 14.
8. To protect, conserve and enhance Gloucestershire's wildlife and natural environment – its landscape and biodiversity.	+	+	+	Broadly positive. Some uncertainty over where facilities will be sited. But the criteria proposed should be fit for purpose.	/				

2. Nature of Effects:

Temporary or permanent effect: Effects from recycling / composting facilities are unlikely to be permanent e.g. a composting facility on a farm could revert to other agricultural use. This is a sites issue, but the broad effects on society in general could clearly be very positive and long term.	**Geographic scale:** Gloucestershire wide and potentially further a field depending on markets and arisings etc.	**Significance and Likelihood:** Highly likely and significant positive impacts in terms of increasing recycling and reducing biodegradable and other waste to landfill. Recycling is such a high profile issue in the media and in society in general that the likelihood of further progress in this area is quite high.

3. Cumulative / Secondary / Synergistic Impacts:

Potential cumulative / secondary / synergistic effects of the option	Potential CI receptors & past / present / future human activities that have affected or will possibly affect these receptors	Predicted impacts on the receptor as a result of the plan in combination with other human activities, and the significance of the impacts	Possible mitigation measures & management suggestions and pointers for other plans & strategies
Similar positive secondary impacts as for minimising waste generation. Potential spin-off employment opportunities – and potentially for people in society who may struggle to find other meaningful employment e.g. people with learning disabilities. There are examples of organisations in Gloucestershire who are involved in this field 'Fairtide' and 'The Furniture Recycling Project'. Potentially positive secondary effects related to the fact that more waste will be recycled and composted.	• All communities in Gloucestershire. • Communities elsewhere who currently deal with recyclable materials e.g. in other parts of the UK and in China. • The natural environment. • The global climate. Human activities that have or will affect these receptors include: Waste development, population increase leading to increased waste production, attitudes in society, supermarket/retail strategies, Waste Collection Authority strategies and levels of joint working.	Positive impacts may include: Possible reduced costs to Local Authorities meaning that Council Tax may be allocated to other areas of need. A cleaner environment both in urban areas and the countryside – promoting health and well-being. Potentially more visitors to the County to experience and enjoy a high quality environment.	Overall, generally positive effects. Amenity of local communities near to facilities will need to be protected and mitigation measures will be necessary. Other plans and strategies should actively promote increased recycling and composting where possible.

4. Sustainability Summary:

The option is broadly positive. It maybe that a criteria based approach may be more effective than a sites approach for smaller local facilities in terms of getting what is required 'on the ground' to increase recycling rates and to meet targets. As the scoring indicates, major positive effects are likely in terms of reducing waste to landfill and in terms of reducing climate change impacts. Less energy is needed in the recycling process than that used producing new products from virgin material. Glass is a good example. Potentially negative effects are anticipated in the longer term in terms of the safeguarding of sites. Clearly this policy approach is moving away from allocating small local sites.

Evidence:

Evidence and further information is detailed in the WCS itself (Section 5) and in Technical Evidence Paper WCS-A 'Data' (including information on recycling composting targets & capacity gaps etc) and Technical Evidence Paper WCS-D 'Implementing the Waste Hierarchy'.

RE-USE, RECYCLING, COMPOSTING AND RECOVERY [WPO4B] CRITERIA FOR SITE IDENTIFICATION IN A DPD – STRATEGIC AND LOCAL COMPOSTING AND RECYCLING FACILITIES

1. Test of the Option:

SA Objectives	S	M	L	Comments & Explanation	SA Objectives	S	M	L	Comments & Explanation
1. To promote sustainable development and sustainable communities in Gloucestershire giving people the opportunity to live in an affordable and sustainably designed and constructed home.	+	+	+	The option is broadly positive in terms of promoting sustainable development and sustainable communities.	9. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets including its architectural and archaeological heritage.	+ +	+ +	+ +	Major positive effects in that sites will go through rigorous testing to ensure their suitability and the criteria will avoid sensitive areas.
2. To safeguard sites suitable for the location of waste management facilities, or future mineral development from other proposed development.	+ +	+ +	+ +	Major positive effects, as the option seeks to identify sites in the Site Allocations DPD.	10. To prevent flooding, in particular preventing inappropriate development in the floodplain and to ensure that development does not compromise sustainable sources of water supply.	+ +	+ +	+ +	Major positive effects in that sites will go through rigorous testing to ensure their suitability.
3. To protect and improve the health and well-being of people living and working in Gloucestershire as well as visitors to the county.	+ +	+ +	+ +	Major positive effects in that sites will go through rigorous testing to ensure their suitability.	11. To prevent the pollution of land, air and water in Gloucestershire and to apply the precautionary principle.	+ +	+ +	+ +	Major positive effects in that sites will go through rigorous testing to ensure their suitability.
4. To promote education and economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds.	0	0	+	Potentially there may be positive effects in the longer term in terms of economic development. There may be 'spin-offs' and the development of eco-business opportunities associated with recycling activities.	12. To reduce the adverse impacts of lorry traffic on communities through means such as: a) reducing the need to travel b) promoting more sustainable means of transport c) sensitive lorry routing d) the use of sustainable alternative fuels e) promoting the management of waste in one of the nearest appropriate installations.	+ +	+ +	+ +	The criteria for site identification seeks locations near to arisings where they can serve a wide market area.
5. To safeguard the amenity of local communities from the potential adverse impacts of minerals and waste development.	+ +	+ +	+ +	Major positive effects in that sites will go through rigorous testing to ensure their suitability.	13. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity.	0	0	0	Likely neutral impact in terms of this objective.
6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society.	0	0	0	Neutral impact on this objective.	14. To reduce waste to landfill and in dealing with all waste streams to actively promote the waste hierarchy (i.e. Prevent, Reduce, Reuse, Recycle, Dispose) to achieve the sustainable management of waste.	+	+	+	Generally positive effects – actively promoting the waste hierarchy.
7. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.	+	+	0	In the short to medium term, broadly positive in terms of creating employment opportunities. Potentially neutral or more uncertain in the long term.	15. To reduce contributions to and to adapt to Climate Change.	+	+	?	Positive in the short to medium term but more uncertain in the longer term given the inflexibility of sites.
8. To protect, conserve and enhance Gloucestershire's wildlife and natural environment – its landscape and biodiversity.	+ +	+ +	+ +	Major positive effects. The criteria looks to previously developed land etc. Sensitive areas and landscapes will be avoided.	/				

2. Nature of Effects:

Temporary or permanent effect:	**Geographic scale:**	**Significance and Likelihood:**
Effects from recycling / composting facilities are unlikely to be permanent e.g. a composting facility on a farm could revert to other agricultural use. This is a sites / amenity issue, but the broad effects on society in general could clearly be very positive and long term.	Gloucestershire wide and potentially further a field.	Highly likely and significant positive impacts in terms of increasing recycling / composting and reducing biodegradable and other waste to landfill.

3. Cumulative / Secondary / Synergistic Impacts:

Potential cumulative / secondary / synergistic effects of the option	**Potential CI receptors & past / present / future human activities that have affected or will possibly affect these receptors**	**Predicted impacts on the receptor as a result of the plan in combination with other human activities, and the significance of the impacts**	**Possible mitigation measures & management suggestions and pointers for other plans & strategies**
Similar positive secondary impacts as for minimising waste generation. Potential spin-off employment opportunities. Potentially positive secondary effects related to the fact that more waste will be recycled and composted. Potentially negative transport / congestion issues in combination with increasing levels of traffic from other sectors.	• Communities living near to sites or on lorry routes. Various impacts including cumulative impacts will need to be assessed at the site level. Similar comments as for WPO3A in terms of receptors and human activities.	Predicted impacts including cumulative impacts will need to be assessed at the site level, otherwise similar comments as for WPO3A.	Overall, generally positive effects. The amenity of local communities near to facilities will need to be protected and mitigation measures will be necessary. Other plans and strategies should actively promote increased recycling and composting where possible and sites should be safeguarded.

4. Sustainability Summary:

In terms of the scoring against the SA Objectives, this option performs better than WPO4A. There are major positive scores against 7 of the 15 SA Objectives. The sites approach seems to be so positive because it provides certainty and, due to the rigorous process of identifying sites, many amenity and environmental concerns are addressed at an early stage. The site would not be allocated if a decision maker or an Inspector had serious concerns as to its appropriateness in landuse terms and its broad sustainability credentials.

Evidence:
Evidence and further information is detailed in the WCS itself (Section 5) and in Technical Evidence Paper WCS-A 'Data' (including information on recycling composting targets & capacity gaps etc) and Technical Evidence Paper WCS-D 'Implementing the Waste Hierarchy'. See also Technical Evidence Paper WCS-C 'Broad Locational Analysis' in terms of where sites in a future DPD may be appropriately located.

RE-USE, RECYCLING, COMPOSTING AND RECOVERY [WPO4C] A COMBINATION APPROACH REQUIRING TWO POLICIES, ONE FOR LOCAL SCALE AND ANOTHER FOR STRATEGIC FACILITIES

1. Test of the Option:

SA Objectives	S	M	L	Comments & Explanation	SA Objectives	S	M	L	Comments & Explanation
1. To promote sustainable development and sustainable communities in Gloucestershire giving people the opportunity to live in an affordable and sustainably designed and constructed home.	+ +	+ +	+ +	The combination approach scores very well with positive effects anticipated in the short medium and long term. This option allows the benefits of flexibility and certainty to be realised.	9. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets including its architectural and archaeological heritage.	+ +	+ +	+ +	Similar comments as for Objective 8. Strategic site selection should avoid assets etc and criteria should do the same.
2. To safeguard sites suitable for the location of waste management facilities, or future mineral development from other proposed development.	+ +	+ +	+ +	Major positive effects, as the option seeks to identify strategic sites in the Site Allocations DPD.	10. To prevent flooding, in particular preventing inappropriate development in the floodplain and to ensure that development does not compromise sustainable sources of water supply.	+ +	+ +	+ +	Similar comments as for Objective above. Floodplains will be avoided.
3. To protect and improve the health and well-being of people living and working in Gloucestershire as well as visitors to the county.	+ +	+ +	+ +	Major positive effects in that sites will go through rigorous testing to ensure their suitability.	11. To prevent the pollution of land, air and water in Gloucestershire and to apply the precautionary principle.	+ +	+ +	+ +	Likely positive effects given that both site selection and criteria will rigorously address the potential for pollution.
4. To promote education and economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds.	0	0	+	Likely neutral impacts in the short to medium term. Potentially there may be positive longer term effects in terms of economic development. There may be 'spin-offs' and the development of eco-business opportunities associated with recycling activities.	12. To reduce the adverse impacts of lorry traffic on communities through means such as: a) reducing the need to travel b) promoting more sustainable means of transport c) sensitive lorry routing d) the use of sustainable alternative fuels e) promoting the management of waste in one of the nearest appropriate installations.	+ +	+ +	+ +	Likely positive effects given that both site selection and criteria will consider transport issues.
5. To safeguard the amenity of local communities from the potential adverse impacts of minerals and waste development.	+ +	+ +	+ +	Major positive effects in that sites will go through rigorous testing to ensure their suitability.	13. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity.	0	0	0	Likely neutral impacts on mineral site restoration.
6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society.	0	0	0	Neutral impact likely.	14. To reduce waste to landfill and in dealing with all waste streams to actively promote the waste hierarchy (i.e. Prevent, Reduce, Reuse, Recycle, Dispose) to achieve the sustainable management of waste.	+ +	+ +	+ +	Major positive effects anticipated. Recycling and composting facilities divert waste from landfill and the combination option is probably the most effective at achieving this.
7. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.	+ +	+ +	+ +	Potentially the combination approach will be positive in terms of promoting employment opportunities and economic diversification.	15. To reduce contributions to and to adapt to Climate Change.	+ +	+ +	+ +	Major positive effects given the reductions of waste to landfill.
8. To protect, conserve and enhance Gloucestershire's wildlife and natural environment – its landscape and biodiversity.	+ +	+ +	+ +	Major positive effects. Strategic sites = certainty and local sites will provide flexibility. In either case landscapes and biodiversity should afforded protection.	/				

2. Nature of Effects:

Temporary or permanent effect:	**Geographic scale:**	**Significance and Likelihood:**
Effects from recycling / composting facilities are unlikely to be permanent e.g. a composting facility on a farm could revert to other agricultural use. This is a sites / amenity issue, but the broad effects on society in general could clearly be very positive and long term.	Gloucestershire wide and potentially further a field.	Highly likely and significant positive impacts in terms of increasing recycling / composting and reducing biodegradable and other waste to landfill.

3. Cumulative / Secondary / Synergistic Impacts:

Potential cumulative / secondary / synergistic effects of the option	**Potential CI receptors & past / present / future human activities that have affected or will possibly affect these receptors**	**Predicted impacts on the receptor as a result of the plan in combination with other human activities, and the significance of the impacts**	**Possible mitigation measures & management suggestions and pointers for other plans & strategies**
Similar positive secondary impacts as for minimising waste generation. Potential spin-off employment opportunities. Potentially positive secondary effects related to the fact that more waste will be recycled and composted. Potentially negative transport / congestion issues in combination with increasing levels of traffic from other sectors.	• Communities living near to sites or on lorry routes. Various impacts including cumulative impacts will need to be assessed at the site level. Similar comments as for WPO3A in terms of receptors and human activities.	Predicted impacts including cumulative impacts will need to be assessed at the site level, otherwise similar comments as for WPO3A.	Overall, generally positive effects. The amenity of local communities near to facilities will need to be protected and mitigation measures will be necessary. Other plans and strategies should actively promote increased recycling and composting where possible and sites should be safeguarded.

4. Sustainability Summary:

Of all the WPO4 options this scores the highest in terms of the test against the SA Objectives. This combination approach provides certainty for larger strategic facilities for composting and recycling as well as the required flexibility for smaller local facilities. There are no negative scores and major positive scores against 12 of the 15 SA Objectives. From an SA standpoint this is the favoured option.

Evidence:
Evidence and further information is detailed in the WCS itself (Section 5) and in Technical Evidence Paper WCS-A 'Data' (including information on recycling composting targets & capacity gaps etc) and Technical Evidence Paper WCS-D 'Implementing the Waste Hierarchy'. See also Technical Evidence Paper WCS-C 'Broad Locational Analysis' in terms of where strategic sites may be appropriately located when allocated in a waste sites DPD.

RE-USE, RECYCLING, COMPOSTING AND RECOVERY [WPO4D] AREA OF SEARCH APPROACH – STRATEGIC AND LOCAL COMPOSTING AND RECYCLING FACILITIES

1. Test of the Option:

SA Objectives	S	M	L	Comments & Explanation	SA Objectives	S	M	L	Comments & Explanation
1. To promote sustainable development and sustainable communities in Gloucestershire giving people the opportunity to live in an affordable and sustainably designed and constructed home.	+	+	+	The area of search approach for strategic and local composting and recycling facilities broadly promotes this objective. Does not have the certainty of a sites based approach.	9. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets including its architectural and archaeological heritage.	+	+	+	Broadly positive effects envisaged. 'Strategic physical constraints' will be avoided.
2. To safeguard sites suitable for the location of waste management facilities, or future mineral development from other proposed development.	-	-	- -	This area of search approach will clearly not safeguard sites suitable for the location of waste management facilities.	10. To prevent flooding, in particular preventing inappropriate development in the floodplain and to ensure that development does not compromise sustainable sources of water supply.	+	+	+	Broadly positive effects envisaged. Floodplains as key 'environmental constraints' will be avoided.
3. To protect and improve the health and well-being of people living and working in Gloucestershire as well as visitors to the county.	+	+	+	Broadly positive effects likely in terms of health and well-being in Gloucestershire.	11. To prevent the pollution of land, air and water in Gloucestershire and to apply the precautionary principle.	+	+	+	Broadly positive effects envisaged. in terms of avoiding environmental pollution.
4. To promote education and economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds.	0	0	+	Likely neutral impacts in the short to medium term. Potentially there may be positive longer term effects in terms of economic development. There may be 'spin-offs' and the development of eco-business opportunities associated with recycling activities.	12. To reduce the adverse impacts of lorry traffic on communities through means such as: a) reducing the need to travel b) promoting more sustainable means of transport c) sensitive lorry routing d) the use of sustainable alternative fuels e) promoting the management of waste in one of the nearest appropriate installations.	+	+	+	Broadly positive effects given that the search criteria give priority to locations near to arisings / areas on the edge of towns thus reducing the distances that waste is transported.
5. To safeguard the amenity of local communities from the potential adverse impacts of minerals and waste development.	+	+	+	Broadly positive, but there are some uncertainties in terms of where facilities will be within the areas of search.	13. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity.	0	0	0	Neutral impact in terms of this objective.
6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society.	0	0	0	Likely neutral impact.	14. To reduce waste to landfill and in dealing with all waste streams to actively promote the waste hierarchy (i.e. Prevent, Reduce, Reuse, Recycle, Dispose) to achieve the sustainable management of waste.	+ +	+ +	+ +	Positive or major positive effects anticipated.
7. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.	+	+	0	Broadly positive, but some uncertainties about levels of employment in both rural & urban areas particularly in the longer term.	15. To reduce contributions to and to adapt to Climate Change.	+	+	+	Broadly positive effects in terms of this objective. In terms of 'adaptation', areas of search are not as inflexible as sites.
8. To protect, conserve and enhance Gloucestershire's wildlife and natural environment – its landscape and biodiversity.	+	+	+	Positive effects envisaged. Areas of search will exclude valued and sensitive landscapes. The criteria mentions 'environmental constraints'.	/				

2. Nature of Effects:

Temporary or permanent effect:	**Geographic scale:**	**Significance and Likelihood:**
Effects from recycling / composting facilities are unlikely to be permanent e.g. a composting facility on a farm could revert to other agricultural use. This is a sites / amenity issue, but the broad effects on society in general could clearly be very positive and long term.	Gloucestershire wide and potentially further a field.	Likely and significant positive impacts in terms of increasing recycling / composting and reducing biodegradable and other waste to landfill.

3. Cumulative / Secondary / Synergistic Impacts:

Potential cumulative / secondary / synergistic effects of the option	**Potential CI receptors & past / present / future human activities that have affected or will possibly affect these receptors**	**Predicted impacts on the receptor as a result of the plan in combination with other human activities, and the significance of the impacts**	**Possible mitigation measures & management suggestions and pointers for other plans & strategies**
Similar positive secondary impacts as for minimising waste generation. Potential spin-off employment opportunities. Potentially positive secondary effects related to the fact that more waste will be recycled and composted. Potentially negative transport / congestion issues in combination with increasing levels of traffic from other sectors.	• Communities living near to sites or on lorry routes within the areas of search. Various impacts including cumulative impacts will need to be assessed at the site level – in the waste sites DPD. Similar comments as for WPO3A in terms of receptors and human activities.	Predicted impacts including cumulative impacts will need to be assessed at the site level, otherwise similar comments as for WPO3A.	Overall, generally positive effects. The amenity of local communities near to facilities will need to be protected and mitigation measures will be necessary. Other plans and strategies should actively promote increased recycling and composting where possible and sites should be safeguarded.

4. Sustainability Summary:

The area of search approach for strategic and local composting and recycling facilities is broadly positive in terms of the test against the SA Objectives. However it does not have the certainty of a sites based approach. Negative scores are given against SA Objective 2 – Safeguarding sites, as the option clearly does not facilitate this. There are also some potential concerns about employment issues for rural communities and in terms of the diversification of the rural economy. It depend on the areas of search that are identified, but clearly rural areas may be the most appropriate places for certain composting operations, particularly given that standoff distances may have to be adhered to.

Evidence:

Evidence and further information is detailed in the WCS itself (Section 5) and in Technical Evidence Paper WCS-A 'Data' (including information on recycling composting targets & capacity gaps etc) and Technical Evidence Paper WCS-D 'Implementing the Waste Hierarchy'. See also Technical Evidence Paper WCS-C 'Broad Locational Analysis' in terms of where areas of search may be identified in a future waste sites DPD.

RE-USE, RECYCLING, COMPOSTING AND RECOVERY: MARKETS FOR RECYCLATES: [WPO5A] ENCOURAGING THE DEVELOPMENT OF A RESOURCE ECONOMY

1. Test of the Option:

SA Objectives	S	M	L	Comments & Explanation	SA Objectives	S	M	L	Comments & Explanation
1. To promote sustainable development and sustainable communities in Gloucestershire giving people the opportunity to live in an affordable and sustainably designed and constructed home.	+	+ +	+ +	Markets for recyclates are currently underdeveloped particularly for certain materials such as a number of types of plastic. This option is likely to have major positive impacts particularly in the medium to long term.	9. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets including its architectural and archaeological heritage.	0	0	0	Neutral impact, but (like Objective 8) there is the potential for positive impacts.
2. To safeguard sites suitable for the location of waste management facilities, or future mineral development from other proposed development.	0	0	0	Neutral impact.	10. To prevent flooding, in particular preventing inappropriate development in the floodplain and to ensure that development does not compromise sustainable sources of water supply.	0	0	0	Neutral impacts likely in terms of the prevention of flooding.
3. To protect and improve the health and well-being of people living and working in Gloucestershire as well as visitors to the county.	0	0	0	Neutral impact although there could be benefits if markets take off and consequently more waste is being recycled.	11. To prevent the pollution of land, air and water in Gloucestershire and to apply the precautionary principle.	0	0	0	Neutral impacts in terms of pollution prevention.
4. To promote education and economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds.	+ +	+ +	+ +	Major positive benefits in terms of economic development. Potential for eco-business / eco park development.	12. To reduce the adverse impacts of lorry traffic on communities through means such as: a) reducing the need to travel b) promoting more sustainable means of transport c) sensitive lorry routing d) the use of sustainable alternative fuels e) promoting the management of waste in one of the nearest appropriate installations.	?	?	?	Uncertain effects. New markets could increase traffic, but this would have to be balanced against progress in terms of moving waste away from the landfill disposal route.
5. To safeguard the amenity of local communities from the potential adverse impacts of minerals and waste development.	0	0	0	Neutral impact although similar comments as for Objective 2.	13. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity.	+	+	+	Similar comments as for Objective 6 – linked to the use of inert C&D waste.
6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society.	+	+ +	+ +	Major positive effects anticipated in the medium to long term particularly in terms of Construction and Demolition (C&D) waste being utilised in place of primary aggregates.	14. To reduce waste to landfill and in dealing with all waste streams to actively promote the waste hierarchy (i.e. Prevent, Reduce, Reuse, Recycle, Dispose) to achieve the sustainable management of waste.	+ +	+ +	+ +	Major positive effects likely as encouraging the development of markets and a resource economy will boost recycling initiatives.
7. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.	+	+ +	+ +	Major positive benefits in terms of employment creation. Potentially linked to green business / eco park development. Recycling industries could be a major growth area in the near future.	15. To reduce contributions to and to adapt to Climate Change.	+ +	+ +	+ +	Major positive effects likely linked to the positive moves away from landfill disposal.
8. To protect, conserve and enhance Gloucestershire's wildlife and natural environment – its landscape and biodiversity.	0	0	0	Neutral impact but potential positive impacts should not be underestimated if the development of markets leads to increased recycling.	/				

2. Nature of Effects:

Temporary or permanent effect:	**Geographic scale:**	**Significance and Likelihood:**
The positive effects could be permanent or at the least long term.	Gloucestershire and UK wide – potentially world wide.	The effects are highly significant and it is very likely that the issue of markets will become increasingly important as without them the recycling agenda and various initiatives by councils / business / groups / individuals will struggle to meet targets.

3. Cumulative / Secondary / Synergistic Impacts:

Potential cumulative / secondary / synergistic effects of the option	**Potential CI receptors & past / present / future human activities that have affected or will possibly affect these receptors**	**Predicted impacts on the receptor as a result of the plan in combination with other human activities, and the significance of the impacts**	**Possible mitigation measures & management suggestions and pointers for other plans & strategies**
Similar positive secondary impacts as for minimising waste generation. Potential spin-off employment opportunities. Potentially positive secondary effects related to the fact that more waste will be recycled and composted. Potentially negative transport / congestion issues in combination with increasing levels of traffic from other sectors.	• All communities in Gloucestershire. • Communities elsewhere who currently deal with recyclable materials e.g. in other parts of the UK and in China. • The natural environment. • The global climate. Human activities that have or will affect these receptors include: Waste development, population increase leading to increased waste production, attitudes in society, supermarket/retail strategies, Waste Collection Authority strategies and levels of joint working, business interest, economic climate, transport costs.	Positive impacts may include: Increased recycling in the medium to long term with reduced costs to Local Authorities. A cleaner environment both in urban areas and the countryside – promoting health and well-being. Potentially more visitors to the County to experience and enjoy a high quality environment. New eco- business opportunities.	Overall, generally positive effects. Other plans and strategies should actively promote the development of a resource economy and seek out and support markets.

4. Sustainability Summary:

The option addresses an issue which is often raised by stakeholders who are keen to see increased recycling. It is an area in which traditional land use planning has had difficulty influencing. In terms of the scores of this option against the SA Objectives, it is generally very positive, with no negative scores and major positive scores against a number of objectives. It is particularly strong in terms of the economic development objectives; less so in terms of the environmental protection objectives although the results are neutral rather than negative. It may be that environmental benefits may be more marked than this broad SA anticipates.

Evidence:
Evidence and further information is detailed in the WCS itself (Section 5) and in Technical Evidence Paper WCS-D 'Implementing the Waste Hierarchy'.

RE-USE, RECYCLING, COMPOSTING AND RECOVERY: MARKETS FOR RECYCLATES: [WPO5B] ENCOURAGING THE DEVELOPMENT OF A RESOURCE ECONOMY THROUGH PARTNERSHIP WORKING

1. Test of the Option:

SA Objectives	S	M	L	Comments & Explanation	SA Objectives	S	M	L	Comments & Explanation
1. To promote sustainable development and sustainable communities in Gloucestershire giving people the opportunity to live in an affordable and sustainably designed and constructed home.	+	+ +	+ +	Broadly similar scores as for Option 5A. This option is likely to have major positive impacts particularly in the medium to long term.	9. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets including its architectural and archaeological heritage.	0	0	0	Neutral impact, but (like Objective 9) there is the potential for positive impacts.
2. To safeguard sites suitable for the location of waste management facilities, or future mineral development from other proposed development.	0	0	0	Neutral impact in terms of safeguarding sites.	10. To prevent flooding, in particular preventing inappropriate development in the floodplain and to ensure that development does not compromise sustainable sources of water supply.	0	0	0	Neutral impacts likely in terms of the prevention of flooding.
3. To protect and improve the health and well-being of people living and working in Gloucestershire as well as visitors to the county.	0	0	0	Neutral impact but positive benefits likely if markets take off and consequently more waste is being recycled.	11. To prevent the pollution of land, air and water in Gloucestershire and to apply the precautionary principle.	0	0	0	Neutral impacts in terms of pollution prevention.
4. To promote education and economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds.	+ +	+ +	+ +	Major positive benefits in terms of economic development. Potential for eco-business / eco park development particularly through links with e.g. Gloucestershire First.	12. To reduce the adverse impacts of lorry traffic on communities through means such as: a) reducing the need to travel b) promoting more sustainable means of transport c) sensitive lorry routing d) the use of sustainable alternative fuels e) promoting the management of waste in one of the nearest appropriate installations.	?	?	?	Uncertain effects. New markets could increase traffic, but this would have to be balanced against progress in terms of moving waste away from the landfill disposal route.
5. To safeguard the amenity of local communities from the potential adverse impacts of minerals and waste development.	0	0	0	Neutral impact although similar comments as for Objective 2.	13. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity.	+	+	+	Similar comments as for Objective 6 – linked to the use of inert C&D waste.
6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society.	+	+ +	+ +	Major positive effects anticipated in terms particularly in terms of Construction and Demolition (C&D) waste being utilised in place of primary aggregates.	14. To reduce waste to landfill and in dealing with all waste streams to actively promote the waste hierarchy (i.e. Prevent, Reduce, Reuse, Recycle, Dispose) to achieve the sustainable management of waste.	+ +	+ +	+ +	Major positive effects likely as encouraging the development of markets and a resource economy will boost recycling initiatives.
7. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.	+ +	+ +	+ +	Major positive benefits in terms of employment creation. Potentially linked to green business / eco park development. Recycling industries could be a major growth area in the near future.	15. To reduce contributions to and to adapt to Climate Change.	+ +	+ +	+ +	Major positive effects likely linked to the positive moves away from landfill disposal.
8. To protect, conserve and enhance Gloucestershire's wildlife and natural environment – its landscape and biodiversity.	0	0	0	Neutral impact but potential positive impacts likely should the development of markets leads to increased recycling.	/				

2. Nature of Effects:

Temporary or permanent effect:	**Geographic scale:**	**Significance and Likelihood:**
The positive effects could be permanent or at the least long term.	Gloucestershire and UK wide – potentially world wide. May depend on the scope of the partners involved.	The effects are highly significant and it is very likely that the issue of markets will become increasingly important as without them the recycling agenda and various initiatives by councils / business / groups / individuals will struggle to meet targets.

3. Cumulative / Secondary / Synergistic Impacts:

Potential cumulative / secondary / synergistic effects of the option	**Potential CI receptors & past / present / future human activities that have affected or will possibly affect these receptors**	**Predicted impacts on the receptor as a result of the plan in combination with other human activities, and the significance of the impacts**	**Possible mitigation measures & management suggestions and pointers for other plans & strategies**
Similar positive secondary impacts as for minimising waste generation. Potential spin-off employment opportunities. Potentially positive secondary effects related to the fact that more waste will be recycled and composted. Potentially negative transport / congestion issues in combination with increasing levels of traffic from other sectors.	• All communities in Gloucestershire. • Communities elsewhere who currently deal with recyclable materials e.g. in other parts of the UK and in China. • The natural environment. • The global climate. Human activities that have or will affect these receptors include: Waste development, population increase leading to increased waste production, attitudes in society, supermarket/retail strategies, Waste Collection Authority strategies and levels of joint working, business interest, economic climate, transport costs.	Positive impacts may include: Increased recycling in the medium to long term with reduced costs to Local Authorities. A cleaner environment both in urban areas and the countryside – promoting health and well-being. Potentially more visitors to the County to experience and enjoy a high quality environment. New eco- business opportunities.	Overall, generally positive effects. Increase meaningful partnership working and focus on emerging resource economies - supporting markets.

4. Sustainability Summary:

Broadly similar scores as for Option 5A. This option is likely to have major positive impacts particularly in the medium to long term as markets develop and as partnerships develop to encourage their formation. Organisations such as *Gloucestershire First* will be key may be key progress in this area and it is likely that there will have to be increasing levels of coordination and effective working between the Gloucestershire Waste Partnership and other business interests.

Evidence:
Evidence and further information is detailed in the WCS itself (Section 5) and in Technical Evidence Paper WCS-D 'Implementing the Waste Hierarchy'. See also Technical Evidence Paper WCS-J 'Waste Industry Involvement' for comments about the formation of markets for recyclables.

RE-USE, RECYCLING, COMPOSTING AND RECOVERY: RECOVERY: [WPO6A] A GENERAL, NON-PROCESS SPECIFIC, COUNTYWIDE POLICY E.G. A ROLL FORWARD OF WLP POLICY 15

1. Test of the Option:

SA Objectives	S	M	L	Comments & Explanation	SA Objectives	S	M	L	Comments & Explanation
1. To promote sustainable development and sustainable communities in Gloucestershire giving people the opportunity to live in an affordable and sustainably designed and constructed home.	+	+	+	In general, given the criteria within the policy seeking to demonstrate sustainability and 'be part of a sustainable waste management system' there are positive scores against Objective 1.	9. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets including its architectural and archaeological heritage.	0	0	0	Neutral impact, but similar comments as for Objective 3.
2. To safeguard sites suitable for the location of waste management facilities, or future mineral development from other proposed development.	0	0	0	Neutral. The policy uses criteria, it is not based on identifying sites.	10. To prevent flooding, in particular preventing inappropriate development in the floodplain and to ensure that development does not compromise sustainable sources of water supply.	0	0	0	Neutral impact, but similar comments as for Objective 3.
3. To protect and improve the health and well-being of people living and working in Gloucestershire as well as visitors to the county.	0	0	0	Neutral or positive effects likely, reducing waste to landfill. Potentially negative effects may be identified in any assessment of sites and / or technologies.	11. To prevent the pollution of land, air and water in Gloucestershire and to apply the precautionary principle.	0	0	0	Neutral impact, but similar comments as for Objective 3. It is likely that any recovery process will be less polluting than landfilling.
4. To promote education and economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds.	0	0	0	Likely neutral impact in terms of the promotion of education and economic development. Residual waste facilities are likely to employ relatively low numbers of people.	12. To reduce the adverse impacts of lorry traffic on communities through means such as: a) reducing the need to travel b) promoting more sustainable means of transport c) sensitive lorry routing d) the use of sustainable alternative fuels e) promoting the management of waste in one of the nearest appropriate installations.	?	?	?	Uncertain impacts in the short, medium and long term, dependant on the specific location of facilities within 'appropriate locations'.
5. To safeguard the amenity of local communities from the potential adverse impacts of minerals and waste development.	0	0	0	Neutral impact, but similar comments as for Objective 3.	13. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity.	0	0	0	Neutral impact – unrelated.
6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society.	0	0	0	Neutral impact – unrelated.	14. To reduce waste to landfill and in dealing with all waste streams to actively promote the waste hierarchy (i.e. Prevent, Reduce, Reuse, Recycle, Dispose) to achieve the sustainable management of waste.	++	++	++	Certainly moving waste up the hierarchy away from landfill. The criteria 'will not manage waste that can reasonably be recycled or composted.'
7. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.	0	0	0	Likely neutral impact in terms of the employment. Residual waste facilities are generally high – technology and likely to employ relatively low numbers of people.	15. To reduce contributions to and to adapt to Climate Change.	++	++	++	Major positive scores in terms of energy from waste potential and also reducing methane emissions from landfill.
8. To protect, conserve and enhance Gloucestershire's wildlife and natural environment – its landscape and biodiversity.	0	0	0	Neutral impact, but similar comments as for Objective 3.	/				

2. Nature of Effects:

Temporary or permanent effect:	**Geographic scale:**	**Significance and Likelihood:**
Permanent or long term effects are likely.	Gloucestershire.	Recovery processes are likely to be significant and will need appropriate mitigation and environmental control.

3. Cumulative / Secondary / Synergistic Impacts:

Potential cumulative / secondary / synergistic effects of the option	**Potential CI receptors & past / present / future human activities that have affected or will possibly affect these receptors**	**Predicted impacts on the receptor as a result of the plan in combination with other human activities, and the significance of the impacts**	**Possible mitigation measures & management suggestions and pointers for other plans & strategies**
Positive impacts in terms of helping Gloucestershire to meet LATS targets and avoid fines. Waste generated traffic in combination with increasing general levels of traffic and congestion in Gloucestershire.	• All communities in Gloucestershire. • Communities near to sites and transport routes. • The natural environment. • The global climate. Human activities that have or will affect these receptors include: Waste development, population increase leading to increased waste production, Waste Collection Authority / Waste Disposal Authority strategies and levels of joint working, economic climate / pressures.	Positive impacts may include financial stability / avoidance of LATS penalties for Local Authorities. Less waste to landfill. Negative impacts may include: Potential landscape character impacts. Impacts on certain communities in terms of perceived risk and loss of amenity.	Positive consultation approaches. High quality mitigation / control and environmental regulation. Good design of facilities. An awareness is needed in other plans and strategies that society needs to take responsibility for the waste that it produces. Disposing of it all to landfill is no longer an option.

4. Sustainability Summary:

This is a broad, non process specific option. In general, given the criteria within the policy seeking to demonstrate sustainability and 'be part of a sustainable waste management system' it is positive. Many of the scores against the SA Objectives are neutral. Effectively this means that the option is not clearly related to the objective or that while there may be some negative impacts for some communities, other communities (or Gloucestershire as a whole) will benefit. Major positive scores are given in terms of the objectives to reduce waste to landfill and reduce contributions to climate change – related to energy from waste potential and also reducing methane emissions from landfill. The comments against SA objective are important: 'Potentially negative effects may be identified in any assessment of sites and / or technologies'.

Evidence:
Evidence and further information is detailed in the WCS itself (Section 5) in the recovery section and in Technical Evidence Paper WCS-D 'Implementing the Waste Hierarchy', Technical Evidence Paper WCS-F 'Making Provision for Waste Management Facilities' and Technical Evidence Paper WCS-C 'Broad Locational Analysis'.

RE-USE, RECYCLING, COMPOSTING AND RECOVERY: RECOVERY: [WPO6B] AN APPROACH REQUIRING THE ADDITION OF SPECIFIC MSW REQUIREMENTS FROM THE JMWMS RESIDUAL ACTION PLAN

1. Test of the Option:

SA Objectives	S	M	L	Comments & Explanation	SA Objectives	S	M	L	Comments & Explanation
1. To promote sustainable development and sustainable communities in Gloucestershire giving people the opportunity to live in an affordable and sustainably designed and constructed home.	+	+	+	This option is scored identically to Option WPOA as it is an identical option other than mention of the WDA preferred technology. (See more detailed comments in sustainability summary).	9. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets including its architectural and archaeological heritage.	0	0	0	Similar comments as for Objective 3.
2. To safeguard sites suitable for the location of waste management facilities, or future mineral development from other proposed development.	0	0	0	Neutral. The policy uses criteria, it is not a site identification policy.	10. To prevent flooding, in particular preventing inappropriate development in the floodplain and to ensure that development does not compromise sustainable sources of water supply.	0	0	0	Neutral impact. Similar comments as for Objective 3.
3. To protect and improve the health and well-being of people living and working in Gloucestershire as well as visitors to the county.	0	0	0	Neutral or positive effects likely, reducing waste to landfill. Potentially negative effects may be identified in any assessment of sites and / or technologies.	11. To prevent the pollution of land, air and water in Gloucestershire and to apply the precautionary principle.	0	0	0	Neutral impact, but similar comments as for Objective 3. It is likely that any recovery process will be less polluting than landfilling.
4. To promote education and economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds.	0	0	0	Likely neutral impact in terms of the promotion of education and economic development. Residual waste facilities are likely to employ relatively low numbers of people.	12. To reduce the adverse impacts of lorry traffic on communities through means such as: a) reducing the need to travel b) promoting more sustainable means of transport c) sensitive lorry routing d) the use of sustainable alternative fuels e) promoting the management of waste in one of the nearest appropriate installations.	?	?	?	Uncertain impacts in the short, medium and long term, dependant on the location of facilities within 'appropriate locations'.
5. To safeguard the amenity of local communities from the potential adverse impacts of minerals and waste development.	0	0	0	Neutral, but similar comments as for Objective 3.	13. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity.	0	0	0	Neutral impact – unrelated.
6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society.	0	0	0	Neutral impact – unrelated.	14. To reduce waste to landfill and in dealing with all waste streams to actively promote the waste hierarchy (i.e. Prevent, Reduce, Reuse, Recycle, Dispose) to achieve the sustainable management of waste.	++	++	++	Certainly moving waste up the hierarchy away from landfill. The criteria 'will not manage waste that can reasonably be recycled or composted.'
7. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.	0	0	0	Likely neutral impact in terms of the employment. Residual waste facilities are generally high – technology and likely to employ relatively low numbers of people.	15. To reduce contributions to and to adapt to Climate Change.	++	++	++	Major positive scores in terms of energy from waste potential and also reducing methane emissions from landfill.
8. To protect, conserve and enhance Gloucestershire's wildlife and natural environment – its landscape and biodiversity.	0	0	0	Neutral impact in terms of this objective but comments similar to those for Objective 3 apply.	/				

2. Nature of Effects:

Temporary or permanent effect:	**Geographic scale:**	**Significance and Likelihood:**
Permanent or long term effects are likely.	Gloucestershire.	Recovery processes are likely to be significant and will need appropriate mitigation and environmental control.

3. Cumulative / Secondary / Synergistic Impacts:

Potential cumulative / secondary / synergistic effects of the option	**Potential CI receptors & past / present / future human activities that have affected or will possibly affect these receptors**	**Predicted impacts on the receptor as a result of the plan in combination with other human activities, and the significance of the impacts**	**Possible mitigation measures & management suggestions and pointers for other plans & strategies**
Broadly the same as for WPO6A - positive impacts in terms of helping Gloucestershire to meet LATS targets and avoid fines. Negative impacts in terms of waste generated traffic in combination with increasing general levels of traffic and congestion in Gloucestershire.	• All communities in Gloucestershire. • Communities near to sites and transport routes. • The natural environment. • The global climate. Human activities that have or will affect these receptors include: Waste development, population increase leading to increased waste production, Waste Collection Authority / Waste Disposal Authority strategies and levels of joint working, economic climate / pressures.	Positive impacts may include financial stability / avoidance of LATS penalties for Local Authorities. Less waste to landfill. Negative impacts may include: Potential landscape character impacts. Impacts on certain communities in terms of perceived risk and loss of amenity.	Positive consultation approaches. High quality mitigation / control and environmental regulation. Good design of facilities. An awareness is needed in other plans and strategies that society needs to take responsibility for the waste that it produces. Disposing of it all to landfill is no longer an option.

4. Sustainability Summary:

The SA scores are identical to Option WPO6A. This SA is not focused on assessing a particular technology. It assesses strategic options, in this case an option containing a number of criteria. It is not an option which considers sites. Gloucestershire County Council as the Waste Disposal Authority (WDA) will eventually have a preferred technology or preferred technologies for residual waste and this is detailed in their Joint Municipal Waste Management Strategy (JMWMS) Residual Action Plan. An SEA and technical work has been conducted of this plan to date (as outlined in the Preferred Options and Evidence Papers) these should be should be referred to for specific impacts. This Core Strategy SA is not conducted at a level of depth or analysis to either contradict or confirm the results of the WDA's technical work and their SEA.
The JMWMS SEA does state on page: xv that 'None of the treatment technologies will result in no environmental issues, with each having potentially negative impacts against a number of the SEA criteria – in particular land contamination and landscape, air pollution and energy issues, water resources and nuisance. However, the extent to which these impact upon Gloucestershire and beyond can be mitigated to a large extent (although not totally) through the use of advanced abatement technologies, careful monitoring and appropriate site management.'
Evidence:
Further evidence and information is detailed in the JMWMS Residual Action Plan and SEA, Appendix 8 of this report, the WCS itself (Section 5) in the recovery section and in Technical Evidence Paper WCS-D 'Implementing the Waste Hierarchy', Technical Evidence Paper WCS-F 'Making Provision for Waste Management Facilities' and Technical Evidence Paper WCS-C 'Broad Locational Analysis'.

RE-USE, RECYCLING, COMPOSTING AND RECOVERY: RECOVERY: [WPO6C] SITE SPECIFIC APPROACH – STRATEGIC SITES ALLOCATED IN A WASTE SITE ALLOCATIONS DPD BASED ON CRITERIA IN THE WCS

1. Test of the Option:

SA Objectives	S	M	L	Comments & Explanation	SA Objectives	S	M	L	Comments & Explanation
1. To promote sustainable development and sustainable communities in Gloucestershire giving people the opportunity to live in an affordable and sustainably designed and constructed home.	+	+ +	+ +	Allocating a strategic site in a Waste Site Allocations document is likely to provide a degree of certainty and the site's sustainability will be rigorously tested. This score relates to the broad principle of allocating sites – not the sites.	9. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets including its architectural and archaeological heritage.	+	+ +	+ +	Similar comments as to those for Objective 8 – any site selection process would seek to protect material, cultural and recreational assets.
2. To safeguard sites suitable for the location of waste management facilities, or future mineral development from other proposed development.	+ +	+ +	+ +	Major positive effects / results anticipated – as the option proposes site allocations as a way forward.	10. To prevent flooding, in particular preventing inappropriate development in the floodplain and to ensure that development does not compromise sustainable sources of water supply.	+	+ +	+ +	Similar comments as to those for Objective 8 – floodplains and hydrologically sensitive areas will be avoided.
3. To protect and improve the health and well-being of people living and working in Gloucestershire as well as visitors to the county.	+	+ +	+ +	The sites approach in the medium to long term would be very positive in that the site's suitability would be rigorously tested.	11. To prevent the pollution of land, air and water in Gloucestershire and to apply the precautionary principle.	+	+	+	Similar comments as to those for Objective 8 – not major positive in terms of applying the precautionary principle.
4. To promote education and economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds.	+	+	+	The sites approach will provide certainty and potentially may promote economic development and some level waste related employment. However, generally residual waste facilities are likely to employ relatively low numbers of people.	12. To reduce the adverse impacts of lorry traffic on communities through means such as: a) reducing the need to travel b) promoting more sustainable means of transport c) sensitive lorry routing d) the use of sustainable alternative fuels e) promoting the management of waste in one of the nearest appropriate installations.	?	?	?	Uncertain effects. Any site selection process would seek to ensure that the site was appropriate in terms of highway access and movements but the uncertainty comes from not knowing the site location. However given the criteria of previously developed land etc it is likely to be reasonably close to arisings.
5. To safeguard the amenity of local communities from the potential adverse impacts of minerals and waste development.	+	+ +	+ +	A sites approach will provide certainty and in terms of local amenity a site's appropriateness and sustainability will be rigorously tested.	13. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity.	0	0	0	Generally neutral impact, but consider comments for Objective 6.
6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society.	?	?	?	Uncertain impact – clearly depends where the sites will be and also criteria c. mentions existing minerals sites, leading to potential conflicts of interest.	14. To reduce waste to landfill and in dealing with all waste streams to actively promote the waste hierarchy (i.e. Prevent, Reduce, Reuse, Recycle, Dispose) to achieve the sustainable management of waste.	+ +	+ +	+ +	Major positive effects likely in terms of delivering facilities that will help to reduce waste to landfill.
7. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.	?	?	?	There may be employment opportunities but there are uncertainties in terms where they might be i.e. will they be in *both* rural and urban areas?	15. To reduce contributions to and to adapt to Climate Change.	+ +	+ +	+ +	Major positive effects, linked to Objective 14 although the site allocations approach lacks flexibility in terms of adapting to Climate Change.
8. To protect, conserve and enhance Gloucestershire's wildlife and natural environment – its landscape and biodiversity.	+	+ +	+ +	The sites approach in the medium to long term would be positive in that any site's suitability would be rigorously tested.	/				

2. Nature of Effects:

Temporary or permanent effect:	**Geographic scale:**	**Significance and Likelihood:**
Permanent or long term effects are likely.	Gloucestershire.	Recovery processes are likely to be significant and will need appropriate mitigation and environmental control.

3. Cumulative / Secondary / Synergistic Impacts:

Potential cumulative / secondary / synergistic effects of the option	**Potential CI receptors & past / present / future human activities that have affected or will possibly affect these receptors**	**Predicted impacts on the receptor as a result of the plan in combination with other human activities, and the significance of the impacts**	**Possible mitigation measures & management suggestions and pointers for other plans & strategies**
Broadly the same as for WPO6A - positive impacts in terms of helping Gloucestershire to meet LATS targets and avoid fines. Negative impacts in terms of waste generated traffic in combination with increasing general levels of traffic and congestion in Gloucestershire.	• All communities in Gloucestershire. • Communities near to sites and transport routes. • The natural environment. • The global climate. Human activities that have or will affect these receptors include: Waste development, population increase leading to increased waste production, Waste Collection Authority / Waste Disposal Authority strategies and levels of joint working, economic climate / pressures.	Positive impacts may include financial stability / avoidance of LATS penalties for Local Authorities. Less waste to landfill. Negative impacts may include: Potential landscape character impacts. Impacts on certain communities in terms of perceived risk and loss of amenity.	Positive consultation approaches. High quality mitigation / control and environmental regulation. Good design of facilities. An awareness is needed in other plans and strategies that society needs to take responsibility for the waste that it produces. Disposing of it all to landfill is no longer an option.

4. Sustainability Summary:

This is an option which is testing the approach of allocating strategic sites for the management of residual waste. Any facility in any location may have the potential to pollute, facilities are thus highly regulated through planning and the through licensing and regulation by the Environment Agency. What the options presented in the WCS are trying to achieve is an improvement on the current situation, and the scoring is given in this context. Clearly other assessments at site level and even at EIA level will produce their own results. Allocating a strategic site in a Waste Site Allocations document is likely to provide a degree of certainty and the site's sustainability will be rigorously tested. The scores relate to the broad principle of allocating sites – not the sites themselves. Positive or major positive effects are envisaged in terms of 11 of the 15 SA Objectives. There are uncertainties in terms of lorry impacts, conserving mineral resources and employment issues.

Evidence:
Evidence and further information is detailed in the WCS itself (Section 5) in the recovery section and in Technical Evidence Paper WCS-D 'Implementing the Waste Hierarchy', Technical Evidence Paper WCS-F 'Making Provision for Waste Management Facilities' and Technical Evidence Paper WCS-C 'Broad Locational Analysis'.

RE-USE, RECYCLING, COMPOSTING AND RECOVERY: RECOVERY: [WPO6D] BROAD LOCATIONAL APPROACH FOCUSED ON THE BROAD LOCATIONAL AREA IN THE WCS

1. Test of the Option:

SA Objectives	S	M	L	Comments & Explanation	SA Objectives	S	M	L	Comments & Explanation
1. To promote sustainable development and sustainable communities in Gloucestershire giving people the opportunity to live in an affordable and sustainably designed and constructed home.	+	+	+	Broadly positive effects likely in terms of the promotion of sustainable development and sustainable communities. Less certainty than the allocated sites approach (WPO6C).	9. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets including its architectural and archaeological heritage.	+	+	+	Generally positive effects given the criteria in the policy.
2. To safeguard sites suitable for the location of waste management facilities, or future mineral development from other proposed development.	0	0	0	Neutral impact.	10. To prevent flooding, in particular preventing inappropriate development in the floodplain and to ensure that development does not compromise sustainable sources of water supply.	+	+	+	Generally positive effects given the reference to considering 'physical and environmental constraints'.
3. To protect and improve the health and well-being of people living and working in Gloucestershire as well as visitors to the county.	+	+	+	Broadly positive impacts in terms of this health objective. Appropriate facilities are needed to manage the waste that society produces.	11. To prevent the pollution of land, air and water in Gloucestershire and to apply the precautionary principle.	+	+	+	Generally positive given the criteria.
4. To promote education and economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds.	+	+	+	Potentially broadly positive in terms promoting economic development. Similar comments as for WPO6C.	12. To reduce the adverse impacts of lorry traffic on communities through means such as: a) reducing the need to travel b) promoting more sustainable means of transport c) sensitive lorry routing d) the use of sustainable alternative fuels e) promoting the management of waste in one of the nearest appropriate installations.	?	?	?	Uncertain. – the broad location area is wide and there is the potential for waste to be traveling long distances by road.
5. To safeguard the amenity of local communities from the potential adverse impacts of minerals and waste development.	+	+	+	The policy criteria states that: '…the impact on neighbouring land uses' will be key considerations.	13. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity.	0	0	0	Likely neutral impact.
6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society.	?	?	?	Uncertain impact – clearly depends where the sites will be and also criteria c. mentions existing minerals sites, leading to potential conflicts of interest.	14. To reduce waste to landfill and in dealing with all waste streams to actively promote the waste hierarchy (i.e. Prevent, Reduce, Reuse, Recycle, Dispose) to achieve the sustainable management of waste.	+	+	+	Positive effects likely in terms of delivering facilities that will help to reduce waste to landfill.
7. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.	?	?	?	There may be employment opportunities but there are uncertainties in terms where they might be i.e. will they be in *both* rural and urban areas?	15. To reduce contributions to and to adapt to Climate Change.	+	+	+	Positive effects, linked to Objective 14.
8. To protect, conserve and enhance Gloucestershire's wildlife and natural environment – its landscape and biodiversity.	+	+	+	Positive effects given the sequential criteria in the policy to locate on industrial sites, previously developed land etc.	/				

2. Nature of Effects:

Temporary or permanent effect:	**Geographic scale:**	**Significance and Likelihood:**
Permanent or long term effects are likely.	Gloucestershire.	Recovery processes are likely to be significant and will need appropriate mitigation and environmental control.

3. Cumulative / Secondary / Synergistic Impacts:

Potential cumulative / secondary / synergistic effects of the option	**Potential CI receptors & past / present / future human activities that have affected or will possibly affect these receptors**	**Predicted impacts on the receptor as a result of the plan in combination with other human activities, and the significance of the impacts**	**Possible mitigation measures & management suggestions and pointers for other plans & strategies**
Broadly the same as for WPO6A - positive impacts in terms of helping Gloucestershire to meet LATS targets and avoid fines. Negative impacts in terms of waste generated traffic in combination with increasing general levels of traffic and congestion in Gloucestershire.	• All communities in Gloucestershire. • Communities near to sites and transport routes. • The natural environment. • The global climate. Human activities that have or will affect these receptors include: Waste development, population increase leading to increased waste production, Waste Collection Authority / Waste Disposal Authority strategies and levels of joint working, economic climate / pressures.	Positive impacts may include financial stability / avoidance of LATS penalties for Local Authorities. Less waste to landfill. Negative impacts may include: Potential landscape character impacts. Impacts on certain communities in terms of perceived risk and loss of amenity.	Positive consultation approaches. High quality mitigation / control and environmental regulation. Good design of facilities. An awareness is needed in other plans and strategies that society needs to take responsibility for the waste that it produces. Disposing of it all to landfill is no longer an option.

4. Sustainability Summary:

In the assessment of this option there are broadly positive effects in terms of a number of the SA Objectives, but there is less certainty than the allocated sites approach (WPO6C). There are no 'major positive' effects anticipated and there are uncertainties over SA Objectives 6, 7 & 12 – conservation of the County's mineral resources, employment issues (related to diversification) and lorry impacts.

Evidence:
Evidence and further information is detailed in the WCS itself (Section 5) in the recovery section and in Technical Evidence Paper WCS-D 'Implementing the Waste Hierarchy' and . Technical Evidence Paper WCS-F 'Making Provision for Waste Management Facilities' and Technical Evidence Paper WCS-C 'Broad Locational Analysis'.

LOCATIONAL STRATEGY: [WPO7A] A BROAD SEARCH AREA BASED ON THE FULL 16KM REGIONAL POLICY W2

1. Test of the Option:

SA Objectives	x	x	x	Comments & Explanation	SA Objectives	x	x	x	Comments & Explanation
1. To promote sustainable development and sustainable communities in Gloucestershire giving people the opportunity to live in an affordable and sustainably designed and constructed home.		+		Note: This option is not time specific and so has only been scored in one column. Broadly positive effects anticipated in terms of sustainable development as long as sustainable transport linkages can be demonstrated.	9. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets including its architectural and archaeological heritage.		?		Uncertain or neutral, sites are not identified and the search area covers large areas of Gloucestershire.
2. To safeguard sites suitable for the location of waste management facilities, or future mineral development from other proposed development.		?		Uncertain impacts on safeguarding sites.	10. To prevent flooding, in particular preventing inappropriate development in the floodplain and to ensure that development does not compromise sustainable sources of water supply.		?		Uncertain - there are large areas of floodplain within the 16km search area. However floodplain will be avoided.
3. To protect and improve the health and well-being of people living and working in Gloucestershire as well as visitors to the county.		?		Uncertain or neutral, the sites are not identified and the search area covers large areas of Gloucestershire.	11. To prevent the pollution of land, air and water in Gloucestershire and to apply the precautionary principle.		?		Uncertain or neutral, sites are not identified and the search area covers large areas of Gloucestershire.
4. To promote education and economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds.		+		Broadly positive impacts or potentially neutral.	12. To reduce the adverse impacts of lorry traffic on communities through means such as: a) reducing the need to travel b) promoting more sustainable means of transport c) sensitive lorry routing d) the use of sustainable alternative fuels e) promoting the management of waste in one of the nearest appropriate installations.		?		Uncertain or potentially negative. Sites are not identified and sustainability depends on the demonstration of sustainable transport linkages and opportunities.
5. To safeguard the amenity of local communities from the potential adverse impacts of minerals and waste development.		?		Uncertain or neutral, the sites are not identified and the search area covers large areas of Gloucestershire.	13. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity.		0		Neutral impact likely in terms of this objective.
6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society.		0		Neutral impact likely in terms of this objective.	14. To reduce waste to landfill and in dealing with all waste streams to actively promote the waste hierarchy (i.e. Prevent, Reduce, Reuse, Recycle, Dispose) to achieve the sustainable management of waste.		+		Facilities (wherever they are located) are likely to be moving waste up the hierarchy.
7. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.		+		Positive impacts in that this wide search area does not rule out rural areas in terms of providing waste related employment opportunities.	15. To reduce contributions to and to adapt to Climate Change.		?		Uncertain impacts linked to transport uncertainties.
8. To protect, conserve and enhance Gloucestershire's wildlife and natural environment – its landscape and biodiversity.		?		Uncertain or neutral, sites are not identified and the search area covers large areas of Gloucestershire.	/				

2. Nature of Effects:

Temporary or permanent effect:	**Geographic scale:**	**Significance and Likelihood:**
Permanent or long term effects are likely depending on the waste stream, facility or waste management technology.	Gloucestershire and potentially further a field, but a focus on the 16km zone as per RSS Draft Policy W2.	Dependant on the site location within a zone and on the waste management technology.

3. Cumulative / Secondary / Synergistic Impacts:

Potential cumulative / secondary / synergistic effects of the option	**Potential CI receptors & past / present / future human activities that have affected or will possibly affect these receptors**	**Predicted impacts on the receptor as a result of the plan in combination with other human activities, and the significance of the impacts**	**Possible mitigation measures & management suggestions and pointers for other plans & strategies**
Depends on the facility and where it will be located within the identified zone or area. Negative impacts in terms of waste generated traffic in combination with increasing general levels of traffic and congestion in Gloucestershire.	Depends on the facility and its location within the identified zone or area but broadly the potential CI receptors may include: • All communities in Gloucestershire. • Communities in the specific zone or area in question. • The natural environment. • The global climate. Human activities could include: Waste development, population increase, increased waste production, Waste Collection Authority / Waste Disposal Authority strategies / economic climate & pressures.	Positive impacts may include: Sustainable waste management with reduced costs to Local Authorities. New eco-business opportunities. Negative impacts may include – impacts on amenity for certain communities, impacts on landscape character or habitats.	Various mitigation measures to protect the environment and the well-being and amenity of communities. Other relevant plans and strategies should identify and be aware of the zones or areas where waste management may be appropriate and recognise the need for taking responsibility for waste and the need for effective management.

4. Sustainability Summary:

This option is not time specific and so has only been scored in one column. Broadly positive effects anticipated in terms of sustainable development as long as sustainable transport linkages can be demonstrated. This option is difficult to score as it is not focused on a particular technology and the 16km radius around the main urban areas includes practically the whole of Gloucestershire, only excluding the far north west of the County. The other WPO6 options are also difficult due to the fact that more detailed criteria/constraints need to be developed. No negative effects are highlighted against the SA Objectives but there are a number of 'uncertain' scores.

Evidence:
Evidence and further information is detailed in the WCS itself (Section 6) and in Technical Evidence Paper WCS-C 'Broad Locational Analysis'.

LOCATIONAL STRATEGY: [WPO7B] USE URBAN LOCATIONS AND THE AREA LABELLED C AS THE BROAD LOCATIONAL AREA IN WHICH STRATEGIC WASTE MANAGEMENT FACILITIES SHOULD BE SITED

1. Test of the Option:

SA Objectives	x	x	x	Comments & Explanation	SA Objectives	x	x	x	Comments & Explanation
1. To promote sustainable development and sustainable communities in Gloucestershire giving people the opportunity to live in an affordable and sustainably designed and constructed home.		+		Note: This option is not time specific and so has only been scored in one column. Broadly positive effects likely. Zone C avoids the floodplain and the Cotswold AONB and is near to major sources of waste arising.	9. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets including its architectural and archaeological heritage.		?		Uncertain impact. There may be material, cultural recreational assets within this zone – it depends where sites or facilities are located.
2. To safeguard sites suitable for the location of waste management facilities, or future mineral development from other proposed development.		?		Uncertain impacts in terms of the safeguarding of sites.	10. To prevent flooding, in particular preventing inappropriate development in the floodplain and to ensure that development does not compromise sustainable sources of water supply.		+ +		Major positive scores against this objective as Zone C specifically does not include the floodplain.
3. To protect and improve the health and well-being of people living and working in Gloucestershire as well as visitors to the county.		+		Broadly positive effects likely given e.g. the positive scores in terms of reducing waste to landfill & climate change impacts.	11. To prevent the pollution of land, air and water in Gloucestershire and to apply the precautionary principle.		?		Uncertain impacts. Pollution could occur in Zone C (or in fact anywhere a facility was located). But pollution is unlikely as it is addressed through EIA and EA Regulation.
4. To promote education and economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds.		+		Broadly positive effects likely in terms of economic development in Gloucestershire.	12. To reduce the adverse impacts of lorry traffic on communities through means such as: a) reducing the need to travel b) promoting more sustainable means of transport c) sensitive lorry routing d) the use of sustainable alternative fuels e) promoting the management of waste in one of the nearest appropriate installations.		+ +		Major positive effects given the proximity of Zone C to Gloucester and Cheltenham (and Tewkesbury) – the major sources of waste arising in the County.
5. To safeguard the amenity of local communities from the potential adverse impacts of minerals and waste development.		?		Uncertain impacts as the particular local communities are not known.	13. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity.		0		Likely neutral impact.
6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society.		0		Likely neutral impact.	14. To reduce waste to landfill and in dealing with all waste streams to actively promote the waste hierarchy (i.e. Prevent, Reduce, Reuse, Recycle, Dispose) to achieve the sustainable management of waste.		+		Facilities (wherever they are located) are likely to be moving waste up the hierarchy.
7. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.		?		Uncertain or potentially negative given that many rural areas are not considered.	15. To reduce contributions to and to adapt to Climate Change.		+ +		Major positive effects linked to reducing waste to landfill and reducing the distances waste travels.
8. To protect, conserve and enhance Gloucestershire's wildlife and natural environment – its landscape and biodiversity.		+		Positive effects likely. Zone C avoids Gloucestershire's AONB and a number of other sensitive sites and designations.	/				

2. Nature of Effects:

Temporary or permanent effect:	**Geographic scale:**	**Significance and Likelihood:**
Permanent or long term effects are likely depending on the waste stream, facility or waste management technology.	Gloucestershire and potentially further a field, but a focus on the C zone.	Dependant on the site location within a zone and on the waste management technology.

3. Cumulative / Secondary / Synergistic Impacts:

Potential cumulative / secondary / synergistic effects of the option	**Potential CI receptors & past / present / future human activities that have affected or will possibly affect these receptors**	**Predicted impacts on the receptor as a result of the plan in combination with other human activities, and the significance of the impacts**	**Possible mitigation measures & management suggestions and pointers for other plans & strategies**
Depends on the facility and where it will be located within the identified zone or area. Negative impacts in terms of waste generated traffic in combination with increasing general levels of traffic and congestion in Gloucestershire.	Depends on the facility and its location within the identified zone or area but broadly the potential CI receptors may include: • All communities in Gloucestershire. • Communities in the specific zone or area in question. • The natural environment. • The global climate. Human activities could include: Waste development, population increase, increased waste production, Waste Collection Authority / Waste Disposal Authority strategies / economic climate & pressures.	Positive impacts may include: Sustainable waste management with reduced costs to Local Authorities. New eco-business opportunities. Negative impacts may include – impacts on amenity for certain communities, impacts on landscape character or habitats.	Various mitigation measures to protect the environment and the well-being and amenity of communities. Other relevant plans and strategies should identify and be aware of the zones or areas where waste management may be appropriate and recognise the need for taking responsibility for waste and the need for effective management.

4. Sustainability Summary:

This option is not time specific and so has only been scored in one column. Broadly positive effects likely. Zone C avoids the floodplain and the Cotswold AONB and is near to major sources of waste arising – Gloucester and Cheltenham and Tewkesbury. Major positive effects are given against SA Objective 8 – the conservation of the natural environment, Objective 10 – preventing flooding, Objective 12 – reducing lorry impacts and Objective 15 – reducing climate change impacts.

Evidence:
Evidence and further information is detailed in the WCS (Section 6) and in Technical Evidence Paper WCS-C 'Broad Locational Analysis'.

LOCATIONAL STRATEGY: [WPO7C] USE AREAS LABELLED C2, C3 AND C4 AS THE BROAD LOCATIONAL AREA IN WHICH STRATEGIC WASTE MANAGEMENT FACILITIES SHOULD BE SITED

1. Test of the Option:

SA Objectives	x	x	x	Comments & Explanation	SA Objectives	x	x	x	Comments & Explanation
1. To promote sustainable development and sustainable communities in Gloucestershire giving people the opportunity to live in an affordable and sustainably designed and constructed home.		+		Note: This option is not time specific and so has only been scored in one column. This option is scored identically to Option WPO7B as at this broad level of assessment Zone C will not be *substantially* different from C2, C3 & C4.	9. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets including its architectural and archaeological heritage.		?		Uncertain impact. There may be material, cultural recreational assets within this zone – it depends where sites or facilities are located.
2. To safeguard sites suitable for the location of waste management facilities, or future mineral development from other proposed development.		?		Uncertain impacts in terms of the safeguarding of sites.	10. To prevent flooding, in particular preventing inappropriate development in the floodplain and to ensure that development does not compromise sustainable sources of water supply.		+ +		Major positive scores against this objective as Zone C specifically does not include the floodplain.
3. To protect and improve the health and well-being of people living and working in Gloucestershire as well as visitors to the county.		+		Broadly positive effects likely when seen in terms of reductions of waste to landfill.	11. To prevent the pollution of land, air and water in Gloucestershire and to apply the precautionary principle.		?		Uncertain impacts. Pollution could theoretically occur in C2, C3 & C4, but pollution is unlikely as it is addressed through planning and licensing.
4. To promote education and economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds.		+		Broadly positive effects likely in terms of economic development in Gloucestershire.	12. To reduce the adverse impacts of lorry traffic on communities through means such as: a) reducing the need to travel b) promoting more sustainable means of transport c) sensitive lorry routing d) the use of sustainable alternative fuels e) promoting the management of waste in one of the nearest appropriate installations.		+ +		Major positive effects given the proximity of Zone C to Gloucester and Cheltenham – the major sources of waste arising in the County.
5. To safeguard the amenity of local communities from the potential adverse impacts of minerals and waste development.		?		Uncertain impacts as the particular local communities are not known.	13. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity.		0		Likely neutral impact.
6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society.		0		Likely neutral impact.	14. To reduce waste to landfill and in dealing with all waste streams to actively promote the waste hierarchy (i.e. Prevent, Reduce, Reuse, Recycle, Dispose) to achieve the sustainable management of waste.		+		Facilities (wherever they are located) are likely to be moving waste up the hierarchy.
7. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.		?		Uncertain or potentially negative given that many rural areas are not considered.	15. To reduce contributions to and to adapt to Climate Change.		+ +		Major positive effects linked to reducing waste to landfill and reducing the distances waste travels.
8. To protect, conserve and enhance Gloucestershire's wildlife and natural environment – its landscape and biodiversity.		+		Positive effects likely. Zone C avoids Gloucestershire's AONB and a number of other sensitive sites and designations.	/				

2. Nature of Effects:

Temporary or permanent effect:	**Geographic scale:**	**Significance and Likelihood:**
Permanent or long term effects are likely depending on the waste stream, facility or waste management technology.	Gloucestershire and potentially further a field, but a focus on the areas labelled C2, C3 and C4.	Dependant on the site location within a zone and on the waste management technology.

3. Cumulative / Secondary / Synergistic Impacts:

Potential cumulative / secondary / synergistic effects of the option	**Potential CI receptors & past / present / future human activities that have affected or will possibly affect these receptors**	**Predicted impacts on the receptor as a result of the plan in combination with other human activities, and the significance of the impacts**	**Possible mitigation measures & management suggestions and pointers for other plans & strategies**
Depends on the facility and where it will be located within the identified zone or area. Negative impacts in terms of waste generated traffic in combination with increasing general levels of traffic and congestion in Gloucestershire.	Depends on the facility and its location within the identified zone or area but broadly the potential CI receptors may include: • All communities in Gloucestershire. • Communities in the specific zone or area in question. • The natural environment. • The global climate. Human activities could include: Waste development, population increase, increased waste production, Waste Collection Authority / Waste Disposal Authority strategies / economic climate & pressures.	Positive impacts may include: Sustainable waste management with reduced costs to Local Authorities. New eco-business opportunities. Negative impacts may include – impacts on amenity for certain communities, impacts on landscape character or habitats.	Various mitigation measures to protect the environment and the well-being and amenity of communities. Other relevant plans and strategies should identify and be aware of the zones or areas where waste management may be appropriate and recognise the need for taking responsibility for waste and the need for effective management.

4. Sustainability Summary:

This option is not time specific and so has only been scored in one column. This option is scored identically to Option WPO7B as at this broad level of assessment Zone C will not be *substantially* different from C2, C3 & C4.

Evidence:
Evidence and further information is detailed in the WCS (Section 6) and in Technical Evidence Paper WCS-C 'Broad Locational Analysis'.

LOCATIONAL STRATEGY: [WPO7D] USE AREA C4 AS THE BROAD LOCATIONAL AREA FOR STRATEGIC WASTE MANAGEMENT FACILITIES

1. Test of the Option:

SA Objectives	x	x	x	Comments & Explanation	SA Objectives	x	x	x	Comments & Explanation
1. To promote sustainable development and sustainable communities in Gloucestershire giving people the opportunity to live in an affordable and sustainably designed and constructed home.		+		Note: This option is not time specific and so has only been scored in one column. This option is scored identically to Options WPO7B & C as at this broad level of assessment the differences between the zones are not marked.	9. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets including its architectural and archaeological heritage.		?		Uncertain impact. There may be material, cultural recreational assets within this zone – it depends where sites or facilities are located.
2. To safeguard sites suitable for the location of waste management facilities, or future mineral development from other proposed development.		?		Uncertain impacts in terms of the safeguarding of sites.	10. To prevent flooding, in particular preventing inappropriate development in the floodplain and to ensure that development does not compromise sustainable sources of water supply.		+ +		Major positive scores against this objective as Zone C specifically does not include the floodplain.
3. To protect and improve the health and well-being of people living and working in Gloucestershire as well as visitors to the county.		+		Broadly positive effects likely when seen in terms of likely reductions of waste to landfill.	11. To prevent the pollution of land, air and water in Gloucestershire and to apply the precautionary principle.		?		Uncertain impacts. Pollution could theoretically occur in C4, but pollution is unlikely as it is addressed through planning and licensing.
4. To promote education and economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds.		+		Broadly positive effects likely in terms of economic development in Gloucestershire.	12. To reduce the adverse impacts of lorry traffic on communities through means such as: a) reducing the need to travel b) promoting more sustainable means of transport c) sensitive lorry routing d) the use of sustainable alternative fuels e) promoting the management of waste in one of the nearest appropriate installations.		+ +		Major positive effects given the proximity of Zone C to Gloucester and Cheltenham – the major sources of waste arising in the County.
5. To safeguard the amenity of local communities from the potential adverse impacts of minerals and waste development.		+		Uncertain impacts as the particular local communities are not known.	13. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity.		0		Likely neutral impact.
6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society.		0		Likely neutral impact.	14. To reduce waste to landfill and in dealing with all waste streams to actively promote the waste hierarchy (i.e. Prevent, Reduce, Reuse, Recycle, Dispose) to achieve the sustainable management of waste.		+		Facilities (wherever they are located) are likely to be moving waste up the hierarchy.
7. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.		?		Uncertain or potentially negative given that many rural areas are not considered.	15. To reduce contributions to and to adapt to Climate Change.		+ +		Major positive effects linked to reducing waste to landfill and reducing the distances waste travels.
8. To protect, conserve and enhance Gloucestershire's wildlife and natural environment – its landscape and biodiversity.		+		Positive effects likely. Zone C4 avoids Gloucestershire's AONB and a number of other sensitive sites and designations.	/				

2. Nature of Effects:

Temporary or permanent effect:	**Geographic scale:**	**Significance and Likelihood:**
Permanent or long term effects are likely depending on the waste stream, facility or waste management technology.	Gloucestershire and potentially further a field, but a focus on the area labelled C4.	Dependant on the site location within a zone and on the waste management technology.

3. Cumulative / Secondary / Synergistic Impacts:

Potential cumulative / secondary / synergistic effects of the option	**Potential CI receptors & past / present / future human activities that have affected or will possibly affect these receptors**	**Predicted impacts on the receptor as a result of the plan in combination with other human activities, and the significance of the impacts**	**Possible mitigation measures & management suggestions and pointers for other plans & strategies**
Depends on the facility and where it will be located within the identified zone or area. Negative impacts in terms of waste generated traffic in combination with increasing general levels of traffic and congestion in Gloucestershire.	Depends on the facility and its location within the identified zone or area but broadly the potential CI receptors may include: • All communities in Gloucestershire. • Communities in the specific zone or area in question. • The natural environment. • The global climate. Human activities could include: Waste development, population increase, increased waste production, Waste Collection Authority / Waste Disposal Authority strategies / economic climate & pressures.	Positive impacts may include: Sustainable waste management with reduced costs to Local Authorities. New eco-business opportunities. Negative impacts may include – impacts on amenity for certain communities, impacts on landscape character or habitats.	Various mitigation measures to protect the environment and the well-being and amenity of communities. Other relevant plans and strategies should identify and be aware of the zones or areas where waste management may be appropriate and recognise the need for taking responsibility for waste and the need for effective management.

4. Sustainability Summary:

This option is not time specific and so has only been scored in one column. This option is scored identically to Options WPO7B & C as at this broad level of assessment the differences between the zones are not marked.

Evidence:
Evidence and further information is detailed in the WCS (Section 6) and in Technical Evidence Paper WCS-C 'Broad Locational Analysis'.

LOCATIONAL STRATEGY: ENVIRONMENTAL ACCEPTABILITY OF EXISTING HAZARDOUS WASTE FACILITIES: [WPO8A] PROPOSALS FOR HAZARDOUS WASTE DEVELOPMENT AT EXISTING HAZARDOUS WASTE FACILITIES MUST DEMONSTRATE ENVIRONMENTAL ACCEPTABILITY

1. Test of the Option:

SA Objectives	S	M	L	Comments & Explanation	SA Objectives	S	M	L	Comments & Explanation
1. To promote sustainable development and sustainable communities in Gloucestershire giving people the opportunity to live in an affordable and sustainably designed and constructed home.	+	+	+	Ideally hazardous waste should be minimized and this is encouraged in the WCS. Positive scores are given as the policy is seeking to manage the hazardous waste produced by society in an environmentally acceptable way.	9. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets including its architectural and archaeological heritage.	0	0	0	Neutral. This policy option is unlikely to have an impact on material, cultural and recreational assets.
2. To safeguard sites suitable for the location of waste management facilities, or future mineral development from other proposed development.	+	+	+	Broadly positive. Draft RSS Policy W3 seeks to safeguard hazardous waste capacity.	10. To prevent flooding, in particular preventing inappropriate development in the floodplain and to ensure that development does not compromise sustainable sources of water supply.	0	0	0	Neutral impact.
3. To protect and improve the health and well-being of people living and working in Gloucestershire as well as visitors to the county.	+	+	+	Clearly if sites are 'environmentally acceptable' then people's health and well-being should be protected.	11. To prevent the pollution of land, air and water in Gloucestershire and to apply the precautionary principle.	+ +	+ +	+ +	Major positive in that pollution prevention is the aim of the policy option and the precautionary principle is specifically referenced.
4. To promote education and economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds.	0	0	0	Neutral impact likely on the promotion of education and economic development in the County.	12. To reduce the adverse impacts of lorry traffic on communities through means such as: a) reducing the need to travel b) promoting more sustainable means of transport c) sensitive lorry routing d) the use of sustainable alternative fuels e) promoting the management of waste in one of the nearest appropriate installations.	+	+	+	Broadly positive in that the policy states that there should be no significant adverse impacts on access and the local highway network that are not capable of successfully mitigation.
5. To safeguard the amenity of local communities from the potential adverse impacts of minerals and waste development.	+	+	+	If sites are 'environmentally acceptable' it is likely that amenity will be protected.	13. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity.	0	0	0	Neutral impact in terms of this minerals related objective.
6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society.	0	0	0	Neutral impact likely.	14. To reduce waste to landfill and in dealing with all waste streams to actively promote the waste hierarchy (i.e. Prevent, Reduce, Reuse, Recycle, Dispose) to achieve the sustainable management of waste.	0	0	0	Neutral impact. The waste hierarchy does not easily apply to Hazardous waste although clearly it should be prevented and reduced.
7. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.	0	0	0	Neutral impact likely.	15. To reduce contributions to and to adapt to Climate Change.	0	0	0	Neutral impact.
8. To protect, conserve and enhance Gloucestershire's wildlife and natural environment – its landscape and biodiversity.	+	+	+	Broadly positive effects. Sites designated for nature conservation and landscape are specifically mentioned in the policy.	/				

2. Nature of Effects:

Temporary or permanent effect:	**Geographic scale:**	**Significance and Likelihood:**
Permanent or long term effects are likely.	Gloucestershire – Bishops Cleeve. Also further a field given that some categories of hazardous waste are imported into the County.	Hazardous waste management processes are likely to be significant and will need appropriate mitigation, monitoring and environmental control.

3. Cumulative / Secondary / Synergistic Impacts:

Potential cumulative / secondary / synergistic effects of the option	**Potential CI receptors & past / present / future human activities that have affected or will possibly affect these receptors**	**Predicted impacts on the receptor as a result of the plan in combination with other human activities, and the significance of the impacts**	**Possible mitigation measures & management suggestions and pointers for other plans & strategies**
Negative impacts on local amenity requiring strong mitigation measures and monitoring. Negative impacts in terms of waste generated traffic in combination with increasing general levels of traffic and congestion in Gloucestershire.	Local residents near to sites in Bishops Cleeve – Gloucestershire. Communities close to transport routes. The local environment. Human activities could include: Waste development, population increase, increased waste production (particularly waste from Energy from Waste (EfW) facilities, economic pressures, increasing transport costs, technological advances.	Positive impacts may include: the sustainable management of hazardous waste – in a geologically suitable facility. Negative impacts may include – impacts on amenity for certain communities particularly from traffic, environmental impacts requiring mitigation.	Various mitigation measures to protect the environment and the well-being and amenity of local communities. In the medium to longer term other plans and strategies (particularly at a national and regional level) need to focus on hazardous waste minimisation, reducing the distance that it travels and for communities / businesses to take responsibility for the waste they produce.

4. Sustainability Summary:

The SA Objective 1 commentary for this option states that: 'Ideally hazardous waste should be minimized and this is encouraged in the WCS. Positive scores are given as the policy is seeking to manage the hazardous waste produced by society in an environmentally acceptable way'. The scoring reflects the fact that if the sites and processes are 'environmentally acceptable' then people's health and well-being and the natural environment should be protected. Clearly if sites are not environmentally acceptable they should not be operating and would not be granted a license by the Environment Agency. Major positive scores are given against SA Objective 11 – pollution prevention - as this is the specific aim of the policy and there is reference in it to the 'precautionary principle'.

Evidence:
Evidence and further information is detailed in the WCS (Section 6) and in Technical Evidence Paper WCS-E 'Hazardous Waste', Technical Evidence Paper WCS-F 'Making Provision' and Technical Evidence Paper WCS-L 'Environmental Acceptability'.

LOCATIONAL STRATEGY: ENVIRONMENTAL ACCEPTABILITY OF EXISTING HAZARDOUS WASTE FACILITIES: [WPO8B] PROPOSALS FOR HAZARDOUS WASTE DEVELOPMENT AT EXISTING HAZARDOUS WASTE FACILITIES MUST DEMONSTRATE ENVIRONMENTAL ACCEPTABILITY INCLUDING ADDRESSING APPROPRIATE STANDOFF DISTANCES

1. Test of the Option:

SA Objectives	S	M	L	Comments & Explanation	SA Objectives	S	M	L	Comments & Explanation
1. To promote sustainable development and sustainable communities in Gloucestershire giving people the opportunity to live in an affordable and sustainably designed and constructed home.	+	+ +	+ +	Potentially more positive in the medium to long term than Option 8A due to stronger protection of amenity with the inclusion of appropriate standoff distances and taking account of best available technologies.	9. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets including its architectural and archaeological heritage.	0	0	0	Neutral impact likely.
2. To safeguard sites suitable for the location of waste management facilities, or future mineral development from other proposed development.	+	+	+	Broadly positive. The Draft RSS Policy W3 seeks to safeguard capacity.	10. To prevent flooding, in particular preventing inappropriate development in the floodplain and to ensure that development does not compromise sustainable sources of water supply.	0	0	0	Neutral impact likely.
3. To protect and improve the health and well-being of people living and working in Gloucestershire as well as visitors to the county.	+	+ +	+ +	Seeks to protect: quality of life, amenity and health and proposes appropriate standoff distances, the need for the facility and the best available technologies.	11. To prevent the pollution of land, air and water in Gloucestershire and to apply the precautionary principle.	+ +	+ +	+ +	Major positive in that pollution prevention is the aim of the policy option and the precautionary principle is specifically referenced.
4. To promote education and economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds.	0	0	0	Neutral impact likely on the promotion of education and economic development in the County.	12. To reduce the adverse impacts of lorry traffic on communities through means such as: a) reducing the need to travel b) promoting more sustainable means of transport c) sensitive lorry routing d) the use of sustainable alternative fuels e) promoting the management of waste in one of the nearest appropriate installations.	+	+	+	Broadly positive in that the policy states impacts on the local road network should be included in an assessment of environmental acceptability.
5. To safeguard the amenity of local communities from the potential adverse impacts of minerals and waste development.	+	+ +	+ +	The same comments as Objective 3. The policy specifically seeks to protect amenity.	13. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity.	0	0	0	Neutral impact likely in terms of the restoration of minerals sites.
6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society.	0	0	0	Neutral impact likely.	14. To reduce waste to landfill and in dealing with all waste streams to actively promote the waste hierarchy (i.e. Prevent, Reduce, Reuse, Recycle, Dispose) to achieve the sustainable management of waste.	0	0	0	Neutral impact likely. See WPO8A comments for this objective.
7. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.	0	0	0	Neutral impact likely.	15. To reduce contributions to and to adapt to Climate Change.	0	0	0	Neutral impact likely.
8. To protect, conserve and enhance Gloucestershire's wildlife and natural environment – its landscape and biodiversity.	-	-	-	Potentially negative impacts given that nature conservation / landscape / biodiversity are not listed.	/				

2. Nature of Effects:

Temporary or permanent effect:	**Geographic scale:**	**Significance and Likelihood:**
Permanent or long term effects are likely.	Gloucestershire – Bishops Cleeve. Also further a field given that some categories of hazardous waste are imported into the County.	Hazardous waste management processes are likely to be significant and will need appropriate mitigation, monitoring and environmental control.

3. Cumulative / Secondary / Synergistic Impacts:

Potential cumulative / secondary / synergistic effects of the option	**Potential CI receptors & past / present / future human activities that have affected or will possibly affect these receptors**	**Predicted impacts on the receptor as a result of the plan in combination with other human activities, and the significance of the impacts**	**Possible mitigation measures & management suggestions and pointers for other plans & strategies**
Negative impacts on local amenity requiring strong mitigation measures and monitoring. Negative impacts in terms of waste generated traffic in combination with increasing general levels of traffic and congestion in Gloucestershire.	Local residents near to sites in Bishops Cleeve – Gloucestershire. Communities close to transport routes. The local environment. Human activities could include: Waste development, population increase, increased waste production (particularly waste from Energy from Waste (EfW) facilities, economic pressures, increasing transport costs, technological advances.	Positive impacts may include: the sustainable management of hazardous waste – in a geologically suitable facility. Negative impacts may include – impacts on amenity for certain communities particularly from traffic, environmental impacts requiring mitigation.	Various mitigation measures to protect the environment and the well-being and amenity of local communities. In the medium to longer term other plans and strategies (particularly at a national and regional level) need to focus on hazardous waste minimisation, reducing the distance that it travels and for communities / businesses to take responsibility for the waste they produce.

4. Sustainability Summary:

This option would appear to be more positive, more sustainable in the medium to long term than Option 8A due to stronger protection of amenity with the inclusion of appropriate standoff distances and taking account of best available technologies. Positive or major positive scores are given against 6 of the 15 SA Objectives. There are 7 scores of 'neutral'. Effectively this means that the option is not clearly related to the objective or that while there may be some negative impacts for some communities / environments, other communities (or Gloucestershire as a whole) will benefit.

Evidence:
Evidence and further information is detailed in the WCS (Section 6) and in Technical Evidence Paper WCS-E 'Hazardous Waste', Technical Evidence Paper WCS-F 'Making Provision' and Technical Evidence Paper WCS-L 'Environmental Acceptability'.

LOCATIONAL STRATEGY: WASTE WATER INFRASTRUCTURE: [WPO9A] A GENERIC TOPIC POLICY WITH ELABORATION ON CRITERIA IN SUPPORTING TEXT

1. Test of the Option:

SA Objectives	S	M	L	Comments & Explanation	SA Objectives	S	M	L	Comments & Explanation
1. To promote sustainable development and sustainable communities in Gloucestershire giving people the opportunity to live in an affordable and sustainably designed and constructed home.	+	+	+	Broadly positive effects. Waste water infrastructure is an important cog in the wheel in terms of creating and maintaining sustainable communities and homes.	9. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets including its architectural and archaeological heritage.	+	+	+	Broadly positive in terms of this objective.
2. To safeguard sites suitable for the location of waste management facilities, or future mineral development from other proposed development.	+	+	+	Broadly positive in terms of this objective.	10. To prevent flooding, in particular preventing inappropriate development in the floodplain and to ensure that development does not compromise sustainable sources of water supply.	?	?	?	Uncertain in terms of this objective. Waste water infrastructure is often necessarily close to major rivers e.g. the Severn in Gloucestershire.
3. To protect and improve the health and well-being of people living and working in Gloucestershire as well as visitors to the county.	+ +	+ +	+ +	Major positive impacts are likely as without waste water infrastructure serious public health issues would arise.	11. To prevent the pollution of land, air and water in Gloucestershire and to apply the precautionary principle.	+	+	+	Broadly positive in terms of this objective.
4. To promote education and economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds.	+	+	+	Broadly positive in terms of economic development as this low-key but vital infrastructure enables society (including businesses) to function.	12. To reduce the adverse impacts of lorry traffic on communities through means such as: a) reducing the need to travel b) promoting more sustainable means of transport c) sensitive lorry routing d) the use of sustainable alternative fuels e) promoting the management of waste in one of the nearest appropriate installations.	?	?	?	Uncertain impacts. Waste water is transported through pipelines but sludges and other associated wastes are generally transported by road.
5. To safeguard the amenity of local communities from the potential adverse impacts of minerals and waste development.	+	+	+	Positive impacts – linked to Objective 3.	13. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity.	0	0	0	Neutral / unrelated.
6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society.	0	0	0	Neutral / unrelated.	14. To reduce waste to landfill and in dealing with all waste streams to actively promote the waste hierarchy (i.e. Prevent, Reduce, Reuse, Recycle, Dispose) to achieve the sustainable management of waste.	0	0	0	Neutral impact.
7. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.	+	+	+	Broadly positive in terms of this objective.	15. To reduce contributions to and to adapt to Climate Change.	?	?	?	Uncertain impacts.
8. To protect, conserve and enhance Gloucestershire's wildlife and natural environment – its landscape and biodiversity.	+	+	+	Broadly positive in terms of this objective.	/				

2. Nature of Effects:

Temporary or permanent effect:	**Geographic scale:**	**Significance and Likelihood:**
Permanent or long term effects are likely.	Gloucestershire.	The importance of waste water infrastructure should not be underestimated.

3. Cumulative / Secondary / Synergistic Impacts:

Potential cumulative / secondary / synergistic effects of the option	**Potential CI receptors & past / present / future human activities that have affected or will possibly affect these receptors**	**Predicted impacts on the receptor as a result of the plan in combination with other human activities, and the significance of the impacts**	**Possible mitigation measures & management suggestions and pointers for other plans & strategies**
Positive secondary effects in terms of general public health issues. Potential river pollution issues. Potential flood risk issues if facilities, drains etc are not maintained.	Residential properties, schools, hospitals businesses (in fact any property connected to the sewage network). Communities / businesses near to Sewage Treatment Works. Riparian environments.	Health and amenity benefits of waste water treatment for communities. Potential odour/amenity issues for residents close to Sewage Treatment Works.	Mitigation measure, e.g. buffer zones appropriate for Sewage Treatment Works. Consideration of the potentially significant effects of flooding on vital infrastructure.

4. Sustainability Summary:

Broadly positive effects. Waste water infrastructure is an essential service for society helping to maintain sustainable communities and homes. Major positive impacts are likely in terms of SA Objective 3 as without waste water infrastructure serious public health issues would arise. There are a number of uncertain scores, in relation to flooding, transport issues and climate change.

Evidence:
Evidence and further information is detailed in the WCS (Section 6) and in Technical Evidence Paper WCS-H 'Sewage Treatment Facilities'.

LOCATIONAL STRATEGY: WASTE WATER INFRASTRUCTURE: [WPO9B] DEFER CRITERIA BASED POLICY TO THE DEVELOPMENT CONTROL DPD

1. Test of the Option:

SA Objectives	S	M	L	Comments & Explanation	SA Objectives	S	M	L	Comments & Explanation
1. To promote sustainable development and sustainable communities in Gloucestershire giving people the opportunity to live in an affordable and sustainably designed and constructed home.	+	+	+	Broadly positive effects anticipated as for Option WPO9A.	9. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets including its architectural and archaeological heritage.	+	+	+	Potentially positive in terms of this objective – but depends on the specific criteria proposed in the DC Policy DPD.
2. To safeguard sites suitable for the location of waste management facilities, or future mineral development from other proposed development.	+	+	+	Broadly positive in terms of this objective.	10. To prevent flooding, in particular preventing inappropriate development in the floodplain and to ensure that development does not compromise sustainable sources of water supply.	?	?	?	Uncertain in terms of this objective. Waste water infrastructure is often necessarily close to major rivers e.g. the Severn in Gloucestershire.
3. To protect and improve the health and well-being of people living and working in Gloucestershire as well as visitors to the county.	+ +	+ +	+ +	Major positive impacts are likely as without waste water infrastructure serious public health issues would arise.	11. To prevent the pollution of land, air and water in Gloucestershire and to apply the precautionary principle.	+	+	+	Broadly positive in terms of this objective – but depends on the specific criteria.
4. To promote education and economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds.	+	+	+	Broadly positive in terms of economic development as this low-key but vital infrastructure enables society (including businesses) to function.	12. To reduce the adverse impacts of lorry traffic on communities through means such as: a) reducing the need to travel b) promoting more sustainable means of transport c) sensitive lorry routing d) the use of sustainable alternative fuels e) promoting the management of waste in one of the nearest appropriate installations.	?	?	?	Uncertain impacts. Waste water is transported through pipelines but sludges and other associated wastes are generally transported by road.
5. To safeguard the amenity of local communities from the potential adverse impacts of minerals and waste development.	+	+	+	Potentially positive impacts – linked to Objective 3, but depends on the specific criteria to be proposed for determining proposals.	13. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity.	0	0	0	Neutral / unrelated.
6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society.	0	0	0	Neutral / unrelated.	14. To reduce waste to landfill and in dealing with all waste streams to actively promote the waste hierarchy (i.e. Prevent, Reduce, Reuse, Recycle, Dispose) to achieve the sustainable management of waste.	0	0	0	Neutral impact.
7. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.	+	+	+	Potentially broadly positive in terms of this objective.	15. To reduce contributions to and to adapt to Climate Change.	?	?	?	Uncertain impacts.
8. To protect, conserve and enhance Gloucestershire's wildlife and natural environment – its landscape and biodiversity.	+	+	+	Potentially positive in terms of this objective – but depends on the specific criteria proposed in the DC Policy DPD.	/				

2. Nature of Effects:

Temporary or permanent effect:	**Geographic scale:**	**Significance and Likelihood:**
Permanent or long term effects are likely.	Gloucestershire.	The importance of waste water infrastructure should not be underestimated.

3. Cumulative / Secondary / Synergistic Impacts:

Potential cumulative / secondary / synergistic effects of the option	**Potential CI receptors & past / present / future human activities that have affected or will possibly affect these receptors**	**Predicted impacts on the receptor as a result of the plan in combination with other human activities, and the significance of the impacts**	**Possible mitigation measures & management suggestions and pointers for other plans & strategies**
Positive secondary effects in terms of general public health issues. Potential river pollution issues. Potential flood risk issues if facilities, drains etc are not maintained.	Residential properties, schools, hospitals businesses (in fact any property connected to the sewage network). Communities / businesses near to Sewage Treatment Works. Riparian environments.	Health and amenity benefits of waste water treatment for communities. Potential odour/amenity issues for residents close to Sewage Treatment Works.	Mitigation measure, e.g. buffer zones appropriate for Sewage Treatment Works. Consideration of the potentially significant effects of flooding on vital infrastructure.

4. Sustainability Summary:

This option is scored identically to WPO9A. Similar comments apply. Waste water infrastructure is vital for society. The option is broadly positive but with a number of uncertainties.

Evidence:
Evidence and further information is detailed in the WCS (Section 6) and in Technical Evidence Paper WCS-H 'Sewage Treatment Facilities'.

LOCATIONAL STRATEGY: SAFEGUARDING SITES FOR WASTE MANAGEMENT USE: [WPO10A] ROLL FORWARD THE EXISTING WLP POLICY 7

1. Test of the Option:

SA Objectives	S	M	L	Comments & Explanation	SA Objectives	S	M	L	Comments & Explanation
1. To promote sustainable development and sustainable communities in Gloucestershire giving people the opportunity to live in an affordable and sustainably designed and constructed home.	+	+	+	Positive effects likely. If sites are not protected from encroachment or sterilisation by incompatible land-uses then the value of allocating sites in lessened significantly.	9. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets including its architectural and archaeological heritage.	+	+	+	Broadly positive. Similar comments as for Objectives 3, 5 & 8.
2. To safeguard sites suitable for the location of waste management facilities, or future mineral development from other proposed development.	+ +	+ +	+ +	Major positive scores against this objective as safeguarding is the purpose of the policy.	10. To prevent flooding, in particular preventing inappropriate development in the floodplain and to ensure that development does not compromise sustainable sources of water supply.	+	+	+	The site selection process should ensure that facilities are not located in areas prone to flooding or hydrologically sensitive areas.
3. To protect and improve the health and well-being of people living and working in Gloucestershire as well as visitors to the county.	+	+	+	Broadly positive in that sites are allocated only if they are suitable in terms of a wide range of criteria and following a rigorous and lengthy process.	11. To prevent the pollution of land, air and water in Gloucestershire and to apply the precautionary principle.	+	+	+	Broadly positive. Similar comments as for Objective 3, 5 & 8.
4. To promote education and economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds.	0	0	0	Likely neutral impact although potentially there could be negative impacts in terms of the fact that sites that are safeguarded are not available for other uses that might contribute to economic development.	12. To reduce the adverse impacts of lorry traffic on communities through means such as: a) reducing the need to travel b) promoting more sustainable means of transport c) sensitive lorry routing d) the use of sustainable alternative fuels e) promoting the management of waste in one of the nearest appropriate installations.	+	+	+	Broadly positive. Similar comments as for Objective 3, 5 & 8.
5. To safeguard the amenity of local communities from the potential adverse impacts of minerals and waste development.	+	+	+	Broadly positive in that sites are allocated only if they are suitable in terms of a wide range of criteria and following a rigorous and lengthy process.	13. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity.	0	0	0	In broad terms - neutral.
6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society.	0	0	0	Neutral / unrelated.	14. To reduce waste to landfill and in dealing with all waste streams to actively promote the waste hierarchy (i.e. Prevent, Reduce, Reuse, Recycle, Dispose) to achieve the sustainable management of waste.	+	+	+	Positive effects likely as sites will be safeguarded for waste management facilities that should aim to move waste up the hierarchy away from landfill.
7. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.	+	+	+	Broadly positive. Waste facilities provide employment opportunities, but the comments for Objective 4 are relevant.	15. To reduce contributions to and to adapt to Climate Change.	+	+	+	Broadly positive effects linked to Objective 12 and 14.
8. To protect, conserve and enhance Gloucestershire's wildlife and natural environment – its landscape and biodiversity.	+	+	+	Broadly positive given that allocated sites are tested for their suitability and landscape / biodiversity issues will be considered.	/				

2. Nature of Effects:

Temporary or permanent effect:	**Geographic scale:**	**Significance and Likelihood:**
Permanent or long term effects are likely.	Sites in Gloucestershire.	The effects of this policy are likely to be significant over any reasonable length of time.

3. Cumulative / Secondary / Synergistic Impacts:

Potential cumulative / secondary / synergistic effects of the option	**Potential CI receptors & past / present / future human activities that have affected or will possibly affect these receptors**	**Predicted impacts on the receptor as a result of the plan in combination with other human activities, and the significance of the impacts**	**Possible mitigation measures & management suggestions and pointers for other plans & strategies**
Potential negative secondary effects in terms of the availability of land for housing or business - uses other than a waste use. Possible sterilisation of land if proposals don't come forward on a site – or if a developer does not implement planning permission. Negative impacts in terms of waste generated traffic in combination with increasing general levels of traffic and congestion in Gloucestershire.	Housing / landuses close to sites or on lorry routes. Depends on the site but broadly the potential CI receptors may include: • Communities close to sites. • The natural environment. • The global climate. Human activities could include: Waste development, population increase, increased waste production, economic development, regeneration initiatives.	Potential amenity issues, but site selection should minimise this potential. Potentially negative traffic impacts.	If sites are allocated and safeguarded this should be appropriately reflected in other plans and strategies including Local Development Frameworks.

4. Sustainability Summary:

Broadly positive effects are likely given that if sites are not protected from encroachment or sterilisation by incompatible land-uses then the value of allocating sites in lessened. significantly. Obviously major positive scores against SA Objective 2 – safeguarding sites, against the rest of the objectives scores are positive or neutral.

Evidence:
Further information and evidence on this option is available in Technical Evidence Paper WCS-H 'Sewage Treatment Works' which considers wider safeguarding issues as well as issues related to sewage treatment.

LOCATIONAL STRATEGY: SAFEGUARDING SITES FOR WASTE MANAGEMENT USE: [WPO10B] REVISE WLP POLICY 7

1. Test of the Option:

SA Objectives	S	M	L	Comments & Explanation	SA Objectives	S	M	L	Comments & Explanation
1. To promote sustainable development and sustainable communities in Gloucestershire giving people the opportunity to live in an affordable and sustainably designed and constructed home.	+ +	+ +	+ +	Major positive effects likely. There is more detail in the proposed revised option and it is stronger in that the phrase 'will normally oppose' has been altered to 'will oppose'.	9. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets including its architectural and archaeological heritage.	+	+	+	Broadly positive. Similar comments as for Objectives 3, 5 & 8.
2. To safeguard sites suitable for the location of waste management facilities, or future mineral development from other proposed development.	+ +	+ +	+ +	Very positive effects. Sewage Treatment works are also safeguarded.	10. To prevent flooding, in particular preventing inappropriate development in the floodplain and to ensure that development does not compromise sustainable sources of water supply.	+	+	+	The site selection process should ensure that facilities are not located in areas prone to flooding or hydrologically sensitive areas.
3. To protect and improve the health and well-being of people living and working in Gloucestershire as well as visitors to the county.	+	+	+	Broadly positive in that sites are allocated only if they are suitable in terms of a wide range of criteria and following a rigorous and lengthy process.	11. To prevent the pollution of land, air and water in Gloucestershire and to apply the precautionary principle.	+	+	+	Broadly positive. Similar comments as for Objective 3, 5 & 8.
4. To promote education and economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds.	0	0	0	Likely neutral impact although potentially there could be negative impacts in terms of the fact that sites that are safeguarded are not available for other uses that might contribute to economic development.	12. To reduce the adverse impacts of lorry traffic on communities through means such as: a) reducing the need to travel b) promoting more sustainable means of transport c) sensitive lorry routing d) the use of sustainable alternative fuels e) promoting the management of waste in one of the nearest appropriate installations.	+	+	+	Broadly positive. Similar comments as for Objective 3, 5 & 8.
5. To safeguard the amenity of local communities from the potential adverse impacts of minerals and waste development.	+	+	+	Broadly positive in that sites are allocated only if they are suitable in terms of a wide range of criteria and following a rigorous and lengthy process.	13. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity.	0	0	0	In broad terms - neutral.
6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society.	0	0	0	Neutral / unrelated.	14. To reduce waste to landfill and in dealing with all waste streams to actively promote the waste hierarchy (i.e. Prevent, Reduce, Reuse, Recycle, Dispose) to achieve the sustainable management of waste.	+	+	+	Positive effects likely as sites will be safeguarded for waste management facilities that should aim to move waste up the hierarchy away from landfill.
7. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.	+	+	+	Broadly positive. Waste facilities provide employment opportunities, but the comments for Objective 4 are relevant.	15. To reduce contributions to and to adapt to Climate Change.	+	+	+	Broadly positive effects linked to Objective 12 and 14.
8. To protect, conserve and enhance Gloucestershire's wildlife and natural environment – its landscape and biodiversity.	+	+	+	Broadly positive given that allocated sites are tested for their suitability and landscape / biodiversity issues will be considered.	/				

2. Nature of Effects:

Temporary or permanent effect:	**Geographic scale:**	**Significance and Likelihood:**
Permanent or long term effects are likely.	Sites in Gloucestershire.	The effects of this policy are likely to be significant over any reasonable length of time.

3. Cumulative / Secondary / Synergistic Impacts:

Potential cumulative / secondary / synergistic effects of the option	**Potential CI receptors & past / present / future human activities that have affected or will possibly affect these receptors**	**Predicted impacts on the receptor as a result of the plan in combination with other human activities, and the significance of the impacts**	**Possible mitigation measures & management suggestions and pointers for other plans & strategies**
Potential negative secondary effects in terms of the availability of land for housing or business - uses other than a waste use. Possible sterilisation of land if proposals don't come forward on a site – or if a developer does not implement planning permission. Negative impacts in terms of waste generated traffic in combination with increasing general levels of traffic and congestion in Gloucestershire.	Housing / landuses close to sites or on lorry routes. Depends on the site but broadly the potential CI receptors may include: • Communities close to sites. • The natural environment. • The global climate. Human activities could include: Waste development, population increase, increased waste production, economic development, regeneration initiatives.	Potential amenity issues, but site selection should minimise this potential. Negative traffic impacts.	If sites are allocated and safeguarded this should be appropriately reflected in other plans and strategies including Local Development Frameworks.

4. Sustainability Summary:

From the SA scoring, this option appears to be more positive and more sustainable than WPO10A. There is more detail in WPO10B and it is stronger in that the phrase 'will normally oppose' has been altered to 'will oppose'. There are no negative impacts highlighted and 12 of the 15 SA Objectives are positive or major positive.

Evidence:
Further information and evidence on this option is available in Technical Evidence Paper WCS-H 'Sewage Treatment Works' which considers wider safeguarding issues as well as issues related to sewage treatment.

LOCATIONAL STRATEGY: CUMULATIVE IMPACT: [WPO11A] ADDRESSING CUMULATIVE IMPACT THROUGH THE WCS STRATEGIC OBJECTIVES

1. Test of the Option:

SA Objectives	S	M	L	Comments & Explanation	SA Objectives	S	M	L	Comments & Explanation
1. To promote sustainable development and sustainable communities in Gloucestershire giving people the opportunity to live in an affordable and sustainably designed and constructed home.	++	++	++	Major positive in terms of sustainable development because the wording includes 'impacts on environmental quality, social cohesion and inclusion or economic potential.'	9. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets including its architectural and archaeological heritage.	?	?	?	Uncertain in terms of how material, cultural and recreational assets are potentially covered by 'impacts on environmental quality, social cohesion and inclusion or economic potential.'
2. To safeguard sites suitable for the location of waste management facilities, or future mineral development from other proposed development.	0	0	0	Unrelated / neutral.	10. To prevent flooding, in particular preventing inappropriate development in the floodplain and to ensure that development does not compromise sustainable sources of water supply.	+	+	+	Broadly positive, potentially this issue is covered in terms of the reference to 'environmental quality'.
3. To protect and improve the health and well-being of people living and working in Gloucestershire as well as visitors to the county.	++	++	++	Major positive effects likely as the strategic objective seeks to protect communities.	11. To prevent the pollution of land, air and water in Gloucestershire and to apply the precautionary principle.	++	++	++	Positive or major positive effect likely in terms of pollution prevention.
4. To promote education and economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds.	+	+	+	Does not promote economic development but does seek to protect economic potential.	12. To reduce the adverse impacts of lorry traffic on communities through means such as: a) reducing the need to travel b) promoting more sustainable means of transport c) sensitive lorry routing d) the use of sustainable alternative fuels e) promoting the management of waste in one of the nearest appropriate installations.	+	+	+	Broadly positive – linked primarily to 'environmental quality' reference.
5. To safeguard the amenity of local communities from the potential adverse impacts of minerals and waste development.	++	++	++	The same score and comments as for Objective 3. Major positive effects likely as the strategic objective seeks to protect communities.	13. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity.	0	0	0	Neutral / unrelated.
6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society.	0	0	0	Unrelated / neutral.	14. To reduce waste to landfill and in dealing with all waste streams to actively promote the waste hierarchy (i.e. Prevent, Reduce, Reuse, Recycle, Dispose) to achieve the sustainable management of waste.	0	0	0	Neutral impact likely.
7. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.	+	+	+	Broadly positive – related to Objective 4.	15. To reduce contributions to and to adapt to Climate Change.	0	0	0	Neutral impact likely, but there may be positive impacts if traffic & transport issues are successfully addressed.
8. To protect, conserve and enhance Gloucestershire's wildlife and natural environment – its landscape and biodiversity.	+	+	+	Broadly positive in terms of considering cumulative impacts on 'environmental quality'.	/				

2. Nature of Effects:

Temporary or permanent effect:	**Geographic scale:**	**Significance and Likelihood:**
Potential long term effects.	Gloucestershire.	Significant for local communities & environments.

3. Cumulative / Secondary / Synergistic Impacts:

Potential cumulative / secondary / synergistic effects of the option	**Potential CI receptors & past / present / future human activities that have affected or will possibly affect these receptors**	**Predicted impacts on the receptor as a result of the plan in combination with other human activities, and the significance of the impacts**	**Possible mitigation measures & management suggestions and pointers for other plans & strategies**
The option may prevent significant cumulative impacts in terms of adverse impacts on environmental quality, social cohesion and inclusion or economic potential.	• All communities in Gloucestershire. • The natural environment. • The global climate. Human activities that have or will affect these receptors include: Waste development, business / industry & commerce, house building, increased car use, economic growth pressure.	Assessing and considering cumulative impacts is likely to be generally positive in terms of impacts on communities and the environment.	Cumulative impacts should be considered in other plans and strategies such as Local Development Frameworks.

4. Sustainability Summary:

Considering cumulative impact is a requirement of PPS10. The option does not propose a specific policy; it adds wording to the delivery mechanism for WCS Strategic Objective 5. In terms of 'sustainable development' the option scores well (major positive scores against SA Objective 1). This is a result of the inclusion of the wording 'environmental quality, social cohesion and inclusion or economic potential' which covers the three broad components of sustainability. Nine scores of positive or major positive are recorded against the 15 SA Objectives. There are uncertainties over Objective 9 in terms of how material, cultural and recreational assets are potentially covered by 'impacts on environmental quality, social cohesion and inclusion or economic potential.'

Evidence:
Further information and evidence on this option is available in Technical Evidence Paper WCS-L 'Cumulative Impact'

LOCATIONAL STRATEGY: CUMULATIVE IMPACT: [WPO11B] A SEPARATE CUMULATIVE IMPACT POLICY

1. Test of the Option:

SA Objectives	S	M	L	Comments & Explanation	SA Objectives	S	M	L	Comments & Explanation
1. To promote sustainable development and sustainable communities in Gloucestershire giving people the opportunity to live in an affordable and sustainably designed and constructed home.	+ +	+ +	+ +	Like WPO11A, major positive in terms of sustainable development because the wording includes 'impacts on environmental quality, social cohesion and inclusion or economic potential'.	9. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets including its architectural and archaeological heritage.	?	?	?	Uncertain in terms of how material, cultural and recreational assets are potentially covered by 'impacts on environmental quality, social cohesion and inclusion or economic potential.'
2. To safeguard sites suitable for the location of waste management facilities, or future mineral development from other proposed development.	0	0	0	Unrelated / neutral.	10. To prevent flooding, in particular preventing inappropriate development in the floodplain and to ensure that development does not compromise sustainable sources of water supply.	+	+	+	Broadly positive, potentially this issue is covered in terms of the reference to 'environmental quality'.
3. To protect and improve the health and well-being of people living and working in Gloucestershire as well as visitors to the county.	+ +	+ +	+ +	Major positive effects likely as the proposed policy specifically seeks to consider health impacts in the list of criteria requiring consideration.	11. To prevent the pollution of land, air and water in Gloucestershire and to apply the precautionary principle.	+ +	+ +	+ +	Major positive effects given the reference to 'environmental quality' and the list of impacts to be considered.
4. To promote education and economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds.	+	+	+	The policy does not promote economic development but does seek to protect economic potential.	12. To reduce the adverse impacts of lorry traffic on communities through means such as: a) reducing the need to travel b) promoting more sustainable means of transport c) sensitive lorry routing d) the use of sustainable alternative fuels e) promoting the management of waste in one of the nearest appropriate installations.	+ +	+ +	+ +	Major positive effects likely given that the policy states that 'traffic impacts should be afforded particular attention….'
5. To safeguard the amenity of local communities from the potential adverse impacts of minerals and waste development.	+ +	+ +	+ +	Major positive effect likely – more so than WPO11A as specific impacts requiring consideration are listed. This list was gauged from stakeholders.	13. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity.	0	0	0	Neutral / unrelated.
6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society.	0	0	0	Unrelated / neutral.	14. To reduce waste to landfill and in dealing with all waste streams to actively promote the waste hierarchy (i.e. Prevent, Reduce, Reuse, Recycle, Dispose) to achieve the sustainable management of waste.	0	0	0	Neutral impact likely.
7. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.	+	+	+	Broadly positive – related to Objective 4.	15. To reduce contributions to and to adapt to Climate Change.	+	+	+	Positive impacts likely given that the policy states that traffic & transport issues should be afforded particular attention.
8. To protect, conserve and enhance Gloucestershire's wildlife and natural environment – its landscape and biodiversity.	+	+	+	Broadly positive in terms of considering cumulative impacts on 'environmental quality' and visual impacts.	/				

2. Nature of Effects:

Temporary or permanent effect:	**Geographic scale:**	**Significance and Likelihood:**
Potential long term effects.	Gloucestershire.	Significant for local communities & environments.

3. Cumulative / Secondary / Synergistic Impacts:

Potential cumulative / secondary / synergistic effects of the option	**Potential CI receptors & past / present / future human activities that have affected or will possibly affect these receptors**	**Predicted impacts on the receptor as a result of the plan in combination with other human activities, and the significance of the impacts**	**Possible mitigation measures & management suggestions and pointers for other plans & strategies**
The option may prevent significant cumulative impacts in terms of adverse impacts on environmental quality, social cohesion and inclusion or economic potential. Specifically addresses cumulative traffic impacts – seen by stakeholders as a particular concern.	• All communities in Gloucestershire. • The natural environment. • The global climate. Human activities that have or will affect these receptors include: Waste development, business / industry & commerce, house building, increased car use, economic growth pressure.	Assessing and considering cumulative impacts is likely to be generally positive in terms of impacts on communities and the environment.	Cumulative impacts should be considered in other plans and strategies such as Local Development Frameworks.

4. Sustainability Summary:

This option is more detailed than WPO11A; it proposes wording proposed by stakeholders at waste forums, meetings and through formal consultation. There are major positive or positive scores against 10 of the 15 SA Objectives. It is likely to be a better option than WPO11A in terms of Objective 5 – protecting amenity and Objective 11 – reducing traffic impacts. Traffic impacts are afforded particular attention within the policy due to their potential for widespread off site impacts on communities and local environments.

Evidence:
Further information and evidence on this option is available in Technical Evidence Paper WCS-L 'Cumulative Impact'

LOCATIONAL STRATEGY: AONB: [WPO12A] A SPECIFIC AONB POLICY BASED ON A COMBINATION OF THE PROPOSED ISSUES AND OPTIONS POLICY AND STAKEHOLDER RECOMMENDATIONS

1. Test of the Option:

SA Objectives	S	M	L	Comments & Explanation	SA Objectives	S	M	L	Comments & Explanation
1. To promote sustainable development and sustainable communities in Gloucestershire giving people the opportunity to live in an affordable and sustainably designed and constructed home.	+	+	+	Broadly positive effects likely in terms of sustainable development and sustainable communities in Gloucestershire.	9. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets including its architectural and archaeological heritage.	+ +	+ +	+ +	Major positive impacts in terms of the protection of cultural and recreational assets (including Cotswold villages) which are a major tourist draw.
2. To safeguard sites suitable for the location of waste management facilities, or future mineral development from other proposed development.	0	0	0	Neutral impact likely in terms of safeguarding sites.	10. To prevent flooding, in particular preventing inappropriate development in the floodplain and to ensure that development does not compromise sustainable sources of water supply.	0	0	0	Neutral / unrelated.
3. To protect and improve the health and well-being of people living and working in Gloucestershire as well as visitors to the county.	+	+	+	Broadly positive effects likely countywide.	11. To prevent the pollution of land, air and water in Gloucestershire and to apply the precautionary principle.	0	0	0	Neutral / unrelated.
4. To promote education and economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds.	0	0	0	Neutral. It is not clear how this policy would specifically promote education and economic development. See also comments on Objective 7.	12. To reduce the adverse impacts of lorry traffic on communities through means such as: a) reducing the need to travel b) promoting more sustainable means of transport c) sensitive lorry routing d) the use of sustainable alternative fuels e) promoting the management of waste in one of the nearest appropriate installations.	+	+	+	Broadly positive effects anticipated. Traffic impacts will have to be 'successfully mitigated'.
5. To safeguard the amenity of local communities from the potential adverse impacts of minerals and waste development.	0	0	0	Neutral impact.	13. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity.	0	0	0	Likely neutral impact, although there may be issues related to the availability of inert material for quarry restoration in AONB.
6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society.	0	0	0	Neutral impact.	14. To reduce waste to landfill and in dealing with all waste streams to actively promote the waste hierarchy (i.e. Prevent, Reduce, Reuse, Recycle, Dispose) to achieve the sustainable management of waste.	0	0	0	Likely neutral impact.
7. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.	-	-	-	Potentially negative impacts on the provision of employment opportunities particularly in rural areas of Gloucestershire especially AONB.	15. To reduce contributions to and to adapt to Climate Change.	0	0	0	Likely neutral impact.
8. To protect, conserve and enhance Gloucestershire's wildlife and natural environment – its landscape and biodiversity.	+ +	+ +	+ +	Major positive impacts in terms of the protection of landscape. Approval for major development must be only in 'exceptional circumstances'.	/				

2. Nature of Effects:

Temporary or permanent effect:	**Geographic scale:**	**Significance and Likelihood:**
Long term if not permanent effects – depending on the waste development proposed.	Gloucestershire / AONB in Gloucestershire.	Significant but the policy focuses on local facilities. Major development is unlikely.

3. Cumulative / Secondary / Synergistic Impacts:

Potential cumulative / secondary / synergistic effects of the option	**Potential CI receptors & past / present / future human activities that have affected or will possibly affect these receptors**	**Predicted impacts on the receptor as a result of the plan in combination with other human activities, and the significance of the impacts**	**Possible mitigation measures & management suggestions and pointers for other plans & strategies**
Negative secondary effects on AONB – impacts on tourism and increased traffic. Positive secondary effects on AONB – local provision & employment opportunities.	• All communities in Gloucestershire. • AONB. • The wider natural environment. • The global climate. Human activities that have or will affect these receptors include: Waste development, waste growth – need to meet LATS, business / industry & commerce, house building, increased car use, economic growth pressure, tourism in Gloucestershire.	Possible impacts on landscape character and on amenity as a result of increased lorry traffic. Positive negative impacts in AONBs in terms of the lack of provision of waste services and job opportunities.	Amenity of local communities near to facilities will need to be protected and mitigation measures will be necessary. Other plans and strategies e.g. AONB management plans should reflect the need to ensure that AONBs support sustainable communities – this includes addressing waste that needs to be managed.

4. Sustainability Summary:

The option is broadly positive and major positive effects are anticipated in terms of SA Objective 8 – the protection of the natural environment, landscape and biodiversity and SA Objective 9 – protecting material, cultural and recreational assets. Negative effects are recorded against Objective 7 – employment, as the policy could have the effects of restricting employment opportunities in rural areas of Gloucestershire. In terms of transport issues and potential mitigation measures, there are lorry management schemes proposed and operating in the Cotswolds AONB.

Evidence:
Further information and evidence on this option is available in Joint Minerals & Waste Technical Evidence Paper WCS-MCS-4 ‘Landscape & AONB’.

LOCATIONAL STRATEGY: AONB: [WPO12B] FOLLOWING NATIONAL POLICY IN PPS7 BUT REFERING TO KEY RELEVANT SECTIONS OF SPECIFIC AONB MANAGEMENT PLANS

1. Test of the Option:

SA Objectives	S	M	L	Comments & Explanation	SA Objectives	S	M	L	Comments & Explanation
1. To promote sustainable development and sustainable communities in Gloucestershire giving people the opportunity to live in an affordable and sustainably designed and constructed home.	+	+	+	Broadly positive effect anticipated. At this broad level of assessment the scoring for this option is the same WPO12A.	9. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets including its architectural and archaeological heritage.	+ +	+ +	+ +	Major positive impacts in terms of the protection of cultural and recreational assets (including Cotswold villages) which are a major tourist draw.
2. To safeguard sites suitable for the location of waste management facilities, or future mineral development from other proposed development.	0	0	0	Neutral impact likely in terms of safeguarding sites.	10. To prevent flooding, in particular preventing inappropriate development in the floodplain and to ensure that development does not compromise sustainable sources of water supply.	0	0	0	Neutral / unrelated.
3. To protect and improve the health and well-being of people living and working in Gloucestershire as well as visitors to the county.	+	+	+	Broadly positive effects likely countywide.	11. To prevent the pollution of land, air and water in Gloucestershire and to apply the precautionary principle.	0	0	0	Neutral / unrelated.
4. To promote education and economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds.	0	0	0	Neutral, but potentially more positive impacts depending on the particular linkages with AONB Management plans.	12. To reduce the adverse impacts of lorry traffic on communities through means such as: a) reducing the need to travel b) promoting more sustainable means of transport c) sensitive lorry routing d) the use of sustainable alternative fuels e) promoting the management of waste in one of the nearest appropriate installations.	+	+	+	Broadly positive effects anticipated. Traffic impacts will have to be mitigated.
5. To safeguard the amenity of local communities from the potential adverse impacts of minerals and waste development.	0	0	0	Neutral impact.	13. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity.	0	0	0	Likely neutral impact, although there may be issues related to the availability of inert material for quarry restoration in AONB.
6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society.	0	0	0	Neutral impact.	14. To reduce waste to landfill and in dealing with all waste streams to actively promote the waste hierarchy (i.e. Prevent, Reduce, Reuse, Recycle, Dispose) to achieve the sustainable management of waste.	0	0	0	Likely neutral impact.
7. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.	-	-	-	Potentially negative impacts on the provision of employment opportunities particularly in rural areas of Gloucestershire especially AONB.	15. To reduce contributions to and to adapt to Climate Change.	0	0	0	Likely neutral impact.
8. To protect, conserve and enhance Gloucestershire's wildlife and natural environment – its landscape and biodiversity.	+ +	+ +	+ +	Major positive impacts in terms of the protection of landscape. Approval for major development must be only in 'exceptional circumstances'.	/				

2. Nature of Effects:

Temporary or permanent effect:	**Geographic scale:**	**Significance and Likelihood:**
Long term if not permanent effects – depending on the waste development proposed.	Gloucestershire / AONB in Gloucestershire.	Significant but the policy focuses on local facilities. Major development is unlikely.

3. Cumulative / Secondary / Synergistic Impacts:

Potential cumulative / secondary / synergistic effects of the option	**Potential CI receptors & past / present / future human activities that have affected or will possibly affect these receptors**	**Predicted impacts on the receptor as a result of the plan in combination with other human activities, and the significance of the impacts**	**Possible mitigation measures & management suggestions and pointers for other plans & strategies**
Negative secondary effects on AONB – impacts on tourism and increased traffic. Positive secondary effects on AONB – local provision & employment opportunities.	• All communities in Gloucestershire. • AONB. • The wider natural environment. • The global climate. Human activities that have or will affect these receptors include: Waste development, waste growth – need to meet LATS, business / industry & commerce, house building, increased car use, economic growth pressure, tourism in Gloucestershire.	Possible impacts on landscape character and on amenity as a result of increased lorry traffic. Positive negative impacts in AONBs in terms of the lack of provision of waste services and job opportunities.	Amenity of local communities near to facilities will need to be protected and mitigation measures will be necessary. Other plans and strategies e.g. AONB management plans should reflect the need to ensure that AONBs support sustainable communities – this includes addressing waste that needs to be managed.

4. Sustainability Summary:

Broadly positive effect anticipated. At this broad level of assessment the scoring for this option (following national guidance in PP7) is the same WPO12A.

Evidence:
Further information and evidence on this option is available in Joint Minerals & Waste Technical Evidence Paper WCS-MCS-4 ‘Landscape & AONB’.

LOCATIONAL STRATEGY: ARCHAEOLOGY: [WPO13A] A POLICY IN THE WCS PROTECTING NATIONALLY IMPORTANT ARCHAEOLOGICAL REMAINS

1. Test of the Option:

SA Objectives	S	M	L	Comments & Explanation	SA Objectives	S	M	L	Comments & Explanation
1. To promote sustainable development and sustainable communities in Gloucestershire giving people the opportunity to live in an affordable and sustainably designed and constructed home.	+	+	+	Positive effects likely. Protecting archaeology is part of, and can contribute to sustainable development.	9. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets including its architectural and archaeological heritage.	+ +	+ +	+ +	Clearly major positive effects in terms of this objective.
2. To safeguard sites suitable for the location of waste management facilities, or future mineral development from other proposed development.	0	0	0	Neutral / unrelated.	10. To prevent flooding, in particular preventing inappropriate development in the floodplain and to ensure that development does not compromise sustainable sources of water supply.	0	0	0	Neutral or unrelated.
3. To protect and improve the health and well-being of people living and working in Gloucestershire as well as visitors to the county.	0	0	0	In general neutral, although the protection of archaeology can contribute to people's well-being in terms of their appreciation of local history and culture.	11. To prevent the pollution of land, air and water in Gloucestershire and to apply the precautionary principle.	0	0	0	Neutral or unrelated.
4. To promote education and economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds.	+	+	+	Broadly positive particularly in terms of promoting education. Link to comments above.	12. To reduce the adverse impacts of lorry traffic on communities through means such as: a) reducing the need to travel b) promoting more sustainable means of transport c) sensitive lorry routing d) the use of sustainable alternative fuels e) promoting the management of waste in one of the nearest appropriate installations.	0	0	0	Neutral or unrelated.
5. To safeguard the amenity of local communities from the potential adverse impacts of minerals and waste development.	0	0	0	Neutral impact likely.	13. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity.	0	0	0	Neutral or unrelated.
6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society.	0	0	0	Neutral impact likely.	14. To reduce waste to landfill and in dealing with all waste streams to actively promote the waste hierarchy (i.e. Prevent, Reduce, Reuse, Recycle, Dispose) to achieve the sustainable management of waste.	0	0	0	Neutral or unrelated.
7. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.	0	0	0	Neutral impact likely.	15. To reduce contributions to and to adapt to Climate Change.	0	0	0	Neutral or unrelated.
8. To protect, conserve and enhance Gloucestershire's wildlife and natural environment – its landscape and biodiversity.	0	0	0	Neutral impact likely.	/				

2. Nature of Effects:

Temporary or permanent effect:	**Geographic scale:**	**Significance and Likelihood:**
Long term if not permanent effects – depending on the waste development proposed.	Gloucestershire.	Significant impacts.

3. Cumulative / Secondary / Synergistic Impacts:

Potential cumulative / secondary / synergistic effects of the option	**Potential CI receptors & past / present / future human activities that have affected or will possibly affect these receptors**	**Predicted impacts on the receptor as a result of the plan in combination with other human activities, and the significance of the impacts**	**Possible mitigation measures & management suggestions and pointers for other plans & strategies**
Positive secondary impacts likely in terms tourism / local history – education.	• All communities in Gloucestershire and visitors to the County. • Gloucestershire's archaeological heritage. • The wider natural and built environment. Human activities that have or will affect these receptors include: Waste development, minerals development, general growth pressure, tourism in Gloucestershire.	Positive impacts in terms of the protection of nationally important archaeology and tourism in the County.	Other plans and strategies should seek to protect important archaeology through policy – as appropriate.

4. Sustainability Summary:

Gloucestershire is rich in important archaeological remains and historic monuments. The effects of this option as tested against the SA Objectives are broadly positive or neutral. A large number of neutral scores are given due to the fact that the policy is a focused one. Major positive effects are likely (as expected) in terms of SA Objective 9 - To protect conserve and enhance Gloucestershire's material, cultural and recreational assets including its architectural and archaeological heritage.

Evidence:
Further information and evidence on this option is available in Joint Minerals & Waste Technical Evidence Paper WCS-MCS-6 'Archaeology '.

LOCATIONAL STRATEGY: ARCHAEOLOGY [WPO13B] NO SPECIFIC POLICY BUT TEXT IN THE WCS STATING THAT DEVELOPMENT PROPOSALS WILL BE IN ACCORDANCE WITH PPG15 AND PPG16 FOR NATIONAL ARCHAEOLOGICAL ISSUES

1. Test of the Option:

SA Objectives	S	M	L	Comments & Explanation	SA Objectives	S	M	L	Comments & Explanation
1. To promote sustainable development and sustainable communities in Gloucestershire giving people the opportunity to live in an affordable and sustainably designed and constructed home.	+	+	+	Positive effects likely in terms of development being in accordance with PPG15 and PPG16. Development that damages nationally important archaeology cannot be said to be 'sustainable'.	9. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets including its architectural and archaeological heritage.	+ +	+ +	+ +	Adhering to PPG15 and PPG16 will clearly result in the conservation and enhancement of Gloucestershire's architectural and archaeological assets.
2. To safeguard sites suitable for the location of waste management facilities, or future mineral development from other proposed development.	0	0	0	Neutral / unrelated.	10. To prevent flooding, in particular preventing inappropriate development in the floodplain and to ensure that development does not compromise sustainable sources of water supply.	0	0	0	Neutral or unrelated.
3. To protect and improve the health and well-being of people living and working in Gloucestershire as well as visitors to the county.	0	0	0	In general neutral, although the protection of archaeology can contribute to people's well-being in terms of their appreciation of local history and culture.	11. To prevent the pollution of land, air and water in Gloucestershire and to apply the precautionary principle.	0	0	0	Neutral or unrelated.
4. To promote education and economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds.	+	+	+	Broadly positive particularly in terms of promoting education. Link to comments above.	12. To reduce the adverse impacts of lorry traffic on communities through means such as: a) reducing the need to travel b) promoting more sustainable means of transport c) sensitive lorry routing d) the use of sustainable alternative fuels e) promoting the management of waste in one of the nearest appropriate installations.	0	0	0	Neutral or unrelated.
5. To safeguard the amenity of local communities from the potential adverse impacts of minerals and waste development.	0	0	0	Neutral impact likely.	13. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity.	0	0	0	Neutral or unrelated.
6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society.	0	0	0	Neutral impact likely.	14. To reduce waste to landfill and in dealing with all waste streams to actively promote the waste hierarchy (i.e. Prevent, Reduce, Reuse, Recycle, Dispose) to achieve the sustainable management of waste.	0	0	0	Neutral or unrelated.
7. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.	0	0	0	Neutral impact likely.	15. To reduce contributions to and to adapt to Climate Change.	0	0	0	Neutral or unrelated.
8. To protect, conserve and enhance Gloucestershire's wildlife and natural environment – its landscape and biodiversity.	0	0	0	Neutral impact likely.	/				

2. Nature of Effects:

Temporary or permanent effect:	**Geographic scale:**	**Significance and Likelihood:**
Long term if not permanent effects – depending on the waste development proposed.	Gloucestershire.	Significant impacts.

3. Cumulative / Secondary / Synergistic Impacts:

Potential cumulative / secondary / synergistic effects of the option	**Potential CI receptors & past / present / future human activities that have affected or will possibly affect these receptors**	**Predicted impacts on the receptor as a result of the plan in combination with other human activities, and the significance of the impacts**	**Possible mitigation measures & management suggestions and pointers for other plans & strategies**
Positive secondary impacts likely in terms tourism / local history – education.	• All communities in Gloucestershire and visitors to the County. • Gloucestershire's archaeological heritage. • The wider natural and built environment. Human activities that have or will affect these receptors include: Waste development, minerals development, general growth pressure, tourism in Gloucestershire.	Positive impacts in terms of the protection of nationally important archaeology and tourism in the County.	Other plans and strategies should seek to protect important archaeology through policy – as appropriate.

4. Sustainability Summary:

This option advocates following national guidance in PPG15 and PPG16 rather than including a specific policy in the WCS. It is likely that archaeological issues will be fully considered in subsequent DPDs – to be produced, in particular the Waste Development Control Policies DPD. Clearly archaeology will also be an important consideration in terms of any sites assessment, as it is at the planning application stage. This option is scored identically to WPO13A. No negative impacts are envisaged through the SA scoring.

Evidence:
Further information and evidence on this option is available in Joint Minerals & Waste Technical Evidence Paper WCS-MCS-6 'Archaeology '.

LOCATIONAL STRATEGY: GREEN BELT [WPO14A] NO SPECIFIC POLICY IN THE WCS BUT TEXT TO INDICATE THAT WASTE DEVELOPMENT IN THE GREENBELT IS TO BE IN ACCORDANCE WITH PPG2 & PPS10

1. Test of the Option:

SA Objectives	S	M	L	Comments & Explanation	SA Objectives	S	M	L	Comments & Explanation
1. To promote sustainable development and sustainable communities in Gloucestershire giving people the opportunity to live in an affordable and sustainably designed and constructed home.	+	+	+	Broadly positive effects particularly for communities who are located close to Green Belt land – it terms of openness, etc. But potential unsustainable elements in terms of transport and development being deflected beyond Green Belts.	9. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets including its architectural and archaeological heritage.	+	+	+	Generally positive in terms of the protection of the Green Belt as a recreational asset.
2. To safeguard sites suitable for the location of waste management facilities, or future mineral development from other proposed development.	0	0	0	Neutral impact.	10. To prevent flooding, in particular preventing inappropriate development in the floodplain and to ensure that development does not compromise sustainable sources of water supply.	0	0	0	Neutral impact.
3. To protect and improve the health and well-being of people living and working in Gloucestershire as well as visitors to the county.	+	+	+	Green Belts, in terms of the opportunities they present for leisure and recreation clearly contribute to health and well-being.	11. To prevent the pollution of land, air and water in Gloucestershire and to apply the precautionary principle.	0	0	0	Neutral impact.
4. To promote education and economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds.	0	0	0	Broadly, the impacts are likely to be neutral or even potentially negative in terms of economic development.	12. To reduce the adverse impacts of lorry traffic on communities through means such as: a) reducing the need to travel b) promoting more sustainable means of transport c) sensitive lorry routing d) the use of sustainable alternative fuels e) promoting the management of waste in one of the nearest appropriate installations.	0	0	0	Neutral impact overall given that development or traffic movements that remain within urban areas could be positive, whilst development and traffic movement that jump the Green Belt could be negative.
5. To safeguard the amenity of local communities from the potential adverse impacts of minerals and waste development.	0	0	0	Neutral impact.	13. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity.	+	+	+	Broadly positive impacts.
6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society.	0	0	0	Neutral impact.	14. To reduce waste to landfill and in dealing with all waste streams to actively promote the waste hierarchy (i.e. Prevent, Reduce, Reuse, Recycle, Dispose) to achieve the sustainable management of waste.	0	0	0	Neutral impact.
7. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.	0	0	0	Neutral impact, but consider comments under Objective 4.	15. To reduce contributions to and to adapt to Climate Change.	0	0	0	Neutral impact – but consider comments under Objective 1 and 12.
8. To protect, conserve and enhance Gloucestershire's wildlife and natural environment – its landscape and biodiversity.	0	0	0	On balance, neutral impact although there may be instances where other valued (but non-Green Belt) designations are put under pressure.	/				

2. Nature of Effects:

Temporary or permanent effect:	**Geographic scale:**	**Significance and Likelihood:**
Long term if not permanent effects – depending on the waste development proposed.	Gloucestershire and potentially further a field, but a focus on the Gloucester – Cheltenham Green Belt.	Significant and likely impacts.

3. Cumulative / Secondary / Synergistic Impacts:

Potential cumulative / secondary / synergistic effects of the option	**Potential CI receptors & past / present / future human activities that have affected or will possibly affect these receptors**	**Predicted impacts on the receptor as a result of the plan in combination with other human activities, and the significance of the impacts**	**Possible mitigation measures & management suggestions and pointers for other plans & strategies**
Positive impacts in terms of potentially reducing the distance that waste is transported, reducing the impacts of congestion in combination with increasing levels of traffic from other sectors. Potential positive secondary impacts on protected sites elsewhere in the County. Potential negative impacts on the openness of the Green Belt, in combination with general e.g. housing development pressure.	• Communities living near to sites or on lorry routes. • Green Belt land. • Other protected sites in Gloucestershire. In terms of human activities: Population increase, waste development, waste growth, minerals development, general growth pressure e.g. government plans for increased house building.	Potential amenity issues – affecting some communities, but of benefit to others and to the County as a whole. Potential effects on openness. Positive impacts in terms of reduced transport distances and the protection of vulnerable sites areas e.g. AONB or areas prone to flooding.	Mitigation measures will be necessary to protect Green Belts – focusing on the reasons for their designation – openness etc… as per PPG2. Other plans and strategies e.g. Local Development Frameworks should protect statutory Green Belts in accordance with government policy in PPG2 an d PPS10. Reviews of Green Belt boundaries may be necessary – as indicated in RSS policy.

4. Sustainability Summary:

Some of the County's key waste management sites (e.g. hazardous and non hazardous landfills, Material Recovery Facilities (MRFs) are located within the Gloucester / Cheltenham Green Belt. This option essentially follows government policy in PPG2 and PPS10. In the test against the SA Objectives the results are broadly positive / neutral. A neutral effect may indicate that effects may be negligible or unrelated or that some communities / environments may be affected whilst others (such as the wider community of Gloucestershire or 'the South West') may benefit. Positive scores are given in terms of broad sustainability, protection of health and well being, conserving and enhancing assets and the restoration of minerals sites. But potential unsustainable elements include the issue of transport and development being deflected beyond Green Belts.

Evidence:
Further information and evidence on this option is available in Technical Evidence Paper WCS-I 'Waste Facilities in the Green Belt'.

LOCATIONAL STRATEGY: GREEN BELT [WPO14B] REVISE WLP POLICY 35 TO REFLECT GUIDANCE IN PPS10

1. Test of the Option:

SA Objectives	S	M	L	Comments & Explanation	SA Objectives	S	M	L	Comments & Explanation
1. To promote sustainable development and sustainable communities in Gloucestershire giving people the opportunity to live in an affordable and sustainably designed and constructed home.	+	+	+	Broadly positive. The option reflects PPG2 and PPS10 permitting development only in very special circumstances but also considering the wider environmental and economic benefits of sustainable waste management.	9. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets including its architectural and archaeological heritage.	+	+	+	Generally positive in terms of the protection of the Green Belt as a recreational asset.
2. To safeguard sites suitable for the location of waste management facilities, or future mineral development from other proposed development.	0	0	0	Overall neutral impact in terms of safeguarding sites.	10. To prevent flooding, in particular preventing inappropriate development in the floodplain and to ensure that development does not compromise sustainable sources of water supply.	0	0	0	Neutral impact.
3. To protect and improve the health and well-being of people living and working in Gloucestershire as well as visitors to the county.	+	+	+	Broadly positive in terms of health and well – being reflecting PPG2 and PPS10.	11. To prevent the pollution of land, air and water in Gloucestershire and to apply the precautionary principle.	0	0	0	Neutral impact.
4. To promote education and economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds.	0	0	0	Broadly, the impacts are likely to be neutral or even potentially negative in terms of economic development.	12. To reduce the adverse impacts of lorry traffic on communities through means such as: a) reducing the need to travel b) promoting more sustainable means of transport c) sensitive lorry routing d) the use of sustainable alternative fuels e) promoting the management of waste in one of the nearest appropriate installations.	+	+	+	Positive impact overall given that facilities will have to demonstrate particular locational needs.
5. To safeguard the amenity of local communities from the potential adverse impacts of minerals and waste development.	0	0	0	Neutral impact. (See further comments in the Sustainability Summary).	13. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity.	+	+	+	Broadly positive impacts.
6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society.	0	0	0	Neutral impact.	14. To reduce waste to landfill and in dealing with all waste streams to actively promote the waste hierarchy (i.e. Prevent, Reduce, Reuse, Recycle, Dispose) to achieve the sustainable management of waste.	0	0	0	Neutral impact.
7. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.	0	0	0	Neutral impact, but consider comments under Objective 4.	15. To reduce contributions to and to adapt to Climate Change.	+	+	+	Positive impact related to comments under Objective 1 and 12.
8. To protect, conserve and enhance Gloucestershire's wildlife and natural environment – its landscape and biodiversity.	0	0	0	Neutral but it could be argued that development in the Green Belt protects other landscapes e.g. AONB.	/				

2. Nature of Effects:

Temporary or permanent effect:	**Geographic scale:**	**Significance and Likelihood:**
Long term if not permanent effects – depending on the waste development proposed.	Gloucestershire and potentially further a field, but a focus on the Gloucester – Cheltenham Green Belt.	Significant and likely impacts.

3. Cumulative / Secondary / Synergistic Impacts:

Potential cumulative / secondary / synergistic effects of the option	**Potential CI receptors & past / present / future human activities that have affected or will possibly affect these receptors**	**Predicted impacts on the receptor as a result of the plan in combination with other human activities, and the significance of the impacts**	**Possible mitigation measures & management suggestions and pointers for other plans & strategies**
Positive impacts in terms of potentially reducing the distance that waste is transported, reducing the impacts of congestion in combination with increasing levels of traffic from other sectors. Potential positive secondary impacts on protected sites elsewhere in the County. Potential negative impacts on the openness of the Green Belt, in combination with general e.g. housing development pressure.	• Communities living near to sites or on lorry routes. • Green Belt land. • Other protected sites in Gloucestershire. In terms of human activities: Population increase, waste development, waste growth, minerals development, general growth pressure e.g. government plans for increased house building.	Potential amenity issues – affecting some communities, but of benefit to others and to the County as a whole. Potential effects on openness. Positive impacts in terms of reduced transport distances and the protection of vulnerable sites areas e.g. AONB or areas prone to flooding.	Mitigation measures will be necessary to protect Green Belts – focusing on the reasons for their designation – openness etc… as per PPG2. Other plans and strategies e.g. Local Development Frameworks should protect statutory Green Belts in accordance with government policy in PPG2 an d PPS10. Reviews of Green Belt boundaries may be necessary – as indicated in RSS policy.

4. Sustainability Summary:

This option is in the form of a detailed policy to be included in the WCS. The policy covers 'Waste management in the Green Belt not re-using an existing building' and 'The re-use of a building for waste management purposes in the Green Belt. The policy reflects the views of consultees / stakeholders, takes account of local circumstances and accords with Government policy in PPG2 and PPS10. In the test of the option against the SA Objectives, the results are broadly positive / neutral. As for WPO 14A, A neutral effect may indicate that effects may be negligible or unrelated or that some communities / environments may be affected whilst others (such as the wider community of Gloucestershire or 'the South West') may benefit. This option is scored very similarly to WPO14A, but it is more positive in terms of reflecting local circumstances and waste management need in Gloucestershire.

Evidence:
Further information and evidence on this option is available in Technical Evidence Paper WCS-I 'Waste Facilities in the Green Belt'.

LOCATIONAL STRATEGY: GREEN BELT [WPO14C] A STATEMENT IN THE WCS REQUIRING ALTERATIONS TO THE DEFINED GREEN BELT BOUNDARY

1. Test of the Option:

SA Objectives	S	M	L	Comments & Explanation	SA Objectives	S	M	L	Comments & Explanation
1. To promote sustainable development and sustainable communities in Gloucestershire giving people the opportunity to live in an affordable and sustainably designed and constructed home.	+	+	+	Positive impacts likely given that the option reflects PPG2 and PPS10 permitting development only in very special circumstances but also considering insets and alterations facilitating sustainable waste management.	9. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets including its architectural and archaeological heritage.	0	0	0	Neutral impact.
2. To safeguard sites suitable for the location of waste management facilities, or future mineral development from other proposed development.	+	+	+	Positive effects on safeguarding sites.	10. To prevent flooding, in particular preventing inappropriate development in the floodplain and to ensure that development does not compromise sustainable sources of water supply.	0	0	0	Neutral impact.
3. To protect and improve the health and well-being of people living and working in Gloucestershire as well as visitors to the county.	+	+	+	Broadly positive in terms of health and well – being reflecting PPG2 and PPS10.	11. To prevent the pollution of land, air and water in Gloucestershire and to apply the precautionary principle.	0	0	0	Neutral impact.
4. To promote education and economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds.	0	0	0	Neutral impact in terms of this objective.	12. To reduce the adverse impacts of lorry traffic on communities through means such as: a) reducing the need to travel b) promoting more sustainable means of transport c) sensitive lorry routing d) the use of sustainable alternative fuels e) promoting the management of waste in one of the nearest appropriate installations.	+	+	+	Broadly positive effects anticipated in terms of a review of Green Belt boundaries.
5. To safeguard the amenity of local communities from the potential adverse impacts of minerals and waste development.	0	0	0	Neutral impact.	13. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity.	0	0	0	Neutral, potentially unrelated.
6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society.	0	0	0	Neutral impact.	14. To reduce waste to landfill and in dealing with all waste streams to actively promote the waste hierarchy (i.e. Prevent, Reduce, Reuse, Recycle, Dispose) to achieve the sustainable management of waste.	+	+	+	Broadly positive effects anticipated.
7. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.	+	+	+	Potentially positive impacts in terms of waste generated employment.	15. To reduce contributions to and to adapt to Climate Change.	+	+	+	Broadly positive linked to Objective 1 and 12.
8. To protect, conserve and enhance Gloucestershire's wildlife and natural environment – its landscape and biodiversity.	0	0	0	Neutral impact.	/				

2. Nature of Effects:

Temporary or permanent effect:	**Geographic scale:**	**Significance and Likelihood:**
Long term if not permanent effects – depending on the waste development proposed.	Gloucestershire and potentially further a field, but a focus on the Gloucester – Cheltenham Green Belt.	Significant and likely impacts.

3. Cumulative / Secondary / Synergistic Impacts:

Potential cumulative / secondary / synergistic effects of the option	**Potential CI receptors & past / present / future human activities that have affected or will possibly affect these receptors**	**Predicted impacts on the receptor as a result of the plan in combination with other human activities, and the significance of the impacts**	**Possible mitigation measures & management suggestions and pointers for other plans & strategies**
Positive impacts in terms of potentially reducing the distance that waste is transported, reducing the impacts of congestion in combination with increasing levels of traffic from other sectors. Potential positive secondary impacts on protected sites elsewhere in the County. Potential negative impacts on the openness of the Green Belt, in combination with general e.g. housing development pressure.	• Communities living near to sites or on lorry routes. • Green Belt land. • Other protected sites in Gloucestershire. In terms of human activities: Population increase, waste development, waste growth, minerals development, general growth pressure e.g. government plans for increased house building.	Potential amenity issues – affecting some communities, but of benefit to others and to the County as a whole. Potential effects on openness. Positive impacts in terms of reduced transport distances and the protection of vulnerable sites areas e.g. AONB or areas prone to flooding.	Mitigation measures will be necessary to protect Green Belts – focusing on the reasons for their designation – openness etc… as per PPG2. Other plans and strategies e.g. Local Development Frameworks should protect statutory Green Belts in accordance with government policy in PPG2 an d PPS10. District Councils in Gloucestershire should be aware that reviews of Green Belt boundaries may be necessary – as indicated in RSS policy.

4. Sustainability Summary:

This option is not a policy as such but is presented in the form of a statement. It is an option that may be pursued in conjunction with Options WPO14A and WPO14B. It closely follows requirements in PPS10 to recognize the particular locational needs of some types of waste management facilities when defining Green Belt boundaries. In the test against the 15 SA Objectives the results were broadly positive or neutral (see WPO14A &B for comments on neutral scores). Clearly assessments for any sites work or any Green Belt review will address the issues that have been raised here at a broad strategic level in greater detail.

Evidence:
Further information and evidence on this option is available in Technical Evidence Paper WCS-I 'Waste Facilities in the Green Belt'.

LOCATIONAL STRATEGY: SITES OF SPECIAL SCIENTIFIC INTEREST [WPO15A] A SPECIFIC SSSI POLICY IN THE WCS

1. Test of the Option:

SA Objectives	S	M	L	Comments & Explanation	SA Objectives	S	M	L	Comments & Explanation
1. To promote sustainable development and sustainable communities in Gloucestershire giving people the opportunity to live in an affordable and sustainably designed and constructed home.	+	+	+	Development that adversely affects SSSI in Gloucestershire is clearly not sustainable development. Thus this policy is broadly positive in terms of this broad objective.	9. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets including its architectural and archaeological heritage.	+	+	+	Positive effects likely given that protected sites can be regarded as recreational assets.
2. To safeguard sites suitable for the location of waste management facilities, or future mineral development from other proposed development.	0	0	0	Likely neutral impact in terms of the safeguarding of sites.	10. To prevent flooding, in particular preventing inappropriate development in the floodplain and to ensure that development does not compromise sustainable sources of water supply.	0	0	0	Neutral – unrelated.
3. To protect and improve the health and well-being of people living and working in Gloucestershire as well as visitors to the county.	+	+	+	The public's enjoyment of the natural environment is clearly related to their well-being.	11. To prevent the pollution of land, air and water in Gloucestershire and to apply the precautionary principle.	+ +	+ +	+ +	Major positive effects likely. The precautionary principle is specifically referenced in the policy text.
4. To promote education and economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds.	0	0	0	Likely neutral impact – but see comments for Objective 8.	12. To reduce the adverse impacts of lorry traffic on communities through means such as: a) reducing the need to travel b) promoting more sustainable means of transport c) sensitive lorry routing d) the use of sustainable alternative fuels e) promoting the management of waste in one of the nearest appropriate installations.	0	0	0	Neutral – unrelated.
5. To safeguard the amenity of local communities from the potential adverse impacts of minerals and waste development.	+	+	+	Broadly positive - there is a link between environmental protection and safeguarding amenity.	13. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity.	0	0	0	Neutral – unrelated.
6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society.	0	0	0	Neutral / unrelated.	14. To reduce waste to landfill and in dealing with all waste streams to actively promote the waste hierarchy (i.e. Prevent, Reduce, Reuse, Recycle, Dispose) to achieve the sustainable management of waste.	0	0	0	Neutral – unrelated.
7. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.	+	+	+	There may be employment opportunities, (particularly in rural areas) associated with the maintenance and upkeep of designated sites such as SSSI.	15. To reduce contributions to and to adapt to Climate Change.	+	+	+	Broadly positive in that the protection of the natural environment will help to prevent the spread of development that contributes to Climate Change.
8. To protect, conserve and enhance Gloucestershire's wildlife and natural environment – its landscape and biodiversity.	+ +	+ +	+ +	Clear major positive effects in terms of this objective.	/				

2. Nature of Effects:

Temporary or permanent effect:	**Geographic scale:**	**Significance and Likelihood:**
Long term effects if not permanent.	SSSIs in Gloucestershire.	Likely and significant.

3. Cumulative / Secondary / Synergistic Impacts:

Potential cumulative / secondary / synergistic effects of the option	**Potential CI receptors & past / present / future human activities that have affected or will possibly affect these receptors**	**Predicted impacts on the receptor as a result of the plan in combination with other human activities, and the significance of the impacts**	**Possible mitigation measures & management suggestions and pointers for other plans & strategies**
Potentially positive secondary / cumulative impacts on wildlife / biodiversity / areas adjacent to protected SSSIs. Potential positive impacts on Gloucestershire's tourist industry.	Gloucestershire's natural environment / biodiversity. Activities affecting receptors: Mineral working, housing and other development, climate change, traffic, pollution, development pressure.	The plan policy seeks to protect SSSI, but they may be increasingly under threat from development pressure and pollution.	Other plans and strategies should effectively protect SSSI and other designated sites through strong and appropriate policies.

4. Sustainability Summary:

Against the test of the 15 SA Objectives Option WPO15A is broadly positive. There are major positive scores in terms of Objectives 8 - protect, conserve and enhance Gloucestershire's wildlife and natural environment and Objective 11 - preventing pollution. In terms of Objective 11, the score is 'major positive' due to the fact that the policy refers to the precautionary principle. There are a number of neutral / unrelated scores but this is because the policy has a very specific environmental / SSSI focus.

Evidence:
For further information / evidence see Joint Minerals & Waste Evidence Paper WCS-MCS-5 'Biodiversity'.

LOCATIONAL STRATEGY: SITES OF SPECIAL SCIENTIFIC INTEREST [WPO15B] DEVELOPMENT PROPOSALS TO BE IN ACCORDANCE WITH NATIONAL POLICY IN PPS9 FOR SSSI

SA Objectives	S	M	L	Comments & Explanation	SA Objectives	S	M	L	Comments & Explanation
1. To promote sustainable development and sustainable communities in Gloucestershire giving people the opportunity to live in an affordable and sustainably designed and constructed home.	+	+	+	Broadly positive. The scores and comments for this option are broadly the same as for WPO15A although the scores for Objective 11 are positive rather than major positive.	9. To protect conserve and enhance Gloucestershire's material, cultural and recreational assets including its architectural and archaeological heritage.	+	+	+	Positive effects likely given that protected sites can be regarded as recreational assets.
2. To safeguard sites suitable for the location of waste management facilities, or future mineral development from other proposed development.	0	0	0	Likely neutral impact in terms of the safeguarding of sites.	10. To prevent flooding, in particular preventing inappropriate development in the floodplain and to ensure that development does not compromise sustainable sources of water supply.	0	0	0	Neutral – unrelated.
3. To protect and improve the health and well-being of people living and working in Gloucestershire as well as visitors to the county.	+	+	+	The public's enjoyment of the natural environment is clearly related to their well-being.	11. To prevent the pollution of land, air and water in Gloucestershire and to apply the precautionary principle.	+	+	+	Positive impacts but national policy in PPS9 and its guide to good practice does not specifically refer to the precautionary principle.
4. To promote education and economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds.	0	0	0	Likely neutral impact – but see comments for Objective 8.	12. To reduce the adverse impacts of lorry traffic on communities through means such as: a) reducing the need to travel b) promoting more sustainable means of transport c) sensitive lorry routing d) the use of sustainable alternative fuels e) promoting the management of waste in one of the nearest appropriate installations.	0	0	0	Neutral – unrelated.
5. To safeguard the amenity of local communities from the potential adverse impacts of minerals and waste development.	+	+	+	Broadly positive - there is a link between environmental protection and safeguarding amenity.	13. To restore mineral sites to a high standard in order to achieve the maximum after use benefits including the conservation and enhancement of biodiversity.	0	0	0	Neutral – unrelated.
6. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society.	0	0	0	Neutral / unrelated.	14. To reduce waste to landfill and in dealing with all waste streams to actively promote the waste hierarchy (i.e. Prevent, Reduce, Reuse, Recycle, Dispose) to achieve the sustainable management of waste.	0	0	0	Neutral – unrelated.
7. To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.	+	+	+	There may be employment opportunities, (particularly in rural areas) associated with the maintenance and upkeep of designated sites such as SSSI.	15. To reduce contributions to and to adapt to Climate Change.	+	+	+	Broadly positive in that the protection of the natural environment will help to prevent the spread of development that contributes to Climate Change.
8. To protect, conserve and enhance Gloucestershire's wildlife and natural environment – its landscape and biodiversity.	+ +	+ +	+ +	Clear major positive effects in terms of this objective.	/				

2. Nature of Effects:

Temporary or permanent effect:	**Geographic scale:**	**Significance and Likelihood:**
Long term effects if not permanent.	SSSIs in Gloucestershire.	Likely and significant.

3. Cumulative / Secondary / Synergistic Impacts:

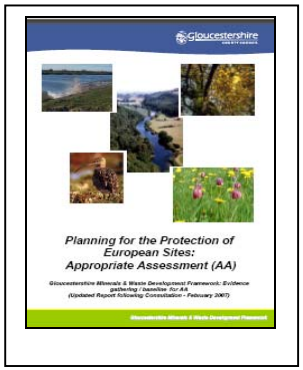
Potential cumulative / secondary / synergistic effects of the option	**Potential CI receptors & past / present / future human activities that have affected or will possibly affect these receptors**	**Predicted impacts on the receptor as a result of the plan in combination with other human activities, and the significance of the impacts**	**Possible mitigation measures & management suggestions and pointers for other plans & strategies**
Potentially positive secondary / cumulative impacts on wildlife / biodiversity / areas adjacent to protected SSSIs. Potential positive impacts on Gloucestershire's tourist industry.	Gloucestershire's natural environment / biodiversity. Activities affecting receptors: Mineral working, housing and other development, climate change, traffic, pollution, development pressure.	The plan policy seeks to protect SSSI, but they may be increasingly under threat from development pressure and pollution.	Other plans and strategies should effectively protect SSSI and other designated sites through strong and appropriate policies.

4. Sustainability Summary:

In terms of the test of this option against the SA Objectives the results are broadly positive. The scores and comments for this option are broadly the same as for WPO15A although the scores for Objective 11 are positive rather than major positive. Similar comments apply as for WPO15A.

Evidence:
For further information / evidence see Joint Minerals & Waste Evidence Paper WCS-MCS-5 'Biodiversity'.

Appendix 6. Explanation of the links with Appropriate Assessment



Background:
As part of process for the development of the Minerals & Waste Development Framework the County Council have prepared and consulted on a document entitled: "Planning for the Protection of European Sites: Appropriate Assessment (AA): Gloucestershire Baseline Report". The purpose of Appropriate Assessment (AA) of land use plans is to ensure that protection of the integrity of European sites is a part of the planning process at a regional and local level. The requirement for AA of plans or projects is outlined in Article 6(3) and (4) of the European Communities (1992) Council Directive 92/43/EEC on the conservation of natural habitats and of wild fauna and flora ("Habitats Directive").

The Sites:
The EU Natura 2000 network provides ecological infrastructure for the protection of sites which are of exceptional importance in respect of rare, endangered or vulnerable natural habitats and species within the European Community. These sites, which are also referred to as 'European sites' consist of Special Areas of Conservation (SACs), Special Protection Areas (SPAs) and Offshore Marine Sites (OMS). Note: there are no OMS designated at present. Ramsar sites (Internationally Important Wetlands) are treated as it they were European sites in accordance with the Government's policy statement of November 2000 and the DEFRA circular 01/2005 (paragraph 5). The European sites in Gloucestershire (or close to its boundary) are:

Rodborough Common SAC – (Stroud)
Dixton Wood SAC – (Tewkesbury)
Wye Valley and Forest of Dean Bat Sites SAC – (Forest of Dean, Monmouthshire)
River Wye SAC – (Forest of Dean, Monmouthshire, Herefordshire, Powys)
Wye Valley Woodlands SAC – (Forest of Dean, Monmouthshire, Herefordshire)
North Meadow and Clattinger Farm SAC – (Wiltshire)
Cotswold Beechwoods SAC – (Cotswold)
Bredon Hill SAC – (Worcestershire)
Walmore Common SPA – (Tewkesbury)
Severn Estuary SPA – (Stroud, Forest of Dean)

WCS Issues & Options:
Following on from the AA Baseline Report, a specific AA Report was produced testing the potential impacts of the WCS Issues and Options. As with the AA Baseline Report this document also went out to consultation, including to Natural England as the Statutory Consultee. The detailed test of the options was conducted by Gloucestershire County Council's Ecologist. This test highlighted the fact that none of the options presented was likely to have a definite significant effect on the conservation objectives of the sites in and close to Gloucestershire, but there were uncertain scores against a number of options and text confirming that effects could only be known or judged when specific sites were identified (i.e. later in the process).

WCS Preferred Options:
An AA Report (alternatively called a Habitat Regulations Assessment (HRA) has been produced testing the WCS Preferred Options. The rationale being that policy options which could have significant damaging effects on European sites are fully assessed and discarded or altered as necessary before the DPD is submitted in its final version. As well as the test of the options by the County Ecologist, various 'rules' for protecting sites have been added based on the HRA of the RSS.

Further Information:
Further information on the AA / HRA process can be found on the County Council's website at the following link:

http://www.gloucestershire.gov.uk/index.cfm?articleid=11577

See also the WCS Issues & Options / Preferred Options AA / HRA Reports at:

http://www.gloucestershire.gov.uk/index.cfm?articleid=13349

Appendix 7. The SA 'Sounding Board'

The SA Sounding Board was set up to provide an additional test of the Preferred Options. It is an email group of officers at County and District levels who have expertise in the waste / sustainability field and who are thus able to add value to the process. The following table is the list of people *who were approached* to be a part of the group. Responses were not forthcoming from all those approached, but the contributions (checking SA scoring) from those who did participate has been useful.

Those approached:	**Particular field / expertise:**
An officer from Gloucester City Environmental Health	Both minerals & waste issues, health & local amenity.
An officer from Cheltenham Borough Environmental Health	Both minerals & waste issues, health & local amenity.
An officer from Forest of Dean District Environmental Health	Both minerals & waste issues, health & local amenity.
An officer from Stroud District Environmental Health	Both minerals & waste issues, health & local amenity.
An officer from Tewkesbury Borough Environmental Health	Both minerals & waste issues, health & local amenity.
An officer from Cotswold District Environmental Health	Both minerals & waste issues, health & local amenity.
An officer from County Strategic Planning / Renewable Energy / SFRA	Both minerals & waste issues, renewable energy, flooding, strategic development.
A representative from Gloucestershire First	Both minerals & waste issues, economic development, eco-business.
An officer from County Council Ecology	Both minerals & waste issues, biodiversity, ecology, landscape.
An officer from County Council Transport Planning	Both minerals & waste issues, transport, networks, road safety.
An officer from County Council Sustainability	Both minerals & waste issues, broad sustainability, corporate issues.
An officer from County Council Archaeology	Both minerals & waste issues, archaeology, historic monuments.
An officer from County Council Development Control	Both minerals & waste issues, detailed planning considerations, EIA, conditions, monitoring and enforcement.
A representative from the Gloucestershire Waste Partnership ((GWP) representing Cheltenham Borough Council	Municipal waste collection issues, recycling, public engagement.
A representative from the Gloucestershire Waste Partnership ((GWP) representing Cotswold District Council	Municipal waste collection issues, recycling, public engagement.
A representative from the Gloucestershire Waste Partnership ((GWP) representing Forest of Dean District Council	Municipal waste collection issues, recycling, public engagement.
A representative from the Gloucestershire Waste Partnership ((GWP) representing Gloucester City Council	Municipal waste collection issues, recycling, public engagement.
A representative from the Gloucestershire Waste Partnership ((GWP) representing Stroud District Council	Municipal waste collection issues, recycling, public engagement.
A representative from the Gloucestershire Waste Partnership ((GWP) representing Tewkesbury Borough Council	Municipal waste collection issues, recycling, public engagement.
A representative from the Gloucestershire Waste Partnership ((GWP) representing County Council Waste Management	Municipal waste collection issues, recycling, public engagement, JMWMS, residual treatment.

Appendix 8. Links with the Joint Municipal Waste Management Strategy SEA

The following summary tables relating to residual waste treatment are taken from the ***Final Environmental Report for the Gloucestershire Joint Municipal Waste Management Strategy*** produced for Gloucestershire County Council Waste Management by *Eunomia Research and Consulting.* For further details see the full report, in particular Chapter 8 ' Assessment of Options for Waste Treatment / Disposal.

Ref	Strategy Section	Policy/ Initiative	Potential Negative Impact	Possible Mitigation & Result
1	Waste Prevention	WP2 Community Composting	Cost (Minor Negative)	Maximise use of voluntary support, but providing sufficient support to maintain interest. (Minor Negative)
2	Waste Prevention	WP5 Re-use HRC Sites	Cost (Minor Negative)	Promote scheme heavily at the sites via signage to ensure maximum uptake. (Minor Negative)
3	Waste Prevention	WP9 Schools Awareness Programme	Cost (Minor Negative)	Ensure effective engagement with schools. Use existing resources where possible and recognise that the benefits of the programme are primarily intangible. (Minor Negative)
4	Waste Collection	Option 5	Increased air pollution from increased transportation of waste (Minor Negative Impact)	Ensure vehicles are fitted with the most effective pollution abatement equipment (No/ Minor Negative Impact)
5	Waste Collection	Option 5	Increased transportation of waste (Minor Negative Impact)	Ensure waste collection rounds are efficiently drawn and collection vehicles used to their maximum potential. (Minor Negative Impact)
6	Residual Waste	All technologies	Land & Soil (Mix Of Minor & Strong Negative)	Use fly ash for neutralisation in chemical industry; consider use of stabilisation / vitrification of fly-ash prior to landfill disposal. Ensure land-take is minimum for facilities being taken forwards. (No/ Small Negative Impact)
7	Residual Waste	All technologies	Climate (Mix Of Minor & Strong Negative)	For all facilities, maximise extraction of materials for high quality recycling For landfills, pre-treat the waste, and seek to maximise efficiency of gas capture and energy generation (including consideration of CHP for site buildings or wider use if local demand for heat can justify the infrastructural requirements) subject to ensuring local air pollutants are minimised

Ref	Strategy Section	Policy/ Initiative	Potential Negative Impact	Possible Mitigation & Result
				For MTT, seek improvements in energy efficiency subject to ensuring local air pollutants are minimised (there are trade-offs between maximising energy generation and reducing emissions performance). CHP / heat generation only should be considered where prospects for heat use are good (including for district cooling) For stabilisation/ MBT, ensure process is well managed (approach to aeration, C:N ratios, moisture content neither too high nor too low), ensure high level of stability prior to landfilling of residue (Minor Negative Impact)
8	Residual Waste	All except MBT Stabilisation.	Air Quality (Mix Of Minor And Strong Negative)	At landfills, minimise periods where gas is not captured; use gas cleaning technologies At MTT, reduce emissions through use of selective catalytic reduction (NOx and dioxins) or other increased abatement measures, consider wet scrubbing for acid gases, consider avoidance of burning specific materials (e.g. treated wood) At MBT based facilities, use of exhaust air extraction and adequate gas cleaning system (to deal with VOCs, NH_3 etc), ensure proper stabilisation of material to be landfilled and preferably landfill at sites employing active cover layer techniques (Minor Negative Impact)
9	Residual Waste	All Technologies.	Impact on Landscape & Cultural Heritage (Mix Of Minor And Strong Negative)	For landfill, use gas cleaning technologies (including active gas collection). For MTT, use of selective catalytic reduction for NOx and wet scrubbing for other acid gases. In all cases, employ sensitive siting. In all cases other than landfill, use of appropriate architectural design to soften impacts. For some facilities, consider both horizontal and vertical lay-outs to determine most appropriate design. (Minor Negative Impact)
10	Residual Waste	Landfill	Nuisance	Ensure monitoring system in place to ensure triggers for action are robust. Ensure adequate daily cover of waste. Use of odour abating technologies –

Ref	Strategy Section	Policy/ Initiative	Potential Negative Impact	Possible Mitigation & Result
			(Minor Negative Impact)	e.g. sprays and bird deterrents. Ensure good site management – e.g. daily litter picks from site boundary. (Minor Negative Impact)
11	Residual Waste	All Technologies	Health Impacts (Mix Of Minor And Strong Negative)	At landfills, minimise periods where gas is uncaptured; use efficient gas cleaning technologies For MTT, reduce emissions through use of selective catalytic reduction (NOx and dioxins), consider wet scrubbing for acid gases, consider avoidance of burning specific materials (e.g. treated wood) At biodrying / MBT facilities, use exhaust air extraction and adequate gas cleaning system (to deal with VOCs, NH_3 etc), ensure proper stabilisation of material to be landfilled and preferably landfill at sites with active cover layers (Minor Negative Impact)

TREATMENT / DISPOSAL OPTION		ENV 1	ENV 2	ENV 3	ENV 4	ENV 5	ENV 6	ENV 7	ENV 8	ENV 9	ENV 10	SOC 1	SOC 2	SOC 3	SOC 4	SOC 5	ECON 1	ECON 2	ECON 3
Untreated Landfill	Effect													N/A	N/A				
	Timescale	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L
Autoclave plus landfill	Effect													N/A	N/A				
	Timescale	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Autoclave plus MTT	Effect													N/A	N/A				
	Timescale	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L
Stabilisation plus landfill	Effect													N/A	N/A				
	Timescale	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S	S
Biodrying plus MTT	Effect													N/A	N/A				
	Timescale	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L
MTT	Effect													N/A	N/A				
	Timescale	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L	L

Glossary of Terms

ANNUAL MONITORING REPORT – Assesses the implementation of the LDS and extent to which the policies in LDDs are being achieved.

AREA OF OUTSTANDING NATURAL BEAUTY – A landscape area of high natural beauty, which has been designated under the National Parks and Access to the Countryside Act (1949).

BIODEGRADABLE – Materials which can be chemically broken down by naturally occurring micro-organisms into simpler compounds. In the context of this document it refers principally to waste containing organic material which can decompose giving rise to gas and leachate and other by-products.

COMMUNITY STRATEGY – The Local Government Act 2000 requires local authorities to prepare a Community Strategy. It sets out the broad vision for the future of the local authority's area and proposals for delivering that vision.

CONTROLLED WASTE – Comprised of household, industrial, commercial, hazardous and sewage waste which require a waste management license for treatment, transfer and disposal. The main exempted categories comprise mine, quarry and farm wastes. The government is currently consulting on the extension of controls to farm wastes. However, materials used for agricultural improvement, such as manure and slurry, will not become controlled. Radioactive and explosive wastes are controlled by other legislation and procedures.

CORE STRATEGY – Sets out the long-term spatial vision for the local planning authority area and the strategic policies and proposals to deliver that vision.

DEVELOPMENT PLAN DOCUMENT – These are spatial planning documents that are subject to independent examination. They will have 'development plan' status. See the definition of Minerals & Waste Development Plan Document below.

EU DIRECTIVE – A European Union legal instruction, which is binding on all Member States, but must be implemented through legislation of national governments within a prescribed timescale.

ENERGY RECOVERY – Includes a number of established and emerging technologies, though most energy recovery is through incineration technologies. Many wastes are combustible, with relatively high calorific values – this energy can be recovered through (for instance) incineration with electricity generation, gasification, pyrolysis or refuse derived fuel.

ENVIRONMENT AGENCY – Established in April 1996, combining the functions of former local waste regulation authorities, the National Rivers Authority and Her Majesty's Inspectorate of Pollution. Intended to promote a more integrated approach to waste management and consistency in waste regulation. The Agency also conducts national surveys of waste arising and waste facilities.

ENVIRONMENTAL REPORT – A document required by the SEA Directive as part of an environmental assessment, which identifies, describes and evaluates the likely significant effects on the environment of implementing a plan or programme.

GREEN BELT – Areas of land defined in Structure Plans and District Wide Local Plans that are rural in character and adjacent to urban areas, where permanent and strict planning controls apply in order to; check the unrestricted sprawl of built up areas; safeguard the surrounding countryside from further encroachment; prevent neighbouring towns from merging into one another; preserve the special character of historic towns and assist urban regeneration.

GREENHOUSE GASES – Gases such as methane and carbon dioxide that are believed to contribute to global warming by trapping heat between the earth and the atmosphere.

HOUSEHOLD RECYCLING CENTRES – Sites to which the public can bring domestic waste, such as bottles, textiles, cans and paper for free disposal. These sites may also accept bulky household waste and green waste. Where possible, the collected waste is recycled after sorting.

INCINERATION – The controlled burning of waste, either to reduce its volume, or its toxicity. Energy recovery from incineration can be achieved by utilising the calorific value of paper, plastic, etc to produce heat or power. Current flue-gas emission standards are very high. Ash residues still tend to be disposed of to landfill.

INERT WASTE – Waste which, when deposited into a waste disposal site, does not undergo any significant physical, chemical or biological transformations and which complies with the criteria set out in Annex 111 of the EC Directive on the Landfill of Waste.

KERBSIDE COLLECTION – Any regular collection of recyclables from premises, including collections from commercial or industrial premises as well as from households. Excludes collection services delivered on demand.

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

LANDRAISE – Where land is raised by the deposit of waste material above existing or original ground level.

LAND USE PLANNING – The Town and Country Planning system regulates the development and use of land in the public interest, and has an important role to play in achieving sustainable waste management.

LICENSED SITE – A waste disposal or processing facility which is licensed under the Environmental Protection Act for that function.

LOCAL DEVELOPMENT FRAMEWORK – Comprises a portfolio of local development documents that will provide the framework for delivering the spatial planning strategy for the area.

LOCAL DEVELOPMENT DOCUMENT – A document that forms part of the Local Development Framework. Can either be a Development Plan Document or a Supplementary Planning Document.

MATERIALS RECOVERY / RECYCLING FACILITY – A site where recyclable waste, usually collected via kerbside collections or from Household Recycling Centres, is mechanically or manually separated, baled and stored prior to reprocessing.

METHANE – A colourless, odourless gas formed during the anaerobic decomposition of putrescible waste. It is the major constituent of landfill gas.

MINERALS & WASTE DEVELOPMENT PLAN DOCUMENT – Spatial minerals and waste related planning documents that are subject to independent examination. There will be a right for those making representations seeking change to be heard at an independent examination.

MINERALS & WASTE DEVELOPMENT SCHEME – Sets out the programme for the preparation of the minerals and waste development documents. Must be submitted to Secretary of State for approval within six months of the commencement date of the Act regardless of where they are in terms of their current development plan.

MINERALS & WASTE DEVELOPMENT FRAMEWORK – Comprises a portfolio of minerals and waste development documents which will provide the framework for delivering the spatial minerals and waste planning strategy for the area.

OFFICE OF THE DEPUTY PRIME MINISTER – The Government department with responsibility for planning and local government. (As of May 2006 this department became the **DEPARTMENT FOR COMMUNITIES AND LOCAL GOVERNMENT)**.

PLANNING POLICY GUIDANCE NOTES – Government policy statements on a variety of issues that are material considerations in determining planning applications.

PLANNING POLICY STATEMENT – Guidance documents which set out national planning policy. They are being reviewed and updated and are replacing PPGs.

PREFERRED AREA – Area within which waste management uses may be suitable in principle, subject to extensive consultation.

PROPOSALS MAP – Illustrates the policies and proposals in the development plan documents and any saved policies that are included in the local development framework.

PUBLIC CONSULTATION – A process through which the public is informed about proposals fashioned by a planning authority or developer and invited to submit comments on them.

PUTRESCIBLE WASTE – Organic waste which, when deposited at a landfill site, will decompose and give rise to potentially polluting by-products in the form of liquids or gases.

PYROLYSIS – The heating of waste in a closed environment (i.e. in the absence of oxygen) to produce a secondary fuel product.

RESTORATION – The methods by which the land is returned to a condition suitable for an agreed after-use following the completion of tipping operations.

RECOVERY – The process of extracting a product of value from waste materials, including recycling, composting and energy recovery.

RECYCLING – Involves the reprocessing of wastes, either into the same product or a different one. Many non-hazardous industrial wastes such as paper, glass, cardboard, plastics and scrap metal can be recycled. Hazardous wastes such as solvents can also be recycled by specialist companies, or by in-house equipment.

REDUCTION – Achieving as much waste reduction as possible is a priority action. Reduction can be accomplished within a manufacturing process involving the review of production processes to optimise utilisation of raw (and secondary) materials and recirculation processes. It can be cost effective, both in terms of lower disposal costs, reduced demand from raw materials and energy costs. It can be carried out by householders through actions such as home composting, re-using products and buying goods with reduced packaging.

REFUSE DERIVED FUEL – A fuel product recovered from the combustible fraction of waste, in either loose or pellet form.

REGIONAL SPATIAL STRATEGY – This document is being prepared by the South West Regional Assembly and will replace the Regional Planning Guidance for the South West. It will have statutory development plan status.

RE-USE – The reuse of materials in their original form, without any processing other than cleaning. Can be practiced by the commercial sector with the use of products designed to be used a number of times, such as re-useable packaging. Householders can purchase products that use refillable containers, or re-use plastic bags. The processes contribute to sustainable development and can save raw materials, energy and transport costs.

SAVED PLAN / POLICIES – Under the Planning and Compulsory Purchase Act 2004 the Gloucestershire Minerals and Waste Local Plans have been ‘saved’ for a period of three years (either from the date of adoption or September 2004 as appropriate).

SOUTH WEST REGIONAL ASSEMBLY – Body responsible for regional planning and waste strategy matters in the South West.

SPECIAL AREAS OF CONSERVATION – Designation made under the Habitats Directive to ensure the restoration or maintenance of certain natural habitats and species some of which may be listed as ‘priority’ for protection at a favourable conservation status.

SPECIAL PROTECTION AREA – Designations made under the EC Directive 79/409 on bird conservation (The Birds Directive), the aim of which is to conserve the best examples of the habitats of certain threatened species of bird the most important of which are included as priority species.

STAKEHOLDER – Anyone who is interested or may be affected by a proposal being considered.

STRATEGIC ENVIRONMENTAL ASSESSMENT – Local Planning Authorities must comply with European Union Directive 2001/42/EC which requires a high level, strategic assessment of local development

documents (DPDs and, where appropriate SPDs) and other programmes (e.g. the Local Transport Plan and the Municipal Waste Management Strategy) that are likely to have significant effects on the environment.

SUPPLEMENTARY PLANNING DOCUMENT – Policy guidance to supplement the policies and proposals in development plan documents. They will not form part of the development plan or be subject to independent examination. (Formally known as Supplementary Planning Guidance)

SUSTAINABILITY APPRAISAL – Local Planning Authorities are bound by legislation to appraise the degree to which their plans and policies contribute to the achievement of sustainable development. The process of Sustainability Appraisal is similar to Strategic Environmental Assessment but is broader in context, examining the effects of plans and policies on a range of social, economic and environmental factors. To comply with Government policy, Gloucestershire County Council is producing a Sustainability Appraisal that incorporates a Strategic Environmental Assessment of its Minerals and Waste Local Development Documents.

SUSTAINABLE DEVELOPMENT – Development which is sustainable in that which meets the needs of the present without comprising the ability of future generations to meet their own needs.

SUSTAINABLE WASTE MANAGEMENT – Means using material resources efficiently, to cut down on the amount of waste we produce. And where waste is generated, dealing with it in a way that actively contributes to economic, social and environmental goals of sustainable development.

VOIDSPACE – The remaining capacity in active or committed landfill or landraise sites.

WASTE – Is the wide ranging term encompassing most unwanted materials and is defined by the Environmental Protection Act 1990. Waste includes any scrap metal, effluent or unwanted surplus substance or article that requires to be disposed of because it is broken, worn out, contaminated or otherwise spoiled. Explosives and radioactive wastes are excluded.

WASTE ARISING – The amount of waste generated in a given locality over a given period of time.

WASTE HIERARCHY – Suggests that: the most effective environmental solution may often be to reduce the amount of waste generated – reduction. Where further reduction is not practicable, products and materials can sometimes be used again, either for the same or a different purpose – re-use. Failing that, value should be recovered from waste, through recycling, composting or energy recovery from waste. Only if none of the above offer an appropriate solution should waste be disposed.

WASTE LOCAL PLAN – A statutory land-use plan. Its purpose is set out detailed land-use policies in relation to waste management development in the County.

WASTE MANAGEMENT LICENSES – Licenses are required by anyone who proposes to deposit, recover or dispose of controlled waste. The licensing system is separate from, but complementary to, the land use planning system. The purpose of a license and the conditions attached to it is to ensure that the waste operation that it authorises is carried out in a way that protects the environment and human health.

WASTE MINIMISATION – Reducing the volume of waste that is produced. This at the top of the Waste Hierarchy.

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