

Sustainability Appraisal of Gloucestershire Waste Core Strategy – Strategic Waste Sites

Non-Technical Summary

INTRODUCTION

1. Gloucestershire County Council is the Minerals Planning Authority and Waste Planning Authority for Gloucestershire, which means that it has to prepare the Minerals & Waste Development Framework (MWDF) that will replace its currently adopted Minerals Local Plan and Waste Local Plan. The MWDF will comprise a range of planning documents containing policies relating to minerals and waste development in the County. To date, Gloucestershire County Council's Minerals & Waste Planning Policy Team has been working on the preparation of the following documents within the MWDF:
 - A Supplementary Planning Document on Waste Minimisation in Development Projects (Adopted September 2006)
 - The Minerals Core Strategy (Consultation completed on Preferred Options)
 - The Waste Core Strategy (Consultation completed on Preferred Options)
2. The preparation of the MWDF documents is required to be subject to a full Sustainability Appraisal (SA) in line with the Planning and Compulsory Purchase Act 2004 and current Government planning policy (PPS 12¹). The preparation of the MWDF documents must also be in accordance with the requirements of European Directive 2001/42/EC (known as the Strategic Environment Assessment, or 'SEA' Directive).
3. The difference between Strategic Environment Assessment and Sustainability Appraisal is that where SEA is more focused on environmental impacts, sustainability appraisal includes wider ranging considerations, also extending to social and economic impacts. This summary and the full SA report describe the joint SA/SEA process that has been undertaken in line with the ODPM guidance on SA ("SA Guidance"²). Throughout this summary and the full report, SA is used to mean "sustainability appraisal incorporating the requirements of SEA".
4. Land Use Consultants (LUC) was appointed by Gloucestershire County Council (GCC) in February 2009 to undertake the next stages of the SA of the Waste Core Strategy comprising two main components:

¹ *Planning Policy Statement 12: Local Spatial Planning*. Communities and Local Government, 2008

² *Sustainability Appraisal of Regional Spatial Strategies and Local Development Frameworks*. ODPM, November 2005.

- SA Report for the 106 potential waste site options being considered for allocation as Strategic Waste Sites in the Waste Core Strategy (Stage 1, completed in April 2009); and
 - SA Report for the short list of site options and other policy options for the Waste Core Strategy options consultation to be held in October 2009 (Stage 2, the subject of this report, completed in September 2009).
5. Following the Site Options Consultation (to be held October-November 2009), the Waste Core Strategy will be brought together in one document, taking account of the three main consultation phases: Issues and Options, Preferred Options and Site Options. Following a final six week consultation period in Autumn 2010, submission to the Secretary of State is scheduled for December 2010.

SUSTAINABILITY APPRAISAL STAGES

6. The ODPM Sustainability Appraisal Guidance specifies a number of stages of work that have to be undertaken. The first three stages of the SA have been completed (i.e. Stages A, B & C). These involved the following:

Stage A – Setting the context and scope

7. Gloucestershire County Council undertook the Scoping stage of the SA for the Waste Core Strategy themselves. The Scoping stage involved gathering baseline evidence for the SA and developing a framework of sustainability objectives against which the documents in the MWDF can be assessed. The Council prepared two reports (Context and Scoping Reports) containing all of the information gathered during this stage. The “SA Context Reports” prepared by the Council set out the review of all international, national, regional, county and local plans or programmes that are relevant to the MWDF, including the Waste Core Strategy. The latest update of the SA Context Report (Update 3) was produced in January 2009.
8. In addition to the SA Context Report, the latest update of the SA Scoping Report (Update 3) was also produced in January 2009. This report describes the baseline information and sustainability issues for Gloucestershire in relation to minerals and waste, as well as setting out the SA Framework. The SA Framework consists of a set of sustainability objectives which state desired outcomes³. The SA objectives are distinct from the objectives of the MWDF – the MWDF’s performance in terms of sustainability is assessed against the SA objectives. The 22 Headline Sustainability Objectives developed for assessing the Strategic Waste Site Options are listed in **Table I**. These objectives have been refined and amended based on consultation responses. The SA Framework and the specific assumptions used for the appraisal of the potential waste sites are discussed further in **Chapter 3** of the full SA Report.

³ The ODPM SA Guidance explains that SA objectives should focus on outcomes, not how the outcomes will be achieved. For example, they should focus on improved biodiversity (the outcome), rather than protection of specific wildlife sites (a means to achieving it).

Table I SA Headline Objectives for the Strategic Waste Site Options

SA Objectives	
Social	
1.	To promote sustainable development and sustainable communities and improve the health and well-being of people living and working in Gloucestershire as well as visitors to the County.
2.	To educate the public about waste issues and to maximise community participation and access to waste services and facilities in Gloucestershire.
3.	To safeguard the amenity of local communities from the adverse impacts of waste development.
Economic	
4.	To promote sustainable economic development in Gloucestershire giving opportunities to people from all social and ethnic backgrounds.
5.	To manage waste in an economically sustainable way through means that represent good value for tax payers in Gloucestershire.
6.	To provide employment opportunities in both rural and urban areas of the County, promoting diversification in the economy.
7.	To ensure that waste sites do not compromise the safety of commercial or military aerodromes .
Environmental	
8.	To protect, conserve and enhance biodiversity in Gloucestershire.
9.	To protect, conserve and enhance the landscape in Gloucestershire.
10.	To ensure that waste sites have the potential for adequate screening and / or innovative design to be incorporated.
11.	To protect conserve and enhance Gloucestershire's material, cultural and recreational assets .
12.	To protect conserve and enhance geodiversity in Gloucestershire.
13.	To protect conserve and enhance townscapes and Gloucestershire's architectural and archaeological heritage .
14.	To prevent flooding , in particular preventing inappropriate development in the floodplain and to ensure that waste development does not compromise sustainable sources of water supply.
15.	To prevent pollution and to apply the precautionary principle in consultation with waste regulation authorities.
16.	To protect and enhance soil / land quality in Gloucestershire.
17.	To protect and enhance air quality in Gloucestershire.
18.	To protect and enhance water quality in Gloucestershire.
19.	To reduce the adverse impacts of lorry traffic on the environment and communities through means such as: a) reducing the need to travel b) promoting more sustainable means of transport e.g. by rail or water c) sensitive lorry routing d) the use of sustainable alternative fuels e) promoting the management of waste in one of the nearest appropriate installations.
20.	To reduce waste to landfill and in dealing with all waste streams to actively promote the waste hierarchy (i.e. Prevent, Reduce, Reuse, Recycle, Recover, Dispose) to achieve the sustainable management of waste.
21.	To reduce the global use of primary materials and minimise net energy balance requirements.
22.	To reduce contributions to and to adapt to Climate Change .

Stage B – Developing and refining options and assessing effects

9. Sustainability considerations have been taken into account throughout the development of the Waste Core Strategy. GCC prepared SA Reports at both the Issues & Options and Preferred Options stages and published them for consultation (as set out in Table I.1 in the Introduction to the full SA Report).
10. The SEA Directive requires “reasonable alternatives” to be taken into account, and so not every possible option needs to be considered. In some instances, other policy considerations (e.g. Planning Policy Statements, Mineral Policy Statements, and policies in the South West Regional Spatial Strategy) will pre-determine which policy approach needs to be adopted, effectively ruling out some options.
11. The Government Office for the South West’s consultation responses on the Waste Core Strategy Preferred Options required GCC to consider options for Strategic Waste Sites. The GCC Minerals & Waste Planning Policy Team carried out a comprehensive exercise to identify all sites in the County with some potential for waste use, and then to refine the list down to a set of 106 ‘reasonable’ options, which were appraised in the Stage 1 SA Report. The selections were made based on factors including the size of potential sites and their relative locations, in order to ensure that potential sites would be able to accommodate waste facilities of an adequate size and that they would be appropriately located in relation to the RSS-named settlements within Gloucestershire (Cheltenham, Gloucester, Cirencester, Coleford, Tewkesbury, Stroud and Lydney).
12. Following the production of the Stage 1 SA Report, which appraised this long list of 106 sites, it was further reduced by GCC on the basis of the SA findings, technical input and deliverability investigations. As well as detailing the reduced list of potential waste sites, the site options consultation document sets out four potential spatial options centred on the designation of ‘Zone C’, which is an area running through the Central Severn Vale close to Gloucester and Cheltenham. This area was identified following the Preferred Options consultation in 2008, which discussed the broad locational strategy for waste treatment facilities. The four spatial options set out are:
 - Focus strategic sites within Zone C;
 - Allocate sites outside of Zone C for smaller-scale facilities/transfer;
 - Incorporate waste treatment into the urban extensions to Cheltenham and Gloucester proposed under the RSS; or
 - A combination of the above options.
13. Within the context of these spatial options, the original list of 106 potential sites has been reduced to 13 potential sites: ten within Zone C and three outside of Zone C. The Stage 2 SA Report (summarised here) comprises the

appraisal of these four broad spatial options as well as the reduced list of specific waste site options.

Assessing Sustainability Effects

14. For each of the original 106 potential waste sites, GCC's planning officers carried out a detailed Site Assessment, collating information and visiting the sites to consider a number of criteria such as landscape, green belt, transport, biodiversity, flood risk etc. The full list of criteria and process used will be described in GCC's own Technical Evidence Papers. In order to obtain more specialised knowledge and assessment of some of the issues for the potential sites, GCC requested input from:
 - GCC's Highways Development Co-ordination team
 - GCC's Public Rights of Way team
 - Gloucestershire Airport and the Ministry of Defence
 - GCC's Ecologist and the Gloucestershire Centre for Environmental Records
 - Gloucestershire Geology Trust at the Geological Records Centre
 - GCC's Archaeology team
 - Gloucestershire's 6 District Councils
 - Halcrow consultants for flood risk assessment.
15. Site Assessments were developed by GCC for all of the original 106 potential waste sites, setting out the results of the assessment against each criterion, photos of the site and a short description of its location and characteristics. The GCC Site Assessments can be found as part of the evidence base, which is made up of Technical Papers.
16. The LUC SA team considers that the site selection methodology addressed many sustainability considerations contained within the SA Headline Objectives, and that expert knowledge and professional judgement has been employed in assessing the suitability of the potential sites to accommodate waste management activities with minimum adverse effects on surrounding uses, communities, landscape and biodiversity.
17. In addition to the detailed site selection process undertaken by GCC, as required by the SEA Directive and the Planning and Compulsory Purchase Act 2004, all of the potential waste site options were appraised by the LUC SA team against the 22 SA Objectives, and the sustainability implications and likely effects were predicted and assessed. During Stage 1 of the SA process, all 106 of the original potential sites were appraised through a desk-based exercise which drew on our own Geographical Information Systems (GIS) analysis and the extensive data collected and assessments undertaken by the

Council and their experts. The findings are contained in the Stage 1 SA Report (April 2009). The Stage 2 appraisal of the reduced list of site options has drawn upon the Stage 1 appraisal findings, along with additional information provided by the Council as described in **Chapter 3** of the full SA Report.

18. The detailed method carried out by LUC, including assumptions used in predicting and assessing the potential sustainability effects, is described in **Chapter 3** of the full SA Report. Summaries of the appraisal findings are set out in **Chapter 4** of the SA Report and the more detailed appraisal schedules for each site or spatial option can be found in **Appendices 2-4** of the SA Report.

Stage C – Preparing the Sustainability Appraisal report

19. This document is a non-technical summary of the Sustainability Appraisal report for Stage 2 of the SA of the waste site options for the Waste Core Strategy. It summarises the information contained in the full SA Report, which sets out the likely significant effects on the environment, and social and economic implications of the spatial options and short list of potential waste site options considered for allocation as Strategic Waste Sites in the Waste Core Strategy. It outlines the method used for selecting the short listed sites and the measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the plan. It has been written to meet all the requirements of the SEA Directive for an environmental report (see Table 1.2), and the Planning and Compulsory Purchase Act requirement to prepare a report of the findings of the Sustainability Appraisal.

Stage D – Consulting on the DPD and Sustainability Appraisal Report

20. The Sustainability Appraisal Report (for which this is the non-technical summary) has been produced to inform the development of the Waste Core Strategy and in particular the allocation of Strategic Waste Sites. It will be available during the consultation on the Waste Core Strategy site options in October 2009. Any responses received from consultees on the sustainability effects of the Waste Core Strategy site options and the content of this SA report will be considered and addressed in further iterations or annexes of the SA Report that will be produced as appropriate to accompany the final DPD for submission to Secretary of State for adoption.

Stage E – Monitoring Implementation of the Plan

21. Stage E will follow adoption of the Waste Core Strategy. LUC has not been commissioned to undertake the SA monitoring. However, the SEA Directive and SA guidance require that the Sustainability Report includes a description of measures envisaged concerning monitoring. This is discussed in **Chapter 5** of the full SA Report.

CHARACTERISATION OF GLOUCESTERSHIRE

22. A summary of the characteristics of Gloucestershire and the local environment is provided in the SA Report of the Waste Core Strategy Preferred Options⁴.

SUMMARY OF FINDINGS

23. The findings of the full Sustainability Appraisal of the Gloucestershire Waste Core Strategy Strategic Waste Sites are shown at the end of this non-technical summary, which sets out the predicted effects of each site and spatial option against the 22 SA objectives. Our appraisal has attempted to differentiate between significant effects and other more minor effects through the use of symbols, see **Table 2** below.

Table 2 Key to symbols used in predicting potential sustainability effects

Symbol	Type of effect
++	Significant positive effect likely
++ ?	Significant positive effect uncertain
+	Minor positive effect likely
+?	Minor positive effect uncertain
0 or +/- or ++/-- etc	No effect likely, or a mixture of positive and negative effects
-?	Minor negative effect uncertain
-	Minor negative effect likely
- -?	Significant negative effect uncertain
--	Significant negative effect likely
?	Effect uncertain due to lack of baseline information or detail regarding type of facility that would be developed
N/A	No effect has been assessed. This is only in relation to Objective 15, as potential pollution effects are already covered under SA Objectives 1, 3, 16-18.

24. The overall significant effects identified during the Sustainability Appraisal are summarised below.

Significant sustainability effects

25. Some of the potential waste site options are likely to have the following **significant positive** effects (alone or in combination):
- Reduced contributions to climate change through reductions in carbon dioxide (CO₂) and methane (CH₄);

⁴ Waste Core Strategy Preferred Options Sustainability Appraisal Report: Gloucestershire County Council, January 2008.

- Focusing development in areas at lower risk of flooding;
 - Reduction in the loss of good quality soil/land through the use of large previously developed sites;
 - Minimising lorry movements on local roads by locating development where there is direct access onto the strategic highways network; and
 - Reduced contribution to climate change if energy, including heat, were to be generated from the waste management process and used within nearby development. Waste as a fuel can act as a substitute for fossil fuel energy generation.
26. In general, the majority of potential **significant negative** effects, which may occur from the construction and operation of new waste management facilities on the potential waste site options (alone or in combination), relate to:
- Landtake (and the potential loss of good quality soil/land, Public Rights of Way, or loss, fragmentation or damage to habitats at international or nationally designated nature conservation sites);
 - Flood risk through development in areas identified at high risk of flooding.

Mitigation of significant negative effects

27. It is likely that many of these potential effects would be reduced through successful implementation of the policies contained within the Waste Core Strategy or an associated DPD requiring good practice techniques by the waste industry, or through the Environmental Impact Assessment that may be required to accompany a planning application for a new large waste facility. It is therefore assumed that the planning application process should ensure that any proposals for waste management facilities on the final allocated Strategic Waste sites will seek to enhance the significant positive effects and mitigate the potential significant negative effects through well designed and operated facilities.
28. Most waste management facilities will also need to meet high standards of design and operation in order to obtain an Environmental Permit (EP) (formerly Pollution Prevention and Control (PPC) Permit) regulated by the Environment Agency. The requirement to meet EP/PPC permitting standards (relating to emissions to air, land and water, energy efficiency, noise, vibration, heat and accident prevention) should ensure that the design and operation of waste facilities minimises most of the potentially significant effects outlined above.

CONCLUSIONS

29. A number of potential significant negative effects were identified during the SA, which mainly relate to potential impacts on the environment during construction and operation of waste management facilities. However, as

discussed above, a number of these effects should be able to be mitigated by implementation of robust development control policies, or when details are known at the planning application stage.

30. The majority of effects of developing new waste facilities on the potential waste sites are likely to be negligible or in many cases positive, due to the reduction in waste going to landfill and associated efficiencies in resource use and sustainable economic development, along with opportunities for education, community participation and employment. In addition, the location of certain sites could help to reduce the severity of potential negative effects (e.g. on flooding, road transport and loss of good quality soil and land).

Recommendations

31. In considering which of the potential waste site options should be taken forward for allocation as a Strategic Waste Site, GCC should take into account the potential significant negative effects identified, and the following recommendations.
32. Habitat loss should be avoided wherever possible, particularly if it is part of an internationally or nationally designated site of nature conservation importance such as a Special Protection Area (SPA), Special Area of Conservation (SAC), Ramsar wetland site or a Site of Special Scientific interest (SSSI). Site options where such potential significant negative effects have been identified through the SA should not be taken forward. If they are, they should be subject to screening under the Habitats Regulations to determine whether a significant effect may occur on the integrity of the habitats and species for which a SAC, SPA or Ramsar site is designated.
33. Similarly, the potential waste site option in Flood Risk Zone 3 should be avoided unless a facility can be developed in areas within the site that are less at risk of flooding. PPS25: Development and Flood Risk requires development applicants to carry out an assessment of flood risk and the runoff implications of their proposals. This could be incorporated into the Waste Core Strategy as a requirement of the planning application process for waste development proposals in areas of high risk of flooding. The flood risk assessment should:
 - Identify how much of the site is in flood-plain and how much capacity would need to be replaced; and
 - Demonstrate the likely impact of any displaced water on neighbouring or other locations which might be affected as a result of development.
34. Sustainable drainage systems (SuDS) are key to ensuring that long-term flood risk is managed for all new waste facilities, but particularly those on sites in Flood Risk Zone 3. The incorporation of SuDS in the design and layout of waste management facilities and their circulation areas should help to reduce surface run-off and effects on land drainage in the locality.

35. As all of the 13 waste site options are within 250m of sensitive receptors it will be impractical to rule out all of them from further consideration. Therefore, robust development control policies will need to be included within the Waste Core Strategy or Development Control Policies DPD and implemented at the planning application stage.
36. The Foss Cross site within the Cotswold AONB should be avoided unless a site-specific expert landscape assessment can be undertaken to prove that significant effects on the AONB are unlikely or could be mitigated.

MONITORING OF SUSTAINABILITY EFFECTS

37. The SEA Directive requires that “*member states shall monitor the significant environmental effects of the implementation of plans or programmes... in order to identify at an early stage, unforeseen adverse effects, and be able to undertake appropriate remedial action*” (Article 10.1) and that the environmental report should provide information on “*a description of the measures envisaged concerning monitoring*” (Annex I (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 guide decision-making.
38. The ODPM’s SA Guidance also states that it is not necessary to monitor all effects. Instead, monitoring should focus on the significant sustainability effects that may give rise to irreversible damage (with a view to identifying trends before such damage is caused) and the significant effects where there is uncertainty in the SA and where monitoring would enable prevention or mitigation measures to be implemented.
39. The effects of the implementation of the Waste Core Strategy and the Strategic Waste Sites will be influenced by the degree to which other plans forming the MWDF are successfully implemented. For this reason, monitoring the sustainability effects of implementing the Waste Core Strategy and the Strategic Waste Sites allocated within it should be conducted as part of an overall approach to monitoring the sustainability effects of the MWDF as a whole, as well as taking account of broader social, economic and environmental trends. This approach is based on the ODPM’s Good Practice Guidance on monitoring Local Development Frameworks⁵.
40. The Council is required under the Planning and Compulsory Purchase Act to prepare an Annual Monitoring Report to assess the extent to which policies in each MWDF document are being implemented. The Waste Core Strategy is therefore likely to set out its own framework for monitoring, which will identify targets and indicators that will be used to monitor successful implementation of all its policies. This may include targets and indicators that will also be relevant for monitoring the predicted significant sustainability effects of the Waste Core Strategy. This monitoring framework will be

⁵ *Local Development Framework Monitoring: A Good Practice Guide*. The Office of the Deputy Prime Minister 2004.

reviewed in the SA of the Waste Core Strategy as a whole (rather than just the potential waste site options), and proposed measures for monitoring the significant sustainability effects listed above will be identified. The monitoring proposals will include suggested indicators to add to the wider Annual Monitoring Report framework for the MWDF.

41. As stated in the SA Guidance, the data used for monitoring will in many cases be provided by outside bodies (e.g. District Councils, the Environment Agency and Natural England). This has already been evidenced by the additional baseline information provided by the statutory environmental consultees during consultation on the Scoping Report for the SA. It is therefore recommended that Gloucestershire County Council continue the dialogue with statutory environmental consultees and other stakeholders commenced as part of the SA process and MWDF preparation, and work with them to agree the relevant sustainability effects to be monitored and to obtain information that is appropriate, up to date and reliable. It should be noted that the sustainability effects to be monitored may need to be revised at subsequent stages of the Waste Core Strategy preparation in response to consultation comments and revisions to the DPD.

Summary of SA Findings by SA Objective

Site No.	Site Name	SA Obj 1	SA Obj 2	SA Obj 3	SA Obj 4	SA Obj 5	SA Obj 6	SA Obj 7	SA Obj 8	SA Obj 9	SA Obj 10	SA Obj 11	SA Obj 12	SA Obj 13	SA Obj 14	SA Obj 15	SA Obj 16	SA Obj 17	SA Obj 18	SA Obj 19	SA Obj 20	SA Obj 21	SA Obj 22
Large Facility (Thermal Treatment)																							
1	Areas A, B & C at Wingmoor Farm East, Tewkesbury	-	+	-	+	+	-/+	-?	-?	-?	-	-/+	-	+	+	N/A	++	+/-	0	-/+	+	++?	++
2	Areas A, B & C at Wingmoor Farm West, Tewkesbury	-	+	-	+	+	-/+	-?	-?	-?	+	-/+	-	+	+	N/A	++	+/-	0	-/+	+	++?	++
3	Easter Park, Ashchurch/Tewkesbury Industrial Estate, Tewkesbury	-	+	-	+	+	+	-?	-?	0	+	-	0	0	+	N/A	+	++/-	0	-/+	+	++?	++
4	Javelin Park, Stroud	-	+	-	+	+	-/+	0	-?	0	-	-/+	0	+	+	N/A	++	++/-	0	-/+	+	++?	++
5	Land Adjacent to Quadrant Business Centre, Quedgeley	-	+	-	+	+	+	-?	-?	0	+	+	0	-?	+	N/A	++	+/-	0	-/+	+	++?	++
6	Land at Moreton Valance, Stroud	-	+	-	+	+	-/+	0	-?	-	-	-/+	0	+	0	N/A	++	++/-	0	-/+	+	++?	++
7	Land north of Railway Triangle, Gloucester	-	+	-	+	+	+	-?	-?	+	+	-	0	0	+	N/A	+	-	0	+/+	+	++?	++
8	Nastend Farm, Stroudwater Business Park, Stonehouse, Stroud	-	+	-	+	+	+	0	-?	+	-	-	0	-	+	N/A	-	+/-	0	-/+	+	++?	++
9	Netheridge Sewage Treatment Works, Gloucester	-	+	-	+	+	+	-?	-?	+	+	+	0	+	+	N/A	++	+/-	0	+/+	+	++?	++
10	The Park, Wingmoor Farm West, Tewkesbury	-	+	-	+	+	-/+	-?	-?	+	+	-/+	-	+	+	N/A	+	+/-	0	-/+	+	++?	++
1a	Foss Cross Industrial Estate, Calmsden, Cotswold	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2a	Hurst Farm, Lydney	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
3a	Land at Lydney Industrial Estate, Lydney	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

A score of N/A is given to the three sites outside of Zone C for all Objectives in the appraisal for large facilities (both thermal treatment and non-thermal treatment). As explained in Chapter 3 of the main SA Report, these sites were only appraised for medium and small facilities as they are proposed in the Site Options document only for smaller-scale facilities/transfer.

Site No.	Site Name	SA Obj 1	SA Obj 2	SA Obj 3	SA Obj 4	SA Obj 5	SA Obj 6	SA Obj 7	SA Obj 8	SA Obj 9	SA Obj 10	SA Obj 11	SA Obj 12	SA Obj 13	SA Obj 14	SA Obj 15	SA Obj 16	SA Obj 17	SA Obj 18	SA Obj 19	SA Obj 20	SA Obj 21	SA Obj 22
Large Facility (Non-Thermal Treatment)																							
1	Areas A, B & C at Wingmoor Farm East, Tewkesbury	-?	+	-	+	+	-/+	0	-?	-?	-	-/+	-	+	+	N/A	++	+	0	-/+	+	+	+
2	Areas A, B & C at Wingmoor Farm West, Tewkesbury	-?	+	-	+	+	-/+	0	-?	-?	+	-/+	-	+	+	N/A	++	+	0	-/+	+	+	+
3	Easter Park, Ashchurch/Tewkesbury	-?	+	-	+	+	+	0	-?	0	+	-	0	0	+	N/A	+	++	0	-/++	+	+	+
4	Industrial Estate, Tewkesbury	-?	+	-	+	+	-/+	0	-?	0	-	-/+	0	+	+	N/A	++	++	0	-/++	+	+	+
5	Javelin Park, Stroud	-?	+	-	+	+	-/+	0	-?	0	+	-/+	0	+	+	N/A	++	++	0	-/++	+	+	+
6	Land Adjacent to Quadrant Business Centre, Quedgeley	-?	+	-	+	+	+	0	-?	0	+	+	0	-?	+	N/A	++	+	0	-/+	+	+	+
7	Land at Moreton Valance, Stroud	-?	+	-	+	+	-/+	0	-?	0	-	-/+	0	+	++	N/A	++	++	0	-/++	+	+	+
8	Land north of Railway Triangle, Gloucester	-?	+	-	+	+	+	0	-?	+	+	-	0	0	+	N/A	+	-	0	+?/-	+	+	+
9	Nastend Farm, Stroudwater Business Park, Stonehouse, Stroud	-?	+	-	+	+	+	0	-?	+	-	--	0	-	+	N/A	--	+/-	0	-/+	+	+	+
10	Netheridge Sewage Treatment Works, Gloucester	-?	+	-	+	+	+	-?	-?	+	+	+	0	+	+	N/A	++	+/-	0	+?/+	+	+	+
1a	The Park, Wingmoor Farm West, Tewkesbury	-?	+	-	+	+	-/+	-?	-?	+	+	-/+	-	+	+	N/A	+	+/-	0	-/+	+	+	+
2a	Foss Cross Industrial Estate, Calmsden, Cotswold	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
3a	Hurst Farm, Lydney	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
3a	Land at Lydney Industrial Estate, Lydney	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

A score of N/A is given to the three sites outside of Zone C for all Objectives in the appraisal for large facilities (both thermal treatment and non-thermal treatment). As explained in Chapter 3 of the main SA Report, these sites were only appraised for medium and small facilities as they are proposed in the Site Options document only for smaller-scale facilities/transfer.

Site No.	Site Name	SA Obj 1	SA Obj 2	SA Obj 3	SA Obj 4	SA Obj 5	SA Obj 6	SA Obj 7	SA Obj 8	SA Obj 9	SA Obj 10	SA Obj 11	SA Obj 12	SA Obj 13	SA Obj 14	SA Obj 15	SA Obj 16	SA Obj 17	SA Obj 18	SA Obj 19	SA Obj 20	SA Obj 21	SA Obj 22
Medium Facility (Thermal Treatment)																							
1	Areas A, B & C at Wingmoor Farm East, Tewkesbury	-	+	-	+	+	-/+	-	-	-	-	-/+	-	+	+	N/A	++	+/-	0	-/+	+	++?	++
2	Areas A, B & C at Wingmoor Farm West, Tewkesbury	-	+	-	+	+	-/+	-	-	-	+	-/+	-	+	+	N/A	++	+/-	0	-/+	+	++?	++
3	Easter Park, Ashchurch/Tewkesbury Industrial Estate, Tewkesbury	-	+	-	+	+	+	-	-	0	+	-	0	0	+	N/A	+	++/-	0	-/+	+	++?	++
4	Javelin Park, Stroud	-	+	-	+	+	-/+	0	-	0	-	-/+	0	+	+	N/A	++	++/-	0	-/+	+	++?	++
5	Land Adjacent to Quadrant Business Centre, Quedgeley	-	+	-	+	+	+	-	-	0	+	+	0	-	+	N/A	++	+/-	0	-/+	+	++?	++
6	Land at Moreton Valance, Stroud	-	+	-	+	+	-/+	0	-	-	-	-/+	0	+	++	N/A	++	++/-	0	-/+	+	++?	++
7	Land north of Railway Triangle, Gloucester	-	+	-	+	+	+	-	-	+	+	-	0	0	+	N/A	+	-	0	+/-	+	++?	++
8	Nastend Farm, Stroudwater Business Park, Stonehouse, Stroud	-	+	-	+	+	+	0	-	+	-	--	0	-	+	N/A	--	+/-	0	-/+	+	++?	++
9	Netheridge Sewage Treatment Works, Gloucester	-	+	-	+	+	+	-	-	+	+	+	0	+	+	N/A	++	+/-	0	+?/+	+	++?	++
10	The Park, Wingmoor Farm West, Tewkesbury	-	+	-	+	+	-/+	-	-	+	+	-/+	-	+	+	N/A	+	+/-	0	-/+	+	++?	++
1a	Foss Cross Industrial Estate, Calmsden, Cotswold	-	+	-	+	+	-	0	+	--?	+	+	-	+	+	N/A	++	-	0	-/+	+	++?	++
2a	Hurst Farm, Lydney	-	+	-	+	+	-	0	--	0	+	-	0	0	+	N/A	--	-	0	++	+	++?	++
3a	Land at Lydney Industrial Estate, Lydney	-	+	-	+	+	-	0	--	0	+	-	-?	--?	--	N/A	++	-	0	++	+	++?	++

Site No.	Site Name	SA Obj 1	SA Obj 2	SA Obj 3	SA Obj 4	SA Obj 5	SA Obj 6	SA Obj 7	SA Obj 8	SA Obj 9	SA Obj 10	SA Obj 11	SA Obj 12	SA Obj 13	SA Obj 14	SA Obj 15	SA Obj 16	SA Obj 17	SA Obj 18	SA Obj 19	SA Obj 20	SA Obj 21	SA Obj 22
Medium Facility (Non-Thermal Treatment)																							
1	Areas A, B & C at Wingmoor Farm East, Tewkesbury	-?	+	-?	+	+	-/+	0	-?	-?	-	-/+	-	+	+	N/A	++	+	0	-/+	+	+	+
2	Areas A, B & C at Wingmoor Farm West, Tewkesbury	-?	+	-?	+	+	-/+	0	-?	-?	+	-/+	-	+	+	N/A	++	+	0	-/+	+	+	+
3	Easter Park, Ashchurch/Tewkesbury Industrial Estate, Tewkesbury	-?	+	-?	+	+	+	0	-?	0	+	-	0	0	+	N/A	+	++	0	-/+	+	+	+
4	Javelin Park, Stroud	-?	+	-?	+	+	-/+	0	-?	0	-	-/+	0	+	+	N/A	++	++	0	-/+	+	+	+
5	Land Adjacent to Quadrant Business Centre, Quedgeley	-?	+	-?	+	+	+	0	-?	0	+	+	0	-?	+	N/A	++	+	0	-/+	+	+	+
6	Land at Moreton Valance, Stroud	-?	+	-?	+	+	-/+	0	-?	0	-	-/+	0	+	++	N/A	++	++	0	-/+	+	+	+
7	Land north of Railway Triangle, Gloucester	-?	+	-?	+	+	+	0	-?	+	+	-	0	0	+	N/A	+	-	0	+?/-	+	+	+
8	Nastend Farm, Stroudwater Business Park, Stonehouse, Stroud	-?	+	-?	+	+	+	0	-?	+	-	--	0	-	+	N/A	--	+	0	-/+	+	+	+
9	Netheridge Sewage Treatment Works, Gloucester	-?	+	-?	+	+	+	0	-?	+	+	+	0	+	+	N/A	++	+	0	+?/+	+	+	+
10	The Park, Wingmoor Farm West, Tewkesbury	-?	+	-?	+	+	-/+	0	-?	+	+	-/+	-	+	+	N/A	+	+	0	-/+	+	+	+
1a	Foss Cross Industrial Estate, Calmsden, Cotswold	-?	+	-?	+	+	-	0	+	--?	+	+	-	+	+	N/A	++	++	0	-/+	+	+	+
2a	Hurst Farm, Lydney	-?	+	-?	+	+	-	0	--	0	+	-	0	0	+	N/A	--	+	0	++	+	+	+
3a	Land at Lydney Industrial Estate, Lydney	-?	+	-?	+	+	-	0	--	0	+	-	-?	--	--	N/A	++	+	0	++	+	+	+

Site No.	Site Name	SA Obj 1	SA Obj 2	SA Obj 3	SA Obj 4	SA Obj 5	SA Obj 6	SA Obj 7	SA Obj 8	SA Obj 9	SA Obj 10	SA Obj 11	SA Obj 12	SA Obj 13	SA Obj 14	SA Obj 15	SA Obj 16	SA Obj 17	SA Obj 18	SA Obj 19	SA Obj 20	SA Obj 21	SA Obj 22
Small Facility (Thermal Treatment)																							
1	Areas A, B & C at Wingmoor Farm East, Tewkesbury	-	+	-	+	+	-/+	-	-	-	-	-/+	-	+	+	N/A	++	+/-	0	-/+	+	++?	++
2	Areas A, B & C at Wingmoor Farm West, Tewkesbury	-	+	-	+	+	-/+	-	-	-	+	-/+	-	+	+	N/A	++	+/-	0	-/+	+	++?	++
3	Easter Park, Ashchurch/Tewkesbury Industrial Estate, Tewkesbury	-	+	-	+	+	+	-	-	0	+	-	0	0	+	N/A	+	++/-	0	-/+	+	++?	++
4	Javelin Park, Stroud	-	+	-	+	+	-/+	0	-	0	-	-/+	0	+	+	N/A	++	++/-	0	-/+	+	++?	++
5	Land Adjacent to Quadrant Business Centre, Quedgeley	-	+	-	+	+	+	-	-	0	+	+	0	-	+	N/A	++	+/-	0	-/+	+	++?	++
6	Land at Moreton Valance, Stroud	-	+	-	+	+	-/+	0	-	-	-	-/+	0	+	++	N/A	++	++/-	0	-/+	+	++?	++
7	Land north of Railway Triangle, Gloucester	-	+	-	+	+	+	-	-	+	+	-	0	0	+	N/A	+	-	0	+?/-	+	++?	++
8	Nastend Farm, Stroudwater Business Park, Stonehouse, Stroud	-	+	-	+	+	+	0	-	+	-	--	0	-	+	N/A	--	+/-	0	-/+	+	++?	++
9	Netheridge Sewage Treatment Works, Gloucester	-	+	-	+	+	+	-	-	+	+	+	0	+	+	N/A	++	+/-	0	+?/+	+	++?	++
10	The Park, Wingmoor Farm West, Tewkesbury	-	+	-	+	+	-/+	-	-	+	+	-/+	-	+	+	N/A	+	+/-	0	-/+	+	++?	++
1a	Foss Cross Industrial Estate, Calmsden, Cotswold	-	+	-	+	+	-	0	+	--?	+	+	-	+	+	N/A	++	-	0	-/+	+	++?	++
2a	Hurst Farm, Lydney	-	+	-	+	+	-	0	--	0	+	-	0	0	+	N/A	--	-	0	++	+	++?	++
3a	Land at Lydney Industrial Estate, Lydney	-	+	-	+	+	-	0	--	0	+	-	-?	--	--	N/A	++	-	0	++	+	++?	++

Site No.	Site Name	SA Obj 1	SA Obj 2	SA Obj 3	SA Obj 4	SA Obj 5	SA Obj 6	SA Obj 7	SA Obj 8	SA Obj 9	SA Obj 10	SA Obj 11	SA Obj 12	SA Obj 13	SA Obj 14	SA Obj 15	SA Obj 16	SA Obj 17	SA Obj 18	SA Obj 19	SA Obj 20	SA Obj 21	SA Obj 22
Small Facility (Non-Thermal Treatment)																							
1	Areas A, B & C at Wingmoor Farm East, Tewkesbury	-?	+	-?	+	+	-/+	0	-?	-?	-	-/+	-	+	+	N/A	++	+	0	-/+	+	+	+
2	Areas A, B & C at Wingmoor Farm West, Tewkesbury	-?	+	-?	+	+	-/+	0	-?	-?	+	-/+	-	+	+	N/A	++	+	0	-/+	+	+	+
	Easter Park, Ashchurch/Tewkesbury	-?	+	-?	+	+	+	0	-?	0	+	-	0	0	+	N/A	+	++	0	-/++	+	+	+
3	Industrial Estate, Tewkesbury	-?	+	-?	+	+	-/+	0	-?	0	-	-/+	0	+	+	N/A	++	++	0	-/++	+	+	+
4	Javelin Park, Stroud	-?	+	-?	+	+	-/+	0	-?	0	-	-/+	0	+	+	N/A	++	++	0	-/++	+	+	+
5	Land Adjacent to Quadrant Business Centre, Quedgeley	-?	+	-?	+	+	+	0	-?	0	+	+	0	-?	+	N/A	++	+	0	-/+	+	+	+
6	Land at Moreton Valance, Stroud	-?	+	-?	+	+	-/+	0	-?	0	-	-/+	0	+	++	N/A	++	++	0	-/++	+	+	+
7	Land north of Railway Triangle, Gloucester	-?	+	-?	+	+	+	0	-?	+	+	-	0	0	+	N/A	+	-	0	+?/-	+	+	+
	Nastend Farm, Stroudwater	-?	+	-?	+	+	+	0	-?	+	+	-	0	-	+	N/A	--	+	0	-/+	+	+	+
8	Business Park, Stonehouse, Stroud	-?	+	-?	+	+	+	0	-?	+	-	--	0	-	+	N/A	--	+	0	-/+	+	+	+
	Netheridge Sewage Treatment Works, Gloucester	-?	+	-?	+	+	+	0	-?	+	+	+	0	+	+	N/A	++	+	0	+?/+	+	+	+
9	The Park, Wingmoor Farm West, Tewkesbury	-?	+	-?	+	+	-/+	0	-?	+	+	-/+	-	+	+	N/A	+	+	0	-/+	+	+	+
10	Foss Cross Industrial Estate, Calmsden, Cotswold	-?	+	-?	+	+	-	0	+	--?	+	+	-	+	+	N/A	++	++	0	-/++	+	+	+
1a	Hurst Farm, Lydney	-?	+	-?	+	+	-	0	--	0	+	-	0	0	+	N/A	--	+	0	++	+	+	+
2a	Land at Lydney Industrial Estate, Lydney	-?	+	-?	+	+	-	0	--	0	+	-	-?	--	--	N/A	++	+	0	++	+	+	+
3a		-?	+	-?	+	+	-	0	--	0	+	-	-?	--	--	N/A	++	+	0	++	+	+	+

Spatial Options	SA Obj 1	SA Obj 2	SA Obj 3	SA Obj 4	SA Obj 5	SA Obj 6	SA Obj 7	SA Obj 8	SA Obj 9	SA Obj 10	SA Obj 11	SA Obj 12	SA Obj 13	SA Obj 14	SA Obj 15	SA Obj 16	SA Obj 17	SA Obj 18	SA Obj 19	SA Obj 20	SA Obj 21	SA Obj 22
Focus strategic sites within Zone C	-?	+	-?	+	+	-	-?	-?	--?	+	-?	- -?	- -?	+	N/A	+	-?	0	+	+	+	-?
Allocate Sites for smaller-scale facilities/ transfer outside of Zone C	-?	+	-?	+	?	-	0	--?	--?	+	-?	--?	- -?	-?	N/A	+	-?	0	+/-?	+	+	-?
Incorporation of waste treatment into urban extensions	-?	+	-?	++?	?	-	?	?	?	+	?	?	?	?	N/A	?	-?	0	+	+	+	+
Combination of other options	-?	+	-?	+	?	?	?	?	?	+	?	?	?	?	N/A	?	?	0	?	+	+	?