SUSTAINABILITY APPRAISAL / STRATEGIC ENVIRONMENTAL ASSESSMENT
of the Wiltshire & Swindon Waste Core Strategy

**SUSTAINABILITY APPRAISAL REPORT
FOR THE SUBMISSION REPORT**

February 2008

Enfusion *in association with*
Centre for Sustainability at TRL

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SUBMISSION REPORT

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February 2008

Prepared for: Wiltshire County Council and Swindon Borough Council

date:	February 2008	
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CONTENTS

9. IMPLEMENTATION

APPENDICES A-F (CONTAINED IN THIS REPORT)

APPENDICES G-H (CONTAINED IN SEPARATE VOLUME)

1. SUMMARY AND OUTCOMES

NON-TECHNICAL SUMMARY

Introduction

1   This document is the summary of the Sustainability Appraisal Report for the Wiltshire and Swindon Core Strategy (Submission Report 2008). It describes how the Sustainability Appraisal (SA) process was used to assist in planning for the development and the use of land for waste management, as required by planning legislation and Government guidance. The SA assists sustainable development through an ongoing dialogue and assessment during the preparation of Development Plan Documents (DPDs), and considers the implications of social, economic and environmental demands on spatial planning.

2   Wiltshire County Council and Swindon Borough Council are working jointly on the production of a Minerals and Waste Development Framework for the County and Borough and in 2005 commissioned the Centre for Sustainability at TRL and Enfusion to progress the SA and SEA work.

The Minerals and Waste Development Framework (MWDF)

3   The Minerals and Waste Development Framework (MWDF) is part of the new system introduced by the Planning & Compulsory Purchase Act (2004) and it takes the form of a portfolio of documents including Minerals and Waste DPDs (Core Strategy, Site Specific Allocations and where required, Area Action Plans), the Statement of Community Involvement, and an Annual Monitoring Report. The Core Strategy sets the long-term Vision and Strategic Objectives for spatial planning for waste management and it considers the options available through the planning system to the Councils and communities in the County and Borough. It also sets a strategic policy framework for other Waste and Minerals Local Development Documents, including the Development Control Policies Document and Waste Site Allocations Document.

Sustainability Appraisal & Strategic Environmental Assessment

4   Planning legislation requires that DPDs are subject to a SA, a systematic process that is designed to evaluate the predicted social, economic and environmental effects of development planning. European and UK legislation require that the DPDs are also subject to a Strategic Environmental Assessment (SEA), a process that considers the effects of development planning on the environment. Where significant adverse effects are predicted, the SEA aims to identify means to avoid or mitigate such effects. Government guidance advises that these two processes should be carried out together and requires DPDs to be subject to a SA incorporating SEA. Wiltshire and Swindon's Minerals and Waste Development Framework Core Strategies have both been prepared in accordance with these requirements for a SA/SEA (The Minerals Core Strategy SA is contained in a separate report).

The Stages of Sustainability Appraisal

5   Government guidance requires a number of stages of SA work that need to
        be carried out as the LDF is being prepared:

                Stage A: Setting Context & Scope
                Stage B: Developing Options & Assessing Effects
                Stage C: Preparing the SA Report
                Stage D: Consulting on the Plan & the SA
                Stage E: Monitoring Implementation of the Plan

6   For the SA of the MWDF, Stages A-C began in January 2005, and in June-
        August 2006 a consultation (Stage D) was undertaken on the Preferred
        Options for the Core Strategy. However, the response from consultees,
        coupled with the emergence of several 'unsound' Core Strategies produced
        by other Authorities raised some concerns about the emerging MWDF. The
        Councils then decided to revise the previous Core Strategy Preferred Options
        document, which occurred in early 2007 and to re-consult in Spring 2007.
        This required the revisiting of SA Stages B-D. Following the second
        consultation on the revised Preferred Options the Councils made some
        further revisions in the production of the Submission Report which have also
        been subject to the SA process.

The Character of Wiltshire and Swindon

7   Wiltshire and Swindon are located in the east of the region of South West
        England. The County and Borough covers an area of 3486 square kilometres,
        and has a population of approximately 630,600. The area is predominantly
        rural in character, with the majority of settlements being market towns.
        Swindon is the largest settlement, with a population of 159,000, followed by
        Salisbury (44,000), Trowbridge (36,000) and Chippenham (33,500).

8   Wiltshire has a high quality environment, with over two thirds of the plan area
        designated for its international, national and local environmental importance.
        This includes three Areas of Outstanding Natural Beauty (AONB): the
        Cranbourne Chase and West Wiltshire Downs, the North Wessex Downs and
        the Cotswolds. It includes 12 European designated sites of Nature
        Conservation Importance and over 130 Sites of Special Scientific Interest.
        There are also approximately 14,000 listed buildings, 10 Historic Parks and
        Gardens and more than 250 Conservation Areas.

9   The County and Borough population is expected to grow by approximately
        13.6 per cent over the plan period 2006-2016, with Swindon, Salisbury,
        Trowbridge and Chippenham being identified in the South West Regional
        Spatial Strategy as Strategically Significant Cities and Towns (SSCTs) and
        the main areas for growth. The Waste DPDs will need to account for the
        waste disposal needs of this growing population and consider a current
        growth in municipal waste at the rate of 4% for Wiltshire, and 3% for Swindon
        per annum.

SA Scoping & Issues for Sustainability

10   During late 2005 a Scoping process was carried out to help ensure that the SA covered the key sustainability issues relevant to land use planning for waste development in Wiltshire and Swindon.

11   Relevant plans and programmes were reviewed to develop a wider understanding of the issues and priorities for Wiltshire and Swindon, and information about the current and future social, environmental and economic characteristics of the County and Borough was compiled. From these studies, key sustainability problems and issues were identified, and include landscape protection, air quality, climatic factors and transport, biodiversity, cultural heritage, and waste production. This work has been updated as the SA has progressed.

12   A SA Framework was compiled and included a list of 19 SA Objectives that aim to resolve the issues and problems identified. These SA Objectives were used to test the draft DPDs as they were being prepared:

Waste Core Strategy SA Objectives

1. Promote healthy exercise, especially daily exercise	12. Value and protect diversity and local distinctiveness including rural ways of life
2. Enable access to learning, training, skills and knowledge	13. Maintain and enhance cultural and historical assets
3. Promote stronger more vibrant communities	14. Reduce vulnerability to flooding
4. Give people in the county access to satisfying work opportunities, paid or unpaid	15. Reduce non renewable energy consumption and greenhouse emissions
5. Meet local needs locally	16. Keep water consumption within local carrying capacity limits (taking account of climate change)
6. Balance the need for growth with the protection of the environment (Wiltshire County Council corporate objective)	
7. Reduce vulnerability of the economy to climate change and harness opportunities arising	17. Reduce the rate of landfill, increase recycling and open waste to energy facilities in Wiltshire (Wiltshire County Council corporate objective)
8. To improve our roads and make them safer (Wiltshire County Council corporate objective)	18. Minimise the use of non-renewable resources and where possible promote the use of renewable resources
9. Protect habitats and species	19. Minimise land, water, air, light, noise, and genetic pollution
10. Promote the conservation and wise use of land	
11. Protect and enhance landscape and townscape	

Consultation and preparing the SA Framework

13   This approach and the proposals for testing the development planning
      process developed into a SA Scoping Report that was sent to a wide range of
      organisations and also made available on the Councils' websites. Comments
      were invited and received from a number of these organisations, and these
      were incorporated into the SA Framework. The Framework was then be used
      to undertake Sustainability Appraisal of all Waste Development Plan
      Documentsin the MWDF (a similar framework has been developed for the
      Minerals Documents).

14   Each stage of the preparation of the Core Strategy was appraised
      systematically using the SA Objectives. A strategic-level appraisal was
      undertaken of the Vision and Strategic Objectives. A more detailed appraisal
      was undertaken of the Options and 2006 Preferred Options. Then a further
      detailed appraisal was carried out on the 2007 Revised Preferred Options. A
      final detailed appraisal was made of the changes that followed the
      consultation process on the Revised Preferred Options. The SA recognised 4
      categories of predicted effects, each represented by a different colour, as
      illustrated in the key below.

      Categories of Sustainability Effects

Green (G)	**Option actively encouraged in its current form as it would resolve an existing issue / maximise opportunities.**
Blue (B)	**Option would have a neutral or an uncertain effect.**
Orange (O)	**Option would need some changes in order to have a positive effect on issues identified.**
Red (R)	**The option would exacerbate existing problems and cannot be suitably mitigated. Consider exclusion of option.**

15   Where it was considered that there were opportunities to enhance the
      sustainability of the emerging policies, recommendations were made and
      these were primarily with respect to environmental protection (and particularly
      biodiversity), minimising impacts on sensitive land uses, ensuring benefits for
      local communities, reducing greenhouse gas emissions, minimising pollution
      and reducing the transportation impacts of waste developments.

Appraisal of the Waste Core Strategy Options

16   In November 2005, a Core Strategy Issues and Options report, jointly
      prepared by the Councils was placed on consultation. The Vision, Objectives
      and Options outlined in this report were appraised by Enfusion, and the
      results used to further develop the Vision, Objectives and emerging policies in
      the Waste Core Strategy. The Vision was considered to set an appropriate
      framework for the further development of the Waste Framework. The draft
      Objectives were found to be generally consistent with the SA Framework,
      however a number of suggestions were made to improve their sustainability.

17   Issues presented in the paper were presented with a range of alternative
      Options and a comparison of the sustainability effects of implementing each

Option was made, with recommendations made as to the Preferred Option in each instance.

Appraisal of the Waste Core Strategy Preferred Options- Stage 1 (2006)

18   The development of Options, and the subsequent SA undertaken, informed the development of Preferred Options, which were then subject to a detailed SA, with suggestions made for the mitigation of negative effects, where appropriate. Where available, evidence from the SA Scoping Stage and from other researched sources was used to justify the prediction of effects. The assessment found that the Preferred Options would make a significant contribution to sustainability, and included recommendations for further iterations of Core Strategy policies. The Preferred Options report and accompanying SA Report were placed on consultation in June 2006.

Appraisal of the Core Strategy Revised Preferred Options- Stage 2 (2007)

19   The feedback from the SA and Consultation on the Preferred Options was incorporated into the revision of the Preferred Options. As a number of significant changes were made to the 2006 Preferred Options (including changes to the Vision and Objectives), further Sustainability Appraisal work was undertaken. The following presents the key findings of this SA on the Revised Preferred Options:

20   *The Vision & Objectives*
- Provide a strong and bold commitment to managing waste in Wiltshire and Swindon in a sustainable way. The Vision and Objectives look to a future where less waste is produced and waste products are increasingly managed as a resource. They also recognise the inherent value of the existing natural and historic environment and the importance of community engagement and collaborative working.

21   *The Policies:*
- Are likely to have a positive impact through ensuring that new waste facilities are located close to the source of waste. This will have benefits for rural areas and AONBS through allowing only small scale facilities in those areas. The policies should also reduce the distances required for the transport of waste, which will improve resource efficiency and minimise greenhouse emissions.

- Support a movement of waste up the hierarchy, reducing greenhouse gas emission and supporting opportunities for energy capture from waste by providing additional flexibility to allow the development of sustainable waste disposal facilities, including on non-allocated/ windfall sites. However this has the potential to lead to cumulative impacts, in particular traffic and pollution impacts, and it is important that the monitoring strategy considers the potential impact of waste management facilities on unallocated/windfall sites alongside those facilities that are located on allocated sites.

- Ensure waste management facilities are located where they are most environmentally and socially suitable and that sufficient land is provided to allow for a diversity of waste management facilities to meet the

waste needs of the County and Borough in addition to providing for new and innovative alternatives to waste management.

- Will have a significant effect in reducing the waste-related impacts of population growth (including through the requirement for waste reduction and waste audits in the development planning process).

- Promote sustainable waste management through exposing more of the population to the concept of sustainable waste management (including developers, household applicants and residents of new developments).

Appraisal of the Core Strategy Submission Report (2008)

21   The SA of the Submission Report took into account consultation comments and assessed the significant changes made following the Revised Preferred Options. The assessment showed a Core Strategy with a greater focus on the local context, and that recognises the sensitivities and inherent value of Wiltshire and Swindon's unique environment. The iterative development has allowed further opportunity to progress sustainability at the policy development stage, and as was the case at revised Preferred Options this is reflected in the SA results contained in this section.

22   The Submission Core Strategy takes forward key challenges set out in the Government's Strategy for Waste, by focusing on the sustainable use of resources, including an encouragement of renewable energy sources; the minimisation and recovery of waste; the conservation and wise use of land. The strategy also gives due consideration for climate change and climate change impacts which will present significant challenges in the long term. Wiltshire and Swindon's Waste Core Strategy has been developed in a context of predicted growth and expansion, and the appraisal's findings that SA objectives are well progressed by the approach presented suggests that existing and new development waste needs will be met in a sustainable way

Mitigation

23   Whilst no significant negative effects were identified in the assessment of the Submission Report, there remain a number of areas of uncertainty identified in earlier appraisals relating to impacts, in particular, cumulative impacts from an increase in waste management facilities over the plan period (e.g. air pollution, traffic congestion, increased greenhouse emissions). The policies generally contained sufficient measures to mitigate such impacts (e.g. the requirement for SA to be undertaken for all proposals for new facilities), however it is recommended that the monitoring strategy includes provision for assessing such impacts, where feasible.

Conclusions

24   The Core Strategy is likely to have an overall positive impact on Wiltshire and Swindon's environment through providing a robust and well-considered framework for the consideration of waste development in the County and Borough and development of the Site Allocations and Development Control Documents. The Core Strategy encourages the sustainable use of resources, including an encouragement of renewable energy sources; the minimisation

and recovery of waste; the conservation and wise use of land and considers climate change impacts. This is particularly important given the predicted increase in waste produced in the County and Borough, both from existing and new development.

Monitoring the Implementation of the MWDF

25   The MWDF is being developed as an on-going, iterative process, in which stakeholders are kept up to date through a rolling process of public involvement, monitoring and, where necessary, adjustment. The monitoring of the significant effects of any plan of this type is an essential part of the European SEA Directive, and the Councils believe that all stakeholders should have an opportunity to be part of the process.

26   The Councils have developed one set of indicators to meet the monitoring requirements for both the MWDF and SA processes. The key sustainability issues identified in the SA Scoping Report, including consultation, and the SA of the Core Strategy (2006 Preferred Options and 2007 Revised Preferred Options and Submission Report) have assisted in developing appropriate indictors and targets for monitoring.

Next Steps

26   This SA report accompanies the Waste Core Strategy Submission Report at
       independent examination and forms part of the evidence base. If
       recommendations or changes are suggested as a result of the examination
       then it may be necessary to amend the SA report prior to adoption.

Further information

27   The SA report, Non-technical Summary and technical appendices will be
       available along with the Waste Core Strategy Submission Report on the
       Wiltshire County Council website at www.wiltshire.gov.uk/. Comments can be
       made online.

28   The County Council, at County Hall, Trowbridge, Swindon Borough Unitary
       Authority, Libraries and District Councils will hold copies of the main report and
       non-technical summary along with the Waste Core Strategy Submission
       Report . Hard copies of any of the documents are available on request from the
       address below.

       If you wish to make comments in writing, please direct them to:

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2. BACKGROUND

PURPOSE OF THE SA AND THE SA REPORT

2.1　In accordance with the Planning Act (2004)[1], Local Development Documents (LDDs, incorporating Development Plan Documents and Supplementary Planning Documents) must be subject to Sustainability Appraisal (SA). The SA process assists Local Authorities to fulfil the requirement of *"contributing to the achievement of Sustainable Development"* in spatial and land use plan making.

2.2　In preparing LDDs, Local Authorities are also required to carry out Strategic Environmental Assessment (SEA) in accordance with European and UK legislation.[2&3]

2.3　The UK Government has prepared guidance[4] on undertaking SA of LDDs. This advises that an integrated approach to SA and SEA should be pursued so that the SA process incorporates the SEA requirements. This involves extending the breadth of (predominantly environmental) issues required to be considered under SEA to cover the full range of aspects (including social and economic aspects) for sustainability.

2.4　SA assists in promoting sustainable development through integrating sustainability considerations into plan making. It is an iterative, ongoing process and integral to plan making. SEA considers the effects of the emerging LDDs on the environment. It must predict and evaluate the significant effects of the Plan alternatives and propose measures to offset any adverse effects identified. SA/SEA also includes measures to monitor the sustainability impacts of the Waste Development Framework (WDF) during its implementation.

2.5　The stages of the SA/SEA and WDF are shown in table 1 below, which takes into account the DCLG guidance. This document is the SA Report which documents the SA and SEA process, drawing together stages B and C. It is being published alongside the Waste Core Strategy Development Plan Revised Submission Report (2008), in accordance with SEA regulations and SA guidance. Further information regarding what a SA Report is required to include is presented in paragraph 2.10- 2.24.

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[1] Planning and Compulsory Purchase Act 2004
[2] EU Directive 2001/42/EC on the assessment of the effects of certain plans and programmes on the Environment
[3] Environmental Assessment of Plans and Programmes Regulations 2004 (SI No1633)
[4] DCLG (November 2005), Sustainability Appraisal of Regional Spatial Strategies and Local   Development Documents

Table 1: Stages in the SA/SEA and Waste Development Framework

Waste Development Framework Stages	SA / SEA Stages
Evidence gathering Preparation and submission of Minerals and Waste Development Scheme (MDS) (complete and bought into effect on 7th June 2005) Preparation of the Statement of Community Involvement (SCI) for Waste and Minerals. This has now been submitted to the Secretary of State for consideration	**Stage A: Setting the context, establishing the baseline and deciding on the scope** • Identify other plans or programmes and sustainability objectives • Collect baseline information • Identify sustainability issues • Develop the SA framework (SA objectives) • ***Produce scoping report*** • Consult on the scope of the SA
Prepare and consult on Issues and Options	**Stage B: Developing and refining options and assessing the effects of the plan** • Identify, assess and choose preferred\alternative options, and assess the impact of not following each option • Test the plan objectives against the SA framework • Predict and assess the effects of the options • Mitigate (prevent, reduce and as fully as possible offset) adverse effects • Develop proposals for monitoring
Prepare and consult on Preferred Options	**Stage C: Documenting the appraisal process in the SA report** **Stage D: Consultation with the public and statutory bodies** • Consult on the SA and the plan • Appraise significant changes • Decision making and providing information
Prepare Development Plan Documents for submission to the Secretary of State for Independent Examination (IE).	**Stage D: (as at Stage C) Documenting the Appraisal** • Produce, publish and submit SA Report
Independent Examination (IE) by Inspector who must consider the overall soundness of the DPDs and conformity with national/regional guidance & other strategies. IE preceded by pre-examination meeting Receipt of Inspector's binding report and Adoption of DPDs DPD entry into the Minerals and Waste Development Framework	 **Stage D: Appraise significant changes resulting from representation**
DPD monitoring reported in Annual Monitoring Report	**Stage E: Monitor the effects of the plan on the environment/sustainability**

CORE STRATEGY OBJECTIVES AND OUTLINE OF CONTENTS

2.6   The purpose of the Core Strategy is to set out the long term spatial vision for
       Waste Management in Wiltshire and Swindon and strategic policies to deliver
       that vision. The Waste Local Development Documents (WLDDs) will form part
       of the County and Borough's Minerals and Waste Development Framework
       (M&WDF). The Councils will be producing:
       ▪ A Waste Core Strategy
       ▪ A Waste Development Control Policies LDD
       ▪ A Waste Site Specific Allocations Document
       ▪ Insertions for the Adopted Proposals Map

2.7   The Contents, Vision and Key Objectives of the Waste Core Strategy
       Development Plan Document (DPD) are set out below. However, this report
       should be read in conjunction with the Core Strategy Submission Report, which
       provides the detailed Core Strategy content, including the spatial planning
       context to waste planning in Wiltshire and Swindon and the revised preferred
       options that make up the draft Core Strategy.

       Core Strategy Submission Report: Document Contents
       1. Introduction
       2. Key Characteristics of Wiltshire and Swindon
       3. Waste Management in Wiltshire & Swindon: Issues and Challenges
       4. Vision and Strategic Objectives
       5. Strategies, Activities and Actions
       6. Implementation, Monitoring and Review.

       Vision
2.8   The Vision for waste planning in Wiltshire and Swindon to 2026 is:

       By 2026, increased waste minimisation, recycling and composting will be delivered by
       driving waste up the management hierarchy and creating a sustainable, flexible and
       functional framework of facilities to meet the needs of the municipal waste management
       strategies and the sub-regional apportionments. This framework of facilities will serve the
       SSCTs of Swindon, Trowbridge, Chippenham and Salisbury as well as outlying rural areas
       where gaps in the strategic network need to be plugged to serve local need.

       Additional waste management capacity will be delivered through a process of actively
       involving communities and collaborative working with the Regional Planning Body,
       landowners, the minerals and waste industries and regulators.

       The development of a sustainable waste management framework to serve the needs of
       Wiltshire and Swindon must ensure that the naturally and historically rich and the sensitive
       environment of the Plan area is protected and enhanced for future generations to enjoy.

       Strategic Objectives
2.9   The Strategic Key Objectives for waste planning in Wiltshire and Swindon are:

1. Involving the Community

Provide clear guidance to the community of Wiltshire and Swindon on waste planning policy issues and proposals through the pursuit of a collaborative public awareness-raising approach to help work towards waste elimination, waste reduction and re-use, in accordance with the requirements of the respective adopted SCI's for Wiltshire and Swindon.

2. The Need for Waste Management Facilities

Ensure that there is a sufficient and flexible network of safeguarded waste management facilities that make adequate provision for waste requiring management in Wiltshire and Swindon in accordance with the apportionments set out in the South West Regional Spatial Strategy. The primary focus for locating sites should be as close as practicable (16 km) to the SSCTs of Swindon, Chippenham, Trowbridge and Salisbury which form the key growth areas. Waste will be managed at the nearest appropriate facility and opportunities for co-locating waste management uses will be encouraged where appropriate. Sustainable waste facilities will be encouraged that contribute to the economic growth of the Plan area.

3. The Environment

Protect and enhance the diverse and highly valued natural and historical environment of Wiltshire and Swindon, incorporating the landscape character, biodiversity and geological interests and cultural heritage. Ensure the protection of the water environment whilst minimising and mitigating flood risk. Contribute to reducing and adapting to the impacts of climate change. Minimise the cross boundary impacts of waste management upon features of the natural and cultural environment. Options for sustainable transportation should be encouraged in order to reduce the impacts of transporting waste through Wiltshire and Swindon. Protect human health from adverse impacts. Maintaining the separate identities of neighbouring communities. The sustainable construction of waste management facilities will be encouraged where ever possible.

4. The Waste Hierarchy

To ensure the best use will be made of the waste produced in Wiltshire and Swindon by driving waste up the management hierarchy. This is to be delivered by aiming to achieve waste elimination and reduction, maximising re-use, recycling and composting, and energy recovery, strictly in that order of priority, so as to actively promote a reduction in the amount of waste going to landfill. New innovative waste management techniques will be encouraged wherever possible.

COMPLIANCE WITH THE SEA DIRECTIVE/ REGULATIONS

2.10   The SEA Regulations[5] set out certain requirements for reporting the SEA process, and specify that *"The Environmental Report required by the SEA Directive can be included in an assessment report on the wider effects of the plan or programme, such as a Sustainability Appraisal Report. However it must clearly show that the Directive has been complied with, for example by signposting to enable the components that meet the requirements for the Environmental Report to be readily identified."* Consequently, the requirements

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[5] DCLG (September 2005) A Practical Guide to the Strategic Environmental Assessment Directive

for reporting the SEA process are set out below, and the section of the report that progresses each requirement indicated.

2.11 An outline of the contents, main objectives of the plan or programme, and relationship with other relevant plans and programmes:

- Section 2 of this report sets out the contents and mains objectives of the Core Strategy. The relationship with other relevant plans is summarised in Section 4 and in Appendices G.

2.12 The relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan or programme:

- Section 4 of this report summarises the relevant baseline conditions for sustainability and waste planning for Wiltshire and Swindon. The detailed baseline is attached in the volume: Appendices G-H. The likely evolution of current conditions is also summarised in section 4.

2.13 The environmental characteristics of areas likely to be significantly affected:

- Where relevant and available, information regarding particular areas has been included in Section 4. Good practice guidance specifies that the contents and level of detail of information required should be relevant to the particular plan being assessed. The role of the Waste LDDs is to set out a spatial strategy for waste planning across the whole County. Site specific issues will be relevant during the site allocations process. Accordingly, baseline information is provided at a range of different scales where available and appropriate.

2.14 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 (Conservation of Wild Birds) and 92/43/EEC (Habitats Directive).

- Section 4 of this report summarises existing sustainability problems for Wiltshire and Swindon. Issues relating to Natura 2000 and Ramsar sites (designated by the above directives) are outlined below in paragraph 2.23 and in section 4.

2.15 The environmental protection objectives, established at international, community or national level, which are relevant to the plan or programme and the way those objectives and any environmental considerations have been taken into account during its preparation:

- Section 4 outlines the environmental protection objectives relevant for sustainability in Wiltshire and Swindon, and the implications of these objectives for the WLDDs.

2.16 The likely significant effects on the environment, including on issues such as biodiversity, population, human health, fauna, flora, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscape and the interrelationship between the above factors. These effects should include secondary, cumulative, synergistic,

short, medium and long-term permanent and temporary, positive and negative effects:

2.17   The SA Framework of objectives presented in Section 4 of this report covers all of the topics in the SEA regulations, and progresses them through SA objectives. This assures that all of the issues are considered during the assessment of each part of the Core Strategy, since each part of the Core Strategy is assessed against each SA objective. The likely effects of the Core Strategy (including environmental effects, as well as an indication of the nature of that effect) are summarised in sections 5, 6, 7 and 8 of this report, and detailed in appendices C, D, E and F.

2.18   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:

- Where significant adverse effects, including environmental effects have been predicted, the SA has sought where possible to identify means of offsetting these effects. These are provided in the form of recommendations in the appraisal matrices (see appendices C,D, E and F) and summarised in sections 5, 6, 7 and 8 of this report.

2.19   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:

- Justification for the different options considered is provided alongside the matrix based assessment of options in Section 5 of this report. Details of how the assessment was undertaken are provided in Section 3 of this report (appraisal methodology), and difficulties encountered in compiling information are summarised in section 4 of this report.

2.20   A description of measures envisaged concerning monitoring in accordance with Article 10:

- Measures envisaged concerning the monitoring of the sustainability effects (including environmental effects) of implementing the Core Strategy are provided in Section 9 of this report.

2.21   A non-technical summary of the information provided under the above headings:

- The non technical summary is set out at the beginning of this report in section 1.

2.22   Consultation

- The results of the consultation of the scoping report for the WLDDs, and appropriate modifications made, can be found at Appendix B. Results of the revised Preferred Options, and appropriate modifications made, can also be found at Appendix B.

Habitat Regulations Assessment (HRA)

2.23   The European Directive (92/43/EEC) on the Conservation of Natural Habitats and Wild Flora and Fauna (the Habitats Directive) protects habitats and species of European nature conservation importance. The Habitats Directive establishes a network of internationally important sites designated for their ecological status. These are referred to as Natura 2000 sites or European Sites, and comprise Special Areas of Conservation (SACs) and Special Protection Areas (SPAs).

2.24   Articles 6 (3) and 6 (4) of the Habitats Directive require Appropriate Assessment (AA) to be undertaken on proposed plans or projects which are not necessary for the management of the site but which are likely to have a significant effect on one or more Natura 2000 sites either individually, or in combination with other plans and projects. In 2007, this requirement was transposed into UK law in Part IVA of the Habitats Regulations (The Conservation (Natural Habitats, & c.)(Amendment) (England and Wales) Regulations 2007). These regulations require the application of AA to all land use plans.

2.25   The purpose of AA is to assess the impacts of a land-use plan, in combination with the effects of other plans and projects, against the conservation objectives of a European Site and to ascertain whether it would adversely affect the integrity of that site. Where significant negative effects are identified, alternative options should be examined to avoid any potential damaging effects. The scope of the AA is dependent on the location, size and significance of the proposed plan or project.

2.26   It is the responsibility of the Local Planning Authority to conduct Habitat Regulations Assessment to identify whether the Waste Core Strategy is likely to affect the integrity of the Natura 2000 sites that are located within and in the vicinity of Wiltshire and Swindon, and to determine if further, AA is required.

2.27   In accordance with best practice, a Habitats Regulation Assessment screening was undertaken and published for consultation alongside the Waste Core Strategy revised Preferred options.

2.28   The screening process indicated the potential for the Waste Core Strategy to impact on some of the Natura 2000 sites considered [a full list of the Natura 2000 sites is provided in the HRA Screening Report]. This work was subsequently taken forward to Appropriate Assessment stage which examined the likelihood of significant effect on the Natura 2000 sites in more detail, taking into account the potential impacts of other plans and programmes 'in-combination'.

2.29   In accordance with the requirements of the Habitats Regulations the findings and recommendations of the HRA/AA are published in a separate report alongside the Core Strategy as part of the evidence base. The statutory body Natural England and other key stakeholders (Environment Agency, County Ecologist) have been consulted throughout this process.

3. APPRAISAL METHODOLOGY

SCOPING THE KEY SUSTAINABILITY ISSUES

3.1   Enfusion Ltd, in association with the Centre for Sustainability at TRL, was commissioned in 2005 to undertake the Sustainability Appraisal of the Minerals and Waste Development Framework for Wiltshire County and Swindon Borough Councils. For the Waste Local Development Documents, a Scoping process was undertaken during late 2005 to help ensure that the SA covers the key sustainability issues relevant to waste planning in Wiltshire. This included the development of an SA Framework of objectives (presented in section 4) to comprise the basis for appraisal. A Scoping Report was prepared to summarise the findings of the Scoping process. This was published in November 2005 for consultation with stakeholders. The Report is also available on the County Council's website.

APPRAISING THE CORE STRATEGY ISSUES AND OPTIONS

3.2   An Issues and Options Report on the Wiltshire and Swindon Waste Core Strategy DPD was prepared in November 2005 and placed on consultation from 28th November 2005 – January 23rd 2006.

3.3   The appraisal of the content of the Core Strategy Issues and Options was then undertaken by Enfusion. Systematic appraisal of the Core Strategy options, objectives and policies was progressed using matrices to record the likely sustainability effects of the option or policy against each objective in the SA Framework.

3.4   The Vision, Key Objectives and Landuse Strategy were subject to a broad strategic assessment, and the key objectives and Landuse Strategy were then subject to a compatibility analysis, to determine compatibility of each element within the strategy with the SA Framework.

3.5   For the remaining policies, where alternative policy options were provided, an assessment of the comparative sustainability of each approach was undertaken. Preferred options for the progression of sustainability were then recommended. The matrices and recommendations resulting from the SA of the options for the Spatial Strategy are presented in Appendix C and summarised in section 5 of this report.

3.6   Recommendations resulting from the SA were then presented to WCC and SBC, such that recommendations could be incorporated within the emerging Core Strategy in a genuinely iterative manner.

APPRAISING THE CORE STRATEGY PREFERRED OPTIONS STAGE 1 (2006)

3.7   Enfusion was presented with the draft Preferred Options for Consultation in March 2006, and undertook a detailed sustainability appraisal of the Preferred Options. The Issues and Options had been progressed to incorporate comment from consultees, the findings of the Sustainability Appraisal and internal consultation within WCC and SBC.

3.8   The Vision, Key Objectives and Landuse Strategy were re-assessed to take into account changes since the Issues and Options stage, and they were re-tested against the SA Framework to determine their compatibility with the SA Framework.

3.9   Each Preferred Option was again tested against the SA Framework, and where additional options were provided, a comparative analysis was undertaken. Enfusion met with WCC and SBC to discuss the findings and recommend further changes to the Waste Core Strategy.

3.10   The matrices and recommendations resulting from the SA of the Preferred Options for the Spatial Strategy are presented in Appendix D and summarised in section 6 of this report.

REVISION OF THE CORE STRATEGY PREFERRED OPTIONS (REVISED CORE STRATEGY APPRAISAL- STAGE 2 (2007))

3.11   The response from consultees to the Waste Core Strategy Preferred options document, coupled with the emergence of several 'unsound' Core Strategies by other Authorities led to a re-think by the Councils. The Councils decided to revise the previous Preferred Options document, and the resulting document was subject to an additional stage of sustainability appraisal in April 2007. The appraisal built on the previous SA, incorporating previous assessment results where relevant.

3.12   The Vision and Strategic Objectives were reassessed as appropriate and the revised Preferred Options were re-tested against the SA Framework where significant changes had been made.

3.13   The SA matrices and recommendations for the revised Preferred Options Assessment are presented in Appendix E and summarised in section 7 of this report.

APPRAISING THE CORE STRATEGY SUBMISSION REPORT 2008

3.14   Following further consultation on the revised Preferred Options Enfusion was presented with the Core Strategy Submission Report to appraise the changes made in line with commentary from consultees and the appraisal process. This work was undertaken in December 2007.

3.15   The detailed assessment matrices and final commentary on the Submission Report policies is presented in Appendix F of this report and summarise in section 8.

THIS REPORT

3.16   This Report – which includes the findings of the Scoping Process and the findings of the iterative SA process has been prepared during January 2008 for publication with the Submission Report in March 2008, in accordance with requirements for SA and SEA. It reports on each subsequent stage of the assessment, including commentary on the Submission Report in section 8.

CONSULTATION

Consultation on the Scope of the SA

3.17 The SEA Regulations and SA Guidance require that consultation on the scope of the SA should be undertaken with the four statutory SEA consultees (Countryside Agency, English Heritage, English Nature, Environment Agency). It was decided to consult with stakeholders more widely than statutorily required, in order to broaden the predominantly environmental focus of the statutory consultees to reflect the full remit for sustainability. The following stakeholders were consulted:

Statutory Environmental Bodies
- Countryside Agency
- English Heritage
- English Nature
- Environment Agency

Government
- Office of the Deputy Prime Minister (ODPM)
- Department for Environment, Food and Rural Affairs (DEFRA)
- Government Office for the South West (GOSW)
- Ministry of Defence
- District Councils in Wiltshire
- Adjoining District and County Councils / Unitary Authorities
- Town and Parish Councils in Wiltshire and Swindon

Regional Organisations
- South West Regional Assembly (the Regional Planning Body)
- South West Regional Development Agency

Others
- Wiltshire Wildlife Trust
- The Wiltshire and Swindon Biological Records Centre
- The Cotswold Water Park Society
- Royal Society for the Protection of Birds (RSPB)
- Campaign for the Protection of Rural England (CPRE)
- Friends of the Earth
- Cotswold AONB Conservation Board
- Cranborne Chase & West Wiltshire Downs AONB
- North Wessex Downs AONB
- Civil Aviation Authority
- The Historic Buildings and Monuments Commission for England
- British Geological Survey (BGS)
- Environmental Services Association
- The Chartered Institution of Wastes Management
- Waste Watch
- Waste and Resources Action Programme
- Local Authorities Recycling Advisory Committee
- National Association of Waste Disposal Officers
- The Waste Industry in Wiltshire and Swindon

3.18   No formal requests for baseline information were sent to Statutory organisations prior to the Scoping consultation, as the information available in the public realm, and from within the WPA's was considered adequate.

3.19   The aim of the Scoping consultation was to ensure that all the relevant issues were identified and discussed at an early stage of the process so that they could then be addressed during the SA and plan making. The Scoping Report included a series of questions asking consultees to comment on particular aspects of the information, including the proposed SA Framework of sustainability objectives, and potential Sustainability Indicators and Targets.

3.20   The Scoping Report was sent to the relevant stakeholders, as was available for consultation for a period of 5 weeks starting in November 2005.

3.21   The following stakeholders responded to the Scoping Consultation:
- Wiltshire County Council (Ecology)
- Wiltshire Wildlife Trust
- Wessex Water
- Milton Lilbourne Parish Council
- Government Office for the South West
- The Waste and Resources Action Programme
- Devizes Town Council
- Lydiard Tregoz Parish Council
- The Countryside Agency
- Cotswolds Conservation Board
- English Heritage
- Campaign to Protect Rural England
- English Nature
- Thames Water
- South West Regional Assembly
- Cranborne Chase and West Wiltshire Downs AONB

3.22   A summary of the responses received through the Scoping Consultation, and the response and/or action progressed to address the comments is provided in Appendix B. Stakeholders made suggestions relating to indicators for monitoring the sustainability effects of implementing the WLDDs, which have been taken into account in section 8 of this report. A small number of changes were made to the SA Framework of objectives and decision aiding questions, as set out below (The development and purpose of this SA Framework is described in section 4, along with the Framework itself).

5. Meet Local Needs Locally:
- Objective 'to reduce the need for people to drive to waste collection/disposal points' added.
- Decision Aiding Question 'Encourage waste collection closer to the source of production to avoid unnecessary car trips?' added.

6. Balance the need for growth with the protection of the environment (Wiltshire County Council corporate objective):
- Objective 'ensure waste disposal facilities reflect the changes and growth in the economic structure of the plan area' changed to 'ensure waste management facilities reflect the changes and growth in the economic structure of the plan area.'

8. To improve our roads and make them safer (Wiltshire County Council corporate objective):
- Objective 'encourage alternative more sustainable means of transporting waste where possible, including rail and water' added.

9. Protect Habitats and Species:
- Objective 'Maximise biodiversity gain associated with all waste development' added.

16. Keep water consumption within local carrying capacity limits (taking account of climate change):
- 1st Objective amended to read: 'Minimise any adverse impacts on water resources at all stages of waste disposal through effective site design and management'.
- 3rd Objective Modified to read: 'Protect and, where possible, improve the quantity, quality and flow of surface and groundwater'.
- 'Ensure appropriate provision of sewage treatment facilities' added.

Consultation on the SA Report

3.23 Consultation was undertaken on the SA Report accompanying the Preferred Options Report Stage 1 (2006) and took place in June to August 2006. The following organisations responded to the consultation, with a summary of the comments received and how they have been addressed included in Appendix B.

- English Nature
- The Countryside Agency
- Wiltshire County Council (Ecology)
- Wiltshire Wildlife Trust
- Gloucestershire County Council (Minerals & Waste Policy)
- Wiltshire Friends of the Earth/ the Air that we breathe

3.24 Consultation was also undertaken on the SA report published along with the Core Strategy Revised Preferred Options Report, in accordance with SEA regulations and SA guidance. This took place between May and June 2007, and the following organisations responded to the consultation. A summary of the comments received and how they have been addressed is included in Appendix B.

- Hunter Page Planning (acts for David Wilson Homes, part of the Barratt Developments PLC)
- New Forest National Park
- Friends of the Earth Wiltshire in association with The Air We Breathe Group

4.   SUSTAINABILITY CONTEXT AND OBJECTIVES

4.1   This section summarises the findings from the SA Scoping stage. The Scoping process seeks to ensure that the Sustainability Appraisal encompasses the key sustainability issues relevant to Wiltshire and Swindon in the context of the development planning system, especially with regard to waste planning.

REVIEW OF RELEVANT PLANS AND PROGRAMMES

Introduction

4.2   The SEA Regulations (see schedule 2) state that an Environmental Report should outline:
- The plan's relationship with other relevant plans and programmes; and
- 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. ODPM guidance extends this to include other sustainability objectives.

4.3   In order to establish a clear scope for the SA of the WLDDs, it was necessary to establish the context of the Plan, through developing an understanding of the wider range of policies, plans and strategies relevant to it. The review included international, EU, national, regional and local level policies, plans and strategies.

Methodology

4.4   A list of relevant plans and programmes (PPs) for the SA was compiled. For each document reviewed, objectives and issues relevant to the SA or the WLDDs were identified. Consideration was given to any key constraints, opportunities, challenges or synergies, to help identify potential implications for the WLDDs and SA/SEA processes. The review of relevant plans and programmes is set out in Appendix F, available in a separate volume.

4.5   The review of plans and programmes has been used to help identify the following topic areas where objectives are needed. The topic areas which will require objectives are shown in Table 2 (in no order of importance).

Table 2: SEA Topic Areas and relevant SA Objectives

Issue	Relevant objectives
Air quality and noise	- Minimise emissions to air - Minimise nuisance from waste management facilities and traffic (including the effects of noise).
Climatic factors	- Encourage the use of sustainable transport options for waste - Where feasible, adopt the proximity principle when siting facilities - Minimise the impact of waste management through implementing effective measures to control emissions to air - Reduce the risk of flooding by siting developments away

Issue	Relevant objectives
	from floodplains.
Human health and safety	▪ Maintain, and where possible, enhance the quality of life for people affected by waste management facilities and/or ancillary development ▪ Ensure robust consideration is given to the proximity of waste management facilities and/or ancillary development to developments and individual properties ▪ Protect rights of way, open space and common land ▪ Help secure the management of waste without endangering human health and without harming the environment, and enable waste to be managed in one of the nearest appropriate installations.
Population	▪ Reflect the concerns and interests of communities, the needs of waste collection authorities, waste disposal authorities and business, and encourage appropriate competitiveness within the waste industry.
Landscape, open space and recreation	▪ Ensure that future proposals for landfill, or other waste management facilities, within AONBs are only permitted for cases when alternative sources outside the AONBs have been fully considered ▪ Reduce visual intrusion from waste management developments ▪ Ensure effective restoration of all waste management sites and areas affected by waste management ▪ Protect and improve the quality of the countryside in proximity to waste management facilities and/or ancillary development ▪ Maintain and enhance access to the countryside for residents and visitors
Cultural heritage	▪ Protect designated and, where possible, non-designated sites and monuments of cultural/archaeological importance
Biodiversity, fauna, flora and soil	▪ Avoid waste disposal and recovery development which would impact on sites of international or national importance ▪ Avoid waste disposal and recovery development on identified sits of county/local importance, BAP habitats and other habitats of notable ecological value ▪ Avoid the effects of waste disposal and recovery development on populations of protected or notable species ▪ To enhance biodiversity through the restoration and creation of habitat
Water pollution and flooding	▪ Reduce risk of flooding (of waste disposal facilities and as a consequence of waste disposal facilities) ▪ Minimise any adverse impacts on water resources at all stages of waste disposal through effective site design and management ▪ Protect and where possible improve surface, groundwater and drinking water quality ▪ Ensure adequate sewage treatment facilities to meet with predicted future demand
Material assets	▪ Ensure the design and layout of new development supports

Issue	Relevant objectives
	sustainable waste management ▪ Ensure that waste is recovered wherever possible, in order to gain assets from an otherwise disposable resource
Sustainable development / environmental policy	▪ None (already covered by other objectives)
Waste policy	▪ Drive 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. ▪ 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
Spatial policy	▪ None (already covered by other objectives)
Other policy	▪ None (already covered by other objectives)

4.6   The findings of this review have informed the key sustainability issues outlined below, and consequently, the development of the sustainability framework:

▪ Wiltshire has a high quality environment, with 43 per cent of the County within an AONB. Waste management sites have the potential to impact on Biodiversity, Conservation areas and sites, including the River Avon SAC), the North Meadow and Clattinger Farm SAC, the River Avon System SSSI and River Kennet SSSI. The WLDDs will need to address a broad range of effects including those on non designated sites and species and impacts of waste management sites on sensitive areas.

▪ Waste management can have negative impacts on air quality, and there are already seven AQMAs across West Wiltshire and Salisbury. The traffic impacts of waste management (including cumulative impacts) will need to be managed so as not to exacerbate problems of traffic and air quality in surrounding areas. The use of landfill for waste disposal must be minimised and waste moved up the hierarchy in order to reduce air quality impacts.

▪ The impacts of pollution (including noise, air, dust and odour pollution) and greenhouse gas emissions caused through waste management and the transportation of waste will need to be considered both individually and cumulatively. The impacts of pollution and hazardous wastes on human health, amenity and rural tranquillity should also be considered.

▪ The plan will need to account for the waste disposal needs of a rising population. In the 2001 Census the population of Wiltshire was reported at 613,024, a 10% increase from the previous census in 1991. Additionally, municipal waste is growing at the rate of 4% for Wiltshire, and 3% for Swindon per annum. Based on these projections, it is expected that there will be a shortfall in landfill capacity, as well as recovery rates. This implies a need for new waste management facilities

in order to meet future requirements for waste recovery rates as well as disposal capacity. The plan needs to address the need for the plan area to be self sufficient in terms of management of its own waste wherever suitable.

▪ The plan will need to change perceptions by educating the public about the waste hierarchy and associated issues.

▪ The County and Borough contain a wealth of archaeological interest (recorded and un-recorded). Site selection will have to address the issue of potential remains such as the potential for Romano -British remains to be found in Cotswolds Water Park

▪ The restoration and aftercare of landfill sites needs to be given strong consideration in policy development, and should aim to enhance the environment and biodiversity, as well as manage leachate and landfill gas.

DESCRIPTION OF THE SOCIAL, ENVIRONMENTAL AND ECONOMIC BASELINE CHARACTERISTICS AND THE PREDICTED FUTURE BASELINE

Introduction

4.7   The baseline data provides an evidence base for identifying sustainability issues in Wiltshire, as well as a mechanism for identifying alternative ways of dealing with them. The information has helped the development of the SA Framework, and will provide a basis for predicting and monitoring the effects of the Plan. In order to assess how the WLDDs will contribute to sustainable development, it is essential to understand the present economic, environmental and social circumstances in the County, and how they may progress without implementation of the Plan. Prediction of future trends can be highly uncertain but key trends identified from the available baseline data, and therefore potential sustainability issues are outlined within the summaries below.

4.8   SA Guidance suggests a practical approach to data collection, recognising that information gaps for future improvements should be reported as well as the need to consider uncertainties in the data. The collection of baseline information is continuous throughout the plan making process, and the baseline will be added to as new information becomes available. The aim is to only collect relevant and sufficient data to allow the potential effects of the plan to be adequately predicted.

Methodology

4.9   Information was compiled from a variety of sources including the relevant Plans and Policies and National, Regional, County and Local datasets and resources. The list of sources and the tables of information can be found in the SA/SEA Scoping Report. The tables set out the information under the topics listed in the SEA Directive guidance (Schedule 2), in order to demonstrate legislative compliance. The table contains the following information:
  ▪ The type of information, i.e. the subject
  ▪ Data source- indication of source reliability
  ▪ The current local situation- to assess against comparators or targets, where available

- Comparators or thresholds and targets- a point of reference to which local data may be compared, how far is the current situation from established thresholds and targets
- Local trends- to assist in the prediction of the likely future state of the plan area and whether a particular situation is improving of worsening.
- Issues- identification of potential positive/negative issues for sustainability, including sensitivity/ importance; reversibility/ performance; ability to offset/remedy; cumulative/ synergistic effects.
- Any relevant comments about the data itself.

Summary of Information Collected and Reviewed

SEA topic: Landscape

4.10   Approximately 43% of Wiltshire lies within an AONB. Figure 1 shows landscape designations in the Plan area. This percentage is relatively high compared to the neighbouring County of Dorset (42%), and Hampshire (21%) (www.hants.gov.uk). Comparison to a regional or national average has not been possible due to a lack of available data.

4.11   The landscape character of the county is anything but uniform, with 11 of the Countryside Agency Landscape Character Areas featuring to a greater or lesser extent within the county border.

Figure 1: Landscape designations in Wiltshire and Swindon
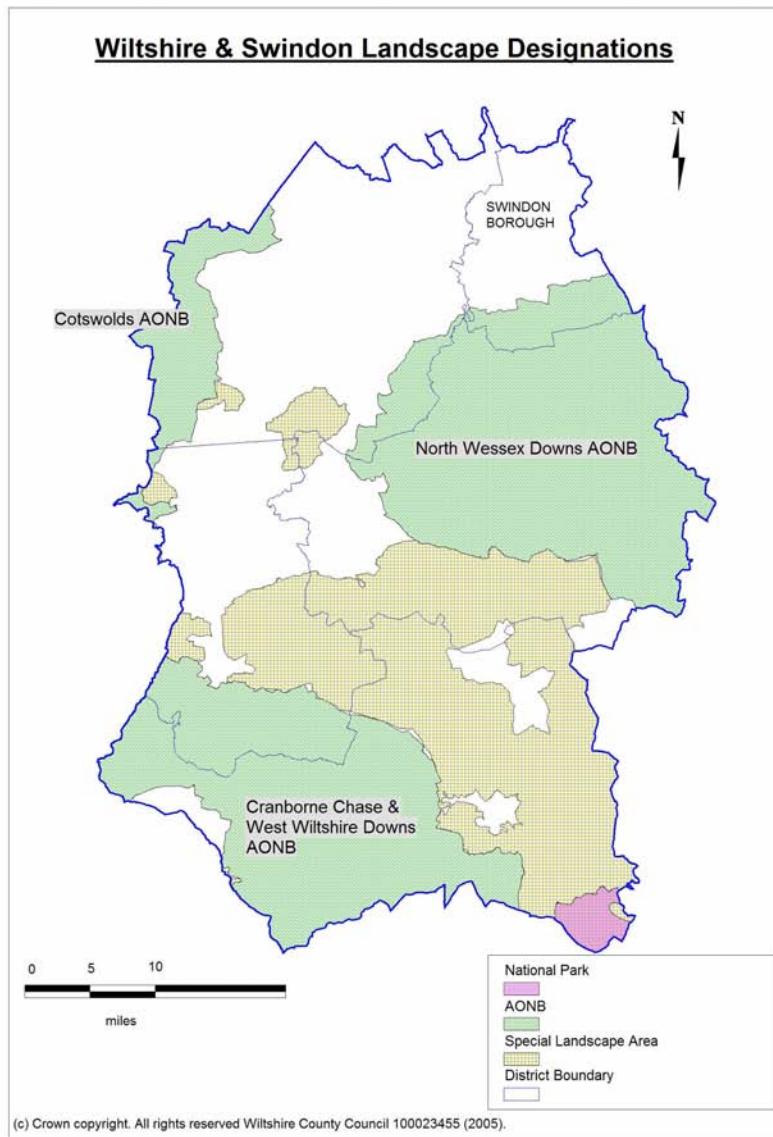(Source: TRL Ltd 2005)

4.12   Part of the appeal of the rural nature of Wiltshire, particularly within the
       AONBs, is the tranquillity provided in these locations. County level data is not
       available for tranquillity, but at a regional scale the map below shows how the
       area of tranquillity decreased from the early 1960s through to the early 1990s.
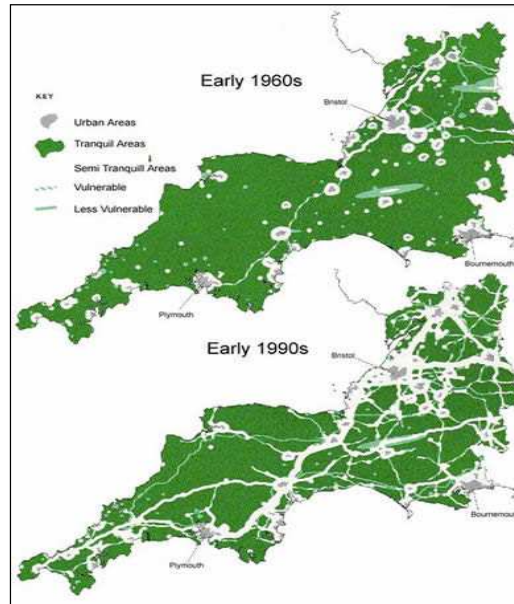
Figure 2: Area of Tranquillity Decrease Early 1960s – Early 1990s
Source: CPRE and Countryside Agency 1995 cited at www.swenvo.org

SEA topics: Air Quality, Climatic Factors and Transport

4.13 The development of new waste management facilities will have an impact on pollution levels, through evolving patterns of waste transport (depending on proximity of sites to source- proximity principle) and possible pollution from the facilities themselves (e.g. landfill gas).

4.14 There are no Air Quality Management Areas (AQMAs) declared in Swindon, Kennet or North Wiltshire. There are seven AQMAs declared in the following locations:

West Wiltshire DC –
- Westbury. (NO_2) (Sections of Haynes Rd & Warminster Rd)
- Bradford on Avon (NO_2 & PM_{10}) (Masons Lane, Market St, Silver St, St Margaret's St.)

Salisbury DC –
- Brown St. (NO_2)
- Fisherton St. (NO_2)
- Milford St. (NO_2)
- Minster St. (NO_2)
- Wilton (NO_2)
(Source: www.airquality.co.uk)

4.15 The locations of these areas may have implications for the locations of new waste management facilities.

SEA topic: Biodiversity, Flora and Fauna

4.16   Wiltshire and Swindon have the following Natura 2000 designated sites. Development which may affect any of these areas, whether directly or indirectly will be subject to an Appropriate Assessment (see section2):

SPAs (Special Protection Areas)

- Salisbury Plain
- Porton Down

SACs (Special Areas of Conservation)

- Bath and Bradford on Avon Bats
- Chilmark Quarries
- Great Yews
- Kennet and Lambourn Floodplain
- New Forest
- North Meadow and Clattinger Farm
- Pewsey Downs
- Prescombe Down
- River Avon
- Salisbury Plain

4.17   As well as these sites of European importance, of national importance there are 136 Sites of Special Scientific Interest (SSSIs) and 7 National Nature Reserves (NNRs), whilst at a local level the county has 7 Local Nature Reserves (LNRs). In addition there are 42 Regionally Important Geological or Geomorphological Sites (RIGS) and approximately 1,500 County Wildlife Sites (CWS) (both figures are for Wiltshire & Swindon). 3.6% of the area in Swindon and Wiltshire is covered by ancient woodland, compared to over 2% of the land area in Great Britain.

SEA topic: Human Health and Social Exclusion

4.18   One of the aims of the Wiltshire Community Strategy (Creating a County Fit for our Children) is for Wiltshire "to become the healthiest county in which to live by 2012". Currently Wiltshire has a lower Standardised Mortality Ratio (SMR) than the national average for six of the seven major causes of death, although for road traffic accidents (which is reported separately) Wiltshire is significantly higher than average.

4.19   Of the 149 county and unitary authorities in England, Wiltshire is ranked as the 139th least deprived in the 2004 Index of Multiple Deprivation (IMD). The indices also show that between 2000 and 2004 the Wiltshire Districts have all become less deprived in relation to other districts and unitary authorities in England. North Wiltshire is the least deprived district in the county, featuring in the top 10 least deprived districts in England based on the average score for all the wards.

Employment (SEA topic: Population)

4.20   There has been a decline in manufacturing employment in Wiltshire from 20% in 1998 to 15.5% in 2001. The two largest employment sectors are 'public administration, education and health' (25.0%) and 'distribution, hotels and restaurants' (24.8%). Wiltshire County Council is the largest civilian employer

with approximately 7,000 staff across the county, and the military also have a large presence, particularly in the south of the county.

4.21   Unemployment rates showed a decline from the 2001 census (1.97%) to June 2003 when the figure stood at 2,790 (1.1%). This compares favourably to regional and national comparators (2001 census – South West 2.57%, England 3.35%)

SEA topic: Cultural Heritage, including Architectural and Archaeological Heritage

4.22   Wiltshire contains a wealth of archaeological and architectural features, including the combined World Heritage Sites of Stonehenge and Avebury, Salisbury Cathedral, and the more recent industrial archaeological features such as Box Tunnel and the Kennet and Avon Canal. The Stonehenge World Heritage Site was designated in 1986, covers 2,600 hectares, and includes over 400 scheduled ancient monuments. The Avebury site includes the remains of the largest stone circle in the British Isles, as well as the largest prehistoric mound in Europe (Silbury Hill), whilst the stone circle at Stonehenge is the most sophisticated in the world and was erected between circa 3000BC and 1500BC.

4.23   The Wiltshire Structure Plan 2011 gives priority for preserving and enhancing the special character of 22 settlements. There are also approximately 14,000 listed buildings, 10 Historic Parks and Gardens and more than 250 Conservation Areas. The county has 12 National Trust properties which attract large numbers of visitors. The number of listed buildings and Scheduled Ancient Monuments on the English Heritage 'Buildings at Risk 2005' register stands at 28 (including two in Swindon). This remains the same as for 2004.

SEA topic: Water

4.24   Similar to the South-West as a whole the chemical and biological river water quality in Wiltshire has shown a gradual improvement between 1995 and 2003, although there are some anomalies to this (e.g.; biological quality in Kennet has declined). The trends are also similar for the level of nitrates and phosphates, although once again there are exceptions. Salisbury District, which is dominated by the catchment of the Hampshire Avon, has the best results for biological and chemical river water quality of all the Wiltshire Districts, whereas for nitrates and phosphates the results are more mixed. Ogbourne in Wiltshire has been designated as a Nitrate Sensitive Area.

4.25   With regards to water quantity, there are issues relating to abstraction for public water supply causing low flows in rivers within four catchments in the Wessex Water region. This is affecting the fishery, appearance and biodiversity interest of the rivers concerned, with the Wylye, Kennett and Malmesbury Avon being those affected within Wiltshire. As a result, the Low Flow Solutions Project has been set up; with Wessex Water, English Nature and the Environment Agency working with Ofwat to implement measures which aim reduce the problem of low flow during dry summer months. These include maximising the use of water supply from Bristol Water and seeking additional water from Wimbleball reservoir in Somerset, so that the low flow rivers are used as sources for abstraction only as a last resort. Environment Agency maps summarising the assessments of water availability for winter and

summer both show that Wiltshire includes the majority of areas in the South-West where there is an unacceptable flow regime.

SEA topics: Soil and Material Assets (Minerals)

4.26   There are currently 23 active mineral workings in Wiltshire and Swindon and currently none in Swindon. Of these, 6 produce sand and gravel, 4 produce building sand, 2 produce chalk, 3 extract clay and 8 produce building stone (limestone and small amounts of sandstone).   The County also has 10 Dormant (sand and gravel / building sand / crushed rock) and 5 temporarily inactive (sand and gravel / building sand / crushed rock / chalk) quarries. The majority of these are open-cast but some take the form of extensive underground mine complexes.

Source: magic.gov.uk
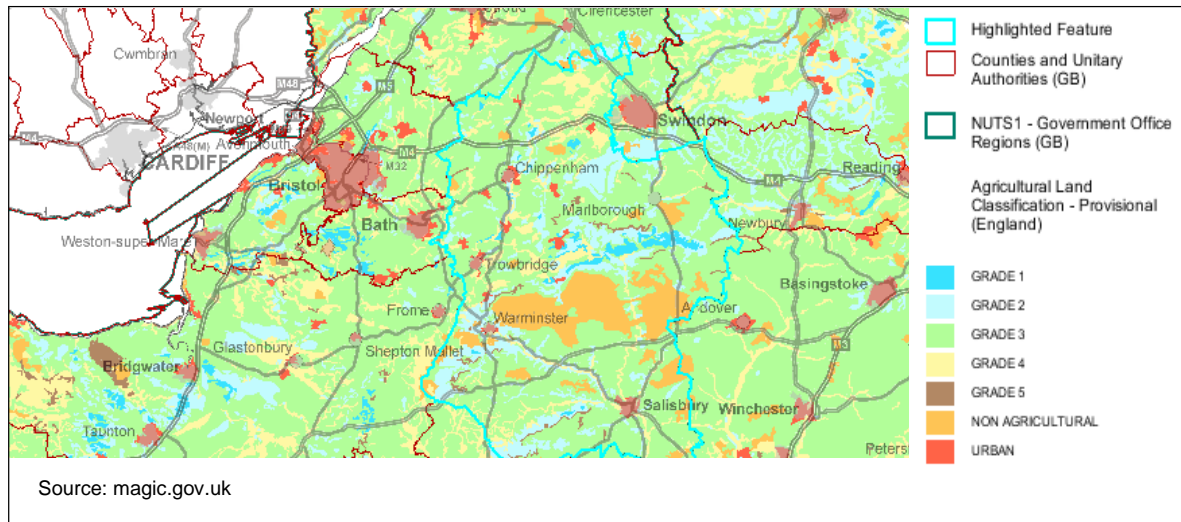
Figure 3: Agricultural Land Classification

Current Waste Management [6]
(SEA topics: Population, Material Assets, Climatic Factors and Energy)

4.27   Overall waste production in Wiltshire and Swindon has shown a steady increase in recent years. Although there was a small decrease in the amount of municipal waste arising in 2005/06 than 2004/05 mainly due to increased recycling initiatives throughout the County and Borough Levels are, however, expected to grow at a rate of 4% for Wiltshire, and 3% for Swindon per annum. Trends in household recycling have shown improvement, reaching approximately 31.6% in Wiltshire and 28% in Swindon in 2005/06 This implies a need for new waste management facilities in order to meet future requirements for waste recovery rates as well as disposal capacity.

Landfill

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[6] Reference also the Wiltshire Minerals and Waste Policy evidence base
http://www.wiltshire.gov.uk/environment-and-planning/planning-home/minerals-waste-evidence.htm

4.28   Landfill is the primary method of waste disposal in the Plan Area, with 71% of municipal waste going to landfill (2004/05) in Wiltshire, and 81% in Swindon. However, this is an improvement on 87% for the Plan Area in previous years ('Wiltshire & Swindon Supply Scenarios 2001 – 2016'). Wiltshire and Swindon have many operational landfill sites and the County and Borough need to accommodate waste via landfill from other counties. The Minerals and Waste policy evidence base points to a shortfall in capacity over the plan period that will need to be addressed by the Site Allocations DPD.

4.29   There are 15 operational landfill sites in Wiltshire and Swindon at present. These include hazardous, non hazardous and inert waste management sites.

4.30   Figure 4 shows the waste processing facilities in Wiltshire and Swindon. A breakdown of the 108 operational waste management process facilities in Wiltshire and Swindon is provided in the Minerals Waste Policy evidence base.

Figure 4: Location of Waste Processing Facilities Sites in Wiltshire and Swindon at September 2004
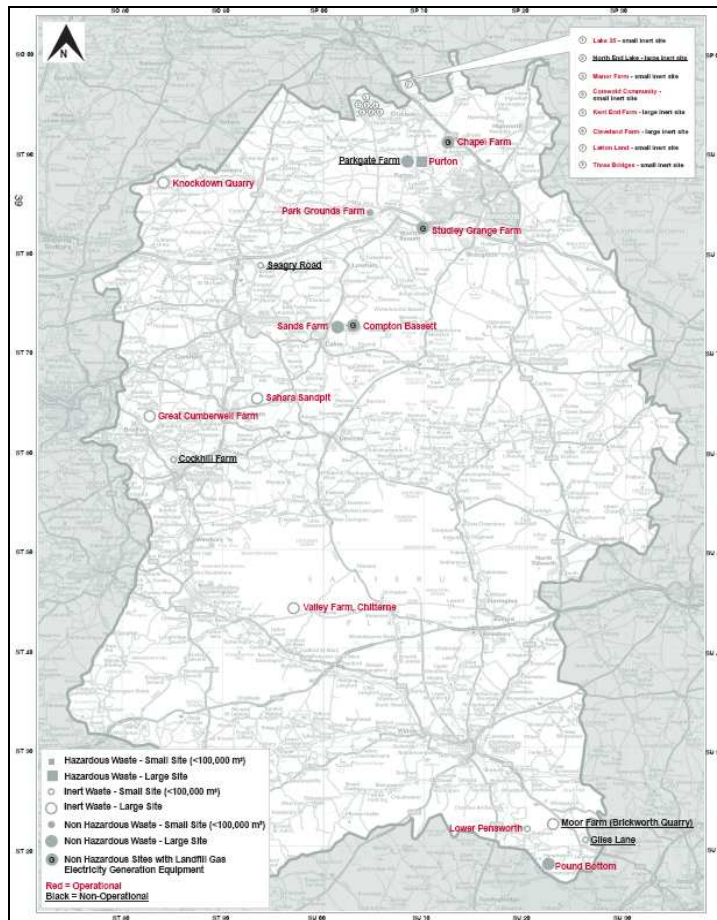
(Source: Adopted Wiltshire and Swindon Waste Local Plan 2011)

4.31   New sites are currently being considered for future waste management facilities in the plan area. Below is a brief description of each district within the

plan area, and its existing waste management facilities. Further information about future sites, and the method used to identify them is outlined below in section 4.7 future baseline.

Kennet

4.32 Kennet District has the lowest population of all the areas covered by the WLDDs. As such, it is a predominantly rural authority. Kennet has 13 waste management facilities, largely concentrated around the Devizes-Urchfront area of the District. All of these facilities operate at a local or small scale. There are no landfill sites operating in the District. At present there are two Household Recycling Centres (HRC) in the District.

North Wiltshire

4.33 After Swindon Borough, North Wiltshire has the second largest population in the area covered by the WLDDs. The authority area has the highest number of waste management facilities compared to other districts in the plan area, with 43 facilities catering for all of the waste streams. This includes 15 landfill sites and 28 waste processing facilities.

4.34 The District is essentially rural, with portions of the Cotswolds AONB located to the east and a portion of the North Wessex Downs AONB. The southeast of the District is part of the Western Wiltshire Green Belt.

West Wiltshire

4.35 West Wiltshire is the smallest of the four Wiltshire Districts and one of the most urbanised (along with North Wiltshire). There are 31 waste management facilities, including 3 active landfill sites and 28 waste recycling and/or waste transfer stations.

4.36 The South of the District includes part of the Cranborne Chase and West Wiltshire Downs AONB, while to the west of Bradford on Avon there is Cotswolds AONB. The area around Bradford on Avon is also covered by Green Belt. To the south and west of Warminster there are large sections of Special Landscape Areas and Areas of High Ecological Value.

Salisbury District

4.37 There are 21 waste management facilities catering for all of the waste streams.

4.38 A key priority for the District is the protection of its natural and cultural resources. The District is predominantly rural, and has the second to lowest population in the WLDD area. Beyond Salisbury is the New Forest Heritage Area. Much of the west of the District is covered by the Cranborne Chase and West Wiltshire Downs AONB, while much of the remainder are Special Landscape Areas. There are significant Areas of Ecological Value and Archaeological Significance, while the District includes the World Heritage Site around Stonehenge.

Swindon Borough

4.39   Swindon is home to a substantial population of 182,000 people. Swindon comprises 6% of the land area of Wiltshire, with 30% of the population of the County and Borough. Swindon Borough has an extensive range of waste management facilities, which are mainly concentrated within the older industrial areas in Swindon town. Swindon has one operational landfill site near Blunsdon which is of strategic importance. There is one large Household Recycling Centre (HRC), it is anticipated that an additional HRC will be required to serve the east of Swindon.

Future Waste Management Provision *(SEA topics: Population and Material Assets)*

4.40   The SEA Directive requires identification of *'the relevant aspects of the current state of the environment and likely evolution thereof without implementation of the plan or programme'.* Prediction of future trends can be highly uncertain but key trends identified from the available baseline data, specifically in relation to waste management issues, are outlined below.

Population

4.41   The population of Wiltshire is increasing. At the 2001 Census the population of Wiltshire was 613,024, showing a 10% increase from the previous census in 1991. In comparison, the South-West region showed a 6.9% increase over the same period. North and West Wiltshire have shown the largest population increases, of over 10%, between 1992 and 2002. This growth will inevitably put pressure on current waste management facilities.

4.42   The predicted annual growth of municipal and household waste is 4% for Wiltshire and 3% for Swindon between 2005 and 2012 (Wiltshire and Swindon Waste Local Plan). Table 3 shows how the use of landfill cannot be relied upon as a primary waste management facility for future needs, due to shortfall in capacity. Tables 4 & 5 show the predicted waste arisings, and the targets for the recovery of waste. As part of future growth, waste minimisation is also an important issue that should be considered.

Recycling performance

4.43   The Wiltshire County Council target for recycling 2004/05 was 27.5%. The actual percentage achieved was 27%. This shows a good performance in terms of targets, and compared to previous years' achievements. The percentage of population in Wiltshire served by a kerbside recycling collection scheme is approximately 95%, which demonstrates that there is potential for an improvement in recycling and composting rates, especially in terms of the household waste stream.

4.44   Currently 75% of UK municipal waste is sent to landfill, 9% is incinerated and only 16% is recycled. In comparison, recycling rates of 30 – 60% are common in other European countries. (Environment Agency)

4.45   51% of construction, demolition and excavation wastes produced in the south west region were recovered through recycling in 2003 (ODPM/ Wiltshire and Swindon Minerals Development Framework Forum 2004). This compares favourably to the figure of 28% for 2001.

Renewable Energy

4.46   The County target for Wiltshire of 65-85MW of renewable electricity generating capacity by 2010, is the equivalent to supplying between 73,750 and 87,000 homes (Severn Wye Energy Agency).

4.47   The total renewable energy capacity in Wiltshire and Swindon at present is 8MW, almost entirely from landfill and sewage gas. This is approximately 7.5% of renewable energy generated in the region. The target of 65-85MW is approximately 12-16% of the 545MW regional target (Severn Wye Energy Agency).
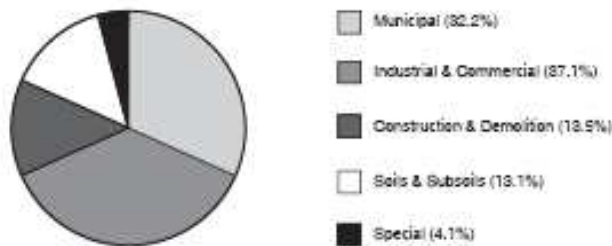
Hazardous Waste

4.48   Hazardous waste disposals in Wiltshire and Swindon increased from 7,000tonnes in 1998/99 to 47,000 tonnes in 2000/01. New Government Regulations for Hazardous Waste mean that the amount of landfill sites that are able to take hazardous waste are decreasing, whilst the types of waste classified as 'hazardous' are increasing. Added to the fluctuating levels of hazardous waste deposits this means that management is difficult.

4.49   There are currently two sites in Wiltshire and Swindon that are permitted and licensed to deal with hazardous waste (1 site managing general hazardous waste and 1 site managing only stable, non-reactive hazardous wastes). An additional site is currently at planning application stage. (Wiltshire Waste Forum 2005)

Economic influences on waste management

4.50   The economic structure of the plan area has seen a growth in manufacturing industries in the North/West Wiltshire corridor. This may have a particular influence on waste management in the county i.e. through additional waste generation. There is a growth in the service industry in the areas covered by Swindon Borough Council, which also may have implications for waste management. Implications may include additional waste generation, as well as a growth in different types of waste that may usually be managed.

Figure 5: Percentage composition of wastes to be managed in the Plan area 1998/1999 – 2010/2011

Municipal (82.2%)
Industrial & Commercial (87.1%)
Construction & Demolition (18.5%)
Soils & Subsoils (18.1%)
Special (4.1%)

(Source: Adopted Wiltshire and Swindon Waste Local Plan 2011)

Table 3: Consumption of remaining landfill capacity Wiltshire and Swindon 2005-2021

Waste Type	Waste to Landfill 2005-2021 (m³)	Remaining Capacity 2005-2021	Shortfall at 2021	Estimated capacity expiry date
Non-Hazardous	12,940,000	6,576,000 m³	-6,364,000	2013*
Inert	5,200,000	2,670,000 m³	-2,530,000	2013
Hazardous	560,000	<15,000 m³	-545,000	2005
Total	18,700,000	9,261,000m³	-9,439,000	2013

*assumes no further imports of MSW for disposal at landfill sites in Wiltshire and Swindon and that all permitted capacity awaiting licensing is available in full

(Wiltshire & Swindon Waste Development Forum Topic Paper 4 2005)

Table 4: Wiltshire Recovery & Recycling/ Composting Targets (tonnes)

Target Year	Municipal Waste Arisings (4% growth p.a)	Household Waste Arisings (4% growth p.a)	Total Municipal Waste to be Recovered	Of which Household Waste Recycled/ Composted	Of which is Municipal Waste Recovery inc. EfW	Residual Municipal Waste Disposed to Landfill
98/99	206498	186197	No target	23498 (12.6%)	N/A	183 000
99/00	221859	205169	No target	30455 (15%)	N/A	191 404
00/01	227087	207580	No target	34039 (16%)	N/A	193 048
01/02	233937	216255	No target	33520 (15.5%)	N/A	200 417
02/03	253218	224325	(55178) No target	43406 (19.3%)	11 772	198 040
03/04	263347	233298	No target	46660 (20%)	N/A	216 687
05/06	284836	252335	113934 (40%)	83271 (33%)	30 663	170 902
10/11	246546	307004	155946 (45%)	101311 (33%)	54 635	190 600
15/16	42 627	373518	282490 (67%)	123261 (33%)	159 229	139 137

(Source: Adopted Wiltshire and Swindon Waste Local Plan 2011)

Table 5: Swindon Recovery and Recycling /Composting targets (tonnes)

Target Year	Municipal Waste Arisings (3% growth p.a)	Household Waste Arisings (3% growth p.a)	Total Municipal Waste to be Recovered	Of which household Waste Recycled/ Composted	Of which is Municipal Waste Recovery inc. EfW	Residual Municipal Waste Disposed to Landfill
98/99	74 842	72 563	No target	10 884 (15%)	N/A	63 958
99/00	81 008	77 392	No target	11 609 (15%)	N/A	69 399
00/01	80 692	77 870	No target	10 902 (14%)	N/A	69 790
01/02	82 386	79 139	No target	10 526(13.3%)	N/A	71 860
02/03	92 864	89 100	No target	16 929 (19%)	N/A	75 935
03/04	95 650	91 773	No target	27 532 (30%)	N/A	68 118
05/06	101 475	97 362	40 590(40%)	35 050 (36%)	5 540	60 885
10/11	117 637	112 869	52 937 (45%)	40 633 (36%)	12 304	64 700
15/16	136 374	130 846	91 371 (67%)	47 105 (36%)	44 266	45 003

(Source: Adopted Wiltshire and Swindon Waste Local Plan 2011)

4.51 Based on levels of waste predicted to be managed in Wiltshire and Swindon between 1998/99 and 2010/2011, recovery levels are below target. This indicates further capacity is needed to cope with future growth. (Wiltshire and Swindon Waste Local Plan 2011)

Future Potential Waste Management Facilities

4.52 During August 2005, sites were identified and appraised for their potential to accommodate waste management facilities. Table 6 identifies the number of sites per district considered to have potential, requiring further investigation.

Table 6: Sites Allocated by Local Authority Area and by Scale of Activity

District/ Borough	Number of Site proposed to be allocated	Strategic Sites	Local Sites
Kennet District	8	0	8
North Wiltshire District	14	9	5
Salisbury District	12	4	8
Swindon Borough	10	5	5
West Wiltshire District	11	5(6)	6(5)
Total	**55**	**23(24)**	**32(31)**

(Source: WCC/SBC)

4.53 Almost half of the sites appraised were considered inappropriate as potential sites to locate waste management facilities. Exclusionary factors included: poor access or access through sensitive areas; proximity to sensitive land uses, for example, residential areas; impacts on water bodies/floodplain/ecology; site already developed; limited viability of the site; conflict with local plan allocations; remote location.

4.54 Sites were graded using a colour coded system, based on Sustainability Threshold Assessment. This method indicates the relative acceptability of an impact that had been identified as arising from a site appraisal objective.

4.55 Further investigation into the potential for waste management facilities at the sites selected will be undertaken by Wiltshire County Council and Swindon Borough Council, and will form the basis of the Site Allocations DPD.

4.56 For the purposes of the SA reference has also been made to the comprehensive evidence base compiled by Swindon Borough Council and Wiltshire County Council in the preparation of the Core Strategy http://www.wiltshire.gov.uk/environment-and-planning/planning-home/minerals-waste-evidence.htm .

LIMITATIONS AND ASSUMPTIONS

4.57 Unavoidably there are gaps within the information provided due to the scale and availability of data. In some cases information was not feasibly available for the Wiltshire area, for example, climate change data was only available at the regional level. Information on past or predicted future trends was often not readily available.

SUSTAINABILITY IMPACTS OF WASTE MANGEMENT FACILITIES

4.58   The following table provides a review of the potential sustainability effects of different types of waste management facilities. This has been used to assist in determining the types of sustainability issues that the plan and the SEA need to address. (Note: this list is not exhaustive- the treatment of domestic and industrial waste can involve additional processes).

Table 7: Sustainability Impacts Associated with Different Methods of Waste Disposal

Method	Description of activities	Environmental and Health impacts/ Issues
Composting	The process of composting is one of biological decomposition under aerobic (open air) and thermophilic (at or above 70℃) conditions, which breaks down organic material to leave a humus rich residue, the compost. Compost is a valuable soil conditioner for agriculture, gardening and forestry. Biodegradable wastes such as grass cuttings, vegetable peelings and cardboard can be turned into nutritious compost. In 2002/03 45% of local authorities had centralised composting schemes, recycling 5% of all household waste	<u>Advantages:</u> - can be used as a soil conditioner as a substitute for peat - relatively low set up costs in comparison to other waste management options - allows various scales of production (including home composting- 50% of Wiltshire households now compost at home- Wiltshire Wildlife Trust 2005) - removes a significant element of the waste stream as a useful material <u>Disadvantages:</u> - Can produce odour and litter and attract vermin if badly managed - Concerns have been expressed over the effects of spores released during the process. - -- - The Environment Agency requires a buffer of up to 250 metres between composting sites and dwellings or work places (see Section 8.3) - Contamination of compost can be a problem if organic waste is not collected separately - Potentially polluting liquid is produced - Can be liable to combust if poorly managed (Adopted Wiltshire and Swindon Waste Local Plan 2011)
Recycling	Recycling is the collection and separation of materials from waste and subsequent processing to produce marketable products	<u>Advantages:</u> Recycling basic materials in order to make new products has several benefits: - It reduces the demand for raw materials by extending their life and maximising the value extracted from them. - It reduces the habitat damage, pollution and waste associated with the extraction of raw materials. - It reduces transport costs and pollution from transporting raw materials and manufacturing new products. - It saves energy in the production process when compared with the energy consumed in

Method	Description of activities	Environmental and Health impacts/ Issues
		using raw materials. - It reduces emissions to air and water in the production process. -It reduces disposal impact (if more waste is recycled, less waste goes to landfill or incinerators). - It promotes personal responsibility for the waste we create.- It offers enormous potential for job creation. A recent study suggested that up to 45,000 jobs could be created in recycling and composting if the Government were just to meet its recycling target of 30% by 2010. (foe.co.uk) - kerbside collection- 80% rate of participation where schemes operate, socially inclusive - Waste transfer stations- waste bulked up for more efficient transport <u>Disadvantages</u> - impacts of increased traffic movements close to facilities due to public access and some HGV movements - HRCs and MRF facilities may cause impacts on the locality of similar to some industrial processes, including potential for increased noise, dust and odour -kerbside collections are labour intensive and costly - Kerbside collections require adequate infrastructure.
Refuse Derived Fuel (energy from waste)	Refuse Derived Fuel is a fuel product created from the combustible fraction of non-inert waste, in either loose or pellet form. Household waste is sorted to remove recyclables including all ferrous and non-ferrous metals. It is then shredded with the light combustible material being removed. The material is then combusted in a plant/ boiler and maintained at a minimum temperature of 850 degrees centigrade for at least 2 seconds, in the presence of excess oxygen. It is either burnt as a coarse 'floc'- so-called coarse refuse-derived fuel (CRDF)- or compressed into pellets- densified RDF (dRDF). There are no existing plants in Wiltshire and Swindon.	<u>Advantages:</u> - Technology is proven and used in the UK - May be located near to urban centres, reducing transport impacts - Sophisticated facilities which ensure a high level of control over the process - Replaces fossil fuels to generate energy- a valuable resource which would otherwise be produced from other sources like coal, oil and gas - Waste can be kept under a negative pressure to avoid the escape of dust and odour. <u>Disadvantages:</u> - Difficulties in identifying appropriate sites due to community concerns about dioxins and other pollutants - Concerns over possible health effects of emission, particularly dioxins - Capital intensive as with other energy recovery technologies - Impacts in the locality similar to any other industrial process (Adopted Wiltshire and Swindon Waste Local Plan 2011)
Mechanical	MBT is a generic term used to describe a	<u>Advantages:</u>

Method	Description of activities	Environmental and Health impacts/ Issues
Biological Treatment (MBT)	combination of waste management technologies that utilize biological and mechanical processes to treat waste. These technologies can use aerobic or anaerobic processes as part of the biological element of the treatment process, with a mechanical element designed to separate out materials not suitable for biological treatment. This mechanical element recovers value from materials that can still be recycled as well as improving the quality of the materials to be biologically processed, thus improving the efficiency of that element of the MBT process too. Mechanical treatment may also take place after biological treatment.	- Reduction in the volume of waste and encourages further recycling of waste inputs - Combines a number of proven processes - Can encourage recovery of energy content of waste inputs - Can encourage high levels of diversion from landfill - Plant design can be flexible to allow for increase in capacity or changes to processes - Plant design can be integrated with other waste management sites/processes Disadvantages: - Nature, classification and environmental/ economic costs of managing stabilized waste for landfill are unknown - Little UK plant experience to date - Plants still have associated emissions, traffic, footprint, environmental impacts - Process produces residues- it does not eliminate waste (WCC/SBC) - the outputs of MBT plants are likely to be of low quality. The organic fraction will only qualify as a low grade soil conditioner, not fully recovered compost. The quality of other recyclable outputs is likely to be low and there are limited markets for these outputs in the UK. (defra.gov.uk)
Anaerobic Digestion (energy from waste)	Anaerobic digestion is a biological process in which organic material is broken down by the action of micro-organisms. Unlike composting, the process takes place in the absence of air. The residue remaining after digestion can be used as a soil conditioner and the process generates a gas which can be used as a fuel for domestic or industrial use.	The anaerobic digestion process is very similar to anaerobic breakdown of organic waste in landfill sites but under controlled conditions. The main emissions to air will be odours. These emissions will mainly occur during collection, transport, and pre-treatment of the waste. A biofilter in treatment buildings can remove odours at 90% efficiency. The wastewater produced from dewatering of the digestate can contain relatively high concentrations of metals, dissolved nitrogen and organic material. This may have to be treated on site. Approximately 6% of the waste removed during pre-treatment will be ferrous metal which can be recycled. The major solid product originating from an AD plant is the stabilised digestate. Agricultural use of the stabilised digestate is the most common outlet for this solid residue, although its use is constrained by a number of EU regulations. On average, an AD plant will reduce the weight of waste to approximately 40-45% of the original amount fed to the digester. (WCC &SBC Waste to Energy Study 2000)

Method	Description of activities	Environmental and Health impacts/ Issues
Incineration with Energy Recovery	There are four main technologies for the incineration of Municipal Solid Waste (MSW): Mass Burn: This is the most common and simplest form of incineration where the waste is burnt as received with virtually no pre-processing. Fluidised Bed Combustion: An alternative to mass burn is to pre-process the waste to remove the non-combustible and recyclable materials. Gasification: With Gasification, wastes do not need to be pre-sorted but must be crushed. The gasification process involves the waste being heated in a low oxygen atmosphere to produce a low calorific value gas that may be burnt in an engine or turbine that is coupled to an electricity generator. Pyrolysis: As with Gasification the waste only needs to be crushed before heating, this time at high temperature in the absence of oxygen. All the above technologies are known as 'energy from waste' processes (EfW). Some plants in addition to generating electricity also produce hot water to supply neighbouring properties Other incinerators take hospital waste and sewage sludge. Sewage sludge incineration has nearly trebled since disposal at sea was banned in 1998	Impacts from construction are similar to those of any large development and include noise, dust, traffic, visual amenity, cultural heritage, and possible damage to fauna and flora. The majority of developments have taken place on brownfield sites so some of the impacts may be less significant with others being controlled through strict planning requirements. Operational impacts arise from the solid, liquid, and gaseous emissions from the incinerators. Solid residues arise both from the incinerator bottom ash (IBA) that falls into the ash pit at the end of the combustion process and that arising as fly ash from the air pollution control (APC) process used to clean the waste flue gases before they are discharged to the atmosphere. The IBA is essentially an inert sandy gravel material from which ferrous metals are extracted before being either disposed to landfill or being used as a secondary aggregate in road construction. APC residues are much more problematic as in addition to comprising of fine ash particles, dioxins and heavy metal salts, they may also contain significant amounts of unreacted lime and carbon used in the gas cleaning process. APC residues are currently disposed of to specially engineered landfill sites as hazardous waste though a number of studies are looking at ways of immobilising the pollutants within the ash to render it more inert. Residue from the gasification/pyrolysis process is an inert solid called char, containing ash, inorganic fixed carbon and inert metals present in the feed. This char may have a residual calorific value and may be used as a further fuel or disposed to a suitably licensed landfill site. Contaminated water is generally formed when water is used in the flue gas cleaning process. This has to be treated by an onsite treatment plant before the water is permitted to be discharged to the foul sewer. Currently in the UK, no MSW incinerators use the wet gas scrubbing process and it is believed none are planned. Atmospheric emissions of concern fall into five categories: smells and odours, acid gases, heavy metals, particulates and organic compounds.

Method	Description of activities	Environmental and Health impacts/ Issues
		There have been questions about the possible health effects from incinerator emissions of dioxins and other gases. No evidence has been found of damage to human health around incinerators
		Between 1990 and 1997, dioxin emissions fell by over 98% and are now very close to zero. Dioxins are very long-lived organic substances that can build up in the food chain and may cause cancer and other illnesses.
		Evidence to date suggests that waste management has only a very small impact on health, and this far outweighs the potential impacts if waste is not managed
		Even if the Government's targets to recycle more municipal waste are met (35% by 2010), we will still need alternative outlets such as incineration. The current capacity for municipal waste incineration is 2.8 million tonnes per year, less than 10% of the waste produced
		Incineration without energy recovery is not generally considered to be a sustainable option for waste management in Wiltshire and Swindon.
		"If we are to achieve a sustainable waste management system, then incineration with energy recovery will need to play a full and integrated part in local and region solutions developed over the next few years. Waste to energy incineration must be considered in the context of an integrated approach to waste management which encourages waste reduction, re-use and recycling. Where incineration with energy recovery is the best practicable environmental option, the potential for incorporating CHP should always be considered in order to increase the efficiency of the process" (UK Waste Strategy 2000). The Government's Waste Strategy 2000 document has highlighted that future development of energy from waste facilities must consider heat usage as well as power. This is essential if the United Kingdom is to meet its legally binding targets under the Kyoto Protocol.
		A CHP plant is an installation where there is simultaneous generation of usable heat and power (usually electricity) in a single process. The basic elements of a CHP plant comprise one or more prime movers usually driving electrical generators, where the heat generated in the process is utilised via suitable heat recovery equipment for a variety of purposes including: industrial processes, community heating and space heating. CHP can provide a secure and highly efficient method of generating electricity and heat at the point of use. Due to the utilisation of heat from electricity generation and the avoidance of transmission losses

Method	Description of activities	Environmental and Health impacts/ Issues
		because electricity is generated on site, CHP typically achieves a 35 per cent reduction in primary energy usage compared with power stations and heat only boilers. (Source: www.ciwem.org.uk; WCC&SBC Waste to Energy Study 2000; Adopted Wiltshire and Swindon Waste Local Plan 2011; Compact power; CHPa.co.uk)
Landfill & Landraise	Each landfill site is licensed to receive a certain type of waste About two-thirds of landfill waste is biodegradable organic matter from households, businesses and industry Other waste sent to landfill includes inert materials; for example, from construction and demolition.	Space approved for landfill is set to run out in the next ten years. One tonne of biodegradable waste produces between 200 and 400m^3 of landfill gas. Landfills released 25% of the UK's methane emissions in 2001, about 2% of our greenhouse gas emissions (in terms of carbon equivalents). During and after the working life of a landfill, gas generated by the waste can be drawn off and converted to energy. Onyx landfill sites in the UK currently export approximately 24MW of energy to the National Grid. Landfill leachate can be hazardous by virtue of the chemicals within it (including dissolved organic chemicals, ammonia and metals) which may contaminate land and water. The 'liner' system is the key to the management of leachate. This may either consist of a natural impermeable clay barrier or more frequently on modern sites, may also include a flexible membrane liner. A leachate collection and removal system is installed above the liner and a leak-detection system is installed beneath the liner. Increased traffic, noise, dust and odour A method of reducing some of the impacts from the transportation of waste to waste management sites may be by introducing the use of rail and water transport. The use of the railways and canals in the county to transport waste may lead to a significant reduction in pollution and other problems associated with road transport, if the options are found to be viable. The majority of pollution incidents related to landfill reported to the Environment Agency in 2002 were odour related. The South West Public Health Observatory Report (2002) found that there was unsufficient evidence to support certain claims that there are risks associated with exposure to landfill sites. The disposal of wastes in a landraise scheme can allow more effective control over the migration of landfill gas and leachate compared with landfill in, for example, a quarry. However, such landraise schemes can have other adverse effects and can be unpopular because of factors related to incompatibility with the local topography, visual intrusion, noise from vehicles on site and odour from landfill gas. Surface water runoff and flood risk are

Method	Description of activities	Environmental and Health impacts/ Issues
		also likely to raise significant issues. These problems are not insurmountable but require careful site choice and landfill management from the initial planning stage right through to final restoration. (Source: www.integra.org.uk; Adopted Wiltshire and Swindon Waste Local Plan 2011; www.onyxgroup.co.uk)

Sources:

- http://www.environment-agency.gov.uk;

- http://www.foe.co.uk

- ETSU for the DTI. March 1998, *An Introduction to Household Waste Management,* available: http://www.integra.org.uk

- The South West Public Health Observatory (2002), *Waste management and public health: the state of the evidence*

- The Chartered Institution of Water and Environmental Management, 2003 *Factsheets: Waste Incineration* available: http://www.ciwem.org/policy/factsheets/fsnew.asp

- WCC & SBC March 2005, *Adopted Wiltshire and Swindon Waste Local Plan 2011*

- Onyx Group Plc 2004, *Landfill*, available: http://www.onyxgroup.co.uk/pages/lalandfill.asp

- http://www.compactpower.co.uk/pages/s_energy.htm

- http://www.chpa.co.uk/aboutchp.htm

MAIN SOCIAL, ENVIRONMENTAL AND ECONOMIC ISSUES AND PROBLEMS IDENTIFIED

4.59   The SEA regulations state that SEAs should report on the environmental problems experienced in the area under study. ODPM guidance extends this requirement to sustainability issues (including both problems and opportunities). This section describes sustainability problems, opportunities and issues that the plan needs to address. These have been identified through:

- Discussions with Wiltshire County Council and Swindon Borough Council officers
- Review of the baseline data, especially where targets are not on track to be met or trends are negative
- Tensions / inconsistencies with other plans, programmes and sustainability objectives
- A review of the potential sustainability effects of different types of waste management facilities. (The environmental impacts associated with different waste management methods are shown in table 11).
- Reponses from the SA Scoping Report consultation.

Table 8 Sustainability Issues

SEA Regulation Topic	Potential sustainability effects	Issues for the plan and the SA
Biodiversity, Flora and Fauna and Soil	Wiltshire and Swindon has a large number of internationally and nationally designated ecological sites (including 1,500 locally designated Wildlife Sites (also known as SNCIs or Local Sites)) which need to be protected, and where possible enhanced. Additionally, biodiversity outside these areas should not be forgotten and it is often undesignated linking habitats that are vital. The potential negative effects are: ▪ Land take and associated habitat loss including fragmentation of habitats ▪ Changes in air quality, water quality, noise, vibration, light emissions, dust deposition as a result of construction and operation ▪ Changes in pattern of human activity and associated disturbance or damage ▪ Creation of barriers or other obstacles affecting the movement of animals ▪ Changes in habitat management ▪ Changes in soil conditions ▪ Changes in population dynamics, resulting in negative ecological effects. ▪ Introduction of new habitats and/or species	▪ There is a lack of phase 1 habitat data for biodiversity in most of the county and a county wide phase 1 ecological survey may be needed. An Aggregates Levy Sustainability Fund (ALSF) bid was submitted in order to collect this data for the SA / SEA. Unfortunately, this was unsuccessful, and data collection will be necessary for the site selection and assessment - WCC / SBC will need to consider this at the appropriate time. ▪ *"Waste disposal sites of every type have the potential to impact on Natura 2000 sites across the country. Impacts are especially likely to occur where groundwater flows are altered; this is already acknowledged as a possibility for the North Meadow and Clattinger Farm SAC and River Avon SAC. There are also potentially significant impacts on greenhouse gas emissions."* (Wiltshire Wildlife Trust 2005) ▪ **River Avon SAC-** *"The nature conservation importance of the river system arised from the range and diversity of riparian habitats and associated species. The SAC qualifying features include one habitat (the watercourse characterised by floating Ranunculus (water crowfoot) and Callitricho (starwort) vegetation) and five species (brook and sea lamprey, bullhead, salmon and Desmoulin's whorl snail). All are dependent upon the maintenance of high water quality and sympathetic habitat management. Potential hazards to the River Avon SAC are identified as siltation, nutrient enrichment, toxic contamination, physical changes, disturbance and groundwater flows. Pollution is a risk due to run-off from a development site."* (English Nature) ▪ **North Meadow and Clattinger Farm SAC**

SEA Regulation Topic	Potential sustainability effects	Issues for the plan and the SA
		▪ *The SAC qualifying feature for this site is the lowland hay meadows for which this is considered to be one of the best areas in the United Kingdom. If ground water flow to the SAC is likely to be affected an appropriate assessment will be needed. Significant effects may occur even if the site is located some distance away from the SAC, and therefore an appropriate assessment will be needed.(English Nature)* ▪ The SA needs to address a broad range of effects including effects on non designated sites and species. ▪ All ecologically designated sites are to be avoided or subject to appropriate assessment ▪ Many conservation habitats, in particular ancient woodland, are irreplaceable semi-natural habitats that have developed over many hundreds and thousands of years. Once damaged or destroyed, they are lost forever and cannot be replaced by simply creating a new complimentary habitat elsewhere in the locality
Water	Landfill Sites: Before any waste enters the site, an engineered cell with appropriate lining system is constructed to seal it from the surrounding rock, soil strata and water table. State-of-the-art landfill sites are designed to ensure that water entering the site is contained within the mass of materials stored. During use capping systems and small working faces limit the ingress of rain water. In the UK, professional waste companies work in line with the best Continental and US practices in banning the input of liquid material direct from tankers to landfill (source: http://www.biffa.co.uk/publications/problem/opt3.php) Incineration: Contaminated water is generally formed when water is	▪ The SA / SEA needs to examine the plan's impact on the water environment and links to biodiversity effects. ▪ Any possible impacts on the River Avon SAC, River Avon System SSSI and River Kennet SSSI must be mitigated for if the can not be avoided or where there are no alternative solutions.

SEA Regulation Topic	Potential sustainability effects	Issues for the plan and the SA
	used in the flue gas cleaning process. This has to be treated by an onsite treatment plant before the water is permitted to be discharged to the foul sewer. Currently in the UK, no MSW incinerators use the wet gas scrubbing process and it is believed none are planned (source: http://www.ciwem.org.uk)	
Air quality and transport	Landfill sites create 2% of the UK's total greenhouse gas emissions. An increase in traffic, dust and odour in relation to landfill sites may also lead to detrimental effects on air quality. Incineration, recycling and waste transfer also create dust and other outputs (see table 7), which may lead to a harmful impact on air quality. However, these impacts may not be weighted as heavily as the impacts of landfill sites, as the impacts may not be as great in terms of greenhouse gas emissions. Changes to air quality can also be caused by waste transport. The transportation of waste to waste management facilities, that may be a considerable distance from the source, will have an impact on the amount of traffic on the road network, as well as air quality. Additional traffic may also be generated around the creation of household waste and recycling centres, which may be used by members of the public travelling in motor vehicles. Other waste management sites will also generate additional road traffic on the network surrounding sites. The effects of road traffic include: a fear created by larger vehicles to users of smaller vehicles; danger; use of roads unsuitable for the size of vehicle; damage to verges; dust; spillage; mud from wheels	▪ There are no Air Quality Management Areas (AQMAs) declared in Swindon, Kennet or North Wiltshire. There are seven AQMAs across West Wiltshire and Salisbury. ▪ Traffic impacts of waste management sites should be managed so as not to exacerbate problems of traffic and air quality in surrounding areas. ▪ The use of landfill for waste disposal must be minimised and waste moved up the hierarchy in order to reduce the impact on air quality. ▪ The proximity principle should be considered where appropriate, in order to reduce distance travelled to waste management sites. ▪ Due to the nature of the method for collection of waste, especially in terms of municipal waste (kerbside collection), it may be inappropriate to suggest more sustainable methods of waste transportation such as rail. However, this method may be viable for waste from larger sources. ▪ Potential for localised traffic problems due to increases in levels in the vicinity of waste management facilities.

SEA Regulation Topic	Potential sustainability effects	Issues for the plan and the SA
	and body (although this should be removed through wheel washing); noise from early starts and early arrival at sites; vibration; and congestion.	
Climatic Factors	One of the main issues in relation to climatic factors is the transporting of waste by road. This is covered in the transportation and air quality section above. The emission of gas from landfill and other waste management techniques is another factor that will have negative impacts on the climate. There is scope for discussion with regards to the use of renewable energy and waste reduction in order to reduce the effects of waste disposal on the climate.	▪ See air quality issues ▪ Cumulative impacts of pollution from transport and pollution from waste management facilities, along with any other potential polluting effects from waste management, should be considered collectively when analysing effects on climate change and other influenced environments.
Material Assets (waste)	The recovery of waste can lead to the development of assets which can have market value. Recycling waste can lead to its successful recovery.	▪ Recycling and composting should be promoted through the WLDDs. This should include and increase in facilities including kerbside collections. ▪ The Wiltshire Strategic Board aspires to make Wiltshire the most waste efficient county by 2012
Material Assets (economic factors)	Economic growth and changes in employment structure may lead to increased levels of waste, and/or different types of waste to that found at present and in the past. Swindon is a PUA, identified by regional planning guidance, and as such, will be focused on as a centre of growth within the Plan area. A lack of facilities for particular waste management needs may lead to detrimental impacts in terms of increased traffic and negative impacts on surrounding counties. Design of a development could have an impact on the waste	▪ The SA / SEA needs to examine the plan's impact on the economy. The impact of the economy on the plan will also require consideration. ▪ The Plan needs to address the need for the plan area to be self sufficient in terms of management of its own waste wherever suitable. ▪ Only 80% of commercial and industrial wastes are dealt with within the Plan Area. The remainder is sent to the South East of England. ▪ The growth of the manufacturing industry in the North Wilts/ West Wilts corridor may have a particular influence on waste

SEA Regulation Topic	Potential sustainability effects	Issues for the plan and the SA
	generated from that development.	management in the County ▪ Designing out of waste could help to encourage waste minimization. ▪ The importing and exporting of waste may be beneficial in terms of economic sustainability in certain cases. This is due to the need for substantial volumes of certain types of waste for particular management methods to be viable. ▪ Poor waste management may lead to a degraded environment, which may, in turn have negative implications for the economy. A efficient waste management may, conversely, have positive impacts on the economy of the area covered by the Plan.
Population	Populations may be affected by waste disposal facilities in terms of noise, increases in traffic levels and odour. Population increases may lead to increased levels of waste and less available space for landfill.	▪ At the 2001 Census the population of Wiltshire was 613,024, this showing a 10% increase from the previous census in 1991, whilst in comparison the South-West region showed a 6.9% increase over the same period. This shows a relatively high growth rate. ▪ Household waste in the plan areas is growing at a rate of 4% (WCC) and 3% (SBC) (England: 3%), including a 1% waste minimization target. The plan should aim to support ambitious but realistic waste reduction targets. ▪ The SA/SEA needs to address the impact that increased population levels may have on capacity required. The impact that increased populations may have on the availability of potential sites will also need to be considered. ▪ Adequate alternative capacity to landfill must be provided within the plan area. ▪ Consideration of locations should be guided by sustainability principles. The required capacity should be met, in the right locations ▪ Reducing waste generated should be encouraged

SEA Regulation Topic	Potential sustainability effects	Issues for the plan and the SA
Population: education and inclusion	A lack of knowledge of waste management issues and the associated environment effects amongst the general public may lead to problems implementing strategies to reduce waste and move waste up the hierarchy.	▪ Need to change perceptions by educating the public about the waste hierarchy and associated issues.
Human Health	Waste management development can impact on communities in a number of ways. Physically, waste management developments can cause congestion, noise, impacts on air quality and visual impacts (most of which are covered elsewhere in this report). This can have a variety of psychological and community effects from stress caused to individuals through to a widespread opinion that waste disposal has changed the nature of a community through impacts associated with transport. A lack of facilities for the disposal of hazardous waste may cause problems of illegal tipping and subsequent negative economic, environmental or human health impact.	▪ Community effects (and their physical causes) need to be examined as part of the SA / SEA. ▪ Safe hazardous waste management needs to be accommodated for within the Plan Area. ▪ Air pollution may affect the health of some members of the public as a result of waste management developments (see air quality and transport).This will be controlled under IPPC regulations. ▪ There is a shortfall in the County's capacity to treat, recover, or dispose of hazardous waste. ▪ There is potential for fly and other insect nuisance as a result of treatment and disposal of solid waste and sewage treatment
Cultural heritage including architectural and archaeological heritage	Waste management facilities and ancillary works, such as the construction of roads, screening / soil bunds, processing and storage areas can destroy artefacts and sites of cultural and archaeological heritage. Indirect effects include: ▪ The general reduction in the 'legibility' of the archaeological landscape caused by the interruption of features that extend beyond the extraction area. ▪ Dewatering and the disruption to drainage regimes may affect the preservation of waterlogged archaeological deposits and destroy a sites palaeo-evironmental potential, often far beyond the actual extraction 'footprint'. ▪ Subsidence or ground settlement on upstanding monuments and historic buildings	▪ The County and Borough contain a wealth of archaeological interest (recorded and un-recorded). Site selection will have to address the issue of potential remains such as the potential for Romano -British remains to be found in Cotswolds Water Park. Advice should be sought from English Heritage.

SEA Regulation Topic	Potential sustainability effects	Issues for the plan and the SA
	▪ Dust arising from workings can have a detrimental impact on historic buildings, especially if dust particles are chemically active. ▪ The long-term setting and character of an historic monument, archaeological landscape or listed building might be affected by the extraction. Apart from visual aspects, this may detract from amenity uses resulting from the disruption of rights of way and access, increased noise and heavy traffic.	
Landscape	Landscape effects arise where a development causes change in the physical character of a local area. Changes or removal of elements in the landscape (e.g. tree, slope and field boundary vegetation) may give rise to changes in the character of the landscape and how it is experienced. Visual effects arise where a development causes changes in the composition and extent of available views, as a result of changes to the landscape. Potential landscape / visual effects as a result of landfill/ landraise site development include: ▪ Natural topography and landscape character may be permanently damaged by landfilling/ landraising ▪ Geological exposures in old quarries may be concealed. ▪ Mature landscapes and landscape features like hedgerows and hedgerow trees may be lost. ▪ The rural character of the landscape may be eroded by the presence of industrial features - operational and tipping areas, litter-trap fencing, stockpiles and screening mounds, processing plant and buildings ▪ Local distinctiveness may be weakened by insensitive	▪ Wiltshire is a county with a high quality environment. Approximately 43% of Wiltshire lies within an AONB. These areas need to be protected and development in these areas avoided. ▪ Future landfill/ landraise may have to be accommodated within AONBs and areas of local landscape importance (e.g. Special Landscape Areas). Site selection will have to address this issue. The SA / SEA will be useful in assessing the implications of alternative strategies with and without development in the sensitive areas. ▪ Potential waste management facilities that are to be located within an area designated as AONB need not conflict with its aims. Potential facilities need to reflect the land use policies of the AONB. Where there is potential for conflict, stringent mitigation measures may be put into place in order that the facilities are sympathetic to the land use of the site.

SEA Regulation Topic	Potential sustainability effects	Issues for the plan and the SA
	restoration. ▪ Old mineral workings, derelict or contaminated land may be restored by landfilling. ▪ New landscape features can be created on restoration that contribute to the local landscape - ponds and wetlands, native woodlands, species rich grasslands, heathland, hedges and walls. (Source: http://www.durham.gov.uk)	
Other: Land Use and Restoration	Landfill development can help towards the restoration of disused minerals development sites by using waste to fill in what may be deemed as unsightly blights on the landscape. However, not all quarries are suitable for landfill as they may allow pollution of the surrounding environment. The costs associated with site closure and aftercare has increased considerably in recent years and is one of the factors that have led to increased charges for landfill disposal. (Source:http://www.integra.org.uk)	▪ Upon completion of the filling phase of a landfill, the land must be restored in accordance with the requirements of the local planning authority and in a way that controls environmental emissions. Site closure and aftercare require careful consideration from the initial stages of site planning and can determine whether or not a planned landfill site will be able to proceed. ▪ Effective planning will ensure that suitable materials for the site closure such as sub-soil and top-soil have been stored on site, or are available locally, and will thus reduce some of the costs associated with this stage of landfill management. Planning Conditions may require that the site contours agree with specified levels, that the restored land is put to an agreed use (e.g. cereal farming, pasture, civic open space, golf course, forestry), and that landfill leachate and gas are managed until such time as they no longer constitute an environmental risk. ▪ This post-closure management period may extend for tens to hundreds of years and now requires landfill operators to make financial provision against the potential costs incurred. ▪ The long term contribution of landfill development to sustainability should be assessed.

THE SA FRAMEWORK OF OBJECTIVES

4.60   The SA Framework presented in Table 9 includes a set of objectives for
        sustainability, together with corresponding decision-aiding questions. The
        decision- aiding questions have been designed to assist in the appraisal as
        they clarify the details of the sustainability issues relevant to the sustainability
        objectives, as well as improving appraiser objectivity. They also ensure that the
        appraisal is relevant to waste planning, and make the appraisal more specific
        to Wiltshire and Swindon. It is important that the SA Framework reflects local
        circumstances that can be influenced by the new development planning
        system.

4.61   The SA Framework has been developed from the key sustainability issues
        identified, as outlined in this section. Modifications made as a result of the SA
        Scoping consultation process are included, and are marked in red and
        underlined in the Framework below.

4.62   Sustainable Development recognises that social, economic and environmental
        factors are interconnected, and SA aims to take an integrated approach.
        Accordingly, the proposed SA Framework does not categorise objectives into
        social, environmental and economic. The relationship between waste
        management issues and the SEA environmental topics has been
        demonstrated, through their inclusion in the SA Framework objectives, in line
        with requirements.

4.63   The SA Framework provides a way in which sustainability effects of a plan or
        programme can be described, analysed and compared. The SA methodology
        is outlined in section 3, and involves the consideration of the content (including
        objective, options and policies) of the Core Strategy against each SA objective.

Table 9 SA FRAMEWORK for Wiltshire Waste Development Framework (changes made to the framework as a result of community consultation are marked in red and underlined).

	Appraisal questions. Does the policy...	SA / SEA Objectives	Would the plan in association with other plans and programmes...
1	Promote healthy exercise, especially daily exercise	• Minimise the impact waste management facilities have on rights of way, recreational facilities and areas of open space	• Ensure public recreational opportunities are not negatively affected?
2	Enable access to learning, training, skills and knowledge	• To change public perceptions of waste generation and disposal through education	• Educate people about the merits of waste hierarchical issues and encourage moving waste up the hierarchy?
3	Promote stronger more vibrant communities	• Maintain and, where possible, enhance the quality of life for people affected by landfill site development • Ensure robust consideration is given to the proximity of waste management facilities and / or ancillary development to settlements and individual properties • Minimise nuisance from increased traffic, noise, dust and odour from waste disposal facilities	• Cause a reduction in the number of people directly affected by landfill sites (living in close proximity to a landfill site or an access route) whose impact cannot be mitigated? • Cause a cumulative impact on certain communities (through permitting more waste disposal facilities affecting the same community)?
4	Give people in the county access to satisfying work opportunities, paid or unpaid	• Increase employment opportunities through the increase in waste processing and disposal facilities	• Lead to an increase in employment through the generation of more businesses specialising in waste management?
5	Meet local needs locally	• To accommodate the growth in population and subsequent rise in waste levels • <u>To reduce the need for people to drive to waste collection/disposal points</u>	• Provide enough capacity to deal with increased levels of waste in locations chosen based on sustainability principles? • <u>Encourage waste collection closer to the source of production to avoid unnecessary car trips?</u>

	Appraisal questions. Does the policy...	SA / SEA Objectives	Would the plan in association with other plans and programmes...
6	Balance the need for growth with the protection of the environment **(Wiltshire County Council corporate objective)**	• Ensure waste management facilities reflect the changes and growth in the economic structure of the plan area • Promote waste minimisation through design wherever possible • Promote the implementation of the waste hierarchy • Integrate principles of the waste hierarchy with design principles	• Provide capacity to deal with a growing level of waste, potentially from different sources that may have been present in the past? • Promote the integration of waste management principles with design principles? • Cause a movement of waste up the hierarchy? • Lead to a well designed infrastructure which designs out waste?
7	Reduce vulnerability of the economy to climate change and harness opportunities arising	• Reduce the effects of climate change by finding alternatives solutions to landfill for waste disposal, including recycling and composting • See air pollution objectives	• Encourage the movement of waste up the hierarchy?
8	To improve our roads and make them safer **(Wiltshire County Council corporate objective)**	• Reduce transportation of waste by road through the use of the proximity principle; the reduction of total waste produced and the reduction of waste sent to landfill • Encourage alternative more sustainable means of transporting waste where possible, including rail and water.	• Cause a reduction in waste transported by road? • Create safer roads through the reduction of road transport?

	Appraisal questions. Does the policy...	SA / SEA Objectives	Would the plan in association with other plans and programmes...
9	Protect habitats and species	• To enhance the biodiversity (and if possible geodiversity) resources of the plan area. • Avoid development which would impact on sites of international or national importance • Avoid the effects of development on identified sites of county / local importance, BAP habitats and other habitats of notable ecological value (e.g. brownfield sites) • Avoid effects of development on populations of protected or notable species • Maximise biodiversity gain associated with all waste development	• Include actions that cause changes in habitat fragmentation or habitat loss (including those that affect affecting important/rare species) ~~especially~~ including those affecting sites of international or national importance? • Consider the impacts of Climate Change on habitats and species. • Include actions that improve or remove geodiversity? • Include actions that affect an area in a way that could have long term effects in relation to favourable conservation status ~~species lifestyles~~ or irreversible effects where there are no known mitigation techniques. • Include actions that affect areas where biodiversity is already exposed to significant threat, e.g. through habitat loss or fragmentation. • Include actions that help to reach targets or compromise targets of BAPs and / or Geodiversity Action Plans (GAPs) where produced. • Include actions that affect Natura 2000 sites, SSSIs or other designated site.

	Appraisal questions. Does the policy...	SA / SEA Objectives	Would the plan in association with other plans and programmes...
10	Promote the conservation and wise use of land	• Where possible minimise the area of land used for landfill development, and amount of waste sent to landfill • Assess and evaluate early in the development phase the ability to restore the land use for landfill and ancillary development to a high standard • Make use of brownfield land for waste processing and disposal facilities • To encourage regional self sufficiency within in terms of waste management. • To ensure disposal of hazardous waste is accommodated for	• Reduce the area of land used for landfill? • Encourage the efficient use of permitted and licensed void spaces? • Improve the planning of site restoration? • Consider the long term aftercare and after-use of landfill sites? • Reduce the amount of greenfield land used for waste disposal facilities? • Increase self sufficiency within the region in terms of waste management?
11	Protect and enhance landscape and townscape	• Protect designated and non designated areas of landscape or other amenity value • Reduce visual intrusion from waste disposal facilities and / or ancillary development • Ensure all waste disposal facilities and areas affected by them are restored to a high standard • Consider alternatives to landfill, especially in areas of high landscape value or areas of tranquillity • Maintain and wherever possible enhance access and overall amenity of the countryside to residents and visitors • (townscape objectives are covered under the community section)	• Cause changes to designated areas which threatens the reason for their designation? • Cause changes to the landscape / townscape that are completely at variance with the character of the area? • Change the number of people that are affected by the visual impact of waste management facilities development? • Cause changes in traffic flows or the nature of traffic (an increase in HGVs for example) in any part of Wiltshire and Swindon or Swindon that could alter the character of the landscape? • Change the ease of which people can access the countryside?

	Appraisal questions. Does the policy...	SA / SEA Objectives	Would the plan in association with other plans and programmes...
12	Value and protect diversity and local distinctiveness including rural ways of life	• Minimise any adverse impacts on the countryside from all stages of waste disposal and / or ancillary development • Protect and improve the quality of countryside in proximity to waste disposal facilities and / or ancillary development • Protect rights of way, open space and common land and maintain access to the countryside • Protect the best and most versatile agricultural land	• Change the ease with which people can access the countryside, rights of way, open space and common land? • Cause development in areas which are valued for their tranquillity? • Cause the best and most versatile agricultural land to be lost either temporarily or permanently?
13	Maintain and enhance cultural and historical assets	• Protect designated and, where possible, non-designated sites and monuments of cultural / archaeological importance.	• Include actions that could impact upon sites and monuments valued for their cultural heritage? • Cause a change in traffic flows or the nature of traffic (an increase in HGVs for example) that affects sites and monuments valued for their cultural heritage or changes the number of sites at risk?
14	Reduce vulnerability to flooding,	• Reduce risk of flooding.	• Improve flood management and risk?
15	Reduce non renewable energy consumption and greenhouse emissions	• See air pollution (below) • Reduce the use of landfill for waste disposal • Reduce the pollution emissions from other forms of waste management, where possible.	• Cause a reduction in vehicular waste transportation? • Cause a decrease in the percentage of waste going to landfill, in favour of alternative methods and a reduction in overall waste?

	Appraisal questions. Does the policy...	SA / SEA Objectives	Would the plan in association with other plans and programmes...
16	Keep water consumption within local carrying capacity limits (taking account of climate change)	• Minimise any adverse impacts on water resources at all stages waste disposal through effective site design and management • Protect and where possible improve the quality and flow of surface and groundwater. • Ensure appropriate provision of sewage treatment facilities	• Include measures that could increase / decrease the potential for water pollution? • Include actions that could increase / reduce the risk of effects on groundwater and surface water quality and quantity?
17	Reduce the rate of landfill, increase recycling and open waste to energy facilities in Wiltshire **(Wiltshire County Council corporate objective)**	• To improve and encourage alternative means of waste disposal, including recycling and composting • To minimise waste sent to landfill • To reduce the growth and production of hazardous waste by replacing it with cleaner materials.	• Cause an increase in waste recycled/ composted? • Encourage the reduction of waste generated? • Cause an increase in methods other than landfill for waste disposal? • Reduce the production of hazardous waste • Encourage the replacement of hazardous waste with cleaner materials?
18	Minimise the use of non-renewable resources and where possible promote the use of renewable resources	• To improve and promote waste minimization • To become the most waste efficient county by 2012.	• Cause an increase in the re-use and recycling of materials in order to reduce pressure on resources used to produce such materials?

	Appraisal questions. Does the policy...	SA / SEA Objectives	Would the plan in association with other plans and programmes...
19	Minimise land, water, air, light, noise, and genetic pollution	• Minimise the impact of waste disposal facilities through implementing effective measures to control emissions to air (including particulates), dust, noise, groundwater, surface water and soils. • To locate waste disposal facilities with the proximity principle in mind, in order to reduce effects of waste management and recovery facilities on the surrounding environments.	• Reduce the amount of pollution generated by waste disposal and processing? • Encourage suitable mitigation measures (e.g. the establishment of Management Plans for all facilities)? • Provide opportunities for operators to use alternative transport modes to transport waste? • Ensure that waste disposal facilities are located using the proximity principle to minimise effects of increased traffic? • Cause changes in traffic flows or the nature of traffic (an increase in HGVs for example) in any part of Wiltshire and Swindon that could alter the character of the landscape or townscape?

5. CORE STRATEGY ISSUES AND OPTIONS

INTRODUCTION

5.1   In November 2005, a Core Strategy Issues and Options report, jointly prepared by Wiltshire County Council and Swindon Borough Council, was placed on public consultation, alongside an Issues and Options Paper for the Development Control Policies DPD. The report set out the key 'Issues and Options' that the County and Borough Councils consider will influence land use planning for waste management over the plan period. It provided a basis for initial consultations on the issues to be addressed by the Local Development Framework for waste in Wiltshire and Swindon.

5.2   A response form was produced alongside the Issues and Options report, inviting the public and other stakeholders to participate in the process. The form included a range of questions relating to the key options presented in the document, and included additional space and a question inviting respondents to identify any additional issues and options that they felt should be addressed in the preparation of the Waste Core Strategy.

5.3   The Issues and Options discussed in the initial paper have since been progressed to take into account the feedback received at consultation stage, and internal consultation within the County and Borough Councils, for example, with the County Ecologist and Development Control Officers. During the development of the Core Strategy, WCC and SBC have continued to consider various options, and these were then appraised by Enfusion to clarify their relative performance with regard to sustainability for Wiltshire and Swindon.

5.4   Appendix C presents the details of this initial Sustainability Appraisal, with comments regarding the nature of the sustainability effect for each policy/option provided in a separate column. Additional columns provide a sustainability assessment rating (the spectrum or colour approach is used); evidence and references; and recommendations to improve the progression of sustainability or mitigate potential adverse effects.

5.5   A summary of findings and recommendations is presented below. It should be noted that recommendations focus on aspects for improvement, thus the content of the report is necessarily skewed towards those aspects where potential adverse effects could arise.

SA OF DRAFT CORE STRATEGY VISION, KEY OBJECTIVES AND LANDUSE STRATEGY

5.6   The Core Strategy Issues and Options paper contained an introductory section outlining the waste context in Wiltshire and Swindon and broader challenges surrounding waste management in the United Kingdom. Following this section, the report set a proposed vision, key objectives and landuse strategy for waste planning in Wiltshire and Swindon.

5.7   Chapter 4: Vision:

Chapter 4 provided a vision for the Waste LDF for Wiltshire and Swindon:

'To provide a sustainable land use planning policy framework for waste management in Wiltshire and Swindon, having regard to the issues of sustainable development, the waste hierarchy, regional self sufficiency and the proximity principle.'

5.8   Given the strategic nature of the Vision, it was not considered appropriate to undertake a detailed appraisal against each SA Objective. Consequently, a strategic overview of the sustainability implications of the Vision was undertaken. It was concluded that the vision sets an appropriate framework upon which objectives and further policies within the Waste Development Framework can be based. It is broad and overarching, consistent with the UK Sustainable Development Framework, and includes the four key waste management principles from the European Waste Framework Directive, namely: sustainable development; the waste hierarchy; regional self sufficiency; and the proximity principle. It was recommended that the Vision be amended to use the word 'principles', rather than 'issues' to reflect use of the term in the Waste Framework Directive.

5.9   Chapter 6: Key Objectives

Chapter 6 provides a list of key objectives to guide waste planning in Wiltshire and Swindon:
1. To ensure that there is an integrated network of waste management facilities within the Plan area, which makes adequate provision for waste arising within Wiltshire and Swindon.

2. To encourage waste management practices which do not endanger human health or incur any significant adverse impacts on the environment.

3. To manage waste in a way that provides most benefit to or causes least damage to the environment.

4. To reduce the amount of waste produced in Wiltshire and Swindon, bearing in mind the Regional Assembly's vision for the South West that it become a minimum waste producer by 2030.

5. To make the best use of the waste produced in Wiltshire and Swindon through maximising re-use, recycling and composting, and energy recovery strictly in that order of priority and to promote a reduction in waste going to final disposal.

6. To encourage the location of waste management facilities as close as practicable to the point where the waste is produced (the proximity principle).

7. To contribute to regional self-sufficiency in the management of waste where this is shown to satisfy the proximity principle.

8. To assist in creating economic growth and employment in Wiltshire and Swindon by taking account of the needs of business and the waste management industry, and encouraging competitiveness and innovation.

9. To identify planning policy criteria by which to assess waste development proposals, and ensure effective planning control and the appropriate location and distribution of waste management facilities.

10. To provide clear guidance to operators, members of the public, and any other interested party on planning policy and proposals.

5.10   The key objectives were subject to two types of assessment. Firstly a strategic summary of the nature of the sustainability effect for each element was undertaken, and then a compatibility assessment of each element against the

SA Framework was conducted. The draft Core Strategy Objectives were found to be generally consistent with the SA framework, however the following suggestions were made to improve the sustainability of the Strategy:

- Objective 3 could be amended to encourage the enhancement of the environment (For example through linking biodiversity improvements to new waste developments, or where a new waste facility is proposed, the restoration of the surrounding site).
- There were a number of areas of potential conflict relating to Objective 6, which encourages the location of facilities close to where they are produced. The main implications were considered to be land use conflicts that could arise from locating waste management facilities close to residential areas or other sensitive land uses. Whilst this issue would be considered in detail at the site allocations stage and in development control policies, it is considered important to include an objective that addresses the need to maintain or enhance amenity for sensitive land uses.
- Objective 8, relating to economic growth and employment, could be improved to consider the employment and economic needs of the local workforce and community, in addition to the needs of the business community. It was suggested it be amended to read: 'by taking account of the needs of business, the waste management industry and the wider community. It was also considered that the use of the term 'innovation' could be expanded to include the concept of environmental innovation.

5.11   Chapter 7: Landuse Strategy

The assessment of the landuse strategy was undertaken using the same approach as for the objectives, i.e. a strategic summary of the nature of the sustainability effect for each element of the landuse strategy was undertaken, and then a compatibility assessment of each element against the SA Framework was conducted. A number of recommendations are included in Appendix C, including the need to consider nature conservation sites of local and regional importance. Overall it was considered that the strategy could have a stronger focus on environmental protection and on minimising land use conflicts, particularly those relating to development and waste facilities. The following new objective was suggested:

- *To avoid land use conflicts through the appropriate siting of waste management facilities in relation to the built and natural environment, taking into account potential social and environmental impacts, climatic impacts and the need to safeguard recreational and cultural opportunities.*

COMPARISON OF MAIN STRATEGIC OPTIONS CONSIDERED AND PREFERRED OPTIONS

5.12   The remaining issues outlined in the Issues and Options paper were presented with a range of alternative options-between 2 and 4 each. A comparison of the likely social, environmental and economic effects of implementing each option is provided in the matrices in Appendix C. For each set of options considered, a preferred option (with an outline of reasons) for the progression of sustainability was recommended in the summary set out in the bottom row of each matrix.

5.13   For each set of options, this section summarised the reasons for the identification of the options considered, as well as reasons not to consider certain options where relevant. The preferred option from a sustainability

perspective for each set of options was set out, along with a brief summary of reasons.

5.14 Where it is considered appropriate, the Government SA Guidance recommends the consideration of the 'do nothing' or business-as-usual approach as part of the strategic options assessment. In this instance, the 'do nothing' scenario equated to not preparing a new Waste Development Framework. Instead, the existing Adopted Wiltshire and Swindon Waste Local Plan 2011 (WLP2011) would continue to apply. Whilst individual elements of the WLP 2011 have been carried over to the new draft Preferred Options, the 'do-nothing' option has been rejected outright. This is because a number of key policy, practice, regulatory and planning changes have occurred since the WLP 2011 Local Public Inquiry was held in Spring 2003, which necessitate a complete re-write of the document. The production of the new Waste Local Development Framework is also a statutory requirement, and consequently to not go ahead with its production was not considered a viable option.

5.15 Chapter 5 Time Period

This chapter provided 4 different possible timeframes for the WDF, resulting in a waste planning framework time period of 3 years for Option 1 (the existing adopted WLP time frame to 2011), 6 years for Option 2 (the time-period covered by the Wiltshire and Swindon Structure Plan, 2016), 13 years for Option 3 (a new time-period which would take into account the requirements of the Landfill allowance trading scheme and sub-regional waste apportionments, to 2021) or 18 years for Option 4 (Adoption of the South West Regional Spatial Strategy time period to 2026).

5.16 A Strategic assessment was undertaken as it was not considered appropriate or useful to compare each option against the SA objectives. The assessment found that Option 3 was the most appropriate timescale for the strategy as it would take account of the RSS time-scale and sub-regional waste apportionments, in addition to reflecting the requirements under the Landfill Allowance Trading Scheme (LATS). However, it is likely (and desirable) that the framework would be revised before the 13 years has elapsed to allow for the incorporation of new technologies and any policy changes at a regional, national or European level.

5.17 Options 1 and 2 were discounted as the timeframes proposed in these options were considered insufficient to take into consideration the requirements of LATS or the sub-regional waste apportionments. Option 4 was considered an excessively long time period, as significant changes would occur during this timeframe necessitating considerable revision.

5.18 Chapter 8: The Wiltshire and Swindon Waste Hierarchy

This chapter considered whether Wiltshire and Swindon should adopt the Government Waste Hierarchy (Option B), as outlined in the UK Waste Strategy, or an adapted version of the hierarchy (Option A), which takes the Waste Hierarchy a step further through identifying waste elimination as the first step towards sustainable waste management and giving preference to recycling and composting services over thermal waste recovery. A third Option (Option C) omitted the waste hierarchy from the Core Strategy.

5.19 Both Option A and Option B performed well in the assessment, however Option A took the waste hierarchy one step further by placing elimination as the first stage, and therefore was preferred. Both options enabled the concept of the waste hierarchy to be taken to a wider audience than might otherwise

have occurred (if option C were progressed), and established waste hierarchy issues as a central policy in the Core Strategy.

5.20   Chapter 9: Sustainable Waste Management

This chapter places Sustainable Waste Management at the centre of the Core Strategy. It requires planning applications for waste management proposals to demonstrate compliance with a range of sustainability objectives, namely:

a) Contribute to an adequate and integrated network of waste management facilities
b) meet local, regional and national waste management targets and take full account of the Wiltshire and Swindon Waste hierarchy … and energy recovery in that order of priority.
c) Reduce consumption of and efficiently use primary resources
d) Make provision for the management of waste at the nearest available waste management installation
e) Maximise opportunities for transporting waste by rail or water
f) protect, maintain and where required, enhance environmental, social and community assets
g) optimise the use of previously developed or used land or buildings
h) conform to the precautionary principle.

5.21   The components of this issue were subject to two types of assessment. Firstly a strategic summary of the nature of the sustainability effect for each element was undertaken, and then a compatibility assessment of each element against the SA Framework was conducted. The components were found to be generally consistent with the SA framework, however the following suggestions were made to improve the sustainability of the Strategy:

▪   A potential conflict was identified relating to component g, which aims to optimise the use of previously developed or used land or buildings. The potential for conflict lies in the protection of habitats or species, as it is known that previously developed lands are often areas of high biodiversity. This conflict is acknowledged, and can be dealt with through development controls that require the developer to screen for the presence of wildlife and habitat, and to mitigate the impacts where appropriate.

▪   There are 3 SA objectives which were considered to be inadequately represented in this chapter - objectives 2, 3 and 4, relating to learning, training, skills and knowledge; stronger and more vibrant communities; and employment. It was recommended that a further objective/s be included that takes into consideration the needs of local communities, through encouraging waste education and creating meaningful employment. This should also consider the aspirations and concerns of local communities, and the need to reduce landuse conflicts.

5.22   Chapter 10: Regional Self Sufficiency

This chapter presented a range of options exploring varying levels of self sufficiency relating to waste management:

Option 1: *Require provision for the management of wastes produced in Wiltshire and Swindon only and seek to manage these arisings only within the plan area.*

Option 2: *WPA's will only permit proposals for new waste management capacity where the municipal waste inputs are sourced from Wiltshire and Swindon municipal waste arisings only. Proposals to import non Wiltshire and Swindon municipal waste for use in such capacity will be refused (however other waste streams would be accepted).*

Option 3: *capacity for the management of Wiltshire and Swindon's municipal waste arisings must be provided in the Plan Area only. Exports of Wiltshire and Swindon municipal waste will be prohibited.*

Option 4: *Waste management proposals will only be permitted where there is a need to meet a demonstrated cross boundary requirement where they will also cater for waste arisings from the Plan Area.*

5.23 The SA Appraisal of these options found benefits and disbenefits to a policy of self-sufficiency within County boundaries. The primary benefit was considered to be in terms of increasing awareness and responsibility, namely that Wiltshire should be capable of dealing with its own municipal waste arisings, and should not burden another authority with its waste. Theoretically, by being more self-sufficient, this would also decrease the distances travelled during waste transportation. In reality, there may be occasions where a waste facility located in another county is actually closer to the waste source than the nearest Wiltshire facility, and in such circumstances, the proximity principle would dictate that waste should be transferred across boundaries.

5.24 For this reason, it was recommended that Wiltshire and Swindon should aim for waste self-sufficiency, however where the proximity principle dictates otherwise, cross boundary waste transfer out of the County would be allowed. This is particularly the case for municipal waste arisings.

5.25 Where other waste sources (for example: commercial, industrial, construction waste) are concerned, the same policy should apply where practicable. However, where the proximity principle dictates otherwise, or where the cross boundary transfer of waste would support a movement up the waste hierarchy (i.e. through allowing transfer to a recovery facility in another County) then this should be supported.

5.26 It was argued that the same principle should be applied to the in-transfer of waste into Swindon, however this should not lead to the establishment of new municipal waste facilities that may impact upon the environment or communities in Wiltshire and Swindon. For this reason, Option 4 was supported in that it would require any new facilities to take a percentage of waste from within the Swindon and Wiltshire area.

5.27 It was considered that further work may be required to refine these policies, and WCC and SBC advised that the final policy was likely to be strongly influenced by requirements placed on the authorities through Regional Planning Guidance.

5.28 Chapter 11: Need and Chapter 12: Flexibility: (no options developed at this stage)

These chapters relate to how the Waste Planning authorities assess the need for waste management facilities and are aligned with the issues relating to Regional Self Sufficiency above. At the Issues and Options stage, no strategic options were identified, instead consultees were asked to provide comment to assist in the Preferred Option development stage.

5.29   Consultees were asked to consider the concept of flexibility, and whether criteria based policies or a more prescriptive approach should be adopted. This matter is considered in Chapter 6: Core Strategy Preferred Options.

5.30   Chapter 13:Safeguarding Waste Management Sites

Chapter 13 provided 3 options relating to safeguarding waste management sites. Option A continued to safeguard existing and proposed waste management sites and carry forward Policy 5 from the adopted Waste Local Plan (WLP) Policy 5. Option B allowed for the safeguarding of existing and proposed waste management sites but would require the revision or replacement of WLP Policy 5, and Option C would remove safeguarding from the waste management framework.

5.31   The strategic nature of this option again necessitated a strategic rather than detailed assessment, using professional judgement. Option C was discounted as it was considered to be in direct conflict with Government Guidance contained in PPS10, which requires development plans to identify and allocate sites through Development Plan documents.

5.32   It was considered prudent to review Policy 5 of the adopted Waste Local Plan (WLP), as a number of legislative and policy changes have occurred since the policy was prepared, and the plan adopted in 2005. In particular, there have been changes to biodiversity guidance (PPS 9- Biodiversity and Geological Conservation) and also in regard to rural areas (PPS 7- Sustainable Development in Rural Areas). This is in addition to the release of PPS10 on Planning for Sustainable Waste Management, released in July 2005, which includes guidance for the selection of sites (Policies 20 & 21 of PPS10). To take account of these and other changes since the adoption of the WLP, it was recommended that Option B be progressed.

5.33   Chapter 14: Policy monitoring, implementation and Review

This chapter related to the role of monitoring in ensuring Waste Development Framework delivers its objectives. At the Issues and Options stage, no strategic options were identified, however a useful explanation of the role of monitoring was provided and respondents were invited to provide suggestions and comment to assist in the development of a monitoring strategy. The Monitoring of the Waste Development Framework is discussed in section 9 of this SA report:

5.34   Other Issues and Options

Consultees were invited to consider whether there were additional issues and options that should be addressed in the Waste Core Strategy, but had not been mentioned in the report. These issues would then be considered in the Preferred Options stage.

SUMMARY OF RECOMMENDATIONS AND PROGRESSION

5.35   On the whole, the findings of the SA suggested that the emerging Core Strategy would make significant contributions to the progression of SA objectives. This could be improved by the adoption of the recommendations outlined above.

6. CORE STRATEGY PREFERRED OPTIONS – STAGE 1 (2006)

INTRODUCTION

6.1　The Issues and Options discussed in Section 5 of this paper were progressed to take into account the Consultation results from the Issues and Options Public Consultation. They were also subject to internal consultation within the County and Borough Councils, in particular, the County Ecologist and Development Control Officers. During the development of the Core Strategy, WCC and SBC continued to consider various options, and in March 2006 a later version of the Core Strategy (Preferred Options) policies at a relatively advanced stage of development was appraised in detail. The likely effect of each policy upon each sustainability objective was considered, where relevant, with comments about whether the policy was likely to progress or conflict with each SA objective recorded in matrices. Mitigation measures were suggested where feasible. Enfusion, WCC and SBC met in late March to discuss the results of the Preferred Options assessment, and the Authorities agreed to make further minor changes based on the results of the assessment. The matrices presented in Appendix D include those additional changes. This approach ensured an iterative and robust appraisal process, and the policies were considered to be generally progressive for sustainability.

6.2　The details of the Preferred Options Sustainability Appraisal are contained in Appendix D with comments regarding the nature of the sustainability effect for each policy/option provided in a separate column. Additional columns provide the sustainability assessment rating (the spectrum or colour approach is used); evidence and references; and recommendations to improve the progression of sustainability or mitigate potential adverse effects.

6.3　A summary of findings and recommendations is presented below. Recommendations focused on aspects for improvement, thus the content of the report was necessarily skewed towards those aspects where potential adverse effects could arise. On the whole, the findings of the SA suggested that the emerging Core Strategy (Preferred Options) would make significant contributions to the progression of SA objectives.

6.4　Where conflicts were identified, possible measures to offset adverse effects were considered, with recommendations to offset them provided in the final column of the matrices. Often, these recommendations did not seek a modification to the Core Strategy itself. Rather, they highlighted important aspects or uncertainties regarding the sustainability of policies during implementation, which needed to be taken into account in the development of other Local Development Documents.

SA OF CORE STRATEGY VISION, KEY OBJECTIVES AND LANDUSE STRATEGY

6.5　The vision, key objectives and landuse strategy were amended and reappraised, with changes marked in red and underlined in Appendix D. Chapter 5, Time Period included a number of alternative options and is dealt with under the next sub-section of this report (Comparison of main strategic options considered and preferred options).

6.6   Chapter 4: Vision:

'To provide a planning policy framework for spatial aspects of waste management in Wiltshire and Swindon which will provide for sufficient waste management capacity at the appropriate time having regard to the principles of sustainable development and the waste hierarchy.'

6.7   The Vision had been further progressed from the Issues and Options assessment in that it contained reference to the spatial aspects of waste management, and the terms 'regional self sufficiency' and 'the proximity principle' had been omitted. The changes to the Vision were re-appraised, and it was found that the sentiment that both of these terms were trying to convey was considered to be represented in the new phrase: 'provide for sufficient waste management capacity at the appropriate time.' This change was made to reflect the guidance contained in PPS10, and to reduce confusion on the part of those who may not understand the meaning of the terms 'regional sufficiency' and the 'proximity principle.' The Issues and Options SA had recommended the word 'issues' be amended by replacing with the word 'principles, which took place. From an overall sustainability perspective, the Vision was supported.

6.8   Chapter 6: Key Objectives

Following the Issues and Options SA assessment, a number of changes were made to the proposed plan objectives to take into account consultation with the public, internal consultation within the WPAs and the recommendations made in the Issues and Options SA Appraisal. In particular, an additional objective on climate change was added:

11. To assist in reducing the impacts of climate change upon the environment, by encouraging proposals that deliver renewable energy production, reduce the emissions of greenhouse gases.

6.9   Other recommendations were adopted as follows:

- Objective 2 included specific reference to mitigation of adverse effects.
- Objective 3 included provision for the enhancement of biodiversity in new developments and site restoration.
- Objective 8 addressed comments regarding the need to consider the employment and economic needs of the local workforce and community through use of the term 'the wider community'.
- Objective 11 assisted in addressing previous comments regarding the need for the objectives to encourage environmental innovation.

6.10   There remained an acknowledged conflict relating to Objective 6, which encouraged the location of facilities close to where they are produced. The main implications were land use conflicts that could arise from locating waste management facilities close to residential areas or other sensitive land uses. This issue will be considered at site allocations stage, and through Development Control policies relating to the siting of facilities. A suggestion made through the SA appraisal was to include an objective relating to reducing land use conflicts and protecting the amenity of sensitive land uses. This has since occurred, and Objective 2 was amended to include reference to sensitive land uses.

6.11   The changes made to the preferred options were supported, and it was considered they would assist in improving the overall sustainability of the document, through ensuring the WDF is grounded in sound and sustainable principles.

6.12   Chapter 7: Landuse Strategy

The Land Use Strategy was modified in light of suggestions made at the Issues and Options appraisal stage, and had a stronger focus on environmental protection. In particular, new components v and vi were added, providing a stronger, more local and more proactive focus on biodiversity:

v)To exclude use of possible areas for waste management development where this would result in significant impacts upon features of regionally or locally important biodiversity and other environmental interest that cannot be prevented, adequately mitigated against or compensated for.

vi) To identify Preferred Areas for waste management development which seek to contribute towards biodiversity enhancement and to retain and add to linked habitat networks to reduce the impacts of climate change upon biodiversity and the environment.

6.13   Another new component, xv, took into account previous comments made on climate change, and took into consideration the need for environmental innovation- encouraging renewable energy production and consequently assisting in meeting targets for a reduction in the production of greenhouse gases.

xv) To encourage renewable energy production and a reduction in emissions of greenhouses gases where appropriate

6.14   Objective v (now vii) was modified to identify the type of criteria that is being referred to (social, environmental and economic), and was considered to address previous concerns relating to residential amenity and minimising land use conflict:

vii) To identify appropriate social, environmental and economic criteria against which proposed waste management uses must be assessed.

6.15   There remained a potential conflict between use of Previously Developed sites and SA Objective 9 (potentially high biodiversity on Previously Developed sites), however it was considered that this is most appropriately dealt with through the Development Controls documents and Site Allocations document.

6.16   The differing elements of the land use strategy were considered to be consistent when tested against the sustainability objectives and would contribute positively to the identification and development of sustainable waste management facilities in the County.

COMPARISON OF MAIN STRATEGIC OPTIONS CONSIDERED AND PREFERRED OPTIONS

6.17   The remaining issues outlined in the Issues and Options paper were presented with a range of alternative options - between 2 and 4 each. Generally, a preferred option was progressed for each of these policies, except for Chapter

5 and Chapter 8, where a number of alternative options were presented for further consultation. A comparison of the likely social, environmental and economic effects of implementing those options is provided in the matrices in Appendix D, alongside the final Preferred Option assessment for the remainder of the policies.

6.18   Chapter 5 Time Period

Two of the previous options presented in Chapter 5 were discounted, with a remaining 2 options being placed on consultation: Option A (13 years), which adopts a timescale of 2021 to allow for the long term planning of new facilities to meet the requirements of the Landfill Allowance Trading Scheme (LATS), and Option B (18 years) which adopts the expected emerging South West Regional Spatial Strategy time period to 2026, providing for a waste planning framework of 18 years.

6.19   As per the previous Issues and Options Assessment, Option A was considered the most appropriate timescale for the strategy as it would take account of the RSS time-scale and sub-regional waste apportionments, in addition to reflecting the requirements under the Landfill Allowance Trading Scheme (LATS). However, it was considered likely (and desirable) that the framework would be revised before the 13 years had elapsed to allow for the incorporation of new technologies and any policy changes at a regional, national or European level.

6.20   Extending the timetable to 2026, as proposed in Option B, was not considered necessary, as the WDF would need to be rewritten well before the 18 years had elapsed to allow for the incorporation of new technologies and any policy changes at a regional, national or European level.

6.21   Chapter 8: The Wiltshire and Swindon Waste Hierarchy

Of the three options previously presented, one (to not include a waste hierarchy at all) was discounted due to its poor sustainability performance and incompatibility with PPS 10: Planning and Waste Management,

6.22   Both the preferred and the alternative option performed well on this assessment, however the WPA's preferred option took the waste hierarchy one step further by placing elimination as the first stage in the waste hierarchy, and therefore was preferred. Both options enabled the concept of the waste hierarchy to be taken to a wider audience than might otherwise occur, and also established waste hierarchy issues as a central policy in the Core Strategy. The inclusion of the waste hierarchy also assisted in ensuring the document met the requirements of PPS10: Planning and Waste Management.

6.23   Chapter 9: Sustainable Waste Management

Since the Issues and Options SA was undertaken, this policy was improved to take into account the following concerns raised:

▪   Option g was improved to ensure that the use of previously developed land or buildings for waste management facilities doesn't occur to the detriment of environmental, social and community assets. This revision addressed previous concerns about a potential conflict between developing previously developed land and the potential for such sites to be high biodiversity areas. The other potential conflict with SA Objective 19, was also addressed through this amendment.

- Previous criticisms on the need to further consider SA objectives 2, 3 and 4 (relating to learning, training, skills and knowledge; stronger and more vibrant communities; and employment), were also addressed through the improvement of Option g, and through changes to Key Objective 8 in Chapter 6.

6.24   Chapter 10: Regional Self Sufficiency

The options presented in this chapter originally explored varying levels of self sufficiency relating to waste management. This was further developed to read:

'The WPAs preferred approach to regional self sufficiency is for the Waste LDDs to seek to secure a network of waste management facilities which make adequate provision for waste requiring management in Wiltshire and Swindon, including the requirements of the sub regional waste management apportionments.'

6.25   The general focus of the preferred option, in prioritising facilities that provide for waste arisings in Wiltshire and Swindon, whilst meeting the sub regional waste requirement apportionments, was supported, as it would assist in meeting the requirements placed on the authorities by emerging Regional Planning Guidance (South West Regional Spatial Strategy). However, there would need to remain some flexibility to account for the proximity principle (the concept of managing waste as close as possible to its source). It was recommended that the County aim for self-sufficiency, but that where the proximity principle dictated otherwise (and where this would meet other policies within the document), cross boundary waste transfer out of or into the County would be allowed. This should particularly be the case for waste recovery and recycling facilities, whereby the movement of waste across boundaries would improve recovery rates.

6.26   Chapter 11: Need
This chapter was a new approach prepared subsequent to the SA of the Issues and Options assessment being undertaken. It stated that:

The WPAs will address the issue of need by providing a network of preferred areas to meet the identified need for the quantity of waste forecast to be produced in the Plan Area and to satisfy the requirements of the sub regional waste management apportionments.

6.27   The preferred option was supported as it provided for the management of waste forecast to be produced in the Plan area and would assist the WPAs in satisfying sub-regional waste apportionments. Through doing this, it allowed for some flexibility in terms of cross boundary transfer (where this would meet other policies within the document), but importantly, it ensured that Wiltshire and Swindon were only required to deal with the amount of waste produced within the County, in accordance with sub-regional apportionments.

6.28   Chapter 12: Flexibility

This chapter related to how the Waste Planning Authorities assess the need for waste management facilities and was aligned with the issues relating to Regional Self Sufficiency above in the comment for Chapter 10.

At the Issues and Options stage, no strategic options were identified, instead respondents were asked to provide comment to assist in the Preferred Option development stage. Respondents were also asked to consider the concept of flexibility, and whether criteria based policies or a more prescriptive approach should be adopted.

6.29   The following preferred option was developed:

The WPAs are striving to safeguard a network of sites which make sufficient provision for waste requiring management in Wiltshire and Swindon, including the requirements of the sub regional waste management apportionments. However, the WPAs do not have complete information on waste streams arising in the Plan area or arising in the wider South West region.
An element of flexibility is therefore likely to be required to ensure that the Waste LDDs actually deliver a network of sites that will meet the waste management requirements of the Wiltshire and Swindon.
Policies will therefore be provided to allow for the consideration of non-allocated sites as windfall development. Primacy will be given to the objectives and policies of the Core Strategy, the Environmental Protection and Transportation policies and the sites allocated in the WLP and the emerging DPDs.

6.30   The approach was supported as it was considered to provide sufficient flexibility to cater for any additional or unexpected growth in waste, whilst ensuring that any windfall development would be subject to a rigorous assessment process, in accordance with the requirements of the emerging DPDs. This issue will be further addressed in the SA Report for the Development Control Policies under Preferred option WDC 20: Windfall Development.

6.31   Chapter 13:Safeguarding Waste Management Sites

This chapter previously included 3 options relating to safeguarding waste management sites: to continue to safeguard existing and proposed waste management sites and carry forward Policy 5 from the adopted Waste Local Plan (WLP) Policy; to safeguard existing and proposed waste management sites and revise or replace WLP Policy 5; or the removal of safeguarding from the waste management framework altogether.

A preferred option was developed that safeguarded the following sites:

a) the Preferred Areas identified in the Site Allocations LDD;

b) existing waste facilities where these are appropriate for continued use; and

c) other sites where planning permission is granted for waste management facilities.

6.32   PPS10 requires development plans to identify and allocate sites through Development Plan Documents, and the safeguarding of sites is in accordance with this policy. This preferred option would ensure that appropriate sites (as selected through the development of the site allocations document) were protected for future waste management facilities. The benefits of this approach included:

- ensuring waste management facilities were located where they are most environmentally and socially suitable.
- Ensuring preferred sites were protected from other developments that may prejudice their use.
- That sufficient land was provided to allow for a diversity of waste management facilities that would assist in meeting the waste needs of the county in addition to providing for new and innovative alternatives to waste management.

6.33 It was considered prudent to review Policy 5 of the adopted Waste Local Plan (WLP), as a number of legislative and policy changes have occurred since the policy was prepared, and the plan adopted in 2005, as discussed in Chapter 5.

6.34 Chapter 14:Monitoring, Implementation and review
       The Monitoring of the Waste Development Framework is discussed in section 8 of this SA report: Implementation.

SECONDARY, CUMULATIVE AND SYNERGISTIC EFFECTS

6.35 The assessment of significant effects required the consideration of secondary, cumulative and synergistic effects. This was identified as being a particular issue for the site allocations stage, where the potential for cumulative impacts (e.g. pollution, climate change, human health) resulting from the allocations of sites will need to be further considered, however it was also considered relevant to the Core Strategy as this document sets the context for the other DPDs.

6.36 Potential cumulative effects arising from the Plan were identified below, with commentary provided on how these had been addressed in the Core Strategy Preferred Options document.

- Noise, air, dust , water and odour pollution (including potential impacts on human health and impacts from hazardous waste) resulting from an increased number of waste management facilities, and from the transportation of waste. In order to manage these impacts, the Preferred Options aimed to minimise the use of landfill for waste disposal, and included strong objectives on the minimisation and control of pollution.

- Impacts on traffic congestion and local traffic networks (particularly localised effects) due to the transportation of waste, considered in the Preferred Options through policies focused on self-sufficiency where appropriate and the minimisation of cross-boundary transfer.

- The impacts of greenhouse gas emissions caused by waste management and the transportation of waste. These were considered to be covered in the Preferred Option through a strong focus on renewable energy and the reduction of waste to landfill, as well as the minimisation of waste transportation across boundaries.

- Impacts on amenity and tranquillity were also considered in the Preferred Options objectives and land use strategy but would most appropriately be considered at the Development Controls and Site Allocations DPDs.

SUMMARY OF RECOMMENDATIONS AND PROGRESSION

6.37   On the whole, the findings of the SA of the Preferred Options (2006) found that the emerging Core Strategy would make significant contributions to the progression of SA objectives. WCC and SBC made a number of changes to the Preferred Options based on feedback received during consultation and the recommendations made by Enfusion at the Issues and Options stage, which would make a significant contribution to the overall sustainability of the emerging Waste Core Strategy. This work further informed the revision of the Preferred Options, undertaken in April 2007, and discussed in section 7 below.

7. CORE STRATEGY PREFERRED OPTIONS – STAGE 2 (2007)

INTRODUCTION

7.1 The response from consultees to the Waste Core Strategy Preferred options document, coupled with the emergence of several 'unsound' Core Strategies by other Authorities led to a re-think by the Councils. The Councils decided to revise the previous Preferred Options document, and the resulting document has allowed for an additional stage of sustainability appraisal. That appraisal was undertaken in April 2007, and the results are described below. The appraisal builds on the previous SA, incorporating previous assessment results where relevant.

SA OF REVISED CORE STRATEGY VISION & KEY OBJECTIVES

7.2 <u>Vision</u>

The revised Vision now encompassed the objectives of the Community Strategies for Wiltshire and Swindon and provided an aspirational target for reducing the amount of waste produced. The vision made a strong and bold commitment to managing waste in Wiltshire and Swindon in a sustainable way. It set out a clear aspiration for waste efficiency and was progressive in recognising that community engagement and collaborative working will more effectively deliver progress on the ground. The Vision also recognised the inherent value of the existing natural and historic environment and demonstrated that sustainable waste management must work within this context. It provided an appropriate framework upon which objectives and further policies within the Waste Development Framework can be based.

7.3 The Vision was shown to be highly consistent with the Government's approach to sustainable consumption and production as outlined in 'Securing the Future' which looks to a future where less waste is produced and more waste products are managed as a resource. The vision also directly supported the overall objectives of PPS10 Planning for Sustainable Waste Management (DCLG, 2005) which focuses on driving waste up the hierarchy and also requires councils to protect green belts while recognising the particular locational needs of some types of waste management facilities.

7.4 The Vision was assessed as being supportive of the guiding principles of the European Waste Framework Directive (WFD) (2006/12/EC), in particular, it is in line with the emphasis within the Directive, to prevent, reduce, reuse and recycle waste. The focus within the Vision on driving waste up the hierarchy was also assessed as supporting the strong target aspirations of the National Waste Strategy for 33% recycling of household wastes by 2015.

7.5 <u>Strategic Objectives for Waste Planning in Wiltshire and Swindon</u>

The Strategic Objectives were substantially altered from those presented in the original Waste Core Strategy Preferred Options Report (June 2006). There were revised to 4 key objectives which focused on the specific issues facing Wiltshire and Swindon in terms of waste management.

7.6 The changes were strongly supported by the sustainability appraisal as they reinforced previous comments and recommendations made, resulting in a more coherent set of overarching objectives that tackled the key issues that had arisen from consultation. The retention of objectives on climate change was also seen as valuable in this context – sustainable waste management

has significant positive contributions to make to emissions reduction through more sustainable consumption and production methods.

7.7 It was considered that extant issues, such as the potential for land use conflicts, could arise where the intention is to locate waste management facilities close to source. However, the focus on proportionate local level of provision should mitigate against negative impacts and bring longer term benefits. By accounting for community interests and environmental concerns as part of the strategic approach the Council and Borough were assessed as presenting a strong framework for action on waste.

7.8 This approach is in line with Sustainable Development principles and objectives and well aligned with extant EU, national and local policy on sustainable waste management.

7.9 <u>Strategic Objectives for Waste Planning in Wiltshire and Swindon – Alternative 1</u>

This Alternative was the same as the Strategic Objectives presented in the Preferred Options (2006) consultation, and the comments made at that time were still relevant and valid. It was noted at that point in time that a number of changes had been made to the plan objectives to take into account consultation with the public, internal consultation within the WPAs and as a result of the Issues and Options SA Appraisal. These changes were supported, as they improved the overall sustainability of the objectives, in particular, the additional objective on Climate Change. Previous comments on the need to consider the employment and economic needs of the local workforce and community had been addressed in Objective 8, and the issue of environmental innovation was considered to be covered in the new objective 11.

7.9 There remained a conflict relating to Objective 6, which encouraged the location of facilities close to where they are produced. The main implications were land use conflicts that could arise from locating waste management facilities close to residential areas or other sensitive land uses. Objective 2 was amended to include reference to sensitive land uses, and it was noted that the issue would be addressed at the site allocations stage, and through Development Control policies relating to the siting of facilities.

7.10 <u>Strategic Objectives for Waste Planning in Wiltshire and Swindon – Alternative 2</u>

Alternative 2 comprises 20 objectives, of which Objectives 1-11 are identical to Alternative 1 and had already been assessed. The additional 9 objectives required further assessment. It was considered that this range of objectives whilst individually relevant and sound, were too detailed to act as an overarching framework for lower level policies. Indeed some of the objectives comprise policy level specificity. The intent behind the range of objectives was largely supported, but the overlaps and lack of focus were assessed as having the potential to create conflicts that would not emerge from a more succinct set of objectives.

7.11 These objectives would benefit from a more strategic approach. Whilst individually relevant, the assessment indicated potential conflicts between objectives and they lacked the overview necessary to guide more detailed level policy. A summary approach addressing the issues of waste management and location, environment and community was proposed as being more appropriate.

ASSESSMENT OF REVISED PREFERRED OPTIONS AND ALTERNATIVES CONSIDERED

7.12   Preferred Option WCS1: The Need for Additional Waste Management Capacity & Self Sufficiency

The Preferred Option provided for the management of waste forecast to be produced in the Plan area and satisfy sub-regional waste apportionments. Through doing this, it ensured that Wiltshire and Swindon can manage with the amount of waste produced within the County, in accordance with sub-regional apportionments. The Preferred option combined the previous policies on 'need' and 'regional self-sufficiency'.

7.13   The policy was considered to be an improvement on the previous preferred option, as it was more locally specific- addressing the predicted increase in waste from the SSCTs (Strategically Significant Cities and Towns) as well as the needs of rural communities. However, it was not clear whether any cross-boundary transfer of waste into and from other Counties would be allowed under this policy. In some instances this may be a more sustainable option than operating strictly within County borders.

7.14   WCS1a: Alternative: The Need for Additional Waste Management Capacity & Self Sufficiency

The key difference between this alternative and the Preferred policy, WCS 1 was in the detail. WCS 1 provided greater emphasis on the meeting of local needs within the County, for example between rural and urban areas, whereas WCS1a was a more generic alternative. It recognised the different waste requirements of the SSCTs and the rural areas. WCS 1 was therefore preferred from a sustainability perspective.

7.15   WCS1b: Alternative: Meeting the Need for Additional Waste Management Facilities

This alternative allowed the Council to consider that in some instances, the cross-border flow of waste was a more sustainable option. Whilst there are some uncertainties relating to the implementation of this variation to policy WCS 1, the core principle of allowing some cross-boundary transfer of waste (in accordance with sustainability principles) was supported, as it was assessed as providing the following benefits:

- Allowing some cross boundary transfer of waste may assist in achieving the required critical mass of waste arisings that would lead to establishment of a more environmentally sound facility, e.g. a waste to energy facility. Long-term, positive effect.
- Where waste risings occur within a short distance of a waste management facility in an adjacent authority, there are benefits in treating the waste closer to source (a reduction in vehicular us & therefore CO_2 emissions and improved road safety through decreased lorry movements).

7.16   However, the submission-stage policy would need to provide further detail on what is meant by the phrase 'in accordance with the principles of sustainable development'.

7.17   Preferred Option WCS2: Future Waste Site Locations

This new policy provided direction in the location of waste sites, distinguishing between sites required to accommodate growth in urban areas (which must be

accommodated within 10 miles of those areas), and the needs of the rural areas. It was assessed as likely to have a positive impact through ensuring that new waste facilities are located close to the source of waste. This would also have positive impacts on rural areas and AONBS through allowing only small scale facilities in those areas. It should also reduce the distances required for the transport of waste, which would improve resource efficiency and minimise greenhouse emissions.

7.18   Ensuring that facilities are provided in accordance with local need may assist in reducing the rate of landfill, provided that the waste hierarchy is implemented when considering site allocations.

7.19   WCS2a: Alternative: Future Site Locations

This alternative to WCS 2 progressed less of the Sustainability Objectives than the Preferred Policy. It allowed for the development of strategic sites any where in the Borough, and whilst it required strategic sites to be 'appropriate to the waste management needs of the area', it didn't consider wider sustainability issues, such as the need to protect rural areas and communities and the need to reduce transportation distances and minimise greenhouse emissions. Compared to the Preferred policy this alternative was assessed as less likely to reduce distances required for the transport of waste and could therefore increase waste 'miles', (i.e. the number of miles travelled to transport waste from source to destination).

7.20   WCS2b: Alternative: Future Site Locations

The alternative policy, WCS2B progressed less of the Sustainability Objectives than the Preferred Option. On one hand, it was assessed as a positive policy as it maintained the concentrated approach to waste development advocated in WCS 2. This would assist in increasing resource efficiencies and reducing greenhouse emissions, through reducing vehicular transportation. However, the policy allowed for the development of strategic sites within AONBs, which may have a negative impact on the landscape qualities of those sites, therefore WCS 2 was preferred.

7.21   Preferred Option WCS3 Preferred Locations of Waste Management Facilities by Type and Flexibility

This option was originally covered in a series of policy options in the Waste Development Control DPD, and has since been moved to the Core Strategy as 1 policy.

7.22   The Preferred Option supported a movement of waste up the hierarchy through providing additional flexibility to allow the development of sustainable waste disposal facilities, including on non-allocated/ windfall sites. The environmental impact of this Preferred Option was in some ways uncertain; however it was likely to have a significant positive impact in meeting the aim of Wiltshire and Swindon becoming the most waste efficient County and Borough in England through providing the flexibility to consider new waste management facilities outside of the formal WLDF process. This would have positive impacts on other SA objectives, through reducing greenhouse gas emission and supporting opportunities for energy capture from waste. The direction provided by the policy was therefore supported.

7.23   Impacts from individual facilities would need to be considered on a case by case basis, in accordance with other policies within the WLDF and through the requirement for SA and where applicable, Environmental Impact Assessment. To some extent, this was mitigated in the policy through its provision of

locational guidance for specific facilities (focusing on existing industrial or allocated employment sites, and existing waste management facilities), hence reducing the potential for land use conflicts.

7.24 The policy had the potential to create cumulative impacts, in particular traffic and pollution impacts, and it was assessed as important that the monitoring strategy considered the potential impact of waste management facilities on unallocated/windfall sites alongside those facilities that are located on allocated sites.

7.25 Preferred Option WCS 4: Safeguarding Waste Management Sites

PPS10 requires development plans to identify and allocate sites through Development Plan documents, and the safeguarding of sites is in accordance with this policy. The approach in the Preferred Option was previously contained in the Issues and Options and Preferred Options (2006) document, and it was considered that it would ensure that appropriate sites (as selected through the development of the site allocations document) were protected for future waste management facilities. The benefits of this approach included:

- ensuring waste management facilities are located where they are most environmentally and socially suitable;
- ensuring preferred sites are protected from other developments that may prejudice their use; and
- that sufficient land is provided to allow for a diversity of waste management facilities that will assist in meeting the waste needs of the county in addition to providing for new and innovative alternatives to waste management.

7.26 Preferred Option WCS5: The Wiltshire and Swindon Waste Hierarchy and Sustainable Waste Management

The Preferred Policy, which was presented in the previous Preferred Options document as 2 options, was supported as it established sustainable waste management, and specifically, the waste hierarchy as key tenets of the Core Strategy, ensuring compliance with PPS10: Planning and Waste Management. This policy was considered important in setting the framework for development control policies and site allocation documents. It performed well when tested against all relevant SA objectives.

7.27 Preferred Option WCS6: Waste Reduction and Auditing

This Preferred Option was previously presented as 3 policies in the Development Control DPD Preferred Options document. The policy has been refined and incorporated into the Core Strategy, recognising the importance of waste reduction through the development process.

7.28 The policy performed particularly well against all relevant SA objectives, and it was considered, would have a significant effect in reducing the waste-related impacts of population growth. Previous concerns raised in the SA process were addressed, in particularly the need to ensure that all applicants (including for small scale developments) must demonstrate how proposals have had regard to minimising waste.

7.29 The policy was assessed as having a positive additional effect through exposing more of the population to the concept of sustainable waste management (including developers, household applicants and residents of new developments).

SECONDARY, CUMULATIVE AND SYNERGISTIC EFFECTS

7.30 Potential secondary, cumulative and synergistic effects arising from the Plan were identified when the assessment of the Preferred Options was undertaken in 2006, and these are detailed in paragraph 6.36 of this report.

7.31 As a result of the revision of the Preferred Options document, the potential for the secondary, cumulative and synergistic effects previously identified still remains, however it was considered that the policy revisions would have a positive effect in mitigating those impacts as follows:

7.32 The requirement in policy WCS 2 to accommodate the waste management needs of SSCTs within 10 miles of the towns and centres themselves (hence minimising travel distances) was assessed as likely to assist in mitigating the greenhouse emissions and air pollution produced through the transportation of waste. Other positive impacts on climate change included the overall focus on sustainable waste management and implementation of the waste hierarchy, in addition to the encouragement of energy from waste facilities.

7.33 The 2006 Preferred Options SA identified the potential for cumulative impacts on the amenity and tranquillity of rural areas. Revised policy WCS 2 was also assessed as assisting in mitigating this effect through locating strategic facilities within 10 miles of SSCTs, however there are many quiet rural areas within 10 miles of SSCTs and it was recommended that the overall impact on amenity and tranquillity was incorporated into monitoring regimes.

7.34 Policy WCS 2 was also assessed as likely to assist in reducing traffic congestion and the impacts on rural traffic networks.

7.35 Policy WCS 3 had the potential to create cumulative impacts, in particular traffic and pollution impacts. It was noted as important that the monitoring strategy considered the potential impact of waste management facilities on unallocated/ windfall sites alongside those facilities that are located on allocated sites.

SUMMARY OF RECOMMENDATIONS AND PROGRESSION

7.36 The table overleaf summarises the results of the 2007 Revised Preferred Options assessment, illustrating the performance of the Vision and policies against the SA Framework.

7.37 The SA of the revised Core Strategy Preferred Options illustrated that the revised Preferred Options report would make significant contributions to sustainability with regard to waste development in the County and Borough. The document was amended to ensure concerns raised during previous consultation and in the SA of the Issues and Options and Preferred Options were addressed. The result was considered to be a Core Strategy with a greater focus on the local context, including Wiltshire and Swindon's unique environment. The revision allowed further opportunity to progress sustainability at the policy development stage, and this is reflected in the SA results contained in this section.

7.38 The emerging Core Strategy was assessed as having a strong focus on the sustainable use of resources, including an encouragement of renewable energy sources; the minimisation and recovery of waste; the conservation and wise use of land and considers climate change impacts. This is particularly

important given the predicted increase in waste produced in the County and
Borough, both from existing and new development.

Table 10 Summary of Revised Preferred Option Assessment

Policy Vision \ SA Objective	Health/Exercise	Access to education	Vibrant communities	Access to satisfying work	Needs locally met	Growth balanced against environment	Reduce vulnerability economy to climate change	Improve roads	Protect habitats & species	Promote conservation	Protect/enhance landscape/ townscape	Protect local distinctiveness	Enhance cultural/historic assets	Reduce flooding	Reduce energy consumption	Water consumption in local carrying capacity	Reduce landfill increase recycling	Increase renewable	Reduce light, air, noise & generic pollution
Vision	G	G	G	G	G	G	G	G	G	G	G	G	G	B/?	G	G	G	G	G
Policy WCS1			G		G	G		B/?		G					G			G	G
Policy WCS2			G	G	G	G		G		G	G	G			G		B/?	G	
Policy WCS3			B/?	G	G	G	G	B/?	B/?	G	G		B/?		G		G	G	B/?
Policy WCS4			G		G	G				G							G	G	
Policy WCS5		G		G		G	G										G	G	G
Policy WCS6		G				G	G										G	G	G

Key:

Green (G)	Option actively encouraged in its current form as would resolve an existing issue / maximise opportunities.	Orange (O)	Option would need some changes in order to have a positive effect on issues identified.
Blue (B)/?	Option would have a neutral or an uncertain effect.	(black)	SA objective excluded, as not considered relevant to topic.
Red (R)	The option would exacerbate existing problems and cannot be suitably mitigated. Consider exclusion of option.		

8. CORE STRATEGY SUBMISSION REPORT (2008)

INTRODUCTION

8.1   In April 2007, appraisal of the revised Preferred Options was undertaken. This appraisal built on the previous SA and incorporated assessment results where relevant. The appraisal of the Submission report builds iteratively on those findings reflecting new contextual information where relevant.

SA OF THE SUBMISSION CORE STRATEGY VISION & STRATEGIC OBJECTIVES[7]

8.2   <u>Vision</u>

The submission Vision sets the direction for waste management in Wiltshire and Swindon over the next 20 years. The Vision reflects the need to cater for predicted population growth whilst ensuring the protection of a highly sensitive landscape and biodiversity interest. The submission Vision includes some minor changes/ additions from those presented at revised Preferred Options. These changes provide support for and should ensure progression towards core Sustainable Development objectives.

8.3   The Vision continues to set out a strong and bold commitment to managing waste in Wiltshire and Swindon in a sustainable way. It states clear aspirations for waste efficiency and is progressive in recognising that community engagement and collaborative working will more effectively deliver progress on the ground. The Vision also recognises the inherent value of the existing natural and historic environment. In particular, the Vision recognises that the County and Borough are home to valued and sensitive habitats and landscape (many of which are designated) and that robust management is required to protect their integrity. This Vision demonstrates clearly that sustainable waste management must work within this context. It provides an appropriate framework upon which objectives and further policies within the Waste Development Framework can be based.

8.4   The Vision is highly consistent with the Government's approach to sustainable consumption and production as outlined in 'Securing the Future' which looks to a future where less waste is produced and more waste products are managed as a resource. The vision also directly supports the overall objectives of PPS10 Planning for Sustainable Waste Management (DCLG, 2005) which focuses on driving waste up the hierarchy and also requires councils to protect green belts while recognising the particular locational needs of some types of waste management facilities. Adopting a flexible approach should also allow location choices for waste management to accommodate change and/ or innovation in waste management practices.

8.5   The Vision is supportive of the guiding principles of the European Waste Framework Directive (WFD) (2006/12/EC), in particular, it is in line with the emphasis within the Directive, to prevent, reduce, reuse and recycle waste. The focus within the Vision on driving waste up the hierarchy will also support the strong target aspirations set by the Councils as directed by the Waste

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[7] Minor editorial amendments were made to the Vision and Objective following this assessment. These changes do not affect the intent of the policies or the assessment made.

Strategy for England for 40% recycling of household wastes by 2010, 45% by 2015 and 50% by 2020.

8.6 <u>Strategic Objectives for Waste Planning in Wiltshire and Swindon</u>

The submission report consolidates and develops the Strategic Objectives presented in the revised Preferred Options report (April 2007). There remain 4 key objectives which focus on the specific issues facing Wiltshire and Swindon in terms of waste management.

8.7 The Strategic Objectives have evolved significantly and have been substantially strengthened from a sustainability perspective from those presented in the Waste Core Strategy Preferred Options Report (June 2006). The changes are strongly supported by the sustainability appraisal as they reinforce previous comments and recommendations made, resulting in a more coherent set of overarching objectives that tackle the key issues that have arisen from consultation.

8.8 By making sustainable waste management intrinsic to delivery, the objectives provide robust foundations for delivering against increasingly stringent Government targets for waste reduction and recycling. The retention of objectives on climate change are also valuable in this context – sustainable waste management has significant positive contributions to make to emissions reduction through more sustainable consumption and production methods. Again, Government targets for reducing greenhouse gas emissions from waste sources will continue to drive and provide strategic, national level policy support for the approach taken here.

8.9 Extant issues, such as the potential for land use conflicts, may arise where the intention is to locate waste management facilities close to source. However, the focus on proportionate local level provision, and the inclusion of a requirement for proximal provisions to be 'practicable' should mitigate negative impacts and bring longer term benefits. By accounting for community interests and environmental concerns as part of the strategic approach the County and Borough are presenting a strong framework for action on waste.

8.10 This approach is in line with Sustainable Development principles and objectives and well aligned with extant EU, national and local policy on sustainable waste management.

SA OF SUBMISSION REPORT POLICIES

8.11 <u>WCS1: The Need for Additional Waste Management Capacity & Self Sufficiency</u>

The Submission Policy addresses the need for the management of waste forecast to be produced in the Plan area and satisfies the requirements of the Municipal Waste Management Strategies and the sub-regional waste apportionments. At revised Preferred Options stage, this policy combined previous policies on 'need' and 'regional self-sufficiency' – an approach which was supported by the SA and has been maintained.

8.12 By establishing a Framework of sites that are proximal to the main planned growth areas the policy provides for a self sufficient approach that is also supportive of, and in line with, sustainable development objectives.

8.13 This policy has been progressively improved to be more locally specific in particular; it now addresses the predicted increase in waste from the SSCTS as well as the needs of rural communities. Additionally, the policy has been developed to recognise that there may be circumstances when it is inherently more sustainable to transport waste across County boundaries. The provision for this to occur in line with sustainable development principles provides a robust approach and supports the SA Framework objectives ensuring positive effects for the medium and longer term.

8.14 WCS2: Future Waste Site Locations

This policy, introduced at revised Preferred Options remains unchanged. It provides direction in the location of waste sites, distinguishing between sites required to accommodate growth in urban areas (which must be accommodated as close as is practicable (within 16 kms) of those areas, and the needs of the rural areas. This policy reflects the aims articulated in Strategic Objective 2, of focusing waste management close to key growth areas. It is likely to have a positive impact through ensuring that new waste facilities are located close to the source of waste and in particular potential negative impacts on rural areas and AONBS will be minimised through allowing only small scale facilities in those areas. It should also reduce the distances required for the transport of waste, which will improve resource efficiency and minimise greenhouse emissions.

8.15 Ensuring that facilities are provided in accordance with local need may assist in reducing the rate of landfill, provided that the waste hierarchy is implemented when considering site allocations.

8.16 Preferred Locations of Waste Management Facilities by Type and the Provision of Flexibility

This option was originally covered in a series of policy options in the Waste Development Control DPD, and has since been moved to the Core Strategy as one policy.

8.17 In line with the changes made at revised Preferred Options the submission Core Strategy supports a movement of waste up the hierarchy through providing additional flexibility to allow the development of sustainable waste disposal facilities, including on non-allocated/ windfall sites.

8.18 Some of the environmental impacts of this submission Core Strategy remain uncertain. These uncertainties relate primarily to issues that would require site level investigation, and at a strategic level the policy presented provides a robust framework that incorporates sustainable development principles. This approach ensures that the policies [as implemented] are likely to have a significant positive impact in meeting the aims of Wiltshire and Swindon to increase waste minimisation, recycling and composting. The policy also continues to provide the flexibility to consider new waste management facilities outside of the formal WDF process.

8.19 There are also likely to be positive impacts on other SA objectives [15, 18], for example through reducing greenhouse gas emission and supporting opportunities for energy capture from waste. This approach is strongly supported by the most recent Government strategy which is seeking to achieve

net reductions in global greenhouse gas emissions from waste management. The direction provided by the policy is therefore supported.

8.20 As noted in previous assessments, impacts from individual facilities would need to be considered on a case by case basis, in accordance with other policies within the WLDF and through the requirement for SA and where applicable, Environmental Impact Assessment. To some extent, this is mitigated in the policy through its provision of locational guidance for specific facilities (focusing on existing industrial or allocated employment sites, and existing waste management facilities), hence reducing the potential for land use conflicts.

8.21 The policy has the potential to create cumulative impacts, in particular traffic and pollution impacts [SA objectives 15, 19], and it is important that the monitoring strategy considers the potential impact of waste management facilities on unallocated/windfall sites alongside those facilities that are located on allocated sites. The requirements set for the numbers of facilities and the volume of waste to be accommodated will assist in setting robust monitoring frameworks.

8.22 <u>WCS 4: Safeguarding Waste Management Sites</u>

This policy has remained unchanged since the revised Preferred Options and the appraisal findings are extant. The previous appraisal noted that PPS10 requires development plans to identify and allocate sites through Development Plan documents, and the safeguarding of sites is in accordance with this policy.

8.23 The approach outlined for the Submission Report has been carried through revised Preferred, Preferred and Issues & Options and it is considered that it will ensure that appropriate sites (as selected through the development of the site allocations document) are protected for future waste management facilities. The benefits of this approach include:

- ensuring waste management facilities are located where they are most environmentally and socially suitable;
- ensuring preferred sites are protected from other developments that may prejudice their use; and
- that sufficient land is provided to allow for a diversity of waste management facilities that will assist in meeting the waste needs of the county in addition to providing for new and innovative alternatives to waste management.

8.24 <u>WCS5: The Wiltshire and Swindon Waste Hierarchy and Sustainable Waste Management</u>

This policy has been well supported by previous assessment and remains unchanged from the revised Preferred Options. The appraisals have progressively shown that this policy progresses SA objectives as it establishes sustainable waste management, and specifically, the waste hierarchy as key tenets of the Core Strategy, ensuring compliance with PPS10: Planning and Waste Management. This policy is important in setting the framework for development control policies and site allocation documents. It performs well when tested against all relevant SA objectives. The continued inclusion of an approach that seeks to eliminate waste at the top of the hierarchy brings strong opportunities to drive innovation in waste practices down supply chains.

8.25   WCS6: Waste Reduction and Auditing

This Submission policy has evolved progressively from its original inclusion as three policies in the Development Control DPD Preferred Options document. The policy has subsequently been refined and incorporated into the Core Strategy, recognising the importance of waste reduction through the development process.

8.26   The policy progresses all the relevant SA objectives well, and it is considered, will have a significant effect in reducing the waste-related impacts of population growth. Previous concerns raised in the SA process for earlier policy developments have been addressed, in particular the need to ensure that all applicants (including for small scale developments) must demonstrate how proposals have had regard to minimising waste.

8.27   The policy will have a positive additional effect through exposing a greater proportion of the population to the concept of sustainable waste management (including developers, household applicants and residents of new developments).

SECONDARY, CUMULATIVE AND SYNERGISTIC EFFECTS

8.28   Potential secondary, cumulative and synergistic effects arising from the Plan were identified through earlier appraisals in 2006, and these are detailed in paragraph 6.36 of this report.

8.29   The ongoing development and refinement of the vision, strategic objectives and policies has progressively reduced the potential for negative impacts to occur as a result of secondary, cumulative or synergistic effects. In particular, as reflected in the assessment of the revised Preferred Options, changes made have the strong potential to mitigate impacts positively.

8.30   The previous appraisal findings noted the positive impacts that result from the requirement in policy WCS 2 to accommodate the waste management needs of SSCTs within 16kms (or as close as practicable) of the towns and centres themselves (hence minimising travel distances). It was noted that this is likely to assist in mitigating the greenhouse emissions and air pollution produced through the transportation of waste. Other positive impacts on climate change include the overall focus on sustainable waste management and implementation of the waste hierarchy, in addition to the encouragement of energy from waste facilities.

8.31   Earlier appraisals have expressed some concern that the cumulative impacts of more local provision may have negative impacts for amenity and tranquillity and that there is the potential for the emergence of a number of new facilities to result in progression away from the SA objectives concerned with promoting landscape and wider habitats protection [9, 11]. The earlier recommendation to include a provision for monitoring the potential impacts on amenity and tranquillity in rural areas remain.

8.32   Policy WCS 2 has remained unchanged since the revised Preferred Options and the analysis that focusing waste sites near SSCTs is likely to assist in reducing traffic congestion and the impacts on rural traffic networks remains relevant and pertinent to the submission document.

8.33   Previous assessments noted the potential for Policy WCS 3 to create cumulative impacts, in particular traffic and pollution impacts. The revision of

this policy to include cognisance of policies WCS1 and WCS2 [which include the requirement to address waste management in the context of sustainable development principles] lessens the likelihood that negative impacts will arise from facilities developed on unallocated sites. However, it remains relevant for monitoring strategies to be in place in order to capture the potential for cumulative impacts that may arise from additional facility provision.

SUMMARY OF RECOMMENDATIONS AND PROGRESSION

8.34   The table overleaf summarises the results of the 2007 Submission Report assessment and illustrates the performance of the Vision and policies against the SA Framework.

8.35   The SA of the Submission Core Strategy has illustrated that the Submission report will make significant contributions to sustainability with regard to waste development in the County and Borough. The document has been progressively revised and amended to ensure concerns raised during previous consultation and in the SA of the Issues and Options, Preferred Options and revised Preferred Options have been addressed. The result is a Core Strategy with a greater focus on the local context, and that recognises the sensitivities and inherent value of Wiltshire and Swindon's unique environment. The iterative development has allowed further opportunity to progress sustainability at the policy development stage, and as was the case at revised Preferred Options this is reflected in the SA results contained in this section.

8.36   The Submission Core Strategy takes forward key challenges set out in the Government's Strategy for Waste, by focusing on the sustainable use of resources, including an encouragement of renewable energy sources; the minimisation and recovery of waste; the conservation and wise use of land. The strategy also gives due consideration for climate change and climate change impacts which will present significant challenges in the long term. Wiltshire and Swindon's Waste Core Strategy has been developed in a context of predicted growth and expansion, and the appraisal's findings that SA objectives are well progressed by the approach presented suggested that existing and new development waste needs will be met in a sustainable way.

Table 10 Summary of Submission Report Assessment

Policy Vision \ SA Objective	Health/Exercise	Access to education	Vibrant communities	Access to satisfying work	Needs locally met	Growth balanced against environment	Reduce vulnerability economy to climate change	Improve roads	Protect habitats & species	Promote conservation	Protect/enhance landscape/townscape	Protect local distinctiveness	Enhance cultural/historic assets	Reduce flooding	Reduce energy consumption	Water consumption in local carrying capacity	Reduce landfill increase recycling	Increase renewable	Reduce light, air, noise & generic pollution
Vision	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G	G
Policy WCS1			G		G	G		G		G					G		G	G	
Policy WCS2			G	G	G	G		G		G	G	G			G		G	G	
Policy WCS3			G	G	G	G	G	G	G	G	G		B/?		G		G	G	B/?
Policy WCS4			G		G	G					G						G	G	
Policy WCS5		G		G		G	G								G		G	G	
Policy WCS6		G				G	G								G		G	G	

Key:

Green (G)	Option actively encouraged in its current form as would resolve an existing issue / maximise opportunities.	**Orange (O)**	Option would need some changes in order to have a positive effect on issues identified.
Blue (B)/?	Option would have a neutral or an uncertain effect.		SA objective excluded, as not considered relevant to topic.
Red (R)	The option would exacerbate existing problems and cannot be suitably mitigated. Consider exclusion of option.		

9. IMPLEMENTATION

PROPOSALS FOR MONITORING THE SUSTAINABILITY EFFECTS OF THE IMPLEMENTATION OF THE WILTSHIRE AND SWINDON WASTE LOCAL DEVELOPMENT FRAMEWORK

9.1 Unlike the old Development Plan system, the new Waste Development Framework for Wiltshire and Swindon is designed to be an on-going, iterative process, in which all sections are kept up to date through a rolling process of public involvement, monitoring and, where necessary, adjustment. The SEA Directive requires that the significant environmental effects of the implementation of plans are monitored to identify unforeseen adverse effects, and to enable appropriate remedial action to be undertaken if required (Article 10.1). ODPM's SA Guidance (November 2005) specifies that monitoring arrangements should be designed to:

- highlight significant effects;
- highlight effects which differ from those that were predicted; and
- provide a useful source of baseline information for the future.

9.2 Appendix 14 of the SA Guidance specifies that monitoring can cover several plans as long as sufficient information about environmental effects is provided for the individual plans. This proposed monitoring strategy has therefore been developed to cover both the Core Strategy Document and the Development Controls DPD. It will also be used as a basis for the monitoring strategy of the forthcoming site allocations DPD, however, the more specific nature of that document may require the development of additional indicators, which will be considered during the development of that document.

9.3 The proposed monitoring strategy should:

- Clearly set out who is responsible for the monitoring, as well as its timing, frequency and format for presenting results;

- update and strengthen original baseline data, rectifying any deficiencies, and thereby provide an improved basis for the formulation of future plans;

- establish a mechanism for action to enhance positive effects of the plan, mitigate any negative ones and assess any areas that were originally identified as containing uncertainty. The aim should be to keep the WDF working at maximum effectiveness for the benefit of the community; and,

- empower all of the community by providing a clear and easily understandable picture of how actual implementation of the WDF is affecting the County and Borough. Is it moving the area towards or away from the more sustainable future we intended? Are any significant effects identified actually happening? Are any unforeseen consequences being felt? Are any mitigation measures operating effectively?

9.4 It is important to ensure the monitoring strategy is manageable, includes a practicable number of indicators, and focuses on the key sustainability issues. The selection of key indicators should be informed by the outcome of the

appraisal, such that it is possible to monitor whether significant effects foreseen were accurately predicted.

9.5　The Planning Act requires Waste Planning Authorities and Local Planning Authorities to produce Annual Monitoring Reports (AMRs) to document progress in implementing the Local Development Framework. Wiltshire County Council published an AMR in 2006/07 to discuss progress during the period 1 April 2006 to 31 March 2007, 'The Wiltshire Minerals and Waste Development Framework Annual Monitoring Report 2006/07.' Guidance from the ODPM advises that these AMRs should incorporate SA monitoring, and it is therefore recommended that the indicators identified below are incorporated into subsequent AMRs. This approach is in accordance with ODPM guidance which suggests that plan monitoring and SA monitoring can be prepared concurrently to avoid unnecessary duplication (Appendix 14- ODPM SA Guidance).

9.6　Expanding upon existing monitoring arrangements (rather than seeking to implement a separate monitoring scheme) will ensure that the organisational structures necessary to compile and report on the sustainability effects are already in place, and to respond to any unexpected adverse effects. Consequently, it is recommended that the scope of future AMR monitoring include indicators to measure the significant sustainability effects of implementing the WLDDs, and include relevant indicators from those identified below.

Approach

9.7　The following outlines the approach taken to the development of monitoring indicators and targets:

- Consideration of the baseline features that will indicate the effects of the plan.
- Linking indicators and targets to the SA Framework developed in the Scoping Stage.
- Considering the consultation received from stakeholders, which included recommendations for indicators and targets.
- Consideration of the likely significant effects that were identified during the Sustainability assessment and the mitigation measures that were proposed to offset or reduce significant adverse effects.
- Consideration of existing monitoring arrangements for the Adopted Wiltshire and Swindon Waste Local Plan 2011 (the Annual Monitoring Report (AMR)).
- Consideration of existing monitoring arrangements for other plans and programs, including the Swindon AMR 2006/07, Kennet AMR 2006/07, the North Wilts AMR 2007, Salisbury AMR 2007 and the West Wilts AMR 2006.

9.8　Of particular note was the detailed and useful information provided by a number of consultees relating to the development of targets and indicators, in particular relating to Biodiversity. The County Ecologist, English Nature, the Wiltshire Wildlife Trust, and the Woodland Trust have provided a number of suggestions that have been incorporated into the monitoring proposals (refer Appendix B for details of how these responses have been taken into consideration).

9.9   Table 11 below sets out suggested Sustainability indicators and targets to monitor the sustainability effects of implementing the WDF.

Table 11 Core Strategy and Development Control DPDs Sustainability Indicators and Targets

POTENTIAL TARGETS AND INDICATORS:

	POTENTIAL TARGETS	POTENTIAL INDICATORS
1	**Promote Healthy Exercise, Especially Daily Exercise**	
	▪ No detrimental impacts upon existing rights of way and recreational areas of open space	▪ Number of rights of way effected by development of waste management facilities that have not been diverted by means of an equally acceptable route.
2	**Enable Access to Learning, Training, Skills and Knowledge**	
	▪ Improvement in public awareness of the Waste Hierarchy in land use planning.	▪ Change in awareness of the Waste Hierarchy (eg. an increase in information available to applicants for planning permission)
3	**Promote Stronger More Vibrant Communities**	
	▪ Decrease in the number of persons negatively affected by waste management facilities	▪ Change in the number of persons, and quality of life, affected by waste management facilities.
4	**Give People in the Country Access to Satisfying Work Opportunities, Paid or Unpaid**	
	▪ Increase in employment levels, particularly in the waste management sector	▪ Change in employment levels resulting from increased development in waste management facilities
5	**Meet Needs Locally**	
	▪ Increase in the number of facilities of satisfactory capacity located in close proximity to major road networks	▪ Change in the capacity of waste management facilities ▪ Change in the number of facilities located in close proximity to primary route networks.
6	**Balance the Need for Growth with the Protection of the Environment (Wiltshire County Council Corporate Objective)**	
	▪ Increase in the capacity of waste management facilities proportionate to growth ▪ Increase in developments with waste hierarchy integrated into to design principles	

7	**Reduce Vulnerability of the Economy to Climate Change and Harness Opportunities Arising**	
	▪ Increase in the quantity of waste recycled and composted ▪ Reduction of waste to landfill	▪ Change in the quantity of waste diverted to landfill ▪ Movement of waste up the hierarchy
8	**To Improve Our Roads and Make Them Safer (Wiltshire County Council corporate objective)**	
	▪ Reduction in the amount of waste transported by road. ▪ Improvement road safety resulting from reduction in frequency of waste transport.	▪ A change in the quantity of waste transported by road freight.
9	**Protect Habitats and Species**	
	▪ Achieve favourable conditions of internationally, nationally and locally important biodiversity sites ▪ Achieve County BAP targets ▪ Populations of all such species maintained in favourable condition in their natural range ▪ 50% of waste management proposals to achieve a net gain in biodiversity (Wiltshire Biodiversity Action Plan: Urban Development)	▪ Change in area, quality and connectivity of biodiversity habitats (potentially categorised e.g. woodland), including ancient woodland as a result of waste development ▪ Change in area (ha) of habitat that contributes towards UK, regional or local BAP habitat and species targets, as a result of waste development ▪ Changes in populations of selected character species ▪ Effectiveness of submitted mitigation schemes during/ post development (measured as reported population levels for such species) ▪ Number of applications for waste development submitted with appropriate species surveys and mitigation schemes where necessary. ▪ Percentage of waste management proposals that will achieve a net gain in biodiversity ▪ Change in number of hectares of internationally, nationally, and locally important biodiversity sites in a favourable condition as a result of waste development
10	**Promote the Conservation and Wise Use of Land**	
	▪ Reduction in the use of Greenfield land	▪ Change in the quantity of Greenfield land developed

		for waste management
11	**Protect and enhance the landscape and townscape**	
	▪ Achieve favourable conditions of internationally, nationally and locally important sites. ▪ Decrease or limit the number of people affected by waste management facilities ▪ Maintain or enhance overall amenity of the countryside to residents and visitors	▪ Number of public rights of way blocked by waste development and not diverted by means of an acceptable and equally extensive route ▪ Number of people affected by the visual impact of waste management facilities ▪ Number of waste management developments resulting in significant harm to the right of way network ▪ Number of hectares of AONB or other (internationally, nationally, or locally) designated land lost and number of sites adversely affected as a result of waste development. ▪ Proportion of designated landscapes in favourable condition ▪ Change in countryside character and quality as a result of waste development ▪ Change in traffic flows or nature of traffic from waste development that alter the character of the landscape
12	**Value and protect diversity and local distinctiveness including rural ways of life**	
	▪ No loss of rights of way, open space, common land or access to the countryside. ▪ No net loss of the best and most versatile agricultural land. ▪ An increase in areas valued for their tranquillity	▪ Number of hectares of agricultural land grades 1, 2 and 3a permanently lost as a result of waste development. ▪ Change in areas valued for their tranquillity as a result of waste development ▪ Number of public rights of way blocked by waste development and not diverted by means of an acceptable and equally extensive route
13	**Maintain and enhance cultural and historical assets**	
	▪ Increase proportion of developments that protect of enhance sites of historical and cultural interest	▪ Change in traffic flows or the nature of traffic arising from waste development that affects sites and monuments of historic or cultural value ▪ Change in no. and condition of

		sites or monuments of historic or cultural value affected by waste development.
14	**Reduce vulnerability to flooding**	
	▪ Decrease risk from flooding	▪ Number of waste management proposals permitted which would have an unacceptable adverse impact on land drainage or increase a flooding risk.
15	**Reduce non renewable energy consumption and greenhouse emissions**	
	▪ (see 17 and 19) ▪ Decrease in the use of landfill as a method of waste disposal ▪ Decrease greenhouse gas emissions as a result of waste management facilities, including from transport.	▪ (see 17 and 19) ▪ Change in waste transportation by road. ▪ Pollution emissions (including greenhouse gases) as a result of waste development ▪ Percentage of waste disposed of through landfill
16	**Keep water consumption within local carrying capacity limits (taking account of climate change)**	
	▪ Decrease impacts from the effects of climate change ▪ Improve the quality of the water environment ▪ Increase water efficiency in waste development	▪ Number of waste management proposals permitted which would pose an unacceptable risk to water resources ▪ Number of waste management facilities that pose an unacceptable risk to the quality and flow of surface and groundwater
17	**Reduce the rate of landfill, increase recycling and open waste to energy facilities in Wiltshire (Wiltshire County Council Corporate Objective)**	
	▪ 100% of approved developments to carry out waste audits as required and maximise the recovery of resources from waste ▪ 100% of major new developments to make provision for waste segregation and recycling ▪ Recycle / compost 33% household waste in Wiltshire by 2005/06 [40% by 2010/11 and 50% by 2019/20] ▪ 95% of households served by kerbside collection of multiple recyclables by 2010/11 ▪ All collections of residual waste to be fortnightly by 2010/11	▪ Percentage of approved developments that carry out waste audits as required and maximise the recovery of resources from waste ▪ Percentage of major new developments making provision for waste segregation and recycling. ▪ Increase the amount of municipal waste recovered (including the recycling and composting of household waste) in accordance with national and local targets (these include national targets) (RPG Indicators RES05 – number of recycling and composting sites; RES06 – Waste collected for recycling/composting; RES17 – Energy recovery from waste).

18	**Minimise the use of non-renewable resources and where possible promote the use of renewable resources**	
	▪ (see 17 and 15) ▪ To improve and promote waste minimisation ▪ To become the most waste efficient county by 2012 ▪ Increase the use of renewable energy ▪ Maximise the recovery of energy through waste management techniques	▪ MW of energy generated as part of waste management ▪ Proportion of energy needs being met from renewable sources ▪ Change in the re-use and recycling of materials
19	**Minimise land, water, air, light, noise, and genetic pollution**	
	▪ (see 15,17 and 18) ▪ 95% of waste management facilities to be developed within 1km of the primary route network ▪ All waste management facilities to implement effective measures to control emissions to air (including particles), dust, noise, groundwater and surface water, and soils ▪ (cross-cutting)Minimise cumulative impacts of unallocated/windfall sites, in addition to facilities on allocated sites.	▪ Percentage of waste management facilities developed within 1km of the primary route network. ▪ Access to household waste management facilities ▪ Changes in traffic flows or the nature of traffic as a result of waste development ▪ Changes in levels of air pollutants/ water quality.

10.　NEXT STEPS

Adoption of the Plan

10.1　This SA/SEA report accompanies the Submission Draft of the Waste Core Strategy DPD (March 2008). Examination is due to commence in 2008 with final adoption of the Waste Core Strategy scheduled for late 2008.

Sustainability SA/SEA Statement

10.2　The SA/SEA guidance notes that LPAs are required, as part of their adoption statement, to outline how they have taken the findings of the SA into account and how sustainability considerations have been integrated into the DPD. This purpose of this 'sustainability statement' is to show how the SA/SEA has influenced the plan making process, including why changes were made and what options were considered/ rejected with an appropriate explanation.

10.3　The statement will also consider the proposed monitoring measures in the light of any changes that have been made to the final plan. This may involve the identification of new monitoring measures or amendments to those proposed to ensure that the monitoring regime focuses on the actual significant effects of implementation. The final monitoring measures will be published as part of the sustainability statement.