



# **Minerals and Waste Core Strategy Preferred Options**

## **Sustainability Appraisal (incorporating Strategic Environmental Assessment)**

**February 2007**



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## 1 NON TECHNICAL SUMMARY

### 1.1 The Minerals and Waste Development Framework

1.1.1 The Oxfordshire Minerals and Waste Local Plan is being replaced by Oxfordshire Minerals and Waste Development Framework. Listed below are the proposed documents that will make up the Minerals and Waste Development Framework. A more detailed explanation and timeline can be found in the Minerals and Waste Development Scheme<sup>1</sup>.

- Statement of Community Involvement;
- Minerals and Waste Core Strategy Development Plan Document;
- Minerals Site Proposals and Policies Development Plan Document;
- Waste Site Proposals and Policies Development Plan Document;
- Proposals Map
- Minerals and Waste Development Code of Practice.

### 1.2 Sustainability Appraisal and Strategic Environmental Assessment

1.2.1 Sustainability appraisal involves identifying and evaluating a plan's impacts on the environment, the economy and social aspects. It should also suggest ways of avoiding or reducing the negative impacts and capitalising on positive ones. The findings of sustainability appraisal should be reflected in the adopted plan. Sustainability appraisal is an iterative process that identifies and reports on the likely significant effects of the plan and the extent to which implementation of the plan will achieve objectives for sustainable development (i.e. social, economic and environmental).

1.2.2 In the United Kingdom, sustainability appraisal should incorporate the requirements of the Strategic Environmental Assessment Directive<sup>2</sup> for environmental assessment of plans. Strategic environmental assessment focuses on environmental issues; Table 1.1 highlights where requirements for strategic environmental assessment have been met in this report.

1.2.3 This report sets out the sustainability appraisal (incorporating strategic environmental assessment) of the County Council's Preferred Options for the Minerals and Waste Core Strategy.

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<sup>1</sup> Oxfordshire Minerals and Waste Development Scheme 2005-08, Oxfordshire County Council, May 2005.

<sup>2</sup> Strategic Environmental Assessment Directive (2001/42/EC).

**Table 1.1: The Strategic Environmental Assessment Directive requirements and where they can be found in this report**

<b>The Strategic Environmental Assessment Directive requirements.</b>	<b>Location in this report</b>
(a) an outline of the contents, main objectives of the plan or programme and relationship with other relevant plans and programmes;	Section 3 (Summary) & Scoping Report
(b) the relevant aspects of the current state of the environment and the likely evolution thereof without implementation of the plan or programme;	Section 3 (Summary) & Scoping Report
(c) the environmental characteristics of areas likely to be significantly affected;	Section 3 (Summary) & Scoping Report
(d) any existing environmental problems which are relevant to the plan or programme including, in particular, those relating to any areas of a particular environmental importance, such as areas designated pursuant to Directives 79/409/EEC and 92/43/EEC;	Section 3 (Summary) & Scoping Report
(e) the environmental protection objectives, established at international, Community or Member State level, which are relevant to the plan or programme and the way those objectives and any environmental considerations have been taken into account during its preparation;	Section 3 (Summary) & Scoping Report
(f) 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;	Section 6 (summary) & Interim Report and Section 6
(g) the measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the plan or programme;	Section 6
(h) an outline of the reasons for selecting the alternatives dealt with, and a description of how the assessment was undertaken including any difficulties (such as technical deficiencies or lack of know-how) encountered in compiling the required information;	Section 7 & Appendix 2
(i) a description of the measures envisaged concerning monitoring in accordance with Article 10;	Section 8
(j) a non-technical summary of the information provided under the above headings.	Section 1

### **1.3 Sustainability Appraisal Objectives and Baseline**

- 1.3.1 The starting point for identifying a set of objectives specific for this sustainability appraisal/strategic environmental assessment was the objectives proposed by the Integrated Regional Framework (IRF): the Regional Sustainable Development Strategy for the South East. This ensured consistency with higher tier plans. The objectives were then refined by the outcomes of the following stages. This refinement produced a list of objectives relevant to the Minerals and Waste Development Framework while ensuring they meet requirements for sustainability appraisal and of the Strategic Environmental Assessment Directive. Table 3.3 lists the resulting objectives.
- 1.3.2 In order to decide what baseline information would be helpful, draft sustainability appraisal/strategic environmental assessment objectives were drawn from the review of relevant plans and programmes. This review then led to the identification of relevant baseline data. The identification of the data also led to the refining of the draft sustainability appraisal/strategic environmental assessment objectives. The final Baseline Data Report is in the Minerals and Waste Development Framework Sustainability Appraisal Scoping Report, June 2006.

### **1.4 Method of Appraisal**

- 1.4.1 Each appraisal process was undertaken through a workshop involving council officers and representatives of technical bodies and interest groups. Baseline information in the Scoping Report was used in the process to inform the assessments that were made of the effects of the objectives and options in terms of their social, environmental and economic impacts on key sustainability objectives, which had been developed through the scoping stage. The workshop group was facilitated by an independent advisor.
- 1.4.2 The appraisal of the options consisted of assessing the potential performance of each option against each sustainability appraisal objective in a positive, negative or neutral way with a final recommendation; it was this commentary which the appraisal concentrated upon. For appraisal of the Preferred Options, direct, indirect, short/medium/long-term impacts as well as potential mitigation solutions were also discussed.

### **1.5 Framework Objectives Appraisal**

- 1.5.1 This appraisal consisted of the assessment of the Minerals and Waste Development Framework objectives against the sustainability appraisal objectives in a compatibility assessment matrix. The matrix highlights that most of the plan objectives have a positive or no relationship with the sustainability appraisal/strategic environmental

assessment objectives. However there are areas of concern surrounding the following two key plan objectives:

- (B) To provide for the supply of minerals in accordance with national and regional policy; and
- (D) To provide for sufficient capacity for the treatment and disposal of waste equivalent to the quantity produced in Oxfordshire plus a contribution to regional waste management requirements, including waste from London, in accordance with national and regional policy.

1.5.2 However these objectives represent the underlying purpose of the plan (i.e. to enable the minerals and waste development that is needed in Oxfordshire) and therefore cannot be removed. It should be noted, however, that the other plan objectives are positive towards or do not conflict with sustainable development. It is recommended that wherever possible appropriate mitigation measures are put in place to reduce the effects of the above two objectives in accordance with the other Minerals and Waste Development Framework objectives.

## **1.6 Issues and Options Appraisal**

1.6.1 The recommendations of this appraisal are summarised in section 6 while Appendix 2 identifies the reasons for the rejection of all other options. These recommendations have been used in the decision making process when developing the Core Strategy Preferred Options. It should be noted that the majority of the points raised relate to how the implementation of sites is addressed at the planning application and subsequent development stages.

## **1.7 Preferred Options Appraisal**

1.7.1 The recommendations of this appraisal are summarised in section 7 while Appendix 3 contains the detailed comments made by appraisal group. These recommendations will be used when developing the Core Strategy. It should be noted that the majority of the points raised relate to how the implementation of sites is addressed at the planning application and subsequent development stages.

## **1.8 Cumulative Impact Assessment**

1.8.1 Cumulative impact assessment involves assessing the sustainability objectives against the total impact of all the preferred options. A summary of the cumulative impact assessment of the preferred options is set out in Table 7.1. The full matrix is in Appendix 4. There are six areas of very positive cumulative impacts on the sustainability objectives resulting from the preferred options:

- Decent home;
- Efficient Land Use;
- Mineral supply;

- Resource conservation;
- Waste reduction;
- Waste treatment.

1.8.2 There is just one area of very negative cumulative impact:

- Traffic.

1.8.3 Overall, 14 of the objectives show an overall beneficial impact while 3 objectives show an overall negative cumulative impact. These impacts tend to relate to the localised impact of minerals and waste development on air quality, health and traffic. However, these impacts could and should be reduced during implementation of policies, at the planning application stage, through appropriate mitigation measures.

## **1.9 Conclusions and Mitigation**

1.9.1 The reoccurring key issue from both minerals and waste development and which is strongly highlighted in the cumulative impact assessment is the potential increased levels of transport around developments. This led to several mitigation measures being identified including routeing agreements for minerals and waste transport to ensure minimal impact to local residents and to promote the use of more sustainable modes of transport.

1.9.2 Other issues raised specifically for minerals included increases in localised noise and dust; visual impact; and environmental damage. It was suggested that appropriate mitigation needs to be assessed on a case by case basis. However the Minerals Site Proposals and Policies Document would need to actively encourage the siting of development in appropriate locations while highlighting measures that may need to be considered to reduce various impacts, although the Core Strategy should recognise these.

1.9.3 Other issues raised specifically concerning waste development included protecting biodiversity and the open landscape. Again it was suggested that appropriate siting of facilities in the Waste Site Proposals and Policies Document would help reduce these impacts and therefore appropriate weighting should be given to these impacts.

1.9.4 In conclusion, when a holistic view of the preferred options is taken into account, the outcome is generally positive towards sustainable development. As long as the impacts of the proposals are in conformity with the other preferred options, sustainable development of minerals and waste facilities should bring an overall benefit to Oxfordshire.



## 1.10 Statement of significant effects of the Preferred Options for the Core Strategy

1.10.1 From the various levels of appraisal a number of potential significant effects (positive and negative) of the Core Strategy Preferred Options were identified; these potential significant effects will be monitored (see section 7):

- Increase in production of primary land won aggregates;
- Increase in production of secondary/recycled aggregates;
- Increase in capacity of new waste facilities;
- Decrease in municipal waste to landfill;
- Increase in localised traffic movements;
- Adverse affect on air pollution;
- Reduction in biodiversity (short term) followed by an increase (long term);
- Increasing in flooding.

## 1.11 Statement on the difference the process has made

1.11.1 The process to date has influenced the development of the preferred options directly. As the sustainability appraisal has been incorporated directly into the plan making process (rather than a parallel to the plan process) the recommendations from the options appraisal have been incorporated directly into the selection of the Preferred Options. Therefore the Core Strategy Preferred Options consultation paper highlights and discusses the impacts of the sustainability appraisal process alongside the other decision making tools. The results of the Preferred Options appraisal will directly fed into the development of the final Core Strategy.

## 1.12 How to comment on this report

1.12.1 If you have any comments or queries on this report please contact:

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Environment & Economy (SPED)  
Oxfordshire County Council  
Speedwell House, Speedwell Street  
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Email: [minerals.wasteplan@oxfordshire.gov.uk](mailto:minerals.wasteplan@oxfordshire.gov.uk) .**

## 2 INTRODUCTION

### 2.1 Minerals and Waste Development Framework

- 2.1.1 The planning system has undergone its most significant change for many years under the Planning and Compulsory Purchase Act 2004. The Oxfordshire Minerals and Waste Local Plan is being replaced by the Oxfordshire Minerals and Waste Development Framework. There will be a portfolio of new development documents setting out policies for at least the next ten years against which planning applications for minerals and waste related development will be considered. They are to be monitored and reviewed regularly to keep them up to date.
- 2.1.2 The Minerals and Waste Development Framework will be comprised of minerals and waste development documents, which will include development plan documents and supplementary planning documents. The Minerals and Waste Development Framework will also include a Statement of Community Involvement, Minerals and Waste Development Scheme and Annual Monitoring Reports.
- 2.1.3 Listed below are the proposed minerals and waste development documents that will make up the Minerals and Waste Development Framework. A more detailed explanation and timeline can be found in the Minerals and Waste Development Scheme<sup>3</sup>.
- Statement of Community Involvement;
  - Minerals and Waste Core Strategy Development Plan Document;
  - Minerals Site Proposals and Policies Development Plan Document;
  - Waste Site Proposals and Policies Development Plan Document;
  - Proposals Map;
  - Minerals and Waste Development Code of Practice Supplementary Planning Document.

### 2.2 The Sustainability Appraisal (SA) and Strategic Environmental Assessment (SEA)

- 2.2.1 Each of the development plan documents and supplementary planning documents, including the Core Strategy, must be subject to a sustainability appraisal. Sustainability appraisal involves identifying and evaluating a plan's impacts on the environment, the economy and social aspects. It should also suggest ways of avoiding or reducing the negative impacts and capitalising on positive ones. The findings of sustainability appraisal should be reflected in the adopted development plan document. Sustainability appraisal is an iterative process that identifies and reports on the likely significant effects of the plan and the extent to which implementation of the plan will

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<sup>3</sup> Oxfordshire Minerals and Waste Development Scheme 2005-08, Oxfordshire County Council, May 2005.

achieve objectives for sustainable development (i.e. social, economic and environmental).

- 2.2.2 In the United Kingdom, sustainability appraisal incorporates the requirements of the Strategic Environmental Assessment Directive<sup>4</sup> for environmental assessment of plans. Strategic environmental assessment focuses on environmental issues. Sustainability appraisal goes further by also considering social and economic issues.
- 2.2.3 A key requirement of the strategic environmental assessment process is an environmental report which describes the environmental assessment process and the likely significant effects of implementation of the plan and alternative options which were considered while producing the plan.

### 2.3 The Process

- 2.3.1 The Government's guidance document Sustainability Appraisal of Regional Spatial Strategies and Local Development Frameworks (November 2005)<sup>5</sup> sets out guidance on how to carry out a sustainability appraisal while also meeting the requirements of the Strategic Environmental Assessment Directive. The basis for the process is set out in Table 2.1.

**Table 2.1: Incorporating Sustainability Appraisal & Strategic Environmental Assessment within the Development Plan Process.**

<b>DPD Stage 1: Pre-production- Evidence Gathering</b>
<b>STAGE A: Setting the context and objectives, establishing the baseline and deciding on the scope (Scoping Report).</b>
A1) Identify and review other relevant policies, plans programmes, and sustainable development objectives.
A2) Collection of baseline information.
A3) Identify key sustainability issues.
A4) Develop the SA/SEA framework, including sustainability objectives, indicators and targets.
A5) Consult on the scoping report containing the above information.

<sup>4</sup> Strategic Environmental Assessment Directive (2001/42/EC).

<sup>5</sup> Sustainability Appraisal of Regional Spatial Strategies and Local Development Frameworks November 2005

<b>DPD Stage 2: Production</b>
<b>STAGE B: Developing and refining options and assessing effects</b>
B1) Test the DPD objectives against the sustainability objectives. B2) Develop the DPD options. B3) Predict the effects the DPD. B4) Evaluate the effects of the DPD. B5) Consider ways of mitigating adverse effects and maximising beneficial effects. B6) Propose measures to monitor the significant effects of implementing the DPDs.
<b>STAGE C: Preparing the Sustainability Appraisal Report</b>
C1) Prepare the final SA report.
<b>STAGE D: Consulting on the DPD and SA report</b>
D1) Consultation on the DPD preferred options and the SA report. D2 (i) Appraise any significant changes made as a result of the consultation.
<b>DPD STAGE 3: Examination</b>
D2 (ii) Appraising significant changes resulting from representations.
<b>DPD Stage 4: Monitoring and implementation of the plan</b>
D3) Making decisions and providing information.
<b>STAGE E: Monitoring the significant effects of implementing the DPD</b>
E1) Finalising aims and methods for monitoring. E2) Respond to any adverse effects where necessary.

Source: adapted from Sustainability Appraisal of Regional Spatial Strategies and Local Development Frameworks: November 2005.

2.3.2 Table 2.2 summarises progress to date, when the work was carried out, which document to refer to for the full report and where relevant information can be found in this document.

**Table 2.2: Sustainability Appraisal progress, reports and estimated future timetable**

Stages	Completed	Date	Full Report	Summary in this Document
A1	✓	August 2005*	Scoping Report	Section 3.1
A2	✓	August 2005*	Scoping Report	Section 3.2
A3	✓	August 2005*	Scoping Report	Section 3.3
A4	✓	August 2005*	Scoping Report	Section 3.4
A5	✓	25 <sup>th</sup> August 2005 – 29 <sup>th</sup> September 2005		
B1	✓	August 2005	Interim Report	Section 5
B2	✓	September 2005	Interim Report	Section 6
B3	✓	September 2006	Draft SA Report	Section 7
B4	✓	September 2006	Draft SA Report	Section 7
B5	✓	September 2006	Draft SA Report	Section 7
B6	✓	September 2006	Draft SA Report	Section 8
C1	✓	November 2006	Draft SA Report	Full Document
D1	✓	February – March 2007		
D2 (i)		Est. May 2007	Final SA Report	
D2 (ii)		Est. January 2008	Final SA Report	
D3		Est. September 2008	Final SA Report	
E1		Est. November 2008	Final SA Report	
E2		Ongoing	Final SA Report	

\* Updated June 2006

2.3.3 The Scoping Report<sup>6</sup> of August 2005 (updated June 2006) reported on Stage A of the process and can be found on the County Council website: [www.oxfordshire.gov.uk](http://www.oxfordshire.gov.uk). An Interim Sustainability Appraisal report<sup>7</sup>, details the initial work required under stage B. This was published in June 2006 and is also available on the website. This Sustainability Appraisal report summarises both these reports and completes stage C.

2.3.4 This Sustainability Appraisal report is being made available for comment alongside the Minerals and Waste Core Strategy Preferred Options consultation paper (February 2007). Any significant changes to the preferred options arising from this consultation will be re-appraised and the results of this will be made available in the final Sustainability Appraisal report which will accompany the submitted Core Strategy, fulfilling the requirements of stage D. Stage E is covered in section 8 of this report.

<sup>6</sup> Minerals and Waste Development Framework: Sustainability Appraisal (incorporating the Strategic Environmental Assessment) Scoping Report, (August 2005 updated June 2006)

<sup>7</sup> Minerals and Waste Issues and Options: Interim Sustainability Appraisal (incorporating the Strategic Environmental Assessment) (June 2006)

### 3 SUSTAINABILITY OBJECTIVES, BASELINE AND CONTEXT (SUMMARY OF SCOPING REPORT)

#### 3.1 Links to other Plans, Programmes and Sustainability Objectives (Stage A1)

- 3.1.1 Please refer to the Scoping Report for detailed commentary. This summary sets out the broad outcomes of the review of relevant plans, programmes and sustainability objectives. The plans, programmes and sustainability objectives that have been considered include those produced at an international, European, national, regional and sub-regional (county) level. The purpose of this review is not to list all the information but to highlight their key influences on the Minerals and Waste Core Strategy Preferred Options.
- 3.1.2 The key sustainability messages concerning minerals and waste development from this review are summarised in Table 3.1.

**Table 3.1: Key Points emerging from the review of other Policies, Plans and Programmes**

- The need to reduce the number of vehicles and the transport of goods on Oxfordshire's roads.
- The need to contribute to the protection, maintenance and where possible, enhancement of Oxfordshire's landscape character.
- The need to protect and enhance Oxfordshire's biodiversity.
- The need to prevent any detrimental impacts on historical environments from new developments.
- The need to protect nationally and regionally important geological features from harmful development.
- Developments should not be permitted in areas where are of high risk of flooding, in the functional floodplain or where it will lead to unacceptable deterioration in water quality,
- The need to maintain a land bank of permitted reserves for aggregate minerals in line with national and regional guidance.
- The need to ensure a steady supply of mineral materials for local markets.
- The need for the environmental improvement of mineral working sites that are not being worked and restored, or have not been restored to modern standards.
- The need to support sustainable waste management.
- The need to make provision for the treatment and/or disposal of all Oxfordshire's waste arisings and Oxfordshire's allocation of waste from London.

- The need to provide waste management facilities to meet the needs of Oxfordshire’s communities.
- The need to deliver sustainable development through driving waste management up the waste hierarchy and to address waste as resource.
- To secure the recovery of waste without endangering human health, the environment and reduce the travel caused by disposing waste.
- The need to produce policies and proposals that accord with higher level plans and ensure the opportunity for adequate provision of facilities.

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

- 3.2.1 Please refer to the Scoping Report for detailed commentary. This summary explains the processes undertaken to collect baseline information. An evidence-base is required by the Strategic Environmental Assessment Directive and is one of the key elements of the new planning system.
- 3.2.2 The area of study for the baseline review is Oxfordshire which includes the five districts of West Oxfordshire, Cherwell, South Oxfordshire, Vale of the White Horse, and Oxford City. In order to decide what baseline information would be helpful, draft sustainability appraisal / strategic environmental assessment objectives were drawn from the review of relevant plans and programmes. This review then led to the identification of relevant baseline data. The identification of the data also led to the refining of the draft sustainability appraisal / strategic environmental assessment objectives. The final Baseline Data Report is in the Scoping Report.
- 3.2.3 The Strategic Environmental Assessment Directive requires the likely evolution of the baseline without the plan to be identified. The environment will be affected by many other influences outside the scope of this plan. These include economic, social and environmental influences at international, national, regional and local levels. The following is not a comprehensive list of what may happen but highlights some of the significant issues that may arise in an environmental context if the plan is not implemented:
- Biodiversity, fauna, flora, cultural heritage, water and soil in Oxfordshire could all be detrimentally affected by minerals and waste development as there would be no policies to restrict the developments or ensure good practice and appropriate restoration and after use. This could also be detrimental to the landscape character.
  - Minerals and waste infrastructures would not be able to cope with the increased pressures of a growing population

potentially resulting in more imports/exports at economic and environmental costs.

- Lack of a strategy for locating minerals and waste development could lead to development less well located in relation to markets and also could lead to increased transport and consequential impacts on public health and local environment.
- The combination of all these factors would have a detrimental effect upon climate change.

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

- 3.3.1 Please refer to the Scoping Report for detailed commentary. The key sustainability issues relating to development of minerals and waste policy in Oxfordshire are set out in Table 3.2. These were identified from the review of relevant plans, programmes and environmental objectives, baseline data and internal officer judgement. The list does not attempt to highlight every sustainability issue in Oxfordshire but the key issues that the plan will need to take into account.

**Table 3.2: Sustainability Issues in Oxfordshire relating to Minerals and Waste Development Framework**

#### **Oxfordshire Sustainability Issues relating to Minerals and Waste Development**

- There are locations in Oxfordshire that have of poor air quality, four Air Quality Management Areas are currently in operation and a further two are to be declared.
- Over 82% of Oxfordshire's river lengths in 2002 had poor or bad quality water with respect to nitrates and 84% with respect to phosphates. All five Oxfordshire districts are in the 10 worst districts for the South East of England region.
- Domestic energy use must decrease by another 20% if Oxfordshire is to help meet the national target by 2010.
- Oxfordshire is an area of beauty and biodiversity, but some habitats are deteriorating. Almost one quarter of Oxfordshire is designated as Areas of Outstanding Beauty; 4,500 hectares are classed as Sites of Special Scientific Interest (SSSI).
- There is a need to protect Oxfordshire's fauna and flora, soil, architectural and archaeological heritage.
- In the Thames Region, water consumption per person is significantly higher than the national average and the trend is increasing. If current increase rates continue water shortages may occur as early as 2008.
- The amount of household waste has been increasing. This could result in 410,000 tonnes of waste per year being produced by 2020 (240,000 in 2003/4).
- Demand for minerals is ongoing – the equivalent of a lorry load per family each year.
- Landbanks of aggregate minerals have fallen; for crushed rock at the end of 2005 the land bank was 13.7 years; for sand and gravel at the end of 2005 the landbank was 3.9 years.



- Sterilisation of mineral resources.
- Oxfordshire’s economy is growing but at a slower rate than in the past.
- There are wards across the county with high level of unemployment with over double the county average.

### 3.4 The Sustainability Appraisal Framework including sustainability objectives, indicators and targets (Stage A4)

3.4.1 Please refer to the Scoping Report for detailed commentary. The starting point for identifying a set of objectives specific to sustainability appraisal/strategic environmental assessment of the Minerals and Waste Development Framework was the objectives proposed by the Integrated Regional Framework (IRF): the Regional Sustainable Development Strategy for the South East. This ensured consistency with higher tier plans. The objectives were then refined by the outcomes of Stages A1, A2, and A3. This refinement produced a list of objectives relevant to the Minerals and Waste Development Framework while ensuring they meet the requirements of the Strategic Environmental Assessment Directive.

3.4.2 Table 3.3 lists the resulting sustainability appraisal/strategic environmental assessment objectives. Also highlighted are the key themes (social, economic and/or environmental) of the objectives. The numbers of social, environmental and economic objectives are not evenly matched but it is considered that these objectives appropriately cover the sustainability topics which are relevant to minerals and waste development. **Requirements of the Strategic Environmental Assessment Directive are highlighted in bold.**

**Table 3.3: Sustainability Appraisal/Strategic Environmental Assessment Objectives.**

Objective No.	Objectives	Social	Economic	Environmental
1	To ensure that everyone has the opportunity to live in a decent, sustainably constructed and affordable home.	√	√	
2	To reduce the risk of flooding and the resulting detriment to public well-being, the economy and the environment.	√	√	√
3	<b>To improve the health and well-being of the population &amp; reduce inequalities in health.</b>	√		
4	To reduce social exclusion in relation to accessibility to all services and facilities.	√		

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5	To improve efficiency in land use through the re-use of previously developed land and existing buildings.			√
6	<b>To reduce air pollution and ensure air quality continues to improve.</b>	√		√
7	<b>To address the causes of climate change through reducing emissions of greenhouse gases.</b>			√
8	<b>To conserve and enhance Oxfordshire's biodiversity.</b>			√
9	To protect and improve the quantity and quality of publicly accessible open space.	√		√
10	<b>To protect and enhance the quantity and quality of publicly accessible open space for enjoyment, Oxfordshire's countryside, landscape and historic environment including archaeological &amp; architectural importance.</b>	√		√
11	To make opportunities available for culture, leisure and recreation.	√	√	
12	To reduce road congestion and pollution levels by providing more travel choices.	√	√	√
13	<b>To reduce development on the best and most versatile land and have regard to the quality and productivity of soil.</b>			√
14	To ensure an adequate and steady supply of minerals to meet society's needs and economic growth.		√	
15	To reduce the global, social and environmental impact of consumption of resources by using local products.	√	√	√
16	To reduce waste generation and disposal, and achieve the sustainable management of waste.	√	√	√

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<b>17</b>	To ensure capacity for waste treatment to meet Oxfordshire's waste requirements.		√	√
<b>18</b>	<b>To maintain and improve the water quality of Oxfordshire's water courses and achieve sustainable water resource management.</b>			√
<b>19</b>	To increase energy efficiency and the proportion of energy generated from renewable sources in Oxfordshire.		√	√
<b>20</b>	To ensure high stable levels of employment so everyone can benefit from the economic growth of the region.	√	√	
<b>21</b>	To sustain economic growth and competitiveness across Oxfordshire.		√	

3.4.3 To identify any conflicts between the sustainability appraisal/strategic environmental assessment objectives, an internal compatibility assessment of the objectives was carried out (see Scoping Report). The conflicts highlighted through this exercise helped to inform Stage A3. Appendix 1 contains the sustainability appraisal framework used in the appraisal.

## 4 APPRAISAL METHODOLOGY

### 4.1 Sustainability Appraisal Process

- 4.1.1 Following the completion of stage A, the sustainability appraisal of the Core Strategy Preferred Options was undertaken in three stages:
- 4.1.2 **Appraisal of draft Minerals and Waste Development Framework objectives** – The County Council developed a set of draft objectives for the Minerals and Waste Development Framework and these were appraised by County Council officers. The findings of the appraisal were documented in the Interim Sustainability Appraisal Report, June 2006 which is available on the Council's website.
- 4.1.3 **Appraisal of the options for the Core Strategy** – The County Council identified 16 issues the Minerals and Waste Core Strategy should address, with a total of 95 options for how to address these. The options were subject to sustainability appraisal in August 2005. The appraisal findings were documented in the Interim Sustainability Appraisal Report. The Core Strategy Preferred Options consultation paper includes the recommendations from this appraisal within the commentary for each of the preferred options, showing how sustainability appraisal is integral to the plan making process.
- 4.1.4 **Appraisal of the Core Strategy Preferred Options** – Following the options appraisal, the selected preferred options were also subject to appraisal. The resulting recommendations will be taken into account when producing the final Core Strategy for submission. The results from this appraisal are reported in Section 7 of this report.
- 4.1.5 Each appraisal process was undertaken through a workshop involving council officers and representatives of technical bodies and interest groups. Baseline information in the Scoping Report was used in the process to inform the assessments that were made of the effects of the objectives and options in terms of their social, environmental and economic impacts on key sustainability objectives, which had been developed through the scoping stage. The workshop group was facilitated by an independent advisor.

### 4.2 Appraising the Minerals and Waste Development Framework Objectives

- 4.2.1 The precise methodology for appraising the objectives is set out in the Interim Sustainability Appraisal Report together with the detailed appraisal findings. The appraisal consisted of the assessment of the Minerals and Waste Development Framework Objectives against the sustainability appraisal Objectives in a compatibility assessment matrix. A summary of the recommendations is included in section 5 of this report

### 4.3 Appraising the Options

- 4.3.1 The precise methodology for appraising the options is set out in the Interim Sustainability Appraisal Report together with the detailed appraisal findings. The appraisal of the options consisted of assessing the potential performance of each option against each sustainability appraisal objective in a positive, negative or neutral way with a final recommendation; it was this commentary which the appraisal concentrated on. The appraisal was undertaken by the appraisal workshop group using a matrix-based approach. A summary of the recommendations is included in section 6.

### 4.4 Appraising the Preferred Options

- 4.4.1 The appraisal of the Core Strategy preferred options was also carried out using the appraisal group and a matrix-based approach. The appraisal of the preferred options consisted of assessing the potential performance of each preferred option against each sustainability appraisal objective in terms of direct, indirect, short/medium/long-term impacts as well as potential mitigation solutions. Following the appraisal of the preferred options, a series of recommendations were put forward for strengthening the sustainability performance of the preferred options prior to them being translated into the Core Strategy. The results of the appraisal are included in section 7.
- 4.4.2 The Strategic Environmental Assessment Directive specifically requires the consideration of cumulative impacts of the preferred options. Cumulative impact assessment involves assessing the total effect of the preferred options on each sustainability appraisal objective. This assessment is detailed in Section 7.3

### 4.5 Limitations of Appraisals

- 4.5.1 The key limitation encountered was one of uncertainty in identifying the future impacts of the options, preferred options and their relative significance and potential impact on the baseline data. It was for this reason that the County Council decided to create a large appraisal group which brought together a wide range of expertise. This pooling of information allowed the detailed assessment of the options and preferred options. However, this highlighted another limitation, due to the time constraints of appraisal meetings, only the key options could be appraised. It was left to County Council officers to complete the appraisal of the remaining options.
- 4.5.2 A further limitation was the ability to predict the effects of other plans and policies on particular situations. It was considered that many of the issues would, to a greater or lesser degree, be determined by other plans and policies dealing more specifically with those issues. However, it was noted that this was not a justification for ignoring the impact of the Minerals and Waste Development Framework on these issues.

## 5 APPRAISAL OF THE MINERALS AND WASTE DEVELOPMENT FRAMEWORK OBJECTIVES

### 5.1 Identification of Objectives

5.1.1 The precise results for appraising the objectives are set out in the Interim Sustainability Appraisal Report, June 2006; a summary of the compatibility assessment matrix is contained in Table 5.1. The draft objectives were initially identified from County Council officer knowledge. They were then discussed at a Minerals and Waste Stakeholder Forum meeting (23 June 2005) and at a County Council Minerals and Waste Working Group meeting (8 August 2005). Also during the consultation on the Core Strategy Issues and Options Paper there was an opportunity for people to comment on the objectives.

### 5.2 Results of Assessment

**Table 5.1: Summary of the Compatibility Assessment Matrix**

Draft Plan Objectives	Predicted Overall Impact	Comments	Proposed Changes
To conserve mineral resources by encouraging the most efficient use of materials and avoiding the sterilisation of mineral deposits by development	+	No Conflict	
To provide for the supply of minerals in accordance with national and regional policy.	--	Key Objective	No Change
To encourage and provide for increased use of recycled and secondary materials in place of primary aggregates	++	No Conflict	
To provide for sufficient capacity for the treatment and disposal of waste equivalent to the quantity produced in Oxfordshire plus a contribution to regional waste management requirements, including waste from London, in accordance with national and regional policy	--	Key Objective	No Change
To promote reduced production of waste and increased recognition of waste as a resource, with an increase in recycling, composting and other recovery of resources from waste and a decrease in landfill of waste, to ensure that national and regional targets are at least met.	+	No Conflict	Make objective stronger with regard to SA objectives
To provide for an integrated approach to waste management which does not exclude any particular method	0	No Relationship	Remove Objective

To ensure waste management objectives and requirements are taken into account in the planning and design of other development, in particular to encourage provision for re-use, recycling and recovery of resources from waste in new development.	+	No Conflict	Make objective stronger with regard to SA objectives
To minimise the impact of transportation of minerals and waste by seeking to minimise the distance materials need to be transported by road and the use of other modes of transport where practicable.	++	No Conflict	
To ensure working and supply of minerals and the management of waste are carried out in an environmentally acceptable way by minimising impacts on local communities, the landscape and natural environment	++	No Conflict	
To ensure high quality restoration and appropriate after-use of mineral workings and landfills	++	No Conflict	
To secure enhancement of the environment through mineral working and waste management development, in particular through long-term benefits for nature conservation, landscape, recreation and local communities	++	No Conflict	

5.2.1 The compatibility matrix highlights that most of the plan objectives have a positive or no relationship with the Sustainability Appraisal/Strategic Environmental Assessment objectives. However there are areas of concern surrounding the following two key plan objectives:

- (B) To provide for the supply of minerals in accordance with national and regional policy; and
- (D) To provide for sufficient capacity for the treatment and disposal of waste equivalent to the quantity produced in Oxfordshire plus a contribution to regional waste management requirements, including waste from London, in accordance with national and regional policy.

5.2.2 However these objectives represent the underlying purpose of the plan (i.e. to enable the minerals and waste development that is needed in Oxfordshire) and therefore cannot be removed. It should be noted, however, that the other plan objectives are positive towards or do not conflict with sustainable development. It is recommended that wherever possible appropriate mitigation measures are put in place to reduce the effects of the above two objectives in accordance with the other Minerals and Waste Development Framework objectives.

## **6 APPRAISAL OF ISSUES & OPTIONS**

### **6.1 Identification of the Issues and Options**

- 6.1.1 The appraisal matrices in the Interim Sustainability Appraisal Report, June 2006 contain the detailed comments made by appraisal group on the various issues and options. Draft issues for the Minerals and Waste Core Strategy and the various options for addressing these were initially identified from County Council officer knowledge. The resulting issues and options were then discussed at a Minerals and Waste Stakeholder Forum meeting (23 June 2005) to ensure there were no other issues that needed to be addressed and all the realistic options had been identified. The Issues and Options were also discussed by the County Councils Minerals and Waste Working Group (8 August 2005). During the consultation on the Core Strategy Issues and Options Paper there was an opportunity for people to identify any other issues and/or options they thought should be included.
- 6.1.2 The issues and options that were appraised are slightly different from those that appear in the Minerals and Waste Core Strategy Issues and Options Consultation Paper<sup>8</sup>. Some of the wording was modified to enable the assessment to be more readily carried out, and some similar issues were combined to make most effective use of people's time in the appraisal workshop. Nevertheless, the fundamental meaning of the issues and options was not changed and the assessment that has been carried out is valid for the Issues and Options Paper. In the case of some of the issues, meaningful appraisal was not considered to be possible and so was not carried out.

### **6.2 Results of the Issues and Options Appraisal**

- 6.2.1 The recommendations of this appraisal are summarised below while Appendix 2 identifies the reasons for the rejection of all other options. These recommendations have been used in the decision making process in developing the Minerals and Waste Core Strategy Preferred Options. It should be noted that the majority of the points raised relate to how the implementation of sites is addressed at the planning application and subsequent development stages.

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<sup>8</sup> Minerals and Waste Development Framework; Core Strategy; Issues and Options Consultation Paper; Oxfordshire County Council; June 2006.



## 6.2.2 Summary of the Mineral Recommendations

**Issue:** How should the Oxfordshire sand and gravel apportionment of 1.82 million tonnes per annum be provided?

**Recommendation:** The appraisal of how Oxfordshire should meet its sand and gravel apportionment suggests that there would be more certainty and greater control if site allocations were specified in the Minerals and Waste Development Framework, although it was highlighted that the areas selected must be acceptable to the industry. Just having criteria based policies could lead to development in less sustainable locations.

**Issue:** How should the Oxfordshire sand and gravel apportionment of 1.82 million tonnes per annum be subdivided between soft sand and sharp sand and gravel?

**Recommendation:** The appraisal recommends that Oxfordshire's apportionment should be subdivided between soft sand and sharp sand and gravel with a higher percentage of soft sand provision than in the existing Minerals and Waste Local Plan. The reasons for this are mainly to do with increased market demand for soft sand and the need for the Minerals and Waste Development Framework to make provision to meet this, thereby avoiding ad-hoc development in soft sand areas.

**Issue:** Where should new sand and gravel workings be located?

**Recommendation:** The appraisal suggests a slightly broader spread of sand and gravel working than at present. It is argued this would help reduce the transport impacts associated with production and location of market areas. This strategy would also reduce the cumulative impact of developments. However, it was highlighted that this would be dependent on the existence of workable deposits and the economics of developing such sites

**Issue:** How should the Oxfordshire crushed rock apportionment of 1 million tonnes per year be provided?

**Recommendation:** The appraisal also suggests that a slightly broader spread of workings for meeting the crushed rock apportionment would be preferred. However, this will again be dependent on availability of sites and economics.

**Issue:** Should there be new quarries or extensions to current quarries?

**Recommendation:** Concerning the issue of whether new quarries or extensions to current quarries are preferred, the appraisal suggests each site should be assessed on its own merits. It was highlighted that extensions would not need new infrastructure but would add to cumulative impact locally. The economics of the size of extension or of new sites would also be a factor.

**Issue:** What scope is there for increasing supply of recycled and secondary aggregates to replace primary aggregates and how can the plan promote increased supply?

**Recommendation:** The appraisal indicated that there are no negatives in providing either sufficient capacity or over-provision of capacity for recycling of aggregates. However, as a precautionary measure, given the lack of accurate data, over-provision seemed to be more positive in developing a sustainable strategy than potential under-provision.

### 6.2.3 Summary of the Waste Recommendations

**Issue:** How should provision be made for the new waste management facilities that will be needed (in relation to site identification)?

**Recommendation:** The appraisal suggests that identification of site specific allocations in the Minerals and Waste Development Framework would be the more sustainable option. However, the other two approaches – identification of broad areas and criteria based policies – would allow flexibility in the Minerals and Waste Development Framework. Therefore a combination of the three options (criteria, identification of broad areas and actual site selection) may be the most appropriate sustainable strategy.

**Issue:** How should provision be made for the new waste management facilities that will be needed (in relation type of site identified)?

**Recommendation:** The appraisal was not clear on which was the overall best strategy on how to provide new waste management facilities. Flexibility of sites (not restricting types of technologies on a site) was favoured by the workshop but, as with the previous issue, the best solution may be a combination of the approaches (some sites to be specific for certain technologies and others for a more general range of technologies).

**Issue:** What scale of new waste management sites should provision be made for?

**Recommendation:** When the appraisal assessed the merits of scale of sites (a few large sites or more numerous small sites) for waste management facilities, the recommendation was for a few large sites which could accommodate strategic and/or integrated management facilities. However, this option is heavily dependant on the transport effects being sustainable.

**Issue:** Where should new waste management facilities be located?

**Recommendation:** The appraisal recommends locating waste facilities in or close to urban areas. The disadvantages of this (conflict with potential housing sites, noise and air pollution) are assessed to be relatively minor in relation to the benefits (less distance to travel, potential for combined heat and power and higher likelihood of development on brownfield land).

**Issue:** At what type of site should waste treatment facilities be located?

**Recommendation:** The appraisal did not recommend which type of site would be best suited to locating a waste treatment facility. It showed that the suitability of sites depends on factors such as the type of technology, size of facility, size of site and the density of surrounding human population. Each site must be assessed on its own merits. It was highlighted that for all options the impact upon the flood plain must be assessed.

## 7 APPRAISAL OF PREFERRED OPTIONS

### 7.1 Identification of the Preferred Options

7.1.1 Draft preferred options were identified after consideration of responses to the Issues and Options Consultation Paper, outcomes of the issues and options sustainability appraisal, conformity with national, regional and local policy and officer discussion. The draft Preferred Options were discussed by the Minerals and Waste Stakeholder Forum (12 September 2006) and the Minerals and Waste Plan Working Group (of County Councillors) (26 September 2006). An amended set of preferred options were agreed by the County Council's Cabinet (21 November 2006) and are now being published in the Minerals and Waste Core Strategy Preferred Options Consultation Paper, February 2007) for comment. The following paragraphs report on the recommendations of the sustainability appraisal of these preferred options.

7.1.2 The preferred options that were appraised are slightly different from those that appear in the Core Strategy Preferred Options. Some wording was modified to enable the assessment to be more readily carried out, and some similar issues were combined to make most effective use of time in the appraisal group workshop. Nevertheless, the fundamental meaning of the issues and options were not changed and the assessment that has been carried out is entirely valid for the published Preferred Options.

### 7.2 Results of the Appraisal

7.2.1 The appraisal matrices in Appendix 3 contain the detailed comments made by appraisal group on the Core Strategy Preferred Options. The recommendations from this appraisal are summarised below. These outcomes of the appraisal will be taken into account in the development of the Minerals and Waste Core Strategy for submission to the Secretary of State. It should be noted, however, that the majority of the points raised relate to how the implementation of sites is addressed at the planning application and subsequent development stages.

#### 7.2.2 Summary of the Mineral Recommendations

**Preferred Option:** The County Council's preferred option is to identify extensions to existing quarries in the short term (approx. 5 years) followed by the identification of new quarries for the longer term (approx. 5 years plus).

**Recommendation:** The preferred option is generally positive as it will ensure sufficient supply for demand of minerals whilst recognising opportunities to use existing infrastructure to allow extensions to quarries. However, the appraisal highlights that there must be adequate transport measures in place to minimise the effect of air pollution and noise, dust and traffic impacts.

**Preferred Option:** The County Council's preferred option is to identify sites for mineral working for the period to 2019 supported by criteria policy for the period beyond.

**Recommendation:** The appraisal is positive towards site identification to 2019 as this will ensure enough mineral potential to meet demand over the short to medium term and will allow sustainable development in the mineral area by giving certainty to industry for mineral developments.

**Preferred Option:** The County Council's preferred option is to plan for a split of 17% soft sand and 83% sharp sand which is in line with current production (5 year average).

**Recommendation:** The appraisal is positive towards the split of 17% soft sand and 83% sharp sand and gravel as it will allow demand to be met, thus reducing imports and ensuring economic growth. However, sustainable transport of minerals is to be encouraged, particularly in soft sand areas, to reduce the potential impact of new site identification and minimise local impact.

**Preferred Option:** The County Council's preferred option for sand and gravel is to continue identifying new workings in the existing West Oxfordshire working areas and to identify new working area(s) in the southern part of Oxfordshire, subject to the results of further work on site assessment.

**Recommendation:** The results from the appraisal are generally positive, as this will ensure that market demands are met and also that growth areas can be sourced locally. Detailed assessment of new sites will be needed to ensure that the impacts of increased traffic, noise and dust can be minimised locally.

**Preferred Option:** The County Council's preferred option for crushed rock is for workings to be located mainly in the Witney – Burford and Oxford – Bicester areas.

**Recommendation:** The appraisal is positive, as this will ensure that production meets demand and importation is minimised. Although the impact of these sites is widespread, sustainable transport methods should be encouraged. For clarity, the generic term "crushed rock" should be used for both limestone and ironstone.

**Preferred Option:** The County Council's preferred option is to identify permanent facilities for aggregate recycling where possible supported by temporary facilities at minerals and waste sites.

**Recommendation:** The identification of both permanent and temporary sites for secondary and recycled aggregates (including a positive policy approach) was viewed as positive by the appraisal, as in either case there should be an increase in use of these materials and reduced need for virgin materials. Siting should be accompanied by appropriate transport mitigation measures including routeing agreements and noise/dust/visual controls.

**Preferred Option:** The County Council's preferred option is to maximise the provision for aggregates recycling through a positive policy approach.

**Recommendation:** The Appraisal was generally positive, as the use of secondary and recycled aggregates will be promoted, reducing the reliance on virgin minerals and ensuring enough capacity to meet requirement for the production of secondary and recycled aggregates. Implementation may cause localised impact around permanent facilities when considering noise/dust/visual pollution associated with increased traffic, but these effects should be reduced where possible around sites.

**Preferred Option:** The County Council's preferred option is to take the following sequential approach to locating aggregate recycling facilities: urban areas; close to urban areas; rural areas; and within this to take the following sequential approach to site identification: previously developed land; temporary minerals and waste sites; greenfield sites. This includes locations in the Green Belt, which will be considered against national and regional policy.

**Recommendation:** The appraisal is positive towards the sequential approach to the siting of aggregate recycling facilities as this would allow the processing of material where it arises and reduce the amount of aggregate sent to landfill. This approach will also help prevent loss of biodiversity and best and most versatile land as it favours previously developed land. Increased traffic in urban areas may have significant effects, although these sites may also reduce the transport distance due to close proximity to waste source. Green Belt development should only be considered where other options have been ruled out.

**Preferred Option:** County Council's preferred option is for a continued local supply of aggregates at levels in line with regional policy plus imports to meet demands that cannot be met from this local supply.

**Recommendation:** The appraisal is not generally supportive of the preferred option, as aggregate provision at this level would have a potential impact on biodiversity and countryside in the short term. However, with appropriate restoration schemes, in the long term this could be beneficial. Also imports could have local and county-wide transport impacts. Continued working of flood plain minerals may increase the risk of localised flooding, and should be appropriately assessed through consultation with the Environment Agency.

**Preferred Option:** The County Council's preferred option is to include a policy option for new rail aggregate depots and, where possible, identify sites for rail aggregate depots.

**Recommendation:** The appraisal is generally positive for the inclusion of a policy for new rail aggregate depots as this could contribute to the sustainable transport of minerals. Demand for aggregate can be met from imports if it cannot be met from the County's apportionment level, but imported aggregates should not replace locally produced aggregate. High transportation impact around rail depots due to movement of material can be mitigated by the implementation of routeing agreements and noise, dust and visual impact can be reduced by mitigation measures and by favouring previously developed land.

**Preferred Option:** The County Council's preferred option is for a locational preferred option based on Structure Plan Policy M2:

In identifying appropriate locations, the County Council will take account of the distribution of sand and gravel resources; the existing pattern of supply and distribution of workings; proximity to main market areas; accessibility to the main transport routes; risk of birdstrike; restoration and after use potential; and development plan policies, in particular which seek to safeguard:

- important archaeological remains, historic buildings and areas;
- areas and sites of nature conservation importance, especially SACs and SSSIs;
- features of landscape importance, especially AONBs;
- best and most versatile agricultural land;
- the water environment;
- land uses which are sensitive to nuisance; and
- the safety and convenience of all road users, including pedestrians and cyclists.

**Recommendation:** The appraisal is positive towards a locational policy approach based on Structure Plan policy M2. However, the real test of this will be in the identification of sites in the minerals sites development document.

**Preferred Option:** The County Council's preferred option is for progressive working and restoration of mineral sites within reasonable timescales to acceptable uses that are appropriate to the location whilst maximising appropriate opportunities for restoration to agricultural land, habitat creation, recreation and public access

**Recommendation:** The outcome of the appraisal supports the progressive working and restoration of minerals sites as this will ensure that impacts of workings are short term and that the land can be put back to use quickly. Sustainable transport should be encouraged as there is traffic impact during working and restoration, whilst restoration to recreation/leisure could lead to future traffic movements.

**Preferred Option:** The County Council's preferred option is to specify buffer zones around mineral workings and to require such other mitigation measures as may be necessary at the planning application stage, on a case by case basis, to provide protection for local residents and others against unacceptable loss of amenity.

**Recommendation:** The preferred option to specify buffer zones around mineral workings on a case by case basis is an implementation issue, but ensuring buffer zones are set on a site by site basis would provide the opportunity for maximum protection for local residents and/or biodiversity areas. Buffer zones should ensure that workings do not encroach upon areas of rich biodiversity or adversely affect local amenity.

**Preferred Option:** The preferred option for the County Council is to safeguard all mineral resources of potential economic importance for possible future use, including sand and gravel, limestone, ironstone and fuller earth.

**Recommendation:** The outcome of the appraisal is generally positive because this would ensure long term supply of aggregates for future development. Policy could also safeguard the protection of biodiversity in mineral areas from other permanent types of development.

### 7.2.3 Summary of the Waste Recommendations

**Preferred Option:** The County Council's preferred option is to identify specific sites in the Waste Sites Document, particularly for strategic facilities; but also to indicate broad areas where facilities will be needed to serve local communities or where specific sites are not identifiable. This will be supported with locational criteria policies.

**Recommendation:** The appraisal is supportive of the identification of specific sites and broad areas for waste management facilities to ensure the best opportunity for increased waste treatment and recycling capacity. This would promote more sustainable waste management and reduce the need for landfill in line with national and regional policy. Impacts on transport infrastructure should be minimised, and sustainable transport of waste should be encouraged to improve accessibility for local communities.

**Preferred Option:** The County Council's preferred option is to identify locations that are generally suitable for a range of facilities, to provide flexibility and allow for evolving waste management technology; but where there are sound planning reasons for doing so sites will be restricted to specified types of facility.

**Recommendation:** The appraisal is positive towards the identification of sites suitable for a range of waste management facilities to ensure maximum provision for recycling, reduction in landfill and increased accessibility to waste facilities. Brownfield sites should be preferred and sustainable transport of waste promoted. Identification of strategic sites would help secure economic development of future waste management facilities.

**Preferred Option:** The County Council's preferred option is to provide for a mix of sites for both large and small scale facilities. For large-scale facilities, specific sites should be identified in the Waste Sites Document, but this is likely to be more difficult for smaller-scale facilities and there will have to be a greater reliance on locational criteria policies for these types of sites.

**Recommendation:** The appraisal supports the preferred option, as this would provide maximum opportunity for increased waste treatment capacity, helping to achieve sustainable waste management and reduction in landfill. Brownfield sites should be preferred to greenfield, to protect biodiversity and the landscape. Locational criteria should improve accessibility for local communities, and adequate infrastructure and routing agreements should be in place to promote sustainable transport of waste.



**Preferred Option:** The County Council's preferred option is to locate waste treatment facilities within or close to the main urban areas, subject to availability of suitable land. In recognition of the difficulty of finding sites for waste facilities, a sequential policy approach for site locations is likely to be needed.

**Recommendation:** The appraisal is generally positive towards the preferred option to locate waste facilities within or close to the main urban areas as it seeks to ensure accessibility of sites close to the main waste producing areas and prioritises development on brownfield sites. But provision of facilities should also be made for rural communities and market towns in conjunction with providing for the sustainable transport of waste. This would also provide opportunities to maximise waste treatment and reduce landfill in line with national and regional policy.

**Preferred Option:** The County Council's preferred option is to take the following sequential approach to locating waste facilities: urban areas; close to urban areas; rural areas; and within this to take the following sequential approach to site identification: previously developed land; temporary waste sites; greenfield sites. This includes locations in the Green Belt, which will be considered against national and regional policy.

**Recommendation:** The appraisal supports the sequential approach to locating waste facilities, as it seeks to maximise accessibility close to main waste producing areas and helps to achieve more sustainable management of waste. The approach seeks to prioritise development on brownfield land and promotes opportunities to reduce pollution. Suitable infrastructure and sustainable transportation should be employed to minimise the possibility of localised increase of traffic in urban areas and Green Belt locations.

**Preferred Option:** The County Council's preferred option is to ensure there is no restriction to the movement of waste management up the waste hierarchy and that there is adequate provision of a range of waste management facilities, including local communities having access to suitable facilities. This includes positive policies to encourage the provision of new facilities higher up the hierarchy

**Recommendation:** The appraisal is positive towards the preferred option, as it would encourage the movement of waste up the hierarchy, to achieve more sustainable waste management, and would encourage increased treatment capacity to minimise the amount of waste sent to landfill.

**Preferred Option:** The County Council's preferred option is to limit landfill provision in line with national and regional policy and landfill targets while also recognising there will be a continued need for some landfill

**Recommendation:** The appraisal is generally supportive of the preferred option, as this would reduce landfill gas emissions and protect areas of biodiversity and landscape importance. It would promote recycling and recovery and diversion of waste from landfill, increase the potential for localised recycling facilities and encourage development on previously developed land. Potential for localised increases in traffic may be mitigated by the implementation of routing agreements and appropriate sustainable transport strategies.

**Preferred Option:** The County Council's preferred option is to make provision for at least the minimum capacity required to meet national and regional policy targets for recycling and recovery; and to provide a positive policy framework to enable advantage to be taken of any appropriate opportunities that may arise to increase capacity.

**Recommendation:** The appraisal is supportive of the preferred option to plan for the capacity requirements in regional policy, unless local information and circumstances indicate otherwise. This would provide sufficient capacity to meet regional and national recycling and recovery targets, reduce the need for landfill in line with regional policy and increase local accessibility to waste facilities. There should be encouragement of development on previously developed land and an increase in the number of sites may impact on transport infrastructure.

**Preferred Option:** The County Council's preferred option is to plan to at least meet the national/regional targets for recycling and diversion from landfill through positive policies and identification of sites, but this will need to be kept under review. The regional targets should be used as a guide to the level of provision that is required as a minimum.

**Recommendation:** The appraisal is supportive of the preferred option, as this will ensure that targets for recycling and recovery are achieved and encourage recycling and diversion of waste from landfill. It would also help to promote the identification of sites to provide improved accessibility to facilities, although increases in transport locally should be mitigated.

**Preferred Option:** The County Council's preferred option is to provide for net self sufficiency plus Oxfordshire's share of waste from London as set in regional policy.

**Recommendation:** The appraisal generally supports the preferred option for net self-sufficiency plus the share of London's waste as this will ensure adequate facilities for Oxfordshire's population and promote sustainable waste management. Importation of waste from London may increase the potential for economic growth in the County, as it can be viewed as a resource, but transport of this waste should be by sustainable means.

**Preferred Option:** The County Council's preferred option is to provide for net self sufficiency plus Oxfordshire's share of waste from London as set in regional policy. Imported waste should normally be limited to residues from treatment processes that require disposal by landfill, but import of waste for treatment at facilities in Oxfordshire could be appropriate where this would be a sustainable option or there would be overall benefits.

**Recommendation:** The appraisal outcome is positive towards the preferred option for net self-sufficiency as this will ensure the County has sufficient waste treatment capability. There is a potential negative impact due to an increased number of sites on previously undeveloped land to ensure enough capacity. Treatment and disposal of London's waste may increase the potential for economic growth in the County, but transport of this waste should be by sustainable means.

**Preferred Option:** The County Council's preferred option is for a locational approach based on principles similar to those included in Structure Plan Preferred option M2:

In identifying appropriate locations, the County Council will take account of the distribution of the existing pattern of waste management facilities; proximity to main sources of waste and destinations of outputs from waste treatment processes; accessibility to the main transport routes; risk of birdstrike (for landfill); restoration and afteruse potential (for landfill); and development plan policies, in particular which seek to safeguard:

- important archaeological remains, historic buildings and areas;
- areas and sites of nature conservation importance, especially SACs and SSSIs;
- features of landscape importance, especially AONBs;
- best and most versatile agricultural land;
- the water environment;
- land uses which are sensitive to nuisance; and
- the safety and convenience of all road users, including pedestrians and cyclists.

**Recommendation:** The appraisal supports a locational policy approach based on principles similar to those included in Structure Plan policy M2. However, the real test of this will be in the identification of sites in the minerals & waste sites development document.

**Preferred Option:** The County Council's preferred option is to make provision for landfill in line with national and regional policy targets; over time this will increasingly limit landfill to waste that has been subject to treatment while also recognising the continued need for some landfill capacity.

**Recommendation:** The appraisal is generally positive towards the reduction of waste going to landfill to meet recycling and recovery targets. This should increase accessibility to waste facilities and enable use of previously developed land. Possible local increase in traffic could be mitigated by routeing agreements and the sustainable transport of waste.

**Preferred Option:** The County Council's preferred option is to give priority to use of inert waste for restoration of mineral workings. No provision should be made for other types of inert waste landfill site and proposals for new landfill should include a stiff test of need for use of inert waste other than for restoring mineral workings.

**Recommendation:** The appraisal is generally supportive of the use of inert waste for restoration purposes as this would minimise the need for new disposal sites and increase the opportunity for restoration of mineral workings. Use of inert waste in restoration may lead to increased traffic but this may be mitigated through the implementation of routeing agreements and sustainable transport strategies. After-use schemes should include appropriate transport infrastructure if they promote increases in visitor numbers. The term "stiff test" in the preferred option wording should be clarified.

**Preferred Option:** The County Council's preferred option is generally to safeguard existing landfill void for future use.

**Recommendation:** The appraisal supports the preferred option, as this will ensure the opportunity for waste management in the long term and recognises that there will always be a need for landfill. Clarification is needed of the word "generally" in the preferred option.

**Preferred Option:** The County Council's preferred option is require such mitigation measures as may be necessary at the planning application stage, on a case by case basis, to provide protection for local residents and others against unacceptable loss of amenity.

**Recommendation:** It was felt that this preferred option could not be meaningfully appraised.

### 7.3 Cumulative Impact Assessment

- 7.3.1 The Strategic Environmental Assessment Directive specifically requires the consideration of cumulative impacts. Cumulative impacts are the total effects of multiple actions on an indicator (e.g. many small impacts can lead to an overall large impact). Many of the impacts arising from the Core Strategy are likely to be cumulative but may not have been picked up as significant impacts from the appraisals at the issues and options and preferred options stages.
- 7.3.2 Cumulative impact assessment involves assessing the sustainability objectives against the total impact of all the preferred options. A summary of the cumulative impact assessment of the preferred options is set out in Table 7.1. The full matrix is in Appendix 4. There are six areas of very positive cumulative impacts on the sustainability objectives resulting from the preferred options:
- Decent home;
  - Efficient Land Use;
  - Mineral supply;
  - Resource conservation;
  - Waste reduction;
  - Waste treatment.
- 7.3.3 There is just one area of very negative cumulative impact:
- Traffic.

**Table 7.1: Summary of cumulative impact assessment**

Sustainability Appraisal Objective	1. Decent Home	2. Flooding	3. Health	4. Accessibility	5. Efficient Land Use	6. Air	7. Climate Change	8. Biodiversity	9. Open Space	10. Countryside & Historic Environment.	11. Culture leisure	12. Transport	13. Soil quality	14. Mineral supply	15. Resource conservation	16. Waste reduction	17. Waste treatment	18. Water	19. Energy	20. Employment	21. Economy
Cumulative impact of Preferred Options	+	0	-	+	+	-	+	+/-	+	++	+	-	+	+	++	+	+	0	0	+	+

7.3.4 In summary, 14 of the objectives show an overall beneficial impact while 3 objectives show an overall negative cumulative impact. These impacts tend to relate to the localised impact of minerals and waste development on air quality, health and traffic. However, these impacts could and should be reduced during implementation of policies, at the planning application stage, through appropriate mitigation measures.

7.3.5 However, it must be noted that assessing cumulative effects is very uncertain as it is based on assumptions of plans and programmes which the Minerals and Waste Development Framework will have no impact upon.

## 7.4 Conclusions and Mitigation

7.4.1 The reoccurring key issue arising in relation to both minerals and waste development, and which is strongly highlighted in the Cumulative Impact Assessment, is the potential increased levels of transport around developments. This led to several mitigation measures being identified. For minerals development, it was suggested that routing agreements should be put in place to ensure minimal impact to local residents. It was also suggested other modes of transport should be looked at; this particularly related to transport of recycled and secondary aggregates. For waste development, it was suggested that sustainable modes of transport should be considered and actively encouraged. It was also suggested that to appropriate routing agreements should be implemented to minimise localised impact.

7.4.2 Other issues raised specifically for minerals included increases in localised noise and dust, visual impact and environmental damage. It was suggested that appropriate mitigation needs to be assessed on a case by case basis. However, the Minerals Sites Document should actively encourage the siting of development in appropriate locations while highlighting measures that may need to be considered to reduce

various impacts, although the Core Strategy should also recognise these.

- 7.4.3 Other issues specifically concerning waste development included protecting biodiversity and the open landscape. Again it was suggested that appropriate siting of facilities in the Waste Sites Document would help reduce these impacts and therefore appropriate consideration should be given to these impacts.
- 7.4.4 In conclusion, when a holistic view of the preferred options is taken into account, the outcome is generally positive towards sustainable development. As long as the impacts of the proposals are in conformity with the other preferred options, sustainable development of minerals and waste facilities should bring an overall benefit to Oxfordshire.

## **8 MONITORING**

- 8.1.1 The Strategic Environmental Assessment Directive includes a specific requirement for monitoring the significant environmental effects of plans. The Environmental Report (contained within this report) should include a description of the measures envisaged for monitoring the plan.
- 8.1.2 In relation to monitoring, the Government has published Local Development Framework Monitoring: A Good Practice Guide. This proposes three types of indicators for monitoring development frameworks:
- Output indicators – for monitoring plan policies;
  - Significant effects indicators – for monitoring important effects identified by the sustainability appraisal;
  - Contextual indicators – for monitoring the wider background against which the plan operates.
- 8.1.3 The significant effects indicators identified in light of the sustainability appraisal process will be monitored as part of the annual monitoring report process, which directly monitors the performance of the plan.
- 8.1.4 Table 8.1 summaries the proposed indicators for monitoring the significant social, environmental and economic effects of the plan. These indicators are subject to change and will be finalised for the final sustainability appraisal report which will accompany the Minerals and Waste Core Strategy when it is submitted to the Secretary of State.

**Table 8.1: Possible significant effects associated with the Minerals and Waste Development Framework and indicators**

Type of Indicator	Possible Significant Effects	Potential Indicators for Oxfordshire
<b>CORE INDICATORS</b>	Increase in production of primary land won aggregates	Production of primary land won aggregates
	Increase in production of secondary/recycled aggregates	Production of secondary/recycled aggregates
	Increase in capacity of new waste facilities.	Capacity of new waste management facilities by type
	Decrease in municipal waste to landfill	Amount of municipal waste arising and management type
<b>SIGNIFICANT EFFECTS INDICATORS</b>	Increase in traffic movements	Number of traffic movements on roads around developments
	Adverse affect on air pollution	Background levels of air pollutants
	Decrease in biodiversity	Area of UKBAP priority habitat and number of UKBAP priority species
	Increasing in flooding	<i>Indicator to be agreed</i>
<b>CONTEXTUAL INDICATORS</b>	Increase in carbon dioxide levels	Carbon dioxide emissions
	Decrease in river quality	River quality (biological and chemical)
	Increases in water pollution	Water pollution incidents
	Overall traffic growth	Traffic growth (volume)



## **9 APPROPRIATE ASSESSMENT**

- 9.1.1 Where relevant, the preferred options will also be subject to Appropriate Assessment of the potential impacts of mineral and waste development on Special Areas of Conservation (SACs) and Special Protection Areas (SPAs). In accordance with requirements of the European Habitats Directive, these assessments will be carried out in conjunction with the site assessment work that will be undertaken for preparation of the Minerals and Waste Sites Documents. Policies and proposals for inclusion in the Minerals and Waste Core Strategy submission document will not be finalised until any necessary appropriate assessments have been carried out.
- 9.1.2 Reporting on the work undertaken during Appropriate Assessment will either be incorporated into the final Sustainability Appraisal report but clearly highlighted or will be the subject of a separate report accompanying the Core Strategy and Sustainability Appraisal. This will be decided at a later date.

**If you need this information in another language, large print, Braille, on audiocassette, computer disk or by email, please telephone 01865 816025**