

Northamptonshire County Council

# Sustainability Appraisal Environmental Report

Minerals and Waste Local Plan

Submission document

November 2013



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## NON TECHNICAL SUMMARY

This Sustainability Appraisal (SA) Environmental Report has been developed to appraise the Northamptonshire Minerals and Waste Local Plan for submission and its contributions towards sustainable development.

The Northamptonshire Minerals and Waste Local Plan, or the Local Plan, when adopted will provide the land use planning strategy for minerals and waste related development in the county. It provides the basis for investment in new minerals and waste development in Northamptonshire, and where in the county it should go to. The Local Plan will be the outcome of a partial review of the Northamptonshire Minerals and Waste Development Framework (MWDF) which is currently taking place.

### Sustainability Appraisal

Under the Planning and Compulsory Purchase Act 2004 (s39) (the Act), SA is a mandatory part of the plan making process. The process of undertaking SA assists planning authorities to fulfil the objective of integrating sustainable development principles into the plan making process. The purpose of the SA Environmental Report is to detail the appraisal process and the likely significant sustainability effects of implementation of the Local Plan and reasonable strategic options. This SA Environmental Report was developed to appraise the contribution of this spatial plan towards sustainable development.

The SA Environmental Report was prepared within the Planning Policy section of Northamptonshire County Council and was developed alongside the Local Plan through the partial review process during the period 2012 to 2013.

The SA Environmental Report aims to fulfil requirements of the Act, its Regulations and the SEA Directive, and was produced in accordance with 'A Practical Guide to Strategic Environmental Assessment (SEA) Directive (2005)'. Consultation on the SA Scoping Report and SA Environmental Report has been undertaken alongside the plan-making process as per the Regulations. The approach adopted for the SA Environmental Report was largely dictated by Government guidance. The SA process involves five stages, outlined below.

#### Stage A: Setting the context and scope

The SA Scoping Report (June 2012) sets the context and scope for the Local Plan, provides a sound base for both the Local Plan and the SA Environmental Report and seeks to satisfy legislative and SEA Directive requirements.

#### Stage B: Options appraisal

Locally specific issues were explored through the issues and options process (the partial review 'Way Forward' consultation paper) in order to address sustainable development of minerals and waste at an appropriate level. Options were appraised to determine potential contribution towards sustainable development.

#### Stage C: Assessing sustainability effects of the Local Plan

The appraisal of the sustainability effects of the Local Plan and its components, including the key principles (or objectives), were addressed through the SA process and assessed through the SA Scoping Report. Each of the Local Plan components have been assessed against the SA Framework Objectives identified through the SA Scoping Report.

#### Stage D: Consulting on the Draft Local Plan and the SA Environmental Report

The Local Plan and the SA process were undertaken concurrently, as such public consultation for the draft Local Plan and SA Environmental Report was undertaken over the period 17 January to 14 March 2013 and for the final draft (proposed submission) Local Plan and SA Environmental Report over the period 5 September to 31 October 2013. Public consultation was undertaken in accordance with the SCI and Regulations. Representations received were given due consideration in the development of the Local Plan and the SA Environmental Report.

## Stage E: Monitoring implementation of the Local Plan

Following adoption, monitoring of the implementation of the Local Plan will be undertaken by the County Council according to proposals for monitoring set out in the SA Environmental Report and in accordance with national guidance.

## Northamptonshire's baseline characteristics and sustainability issues

Northamptonshire covers an area of over 200,000 hectares (ha). The population has grown by over 50% over the past 50 years, particularly through planned growth and the designation of and development at new and expanded towns. It has nevertheless retained traditional shire characteristics. The area is predominantly rural in character, interspersed with large to small towns built on commercial activities ranging from manufacturing to farming.

### Economic

The global economy entered recession in 2008, following the contraction in the money markets that commenced in 2007. The economic situation in the County has been significantly affected by the recession. While the evidence suggests that the impacts are slowing, conditions remain difficult in many areas.

The rapid expansion of the county in the past three decades has brought with it a diversified industrial and commercial base. Northamptonshire's economy has consistently experienced growth well above national averages, despite the decline in traditional industries. The traditional industrial base, centred on footwear manufacturing, steelmaking and agriculture, is being supplanted by service, high technology, engineering and distribution sectors.

Approximately 310,000 people are employed in the County with the three main employment industries in the county are public administration, education and health (approx 25%), distribution, hotels and restaurants (approx 21%) and manufacturing (approx 16%).

Key issues influencing the achievement of economic growth in a sustainable manner include: comparatively low skill levels and training take-up rates for employment related training; coping with economic diversification and ensuring quality employment opportunities for all; tackling a lack of innovation and enterprise culture; ensuring that wealth generation is retained within the county; balancing growth, communities and the environment whilst harnessing the economic potential of the rural areas; tackling a lack of access to, and diminishing provision of, local business, transport, facilities and services in rural areas; and recovery from the economic recession.

### Environment

#### Effective protection of the environment

Local heritage and landscape character have helped Northamptonshire to retain a distinct identity. The greater part of the County retains a strong rural character, and comprises agricultural land and isolated villages, hamlets and country estates. Despite large areas being managed for agriculture, significant nature conservation interest is evident in a range of semi-natural habitats, ranging from acidic grasslands to ancient woodlands. Northamptonshire was first settled over 10,000 years ago, as evidenced by buried archaeology, standing buildings, historic sites and landscapes. The River Nene is the principal river catchment in Northamptonshire, extending from the hills in the west of the County and flowing eastwards. The character of the Nene Valley has been dramatically altered between Northampton and Thrapston; where significant sand and gravel extraction has taken place resulting in a modern landscape of artificial lakes and woodland.

Key issues influencing the effective protection of the environment include: balancing economic growth and development whilst protecting the environment; improvement of the quality of the natural, historic and built environment; biodiversity decline; water quality; climate change; and uptake of renewable energy technologies.

#### Prudent use of natural resources

Population growth has significant implications for minerals and waste development, as both are required to support growth patterns. However, these industries are often seen in a negative light due to potential adverse impacts. It is therefore essential to minimise potential

adverse impacts on the environment and local community. This includes promoting the prudent use of natural resources and improving design efficiency.

Key issues influencing the prudent use of natural resources include: inefficient and often wasteful use of natural resources; minimisation of potential adverse impacts on the environment and community; optimising the use of previously-developed land; ensuring the appropriate restoration and after-use of sites; promotion of sustainable waste management; and ensuring a steady and adequate supply of minerals whilst protecting the environment and safeguarding resources.

## Social

Due to its convenient location Northamptonshire has become a popular place to live and work. Population growth has predominantly resulted from the county absorbing growth pressure from surrounding areas, particularly from London and the South East, but also the West Midlands. Between the 1960s and mid 2011 the county's population increased by more than 50% to approximately 691,900 residents. The North Northamptonshire Core Spatial Strategy and the West Northamptonshire Pre-submission Joint Core Strategy plan for the development of a combined total of up to 61,870 houses between 2010 and 2026.

Continuing growth and changing demographics present a challenge in relation to ensuring the provision of appropriate infrastructure, services and facilities to reflect growth patterns and ensure adequate access. Throughout the County varying levels of deprivation and disadvantage impact on the community's ability to become involved in broader level issues, such as environmental issues.

Key issues influencing the development of sustainable communities include: providing for continued population growth and ensuring the provision of housing, infrastructure, facilities and services reflects growth patterns; addressing changing demographics; awareness and engagement in environmental issues; access to recreational opportunities; adverse impact of transport on communities and the environment; and addressing social exclusion, inequalities, disadvantage and discrimination.

## Spatial

Northamptonshire is predominantly rural in character and displays a range of townscapes and landscapes with distinct identities and character that are linked at the broader landscape level. The County exhibits two distinct areas in terms of the main settlement pattern - west and east. Recent population growth has resulted in additional demands for the provision of appropriate infrastructure and transport networks to meet land-use and development patterns.

Key issues influencing spatial character and planning include: the provision of appropriate infrastructure and an integrated transport network that supports economic and community development; protection of townscapes and landscapes; availability of land for development (in appropriate locations); safeguarding existing land-uses; and ensuring appropriate facilities for waste management.

## Main strategic options

In conducting SA and SEA, the likely significant effects of implementing the plan and any reasonable alternatives must be appraised. It is normal practice when developing a plan to propose different ways of fulfilling the objectives.

The strategic issues explored through the partial review process included:

- Identifying Northamptonshire's aggregate apportionments / provision rates,
- Identifying Northamptonshire's waste management needs,
- Addressing low level radioactive waste,
- Existing spatial strategy, site allocations and specific development policies,
- Addressing climate change,
- Development requirements for neighbourhood waste management facilities,
- Encouraging sustainable transport movements,
- Ensuring high standards for restoration and after-use, and
- Minimising impacts of minerals and waste development.

*No changes were proposed to the spatial strategy, site allocations or specific development criteria as part of this partial review, as such this matter was dropped from further consideration and assessment.*

Sustainability issues (including social, environmental and economic issues) were taken into consideration in identifying the preferred policy approach and developing the draft Local Plan through the application of the SA Framework in assessing the potential effects of the strategic options. This allowed for specific problems and issues within each option to be highlighted. In addition, the options were compared with each other and with the current social, environmental and economic characteristics of the area. This process assisted in identifying which option was the most appropriate to achieve sustainable development given local circumstances.

### Predicting significant effects from implementation of the Local Plan

The SA Framework forms the basis for appraising sustainability effects, and represents relevant sustainability issues including economic, environmental, social and spatial issues.

Consideration of sustainability issues and identified problems throughout the development of the Local Plan are summarised below. Conclusions drawn from the appraisal have influenced the development of the final plan for submission. In this manner it is believed that the proposed policies offer the most significant contribution towards sustainable development and provide a healthy balance of potential sustainability effects.

Significant effects resulting from implementation of the components of the Local Plan subject to amendment through the partial review process were assessed against the SA objectives in order to determine the overall effect of these components of the Local Plan in relation to sustainability issues. Many of the SA objectives (and issues or problems) are inter-related and can be captured through consideration under their broader titles. As such it was seen as unnecessary to undertake assessment against individual SA objectives. Specific sustainability issues and problems were identified and investigated through the appraisal.

The assessment of cumulative effects assists in the identification of the total effect of both direct and indirect impacts on receptors. The SEA Directive requires the assessment of effects including secondary, cumulative and synergistic effects.

Cumulative effects resulting from implementation of the components of the Local Plan subject to amendment through the partial review process were assessed against the individual SA objectives in order to identify the total effect of both direct and indirect effects on receptors.

The appraisal of significant and cumulative effects resulting from implementation of the Local Plan policies addresses all of the SA objectives to varying levels.

#### Economic

Economic effects can be predicted based on available evidence however the level of confidence in predictions, and magnitude of effects, is reliant on industry and market response to the policy context surrounding waste and environmental management. The appraisal of the significant and cumulative effects resulting from implementation of the Local Plan policies addresses all of the SA objectives to varying levels. Economic effects associated with implementation are most likely to be cumulative. Interestingly, the appraisal indicated that there would be two distinct effects. Firstly, the provision of minerals and waste management facilities to support Northamptonshire growth would result in positive cumulative effect. Secondly, increased requirements placed on developers (such as promotion of sustainable development and reporting requirements) are likely to have a minor initial adverse effects regarding resource implications for developers, however this would be expected to stabilise and be succeeded by increased potential for innovation and industry competitiveness.

#### Environment

Environmental effects, although complex, can be predicted based on available evidence however the level of confidence in predictions, and magnitude of effects, is dependent on the nature of development and surrounding environment. The appraisal of the significant and cumulative effects resulting from implementation of the Local Plan policies addresses the majority of the SA objectives to varying levels. Environmental effects associated with implementation include secondary, cumulative and synergistic effects. The appraisal indicated

that whilst overall the effect was positive, operational effects from individual minerals and waste developments may result in localised adverse effects (dependant on the nature of the operations and receiving environment), however this is balanced by the requirement for mitigation measures and policies supporting the enhancement and protection of the built and natural environment.

### Social

Social effects are often quite difficult to predict as they are most likely to be qualitative and occur through secondary effects rather than direct or manifest. The appraisal of the significant and cumulative effects resulting from implementation of the Local Plan addresses all of the SA objectives to varying levels, but does not adversely affect social issues.

### Spatial

Spatial effects can be predicted based on available evidence however the level of confidence in predictions, and magnitude of effects, is dependent on the nature of development and the broad landscape context. The appraisal of the significant and cumulative effects resulting from implementation of the Local Plan policies addresses all of the SA objectives to varying levels. The appraisal indicated that significant positive effects exist in relation to the promotion of sustainable development and efficient design, and facilitation of development of necessary infrastructure.

## Mitigation measures

Measures to prevent, reduce or offset significant adverse effects, or 'mitigation measures' of implementing the Local Plan must be identified through the SA Environmental Report. Mitigation measures can include proactive avoidance of adverse effects, actions taken after effects are noticed, and recommendations for improving beneficial effects.

### Mitigation measures - Potential adverse effects

There are limited potential adverse effects resulting from the implementation of the Local Plan. Those identified through the SA and proposed mitigation measures are outlined below.

Initial minor financial and / or resource implications for developers have been identified as a potential adverse effect particularly with respect to incorporating materials resource efficiency, sustainable design and waste management with other development. It is believed that this effect will be localised and temporary, with implementation over the medium to long-term stabilising or reversing this effect in line with evolving industry practice and market capacity. In order to reduce any adverse effects relevant industry references have been identified and other industry bodies that include guidance on practical implementation measures.

Operational effects resulting from individual minerals and waste developments on the receiving environment were also identified as a potential adverse effect. The level of impact is dependent on the nature of operations and receiving environment. Proposals for development are required to identify potential effects and provide for adequate mitigation measures to avoid and / or reduce the potential impact to an acceptable level.

### Mitigation measures - Beneficial effects

The Local Plan seeks to set out the long-term vision for waste and minerals development in Northamptonshire and identifies measures to ensure the provision of facilities and services to support growth. The most substantial benefits resulting from the Local Plan are likely to occur as a result of the cumulative effect of all the policies being implemented together. In order to ensure consistent implementation and increase potential benefits a range of measures pertaining to practical implementation and awareness have been developed, these include: reporting requirements; monitoring requirements and enforcement measures; waste forecasts; integration with the existing planning application process; and identification of industry guidance.

### Uncertainties and risks

Uncertainties and risks identified through the SA process include limitations in terms of availability of quantitative information and subsequently confidence of assessment (where based on qualitative judgement). The process of undertaking SA inevitably relies on an

element of subjective judgement. Resources utilised to assist in predicting and assessing the sustainability effects of the Local Plan include analysis of the baseline situation (evidence base), characteristics of Northamptonshire and relevant sustainability issues, relevant case studies, as well as professional experience and judgement (including formation of rational assumptions). These resources have been applied where possible to determine potential effects of implementation of the Local Plan. It is important to recognise that there exists an inherent risk in all prediction techniques, and as such the worst case scenario has been assumed throughout the SA process where uncertainty exists.

## Monitoring framework

The purpose of monitoring is twofold as it needs to consider both beneficial and adverse effects. Firstly, it should measure the actual significant sustainability effects of implementing the LPD against those predicted in the SA and measure contribution towards achievement of desired objectives. Secondly, it assists in identification of unforeseen adverse effects and the need to undertake appropriate remedial action. The SA monitoring framework for the Local Plan was developed to specifically focus on significant sustainability effects and seeks to measure indicators which may establish a causal link between implementation of the Local Plan and the likely significant effects being monitored.

The County Council is responsible for conducting monitoring on implementation of the Local Plan. However, the District and Borough Councils also have a role in monitoring at the local scale relating to residential, commercial, or industrial development (not minerals and waste development). It is intended that monitoring be undertaken in line with the Minerals and Waste Monitoring Report (MWMR). Gaps in existing information will be identified so that consideration might be given to how these could be addressed in the longer term.

## SA process statement

Sustainability Appraisal is a mandatory component of the plan making process. The process of undertaking SA assists planning authorities to fulfil the objective of integrating sustainable development principles into the plan making process. The purpose of SA is to promote sustainable development through better integration of sustainability considerations into plan preparation and adoption. The application of the SA to the Local Plan was found to have four main beneficial outcomes.

Firstly, the appraisal of the components of the Local Plan subject to amendment through the partial review process assisted in identifying the likely significant sustainability effects (and their interactions) of implementation and capacity to contribute towards sustainable development.

Secondly, the SA process assisted in highlighting the need for the Local Plan to expand upon higher level policy and provide further detail and guidance in relation to specific local issues faced by Northamptonshire, particularly in order to enhance beneficial effects and mitigate potential adverse effects.

Thirdly, the identification and development of the baseline situation, local characteristics and sustainability issues assisted in determining the scope and function of the Local Plan.

Lastly, the SA tested the different options for the delivery of the Local Plan in respect of their likely significant environmental, social and economic effects. The most sustainable options were then carried forward into the draft plan and subsequently to final draft plan (proposed submission) and submission document. In some cases the most sustainable option was not practical, in which case the option considered appropriate made an adequate contribution, and mitigation measures have been included in order to maximise potentially beneficial effects. The appraisal of significant effects assisted in developing appropriate mitigation and enhancement measures as well as proposed monitoring arrangements to measure the actual significant sustainability effects of implementing the Local Plan; contribution towards achievement of desired objectives; identification of unforeseen adverse effects; and the need to undertake appropriate remedial action. The identification of such measures has also assisted in forging links with other plans, policies and strategies.

## 1. INTRODUCTION

- 1.1. This Sustainability Appraisal (SA) Environmental Report relates to the Northamptonshire Minerals and Waste Local Plan (Local Plan). The Local Plan when adopted will provide the land use planning strategy for minerals and waste related development in the county. The Local Plan will be the outcome of a partial review of the Northamptonshire Minerals and Waste Development Framework (MWDF) which is currently taking place.
- 1.2. The Local Plan identifies what minerals and waste related development should go where, why it should go there, and how by doing so, it can make other land use and infrastructure systems function better. It considers the impact and design of new minerals and waste development, and focuses on how this development can best relate to the surrounding land use and link with the wider community.
- 1.3. It is also intended to act as a driver for new investment and identifies how investment in minerals and waste development can be optimised for everyone's benefit. It focuses, and where appropriate, integrates minerals and waste development activity and investment with other development and investment in the county. As such it is referred to as a 'spatial plan'.

### The partial review

- 1.4. Changes in the planning system have resulted in the Development Frameworks (i.e. the MWDF), previously the main vehicle for setting out the context for planning decisions on minerals and waste development, being replaced by Local Plans.
- 1.5. Northamptonshire County Council are undertaking a partial review of the adopted MWDF in order to ensure that it is up-to-date and in-line with current national policy and guidance. When this partial review is complete, the Local Plan, and associated documents, will provide the strategic spatial planning framework for Northamptonshire's minerals and waste development that guides future land use planning and promotes sustainable development and sound planning.
- 1.6. The Act (2004), the National Planning Policy Framework (NPPF) and Government guidance provide for the transition between the existing MWDF to the Local Plan Document (LPD).
- 1.7. The adopted MWDF will retain its status until it is superseded by the Local Plan (upon adoption). There is however pressure for Local Planning Authorities to replace their Development Frameworks with Local Plans due to the 'presumption in favour of sustainable development' and national policy highlighting the importance of keeping plans up-to-date (as set out in the NPPF). Where a plan is out-of-date or silent on matters there will be a presumption in favour of sustainable development. The review of the SA will form the base of the partial review process.
- 1.8. Although the MWDF is recently adopted and most of the plan is considered to be up-to-date there are elements which were considered to be losing their immediacy.
- 1.9. The partial review will extend the end date of the existing MWDF from 2026 to 2031, both for the reviewed elements and the remainder of the plan. In doing so, the current portfolio of Development Plan Documents (DPDs) will now be branded as the Minerals and Waste Local Plan and combined into one document. Table 1 shows the elements of the partial review process and outcomes.

**Table 1: Partial review outcomes**

MWDF existing current documents	Partial Review what is being reviewed	Sustainability Appraisal what is being assessed	Partial review the outcomes
<b>Partial Review Process</b>			
<b>Core Strategy</b>	✓	✓	Local Plan Policies Map
<b>Locations for Minerals Development DPD</b>	✗	✗	
<b>Locations for Waste Development DPD</b>	✗	✗	
<b>Control and Management for Development DPD</b>	✓	✓	
<b>Proposals Map</b>	N/A	N/A	
<b>Development and Implementation Principles Supplementary Planning Document</b>	✓	✓	Development and Implementation Principles Supplementary Planning Document
<b>Statement of Community Involvement</b>	N/A	N/A	Statement of Community Involvement
<b>Minerals and Waste Development Scheme</b>	N/A	N/A	Minerals and Waste Development Scheme
<b>Annual Monitoring Report</b>	N/A	N/A	Minerals and Waste Monitoring Report

**1.10.** The Northamptonshire Minerals and Waste Local Plan:

- Sets out the broad strategy for minerals and waste in the county and the amount of provision we will need to make for such development (note that spatial strategies are not included in the partial review),
- Identifies specific sites for waste-related development (note that site allocations are not included in the partial review),
- Identifies specific sites for minerals-related development (note that site allocations are not included in the partial review),
- Covers aspects of controlling and managing minerals and waste-related development, and
- Includes a Policies Map, which identifies the sites (and policies where possible) on a detailed map.

**1.11.** There are also related documents that combined with the Local Plan will form part of the Development Plan for Northamptonshire:

- Development and Implementation Principles Supplementary Planning Document (SPD) which provides guidance on waste minimisation and the provision of waste management facilities in new development, as well as the design and restoration of minerals and waste facilities.
- Statement of Community Involvement (SCI), which sets out how the council will consult and engage with people during the preparation of the Local Plan as well as on significant planning applications submitted to the council.
- The Minerals and Waste Development Scheme (MWDS) which sets out the composition of and the production process, for the partial review process and its individual components.
- Minerals and Waste Monitoring Report (MWMR), which monitors how the council is progressing with the Local Plan (and MWDF until formerly replaced), and particularly how its policies are being implemented; the MWMR is to be produced annually.

**1.12.** This SA is only for the components of Northamptonshire’s minerals and waste planning policy which are under partial review. The sections of the existing MWDF which are not being reviewed at this time do not require further SA. As a result of this the SA framework has not been amended as it is considered fit for purpose and to do so would not value-add to the process or prove an efficient approach.

**1.13.** Given the above, it was decided that in order to ensure efficiency within the plan making process, the SA Environmental Report would act for both the Local Plan and associated documents. This

applies to the Scoping Report which reflects the current policy context and revised baseline information.

## Sustainability Appraisal

- 1.14. Under the Planning and Compulsory Purchase Act 2004 (s39) (the Act), SA is a mandatory part of the plan making process. The process of undertaking SA assists planning authorities to fulfil the objective of integrating sustainable development principles into the plan making process.
- 1.15. The purpose of the SA Environmental Report is to detail the appraisal process and the likely significant sustainability effects of implementation of the Local Plan and reasonable strategic options. This SA Environmental Report was developed to appraise the contribution of this spatial plan towards sustainable development.
- 1.16. This SA Environmental Report has been prepared by the Planning Policy section of Northamptonshire County Council as part of the partial review process.
- 1.17. The SA Environmental Report aims to fulfil requirements of the Act, its Regulations and the SEA Directive, and was produced in accordance with 'A Practical Guide to Strategic Environmental Assessment Directive (2005)'.

## 2. APPRAISAL METHODOLOGY

### Approach adopted for the SA

- 2.1. This Sustainability Appraisal (SA) Environmental Report has been developed to appraise the Minerals and Waste Local Plan for submission and its contributions towards sustainable development.
- 2.2. The approach adopted for the SA Environmental Report has been largely dictated by Government guidance. The SA was undertaken primarily on the basis of professional judgement informed by the evidence base and other information made available to the Council. In undertaking the assessment of the potential effects any judgements of significance were systematically documented in accordance with Government guidance. The range of techniques used in the prediction and assessment of effects included expert judgement, consultation, GIS, compatibility assessment, sensitivity analysis and multi-criteria analysis. The appropriateness of individual techniques to meet the Council's needs and requirements were assessed accordingly.

### Production of the SA

- 2.3. The SA Environmental Report was prepared within the Planning Policy section of Northamptonshire County Council and was developed alongside the Local Plan through the partial review process which commenced in June 2012.

### Consultation during development of the Local Plan

- 2.4. Public consultation is a key element of SA (including the SEA Directive) and the new planning system and is required under the Regulations for both the SA Scoping Report and SA Environmental Report.

### Consultation on the SA Scoping Report

- 2.5. Consultation on the Scoping Report helps to ensure that the SA will be comprehensive and robust to support the Plan during later stages of full public consultation and examination. Consultation took place between 28 June and 23 August 2012. Consultation was undertaken in accordance with Government guidance and included the SEA Consultation Bodies as required by the SEA Directive (Natural England, English Heritage and Environment Agency) and other appropriate social and economic consultees. The Scoping Report was also made available to other parties upon request and via the Council's website. Representations received were taken into consideration in finalising the Scoping Report.
- 2.6. The main outcomes achieved through consultation on the SA Scoping Report were the identification and consideration of the policy context, this included changes to update the emerging Local Plan so that it is more fully in line with the NPPF. The consultation also assessed the baseline information and sustainability objectives which influence the Plan and the SA. This

helped to development of comprehensive and robust SA Framework and appraisal methodology able to support the Local Plan through the plan-making process.

### Consultation on the (draft) SA Environmental Report for the Local Plan

- 2.7. Both internal and external (informal) consultation will be undertaken throughout development of the Local Plan, this includes:
  - seeking advice and comment from relevant sections of the County Council, and
  - external consultation with key stakeholders, including relevant District and Borough Council officers, SEA Consultation Bodies (English Heritage, Natural England and Environment Agency) and other appropriate consultees (e.g. the Wildlife Trust).
- 2.8. Formal public consultation on the (draft) SA Environmental Report and the Local Plan document was undertaken in accordance with the 2004 Act and its Regulations (including the 2012 Amendment), the SEA Directive and the Statement of Community Involvement (SCI). The plan making and SA process were undertaken concurrently, and as such public consultation for both documents was undertaken simultaneously over the period 17 January to 14 March 2013 for the draft Local Plan and SA Environmental Report and 5 September to 31 October 2013 for the final draft (proposed submission) Local Plan and SA Environmental Report. Public consultation was undertaken in accordance with the SCI and Regulations. Representations received were given due consideration in the development of the Final Local Plan (submission document) and the final SA Environment Report.

## 3. BACKGROUND

### Purpose of the SA and the SA Environmental Report

- 3.1. Under the Planning and Compulsory Purchase Act 2004 (the Act), SA is mandatory for Local Plans as part of the plan-making process. The process of undertaking SA assists planning authorities to fulfil the objective of integrating sustainable development principles into the plan-making process.
- 3.2. When preparing Local Plans, (and Supplementary Planning Documents, SPD's) authorities must conduct an environmental assessment in accordance with the requirements of European Directive 2001/42/EC. This must include 'assessment of the effects of certain plans and programmes on the environment' (the Strategic Environmental Assessment or SEA Directive). SA effectively broadens the concept of SEA to encompass economic and social impacts.
- 3.3. The requirement to carry out SA and SEA are distinct. However, it is possible to satisfy both through a single appraisal process. It should be noted that where reference is made to SA it should be taken to include the requirements of the SEA Directive.
- 3.4. The purpose of SA is to promote sustainable development through better integration of sustainability considerations into plan preparation and adoption. SA is an integral part of good plan-making and should not be seen as a separate activity.
- 3.5. SA 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 the social, environmental and economic objectives of sustainable development.
- 3.6. The purpose of the SA Environmental Report is to detail the appraisal process and the likely significant sustainability effects of implementation of the Local Plan and reasonable strategic options.
- 3.7. The SA Environmental Report details:
  - The baseline situation and identification of sustainability issues and problems,
  - Prediction and appraisal of the effects of implementation of the strategic options and the Local Plan,
  - Consideration and selection of the preferred options (forming the Draft Plan),
  - Consideration of sustainability issues in selection of preferred options,
  - Mitigation measures incorporated into the Local Plan, and
  - Proposed monitoring arrangements.

## Detailed application of the SA process for the Local Plan

- 3.8. As part of the plan-making process plan objectives were developed with due consideration of the policy hierarchy influencing both the plan and the SA. Following the development of the plan objectives, key issues were identified. By examining the key issues various options were identified which were considered to address the issues and support plan development. These options were put forward for consideration through the issues and options consultation process (the partial review 'Way Forward' consultation paper) to aid in the development of the Local Plan policies.
- 3.9. Following consultation these options were refined and in most cases elements of several options were combined and enhanced through stakeholder review and comment to form the preferred options. The sustainability of plan options has been tested in accordance with the SEA Directive. It is important to note that although the County Council officers retain the ultimate decision as to what plan options are to be taken forward both the SA and stakeholder engagement were considered key aspects guiding the selection of the preferred options that formed the Draft Plan.
- 3.10. The selection of the preferred options allowed for a set of draft policies to be developed.

### Stage A: Setting the context and scope

- 3.11. The SA Scoping Report (June 2012) sets the context and scope for the Local Plan, provides a sound base for both the Local Plan and the SA Environmental Report and seeks to satisfy legislative and SEA Directive requirements.

### Stage B: Options appraisal

- 3.12. Locally specific issues were explored through the issues and options process (the partial review 'Way Forward' consultation paper) in order to address sustainable development of minerals and waste at an appropriate level. Options were appraised to determine potential contribution towards sustainable development.

### Stage C: Assessing sustainability effects of the Local Plan

- 3.13. The appraisal of the sustainability effects of the Local Plan and its components, including the key principles (or objectives), were addressed through the SA process and assessed through the SA Scoping Report.
- 3.14. Each of the Local Plan components have been assessed against the SA Framework Objectives identified through the SA Scoping Report.

### Stage D: Consulting on the Draft Local Plan and the SA Environmental Report

- 3.15. The Local Plan and the SA Environmental Report were produced concurrently, as such public consultation for both the draft Local Plan and SA Environmental Report was undertaken over the period 17 January to 14 March 2013 with consultation for the final draft (proposed submission) Local Plan and SA Environmental Report undertaken over the period 5 September to 31 October 2013. Public consultation was undertaken in accordance with the SCI and Regulations. Representations received were given due consideration in the development of the Local Plan and the SA Environmental Report.

### Stage E: Monitoring implementation of the Local Plan

- 3.16. Following adoption, monitoring of the implementation of the Local Plan will be undertaken by the County Council according to proposals for monitoring set out in the SA Environmental Report and in accordance with national guidance.

## Plan objectives and outline of Local Plan contents

### Overview of the Minerals and Waste Local Plan

- 3.17. The Northamptonshire Local Plan will
- Set out the broad strategy for minerals and waste in the county and the amount of provision we will need to make for such development (note that spatial strategies are not included in the partial review),

- Identify site specific allocations for both minerals and waste related development, as well as industrial locations for waste-related development (note that site allocations are not included in the partial review),
  - Cover aspects of controlling and managing minerals and waste related development, and
  - A Policies Map, which identifies the allocations and policies where possible on a detailed map.
- 3.18. The Development and Implementation Principles Supplementary Planning Document (SPD) which provides practical guidance concerning all other forms of development (such as waste minimisation and management and preventing land use conflict), as well as those specific to minerals and waste development (such as catchment areas, addressing potentially adverse effects, design and restoration).
- 3.19. Other documents related to the Local Plan include:
- Minerals and Waste Development Scheme (MWDS), which sets out the composition of and the production process, for the partial review process and its individual components.
  - Statement of Community Involvement (SCI), which sets out how the council will consult and engage with people during the preparation of the Local Plan as well as on significant planning applications submitted to the council.
  - Minerals and Waste Monitoring Report (MWMR), which monitors how the council is progressing with the Local Plan (and MWDF until superseded by the Local Plan), and particularly how its policies are being implemented; this is to be produced annually.

### Local Plan vision and objectives

- 3.20. The Local Plan vision outlines the Plan's intent and desired outcomes in spatial planning terms, thereby setting the context for development options minerals and waste development within Northamptonshire at a broad level. The vision also demonstrates a sense of local distinctiveness and considers the functional relationship between key social, environmental, economic and physical features of the area.
- 3.21. The objectives, or key principles, set out what the Plan is aiming to achieve in spatial planning terms and will set the context for development options for minerals and waste development within the County. The spatial objectives support the spatial vision and build upon national planning objectives.

### The vision for minerals and waste related development in Northamptonshire

*The Northamptonshire of 2031 will have seen sustained growth and development. A network of well designed urban-focused waste management facilities, and sensitively worked and restored mineral extraction sites from the glacial and pre-glacial areas in the western half of the county and certain of its river valleys, will have helped to have brought about the implementation and management of this growth.*

*Through growth and development, the creation of sustainable communities across Northamptonshire will have also been underpinned by optimising the efficient use of mineral and waste resources, including communities taking more responsibility for the waste they generate.*

### The objectives – our path to achieving the vision

#### Objective 1: Developing sustainable communities

*Support the development of sustainable communities in Northamptonshire by facilitating the provision of infrastructure, facilities and services through ensuring:*

- a steady and adequate supply of minerals to the construction industry, and
- development of a modern network of sustainable waste management facilities which contributes towards achieving net self-sufficiency and meets community, business and industry needs.

#### Objective 2: Sustainable minerals and waste development in Northamptonshire

*Promote a step change in high quality design-led sustainable development by maximising materials resource efficiency, minimising waste, optimising the use of existing infrastructure and highway networks and previously developed land and promoting the sustainable transport of materials.*

**Objective 3: Promoting a clear investment framework**

*Promote a clear investment framework that identifies priorities for future private and public investment in minerals and waste development which gives confidence in delivery and ensures linkages to other growth area investment within and adjacent to Northamptonshire.*

**Objective 4: Spatial distribution of minerals development**

*Facilitate mineral extraction within Northamptonshire through a strategic approach that directs through a clear and deliverable spatial strategy, particularly for sand and gravel, extraction of the mineral deposits that will meet the annual provision rates for Northamptonshire.*

**Objective 5: Spatial distribution of waste development**

*Facilitate the delivery of a strategic urban-focused flexible waste management network which supports the management of waste close to where it has been generated, with particular encouragement of integrated waste recovery and treatment facilities.*

**Objective 6: Efficient use and re-use of mineral resources**

*Ensure efficient use of primary aggregates and encourage the use of secondary and recycled materials for higher quality end-uses for development to support the growth of Northamptonshire and its infrastructure requirements.*

**Objective 7: Safeguarding Northamptonshire's mineral resources**

*Safeguard Northamptonshire's key mineral resources, particularly sand and gravel, from sterilisation by other forms of development.*

**Objective 8: Safeguarding Northamptonshire's waste management network**

*Safeguard Northamptonshire's waste management network from incompatible development.*

**Objective 9: Supporting local identity**

*Support the distinctive local identity of Northamptonshire through the supply of locally sourced building materials (including varieties of limestone, ironstone, sandstone and Collyweston stone slate) and encourage their use within the county for the purposes for which they are most suitable.*

**Objective 10: Conserving and enhancing Northamptonshire's built and natural environment**

*Recognise Northamptonshire's environmental systems and landscape linkages in order to conserve and enhance the built and natural environment through ensuring sensitive working, and where necessary high standards of mitigation of potentially adverse impacts of minerals and waste development.*

**Objective 11: Responsible stewardship through restoration**

*Ensure an appropriate and beneficial after-use from mineral, and where appropriate waste development, through restoration that maximises enhancement opportunities, delivers a net gain in environmental capital and fosters responsible stewardship.*

**Objective 12: Safe and healthy communities**

*Preserve residential amenity, protect the health and safety of communities and promote recreational opportunities associated with minerals and waste development.*

## Compliance with the SEA Directive and Regulations

- 3.22. The SA Environmental Report aims to fulfil requirements of the Act, its regulations and the SEA Directive, and has been produced in accordance with A Practical Guide to Strategic Environmental Assessment Directive (2005).

## 4. SUSTAINABILITY OBJECTIVES, BASELINE AND CONTEXT

### Links to other strategies, plans, programmes and sustainability objectives

- 4.1. As part of plan preparation and SA process a review was conducted of relevant policies, plans and programmes influencing the policy context of the Plan and SA (refer to Appendix 1). Sustainability objectives within the policy context were also identified and taken into consideration through development of the SA Framework.
- 4.2. This process enables the identification of potential synergies between other policies, plans and programmes. It also assists in the identification and clarification of any inconsistencies and constraints. The review incorporated relevant material at an international (including EU), national and local policy context level.
- 4.3. The identification of documents forming the policy context is considered to comply with the requirements of the SEA Directive. No list or review of relevant policies, plans and programmes can ever be exhaustive. The review seeks to identify the key policy material and ensure that the key messages are given due consideration and appropriately incorporated into the Plan and SA. The hierarchical nature of policy has also been taken into consideration.

### Baseline information, predictions, key sustainability issues and identified problems

#### Baseline information

- 4.4. Baseline information provides the basis for predicting and monitoring effects and helps to identify key sustainability issues. The baseline data was originally co-ordinated with the development of the evidence base as required by the plan-making process and development of the SA Framework. The baseline information is included in the SA Scoping Report.
- 4.5. Information on the current state and emerging trends of economic, environmental, social and spatial planning factors within Northamptonshire allow the Plan's effects to be adequately predicted and monitored. Indicators have been tailored to specifically address issues of relevance to minerals and waste development. Generic information has only been included where it was believed to add value to the baseline.
- 4.6. Data limitations include data availability (e.g. at the correct scale and up-to-date, unreliable sources or statistics and information being commercially sensitive). Data collection is ongoing throughout the development and monitoring of minerals and waste planning policy. As such indicators and data will continue to be updated as necessary to ensure that the local factors are accurately reflected.
- 4.7. An overview of the state of Northamptonshire, with respect to economic, environmental, social and spatial planning matters as they relate to mineral and waste development, is provided in the following sections. This is believed to fulfil the requirement of providing information regarding environmental characteristics and the state of the environment as per the SEA Directive.

#### Key sustainability issues

- 4.8. The SA Framework must highlight any existing environmental, economic, social and spatial planning issues of relevance to development documents. The identification of the key sustainability issues assists in the development of the SA Framework. The key sustainability issues were derived from the analysis of the policy context, focussing on material of specific relevance to Northamptonshire. The key issues are outlined in the following sections and Appendix 3.

#### Overview of the state of Northamptonshire

- 4.9. Northamptonshire covers an area of over 200,000 hectares (ha). The population has grown by over 50% over the past 50 years, particularly through planned growth and the designation of and development at new and expanded towns. It has nevertheless retained traditional shire characteristics. The area is predominantly rural in character, interspersed with large to small towns built on commercial activities ranging from manufacturing to farming.

## **Economic - Sustainable, innovative and productive economy that delivers high levels of employment**

- 4.10. The global economy entered recession in 2008, following contraction of the money markets in 2007. The economic situation in the county has been significantly affected by the recession. While the evidence suggests that the impacts are slowing, conditions remain difficult in many areas. In particular levels of unemployment remain high, especially among young people. The unemployment rate for Northamptonshire in January 2012 was 3.2%. This has declined significantly from the same time the previous year indicating that Northamptonshire has seen the worst of the effects of this global depression.
- 4.11. The rapid expansion of the county in the past three decades has brought with it a diversified industrial and commercial base. Northamptonshire's economy has consistently experienced growth well above national averages, despite the decline in traditional industries. The traditional industrial base, centred on footwear manufacturing, steelmaking and agriculture, is being supplanted by service, high technology, engineering and distribution sectors.
- 4.12. However, the persistence of the 'low pay low skills equilibrium' remains an issue. Further, economic change resulting in a move away from traditional industries has created skills and job gaps and destabilised communities, creating an unequal distribution of debt, joblessness and deprivation which can be hidden at the local level. Subsequently, there is a lower level of innovation and enterprise culture within disadvantaged communities. This has also reduced the ability of communities to participate in the local economy. The current industrial base requires modernising in order to move towards a knowledge intensive economy to ensure quality employment.
- 4.13. Approximately 310,000 people are employed in the County with the three main employment industries in the county are public administration, education and health (approx 25%), distribution, hotels and restaurants (approx 21%) and manufacturing (approx 16%).
- 4.14. The distribution sector in particular has grown substantially, primarily due to Northamptonshire's strategic location and good transport and communication links. The county has good north-south and east highway links; further upgrades will increase and strengthen linkages. The county is also on the north-south and east-west rail corridors. There are two strategic freight interchanges in Northamptonshire, one in the west of the county adjacent to the M1 (DIRFT) and one at Corby (Eurohub). Northamptonshire also has a rapidly growing knowledge economy, with employment in knowledge based services increasing during the period 1998-2002 at more than twice the rate of increase in the East Midlands and Great Britain. Despite this growth, employment in knowledge based services remains slightly below the level in Great Britain.
- 4.15. Key issues influencing the achievement of economic growth in a sustainable manner include:
- Comparatively low skill levels and training take-up rates for employment related training reflecting a lack of ongoing learning and development of skills,
  - Coping with economic diversification and ensuring quality employment opportunities for all,
  - Tackling a lack of innovation and enterprise culture, especially in disadvantaged communities; this includes encouraging new business and ensuring that existing businesses, and subsequent growth, remain within the county,
  - Ensuring that wealth generation is retained within the county to enable opportunity for individuals and community-based organisations to participate in the local economy,
  - Balancing growth, communities and the environment whilst harnessing the economic potential of the rural areas,
  - Tackling a lack of access to, and diminishing provision of, local business, transport, facilities and services in rural areas may restrict economic development, and
  - Recovery from the economic recession, in particular unemployment.

### Box 3: Predicted effect of implementation of the Local Plan on the economy

Although not commonly directly associated with economic growth, the minerals and waste industries contribute towards the local economy through the supply of products (e.g. aggregates for construction, recycled materials and composted matter) and services (e.g. waste management) which are integral to a range of industry and business operations, supporting the growth of communities, as well as the creation of jobs.

Information regarding employment rates, economic value and uptake of innovative technology within the minerals and waste industry is not available at a local scale.

The policies seek to promote investment in the delivery of a high quality built and natural environment in order to support the development of sustainable communities including the provision of infrastructure and services.

The general intent of the Local Plan is supportive of growth and employment generation and diversification of the minerals and waste (and related) industries.

### Environment - Effective protection of the environment

- 4.16. Land characterisation studies undertaken in 2004 determined the main land classifications within Northamptonshire as arable (61%), pastureland (23%), woodland (8%) and urban (8%). The greater part of the county retains strong rural character and comprises agricultural land and isolated villages, hamlets and country estates. Despite large areas being managed for agricultural land, significant nature conservation interest is evident in a range of semi-natural habitats, ranging from acidic grasslands to ancient woodlands.
- 4.17. Northamptonshire was first settled over 10,000 years ago, as evidenced by buried archaeology, standing buildings, historic sites and landscapes. In November 2013 the National Heritage List included 176 Scheduled Monuments, 178 conservation areas, 33 Registered Historic Parks and Gardens and 3 Registered Battlefields, which combined with the 6449 Listed Buildings, contribute greatly to the county's resource of nationally important sites. The River Nene is the principal river catchment in Northamptonshire, extending from the hills in the west of the county and flowing eastwards. The River Basin Management Plan – Anglian River Basin District highlights the pressures facing the County and plans for how these pressures will be addressed. The document describes the Nene Basin as an area ranging from gentle chalk and limestone ridges to extensive lowlands in the Fens and East Anglian coastal estuaries and marshes. Historically there has been considerable progress in relation to protecting the natural assets of the river basin district and resolving issues which have arisen for the water environment. The character of the Nene Valley has been dramatically altered between Northampton and Thrapston, where significant sand and gravel extraction has taken place resulting in a modern landscape of artificial lakes and woodland.
- 4.18. Local heritage and landscape character has helped Northamptonshire maintain a distinct identity. The Nene Valley and Northamptonshire uplands are perhaps the county's defining natural features, with the limestone villages, industrial small towns, the Grand Union Canal and the Nene Valley gravel pits giving the county its man-made character.
- 4.19. There is an increasing need to balance economic growth and development with the effective protection of the environment. Impacts from development have previously resulted in the decline of biodiversity and quality of water resources. The new planning framework promotes sustainable development and design to ensure an improvement in the quality of the natural and built environment. For example, the use of innovative design (such as renewable energies) can assist community and industry in adapting to the effects of climate change. Similarly, encouraging innovation and enterprise within the minerals and waste industry can also assist in developing business resilience (in relation to activities, buildings, equipment and supporting infrastructure) so that industry can better respond to a changing climate. Previously there has been limited emphasis on, and practical consideration of, such matters.
- 4.20. Key issues influencing the effective protection of the environment (including the historic environment) include:
- Balancing economic growth and development whilst protecting the environment,
  - The need for an improvement in the quality of the natural and built environment,
  - Halting and reversing the decline in biodiversity,
  - Availability and quality of water resources,

- Reducing the contribution to and adapting to the effects of climate change, and
- Limited use of renewable energy.

#### **Environment - Prudent use of natural resources**

4.21. Population growth bears significant implications for minerals and waste development as both are required to support growth patterns. However, these industries are often seen in a negative light due to potentially adverse impacts (such as dust, noise, and odour). It is therefore essential to minimise potential adverse impacts on the environment and local community. This includes promoting the prudent use of natural resources (such as high quality end use of primary aggregates, increased usage of recycled and secondary aggregates, and sustainable waste management) and improving design efficiency (such as use of previously-developed land and appropriate restoration and after-use).

#### **Minerals development**

4.22. Minerals extraction and development within the county includes sand and gravel, limestone, ironstone and recycled aggregates. Economically, sand and gravel is by far the most important mineral resource that is found in the county. The three main types of sand and gravel include river sand and gravel, glacial sand and gravel, and soft sand. Northamptonshire's production of sand and gravel over the last ten years (2001 to 2011) was 5.18 million tonnes (Mt), primarily extracted from river deposits in the Nene Valley. Production of sand and gravel in the county is traditionally below landbank targets but this has not impacted on annual demand being met.

4.23. Limestone is primarily found in the north and north east of Northamptonshire. Two geologically different types of limestone exist within the county: Lincolnshire Limestone and Blisworth Limestone, both of which are used as an aggregate and building stone. Production of limestone over the last ten years (2001 to 2011) was 3.51 Mt.

4.24. Ironstone deposits are found in large parts of Northamptonshire, much of which is found within the Northamptonshire Sand Formation. Refractory minerals consisting of clays are limited to the northernmost part of the county. Minimal amounts have been extracted in recent times for reasons of economic viability.

4.25. The NPPF recommends that the provision rate for aggregate supply be derived from an average of ten years sales data including consideration of other relevant local information. A Local Aggregates Assessment was undertaken in line with NPPF requirements, annual provision figures set out in the Local Plan for Northamptonshire are 0.50 Mtpa for sand and gravel and 0.39 Mtpa for crushed rock.

4.26. Secondary and recycled aggregates are estimated to contribute 25% of the total aggregate consumption with the two main sources of recycled aggregates being construction

#### **Waste development**

4.27. Proposed growth levels present potential concerns in relation to future waste arising from all waste streams. The need to move away from reliance on land filling and increase recovery and recycling of waste is a key component of sustainable waste management. Measures are required to address waste arisings and ensure best practice within the industry as well as the provision of appropriate facilities.

4.28. Northamptonshire currently produces over 2.82 Mtpa of various types of waste. Waste types originate from several sources, including municipal solid waste, commercial and industrial, and construction, demolition and excavation waste. Not all of this waste is disposed of in landfill sites, some of it is reused, recycled, composted or thermally treated. The point of origin does not always define how waste should be managed, physical characteristics is another determining factor.

4.29. European Directives have, and will continue to have, significant impacts on the way that waste is classified, treated and disposed, as well as infrastructure requirements.

4.30. Key issues influencing the prudent use of natural resources include:

- Inefficient and often wasteful use of natural resources often as a result of poor design, hence there is a need to increase design efficiency,

- Natural resources extraction and waste management development is required to support current and anticipated growth patterns, however it is essential to minimise potential adverse impacts on the environment and community,
- Optimising the use of previously-developed land and ensuring the appropriate restoration and after-use of sites,
- Waste generation and management, including minimisation, recovery and recycling of wastes to meet targets, and
- Ensure a steady and adequate supply of minerals is achieved whilst protecting the environment and safeguarding resources.

#### **Box 4: Predicted effect of implementation of the Local Plan on the environment**

The form and scale of potential environmental impacts resulting from minerals and waste development is largely determined by site location and the nature of the surrounding environment. Assessment of potential environmental impacts is conducted on a site-by-site basis with planning conditions and mitigation measures applied as necessary to avoid and/or minimise adverse impacts. The policies seek to promote minerals and waste development in the most appropriate locations whilst conserving Northamptonshire's built and natural environment.

Restoration of both minerals and waste development can present opportunities for environmental enhancement. Natural England estimates that approximately 17.5% of SSSI's in the UK are related to the minerals industry, through restoration plans to enhance habitat and biodiversity (e.g. the Upper Nene Valley Gravel Pits SPA). The policies seek to promote responsible land stewardship and beneficial after-use.

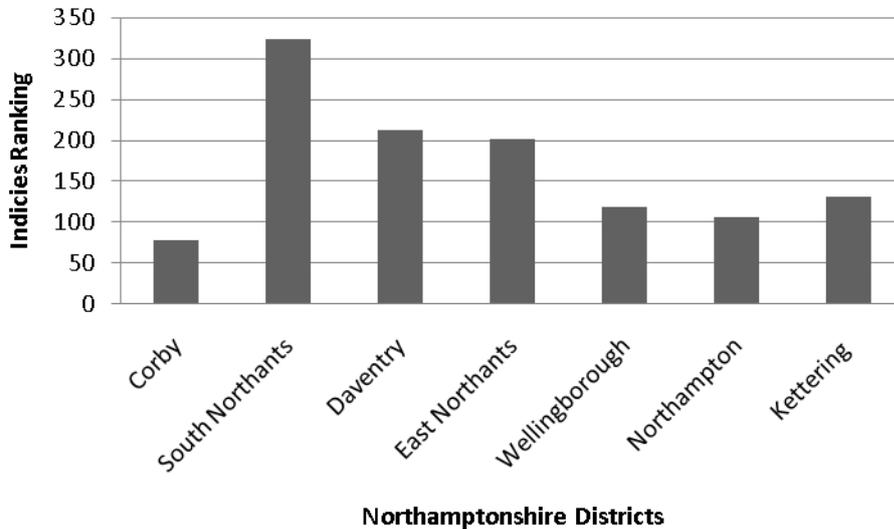
Northamptonshire has been identified as a key growth area, and as such it is particularly important to reduce potential resource impacts associated with residential, industrial and commercial development. The policies seek to promote the prudent use of natural resources and sustainable development in all forms of new development.

The general intent of the Local Plan is supportive of environmental protection and enhancement, and the prudent use of natural resources.

#### **Social - Just society that promotes social inclusion, sustainable communities and personal wellbeing**

- 4.31. Due to its convenient location Northamptonshire has become a popular place to live and work. Population growth has predominantly resulted from the county absorbing growth pressure from surrounding areas, particularly from London and the South East, but also the West Midlands.
- 4.32. Between the 1960s and mid 2011 the county's population increased by more than 50% to approximately 691,900 residents, living within a total of 287,700 individual households and creating a population density of 293 people per km<sup>2</sup> (2011 Census). The North Northamptonshire Core Spatial Strategy and the West Northamptonshire Pre-submission Joint Core Strategy plan for the development of a combined total of up to 61,870 houses between 2010 and 2026.
- 4.33. Continuing growth and changing demographics present a challenge in relation to ensuring the provision of appropriate infrastructure, services and facilities to reflect growth patterns and ensure adequate access. Trends within the county indicate an increasing aged population residing in rural areas, and interestingly whilst life expectancy has increased the average length of life free from illness and disability has not.
- 4.34. The reduction in traditional industry bases, such as steelmaking, has produced localised follow-on effects resulting in various forms and levels of deprivation.
- 4.35. Throughout the county certain groups and individuals suffer higher levels of exclusion from a range of opportunities for their development by virtue of ethnic background, religion, gender, age, disability or sexual orientation. Circumstances such as poverty, unemployment, low level of skills, low incomes, poor housing and health, high crime and family breakdown combine together to create exclusion and inequalities. Such circumstances are reflected nationally. Both nationally and locally such trends indicate that the poorest levels of health correlate with social disadvantage and multiple deprivations, wealth creation and employment quality decline markedly in disadvantaged communities and community safety varies widely with pockets of high crime rates or fear of crime throughout the county. Such circumstances also hinder the community's ability to become involved in broader level issues, such as environmental issues.

4.36. The *Indices of Multiple Deprivations* combine information relating to income, employment, education, health, skills and training, barriers to housing and services and crime into an overall measure of deprivation. A score is calculated for each area, a low score indicates greater deprivation - the most deprived local authority area is indicated by a rank of 1, the least by 354. The 2010 indices indicate a large variance in levels of deprivation throughout the county, ranging from Corby (78) to South Northamptonshire (324), illustrated in Figure 4.



**Figure 4: Indices of multiple deprivations for Northamptonshire districts 2010**

4.37. More recent and expanding industries within the county, such as the distribution sector, although beneficial for socio-economic factors, may increase the perceived and potentially adverse safety and health impacts resultant from this industry. For example, Heavy Goods Vehicle movement account for a relatively small proportion of the traffic flow, typically 10% or less, but the effect on the road network, people's lives and the environment may be far greater than this statistic implies. However, freight movements are important for the local economy, employment, supply of goods and services; hence a balance needs to be found whereby strategic road network is optimised and adverse impacts are mitigated.

4.38. Key issues influencing the development of sustainable communities include:

- Providing for continued population growth and ensuring that the provision of housing, infrastructure, facilities and services reflects growth patterns
- Addressing changing demographics,
- Lack of awareness and engagement with respect to environmental issues,
- Access to recreational opportunities,
- Adverse impact of transport on communities and the environment, and
- Addressing social exclusion, inequalities, disadvantage and discrimination.

### Box 5: Predicted effect of implementation of the Local Plan on the community

Minerals and waste development are key supporting components for population and economic growth (i.e. provision of materials for housing, infrastructure, waste management facilities etc.). Sustainable waste management forms an integral component in the development of sustainable communities.

The policies support the practical implementation of materials resource efficiency, waste minimisation and sustainable development practices, thereby increasing community exposure and awareness.

Operational impacts resulting from minerals and waste development may cause environmental nuisance and reduce general amenity. In addition such development also has the potential to impact on recreational opportunities as a result of the nature of operations. However, restoration of minerals and waste sites can enhance amenity and recreational opportunities as well as providing opportunities for nature conservation and environmental education.

The policies seek to develop safe and healthy communities by reducing adverse impacts on human health and safety and promoting opportunities for recreation.

The general intent of the Local Plan is supportive of the development of sustainable communities.

### Spatial

- 4.39. Northamptonshire is predominantly rural in character and displays a range of townscapes and landscapes with distinct identities and characters that are linked at the broader landscape level.
- 4.40. The growth of the county has strengthened relationships with the South East and the West Midlands, whilst the improved links to the east and the increasing economic influence of Cambridge has achieved similar for the Eastern region. In addition new town growth at Milton Keynes and Peterborough has strengthened cross boundary local links in the south and north-east of the county.
- 4.41. The county exhibits two distinct areas in terms of the main settlement pattern, west and east. The western half is dominated by Northampton, the administrative and commercial centre of the whole county, which contains approximately 200,000 people or roughly a third of Northamptonshire's population. The west and south also incorporate Daventry, Towcester and Brackley which are economic and service centres with rural hinterland catchments.
- 4.42. On the eastern side of the county the urban settlement pattern is more closely interlinked and is related to the broad north-south corridor of the A6 and Midland Mainline railway. This includes the larger urban areas of Kettering, Wellingborough and Rushden and Higham Ferrers, as well as smaller towns with industrial heritage such as Desborough and Irthlingborough. Corby although closely related to this corridor, is distinct from characteristic settlements due to its new town and steel heritage. Raunds and Thrapston, further to the east, have similarities to the towns in the main corridor. Oundle in the north-east, is a more traditional market town serving a large rural hinterland and with socio-economic links with the Peterborough area.
- 4.43. The town centres of Northamptonshire still provide the main focus for retail and other commercial activity. Trends currently impacting on the vitality and vibrancy of the county's town centres include both the decentralisation of retail and other traditional town centre uses (such as offices and entertainment and leisure), and the national tendency for retail and services to drift towards larger nodes (resulting in a decline of services at smaller nodal points). Similarly the availability of land for development in appropriate locations (such as residential, business, industry, etc), as well as the ability to safeguard existing land-uses, need to be incorporated into the strategic spatial planning framework.
- 4.44. Recent population growth has resulted in additional demands for the provision of appropriate infrastructure and transport networks to meet land-use and development patterns; this has been addressed at varying levels throughout the county.
- 4.45. Key issues influencing spatial character and planning include:
- Provision of appropriate infrastructure to support current and future needs of the modern economy and community,
  - Provision of an integrated transport network that supports economic development and land-use patterns and minimises adverse impacts on environment and community,
  - The adequate protection of the character and distinctiveness of townscapes and landscapes,

- Availability of land for development, such as residential, business, industry, etc, in appropriate locations,
- Safeguarding existing land-uses, and
- Ensuring appropriate facilities for waste management.

4.46. The availability of reliable up-to-date data regarding the waste and minerals industry at a local scale is also a key issue as it impacts upon the baseline information and evidence base for the Local Plan.

#### **Box 6: Predicted effect of implementation of the Local Plan on spatial land use.**

Due to the nature of operations, minerals and waste developments have specific requirements dependant on the type of facility, design and scale. Government guidance states that where additional waste management facilities are required, development is to be encouraged on brownfield, or previously developed land. In contrast, minerals can only be worked where they occur.

Site location, layout and development design largely determine land-use and spatial impacts. The policies support government guidance relating to encouragement of development on brownfield land, and promote strategic site layout and sensitive design. In addition, the Local Plan also actively seek to direct development to the most appropriate locations through locational criteria and identification of strategic distribution patterns which give consideration to infrastructure networks, integration of facilities and integrated transport networks.

The general intent of the Local Plan is supportive of sustainable land-use practices and spatial planning.

#### **Local Plan performance baseline information**

4.47. Baseline data is currently based on the MWDF. The Local Plan, once adopted will simily contribute towards the decision making process related to determining planning applications. Annual monitoring will allow the performance of the Local Plan to be measured and for trends to be identified along with highlighting any issues and constraints. In relation to current monitoring, the MWDF is considered to be performing well and that the majority of SA and MWDF objectives and targets are being met.

#### **Box 6: Predicted effect of implementation of the Local Plan on spatial land use.**

Due to the nature of operations, minerals and waste developments have specific requirements dependant on the type of facility, design and scale. Government guidance states that where additional waste management facilities are required, development is to be encouraged on brownfield, or previously developed land. In contrast, minerals can only be worked where they occur.

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The general intent of the Local Plan is supportive of sustainable land-use practices and spatial planning.

### **Difficulties in collecting data and data limitations**

4.48. Obtaining baseline data specifically relating to the minerals or waste industry may be difficult as it relies heavily on industry co-operation in releasing data that may be considered commercially sensitive. This may have knock-on effects for minerals and waste planning authorities as their evidence base, upon which decisions are based, may not be up-to-date and may not be as accurate or complete as we would prefer or may have specific limitations (e.g. scale and accuracy). Gathering data to inform the planning process is a continual process. Data gaps are identified in the Baseline Information dataset; this will be reviewed as necessary.

### **The SA Framework (objectives, indicators and targets)**

4.49. The SA framework is fundamental to the SA process and will be used as the basis for appraising the Local Plan policies. The SA Framework sets objectives, sub-objectives and indicators which are used to appraise the LPD objectives and policy options in order to identify specific sustainability issues and ascertain whether and how these issues are being addressed (refer to Table 2). Movement towards, or away from, SA objectives will be monitored through the

identified indicators. The SA Framework also highlights the potential social, environmental and economic implications of the proposals set out in the Plan.

- 4.50. The development of the SA Framework is detailed in the SA Scoping Report. Targets and comparators relating to the SA Framework are outlined in the Baseline Information dataset.
- 4.51. The compatibility of the SA objectives can be tested using a compatibility matrix (refer to Table 3). This assists in highlighting potential conflicts that may emerge between objectives. The compatibility relationship between the two objectives is indicated as follows: ✓ Positive, ✖ Potential Conflict, ? Uncertain, Neutral.
- 4.52. The compatibility of the Local Plan components and the SA objectives can be tested using a compatibility matrix (refer to Table 4). This assists in highlighting potential conflicts that may emerge between objectives. Where the compatibility relationship between the two objectives is indicated as follows: ✓ Positive, ✖ Potential conflict, ? Uncertain,  Neutral.
- 4.53. Potential conflicts are outlined in Table 5. The level of potential conflict between objectives is considered to be acceptable. Hence overall the Local Plan policies and its components are consistent with the SA objectives.

**Table 2: SA Objectives and indicators**

Objective	Sub-objective	Indicator
<b>Economic - Sustainable, innovative and productive economy that delivers high levels of employment</b>		
SA1. Support economic development and employment opportunities.	Do the policies support the development and growth of the local economy and generate employment opportunities? (e.g. within the mineral development or waste management industry) Do the policies encourage innovation, enterprise and competitiveness within the minerals and waste development industry? (e.g. cost effective waste reduction)	General economic overview of the County Diversity and quality of employment opportunities within the County and its rural areas Value of the minerals and waste development industry within the County Investment in innovation technologies within the minerals and waste industry
<b>Environment - Effective protection of the environment</b>		
SA2. Protect and enhance the built and natural environment (including biodiversity, water, air and soils).	Do the policies protect and enhance where possible, the environment? Do the policies allow for the effective restoration and appropriate after-use of sites to enable contribution towards habitat and landscape enhancement?	General overview of the environmental state and land use within the County Minerals and waste industry land use coverage within the County Restoration and after-use of sites that contribute towards habitat and landscape enhancement Protection of designated conservation land
SA3. Protect and enhance air quality.	Do the policies protect and enhance where possible, air quality?	Operational impact on surrounding environment – air quality
SA4. Protect water resources and mitigate the potential effects of flood and reduce the overall flood risk.	Do the policies protect water resources and enhance water quality (where possible)? Do the policies help to mitigate the potential effects of flood and reduce the overall flood risk?	Operational impact on surrounding environment – water quality Flood risk
SA5. Conserve and enhance the historic environment, heritage assets and their setting	Do the policies protect and enhance where possible, cultural heritage?	Protection of cultural heritage assets
SA6. Reduce greenhouse gas emissions and enhance energy efficiency.	Do the policies help to reduce greenhouse gas emissions and enhance energy efficiency?	Greenhouse gas emissions Emission reduction techniques
<b>Environment - Prudent use of natural resources</b>		
SA7. Ensure prudent use of natural resources.	Do the policies seek to conserve and protect natural resources? (e.g. consumption of secondary / recycled aggregates and sustainable waste management) Do the policies help to protect agricultural resources including soils and best and most versatile agricultural land? Do the policies help to reduce land contamination?	Minerals resource consumption Waste arisings and management Protection of best and most versatile agricultural lands Soil contamination
SA8. Maximise re-use of previously developed land.	Do the policies encourage the re-use of previously developed land?	Re-use of previously developed land
SA9. Promote effective restoration and appropriate after-use of sites.	Do the policies help promote effective restoration and after use of sites for social, environmental or economic benefit?	Restoration and after use of minerals and waste development sites

Objective	Sub-objective	Indicator
SA10. Promote sustainable waste management principles.	Do the policies help to promote sustainable waste management principles?	Active promotion of sustainable waste management
SA11. Avoid sterilisation of mineral resources.	Do the policies provide appropriate land-use planning mechanisms to avoid sterilisation of mineral resources?	Mineral resources within the County and extent of sterilisation Planning mechanisms
SA12. Ensure a steady and adequate supply of minerals to meet society's needs in accordance with national and regional guidelines.	Do the policies allow for a steady and adequate supply of minerals to meet society's needs in accordance with national and regional guidelines?	Supply of minerals
<b>Social - A just society that promotes social inclusion, sustainable communities and personal wellbeing</b>		
SA13. Minimise potential adverse impacts on human health and safety from minerals and waste development, including associated transport.	Do the policies avoid and or minimise adverse impacts on human health and safety?	Human health and safety
SA14. Support social progress that seeks to enable current and future generations to meet their needs.	Do the policies support social progress that recognises the needs of everyone with respect to minerals and waste development? E.g. Meet specific needs of the community for both current and future generations through increasing awareness and practice of sustainable waste management, prudent use of natural resources and increased consumption of secondary and recycled aggregates. Do the policies address and reduce social exclusion, inequalities, disadvantage and discrimination through the provision of – opportunities for employment, access to facilities and services, community engagement and ongoing learning, community health and safety. Do the policies improve access to facilities and services to support and serve the community's needs, such as waste management and aggregate recycling facilities? Do the policies encourage all sections of the community to participate in ongoing community engagement and learning with respect to minerals and waste planning?	Sustainable communities Socio economic factors - deprivation index Access to facilities Community engagement and learning opportunities
SA15. Improve access to recreation facilities and opportunities.	Do the policies improve access to facilities and services including recreational facilities and opportunities? Do the policies help to maximise the benefits of appropriate restoration and after-use of sites for the community?	Access to recreation facilities and opportunities Restoration and after-use of sites that contributes towards recreational opportunities.
<b>Spatial</b>		
SA16. Promote sustainable development and efficient design.	Do the policies incorporate and help promote sustainable development and efficient design?	Implementation of sustainable development measures
SA17. Protect and enhance quality, character, integrity and distinctiveness of landscapes and townscapes.	Do the policies help improve landscape and townscape character of the County and help to minimise adverse impacts to local amenity and overall landscape character?	Restoration that contributes towards enhancement of landscapes

Objective	Sub-objective	Indicator
SA18. Reduce reliance on road transport and encourage efficient use of alternate transport means (such as rail and waterways), and ensure that waste and minerals development planning gives consideration to strategic transport and land-use planning.	Do the policies help to reduce reliance on road transport and encourage efficient use of alternate transport means (such as rail and waterways)? Do the policies integrate minerals and waste development planning, strategic transport and land-use planning?	Transport movements
SA19. Facilitate the development of necessary infrastructure.	Do the policies make provision for development of necessary infrastructure to meet current and future needs? (e.g. Waste management facilities, minerals development to support development)	Requirement for, and provision of infrastructure
SA20. Safeguard existing land-uses such as minerals and waste development from other forms of development.	Do the policies help to safeguard existing land-uses such as minerals and waste development from other forms of development which do not complement existing operations? (e.g. appropriate land-use planning mechanisms)	Planning mechanisms

**Table 3: SA Objectives compatibility matrix**

Objectives	1																			
	2	✓																		
	3		✓																	
	4		✓																	
	5		✓																	
	6	?	✓	✓																
	7	✓	✓					✓												
	8	✓	✓						✓											
	9	✓	✓						✓	✓										
	10	✓	✓	✓	✓		✓	✓	✓											
	11	?						✓												
	12	✓	?		?			✓				✓								
	13	?	✓	✓	✓		✓													
	14		✓					✓		✓	✓									
	15		✓							✓					✓					
	16	✓	✓	✓	✓	✓	✓	✓			✓	✓	✓		✓					
	17		✓			✓				✓				✓		✓	✓			
	18		✓	✓			✓	✓			✓			✓	✓		✓			
	19	✓					✓		✓		✓	✓	✓			✓				
	20	✓						✓			✓	✓	✓		✓				✓	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
SA Objectives																				

**Table 4: Compatibility matrix - SA Objectives**

Local Plan objectives	SA objectives																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1	✓	✓				✓	✓			✓		✓	✓	✓		✓		✓	✓	
2	✓?	✓	✓	✓		✓	✓	✓		✓	✓	✓		✓		✓		✓	✓	
3	✓							✓		✓	✓	✓							✓	✓
4	✓	x					✓				✓	✓						✓	✓	✓
5	✓					✓	✓	✓		✓			✓?	✓		✓		✓	✓	✓
6	✓	✓					✓			✓		✓		✓		✓			✓	
7	?						✓				✓	✓							✓	✓
8	?							✓		✓			✓					✓	✓	✓
9					✓		✓					✓					✓			
10	✓?	✓	✓	✓	✓				✓				✓			✓	✓			
11	✓	✓						✓	✓				✓	✓	✓	✓	✓			
12	✓	✓	✓	✓		✓			✓	✓			✓	✓	✓	✓	✓	✓		

**Table 5: Summary of matrix results**

Matrix code	Comments	Overall consistency
LP2: SA1	Increased requirements for high standards in design may initially have minor financial implications. It is expected that as industry standards also increase financial implications will stabilise.	Overall the Local Plan objectives are consistent with the SA objectives.
LP4:SA2	The sequential approach to the distribution of minerals development identifies active river valley areas. The nature of mineral working means that there is likely to be an impact on the environment for both glacial and river valley areas.	Overall the Local Plan objectives are consistent with the SA objectives.
LP5:SA13	The spatial distribution of waste development supports the development of an urban-focussed waste management network. The introduction of waste management facilities with other forms of development (particularly more sensitive forms) may at first be met with some resistance due to negative perceptions regarding waste management. Appropriate management and control measures will ensure that human health is not adversely affected. Over time public opinion of waste management is expected to change with increased education and show casing of integrated waste management technologies.	Overall the Local Plan objectives are consistent with the SA objectives.
LP7:SA1	The safeguarding of mineral resources may require increased reporting requirements for development within safeguarding areas which may be seen to initially have minor financial implications. It is expected that as industry standards increase the financial implications will stabilise. In addition opportunities for prior extraction (where viable) are likely to economically benefit developments.	Overall the Local Plan objectives are consistent with the SA objectives.
LP8:SA1	The safeguarding of the waste management network may require increased reporting requirements for developments which may be seen to initially have minor financial implications. It is expected that as industry standards increase the financial implications will stabilise.	Overall the Local Plan objectives are consistent with the SA objectives.
LP10:SA1	Increased requirements for high standards of environmental protection and enhancement may initially have minor financial implications. It is expected that as industry standards also increase financial implications will stabilise.	Overall the Local Plan objectives are consistent with the SA objectives.

## 5. THE MAIN STRATEGIC OPTIONS

- 5.1. In conducting SA and SEA, the likely significant effects of implementing the plan and any reasonable alternatives must be appraised. It is normal practice when developing a plan to propose different ways of fulfilling the objectives.
- 5.2. Options should be reasonable, realistic and relevant. Options need to be significantly distinct to highlight the different sustainability implications of each, in order that meaningful comparisons can be made. The development and appraisal of options is an iterative process, with options revised to account for appraisal of findings and consultation responses. In addition, some alternatives may be dropped from further consideration due to SA findings, compliance with national or regional planning policy, or for operational reasons. This process has been recorded as per Government guidance throughout the SA Environmental Report.
- 5.3. It is not the purpose of the SA to decide the strategic options to be chosen for the Plan. This is the role of the decision-makers who have to make choices on the Plan to be adopted. The SA simply provides information on the relative sustainability performance of the strategic options considered, and assists in increasing transparency of the decision-making process.
- 5.4. The identification and development of strategic options is detailed in Table 6.

**Table 6: Identification and development of strategic options**

Issue	Description	Strategic options developed
1	<b>Identifying Northamptonshire's aggregate apportionments / provision rates</b>	<p>The NPPF requires each MPA to calculate the provision of aggregates on the basis of average aggregate sales over a 10 year rolling period. Determining aggregate provision rates for the plan period on the basis of average sales over a 10 year period would result in a reduction from: 0.97 Mtpa to 0.52 Mtpa for sand and gravel; and 0.39 Mtpa to 0.35 Mtpa for crushed rock.</p> <p>The options identified included:</p> <ul style="list-style-type: none"> <li>Calculating aggregate provision rates based on a 10 year rolling period is an appropriate way forward for Northamptonshire.</li> <li>Calculating aggregate provision rates based on a 10 year rolling period but also including minor adjustments to reflect possible local circumstances e.g. having a higher figure for crushed rock to reflect sites coming forward</li> </ul> <p>Consultees were also asked whether they were aware of an alternative approach that they believed to be more appropriate.</p>
2	<b>Identifying Northamptonshire's waste management needs</b>	<p>In order to plan effectively for our future we will seek to provide waste management capacity of at least the equivalent amount of waste produced within the county, i.e. net self sufficiency.</p> <p>The options identified included:</p> <ul style="list-style-type: none"> <li>Identifying our future waste management needs based on: for MSW using the JMWMS model; for C&amp;I waste using the ADAS model and applying management rates based on maximising recovery; for CD&amp;E waste taking a conservative approach; and for hazardous linking arisings to C&amp;I sector output (as per the ADAS model).</li> <li>As there are limited options available we also considered a business as usual approach (i.e. use of the exiting model but simply extrapolating this to fit the extended plan period).</li> </ul> <p>Consultees were also asked whether they were aware of an alternative approach that they believed to be more appropriate.</p>
3	<b>Addressing low level radioactive waste (LLW)</b>	<p>Given that Northamptonshire does not produce LLW or VLLW from the nuclear industry and our estimated production from the non-nuclear industry is extremely low (34 m<sup>3</sup> per annum) there does not appear to be a requirement for such a facility within the county. The use of highly engineered sites, such as hazardous waste landfills, for the disposal of LLW and VLLW may not constitute the best use of such sites and could displace the facilities existing role. In addition the continued disposal of LLW and VLLW within Northamptonshire could be seen as going against sustainable transport movements; as such waste could be disposed of at existing non-inert landfills closer to its source.</p> <p>The options identified included:</p> <ul style="list-style-type: none"> <li>Making the best use of our existing facilities and encouraging sustainable transport movements through disposal of LLW and VLLW (where possible) at existing non-inert landfills closer to its source rather than being imported to Northamptonshire - a county that does not produce LLW or VLLW at a significant rate.</li> <li>As there are limited options available we also considered a business as usual approach (i.e. not including a specific policy – this would mean that the plan would remain silent on the issue and there would be a there would be a presumption in favour of development).</li> </ul> <p>Consultees were also asked whether they were aware of an alternative approach that they believed to be more appropriate.</p>
4	<b>Existing spatial strategy, site allocations and specific development policies</b>	<p>We are not proposing to change the spatial strategy, site allocations or specific development criteria in the adopted MWDF as part of the Partial Review.</p> <p>This issue was raised to test whether the industry or community felt there was an over-riding need to change these key elements of the plan. As this was not indicated through the consultation responses this issue will</p>

Issue	Description	Strategic options developed
		not be taken forward and so will not be subject to further SA as these elements were assessed through the MWDF plan-making process.
5	<b>Addressing climate change</b>	<p>The revised policy could plan for minerals and waste development which takes place in locations and in ways that reduce greenhouse gas emissions.</p> <p>The options identified included:</p> <ul style="list-style-type: none"> <li>• Increase the policy coverage of climate change through the plan, such as supporting energy efficiency improvements to existing developments and making sure that schemes are in-line with the Government's zero carbon buildings policy and other national standards. There is also opportunity for this policy to take full account of flood risk and water supply.</li> <li>• As there are limited options available we also considered a business as usual approach (i.e. not including a specific policy / increased detail on climate change).</li> </ul> <p>Consultees were also asked whether they were aware of an alternative approach that they believed to be more appropriate.</p>
6	<b>Development requirements for neighbourhood waste management facilities</b>	<p>The requirements currently placed on development in relation to the provision of waste management facilities could be considered to be excessive or potentially hindering development.</p> <p>The options identified included:</p> <ul style="list-style-type: none"> <li>• Reducing the developer requirements.</li> <li>• Business as usual approach (i.e. retaining the existing policy and related developer requirements set out through the SPD).</li> </ul> <p>Consultees were also asked whether they were aware of an alternative approach that they believed to be more appropriate.</p>
7	<b>Encouraging sustainable transport movements</b>	<p>The Partial Review creates the opportunity to strengthen policy relating to sustainable transport and link this to other related areas of the Plan, such as the use of catchment areas for waste-related development.</p> <p>The options identified included:</p> <ul style="list-style-type: none"> <li>• Strengthen policy relating to sustainable transport and link this to other related areas of the Plan, such as the use of catchment areas for waste-related development.</li> <li>• Business as usual approach (i.e. retaining the existing policy).</li> </ul> <p>Consultees were also asked whether they were aware of an alternative approach that they believed to be more appropriate.</p>
8	<b>Ensuring high standards for restoration and after-use</b>	<p>As the Partial Review will roll the existing LPDs into one document it may be better to combine existing Policies CS13 and CMD13. In addition the policy could be strengthened to ensure that local policy thoroughly covers the restoration requirements and clearly set out what is to be covered in the restoration plan.</p> <p>The options identified included:</p> <ul style="list-style-type: none"> <li>• Strengthen the policies to ensure that local policy thoroughly covers the restoration requirements and clearly set out what is to be covered in the restoration plan. This is particularly important due to the reduced detail contained within the NPPF.</li> <li>• Business as usual approach (i.e. retaining the existing policy).</li> </ul> <p>Consultees were also asked whether they were aware of an alternative approach that they believed to be more appropriate.</p>
9	<b>Minimising impacts of minerals and waste development</b>	<p>Policy CS14 is a useful general policy on which to assess development proposals because of its wide general scope. The Partial Review presents the potential to extend this policy's scope to pick up on any key elements of previous national guidance on minerals and waste that are no longer specifically covered in the NPPF.</p> <p>The options identified included:</p> <ul style="list-style-type: none"> <li>• Strengthen the plans coverage of these matters by expanding the</li> </ul>

Issue	Description	Strategic options developed
		<p>policy scope to pick up on any key elements of previous national guidance on minerals and waste that are no longer specifically covered in the NPPF</p> <ul style="list-style-type: none"> <li>Business as usual approach (i.e. retaining the existing policy).</li> </ul> <p>Consultees were also asked whether they were aware of an alternative approach that they believed to be more appropriate.</p>

Note: No alternative approaches were put forward through the consultation process.

### Effects of the options and consideration of issues in selection of the preferred options

- 5.5. Sustainability issues (including social, environmental and economic issues) were taken into consideration in choosing the preferred options through the application of the SA Framework in assessing the potential effects of the strategic options. In addition the options were compared with each other and with the current social, environmental and economic characteristics of the area in order to inform the choice of preferred options for the Local Plan.
- 5.6. The appraisal of strategic options regarding comparison of the social, environmental and economic effects is detailed in Table 7. The potential effect is indicated as follows: ✓ Positive, ✗ Negative, ? Uncertain, Neutral. Potential sustainability effects of the strategic options are expanded on in Table 8. Consideration of other options is included in Table 9.

**Table 7: Comparison of the social, environmental and economic effects of the strategic options**

SA Obj	Issue																	
	1		2		3		4		5		6		7		8		9	
	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B	A	B
1	✓	✓	✓	?	✓	✓	NA	NA	✗	✗								
2					✓	✓	NA	NA	✓	✓			✓	✓	✓	✓	✓	✓
3					✓	✓	NA	NA	✓	✓			✓	✓	✓	✓	✓	✓
4					✓	✓	NA	NA	✓	✓					✓	✓	✓	✓
5					✓	✓	NA	NA	✓	✓					✓	✓	✓	✓
6					✓	✓	NA	NA	✓	✓			✓	✓			✓	✓
7	✓	✓					NA	NA	✓	✓			✓	✓			✓	✓
8	✓	✓					NA	NA	✓	✓					✓	✓	✓	✓
9							NA	NA	✓	✓					✓	✓	✓	✓
10			✓	✓	✓	✗	NA	NA	✓	✓	✗	✓	✓	✓	✓		✓	✓
11	✓	✓					NA	NA									✓	✓
12	✓	✓					NA	NA										
13			✓	✓	✓	✓	NA	NA					✓	✓			✓	✓
14	✓	✓	✓	✓			NA	NA							✓	✓	✓	✓
15							NA	NA							✓	✓	✓	✓
16					✓	✓	NA	NA	✓	✓			✓	✓	✓	✓	✓	✓
17	✓	✓			✓	✓	NA	NA							✓	✓	✓	✓
18	✗	✗	✗	✗	✓	✗	NA	NA	✓	✓	✓	✓	✓	✓			✓	✓
19	✓	✓	✗	✓			NA	NA			✓	✓			✓	✓	✓	
20						✗	NA	NA										

**Table 8: Potential sustainability effects of the strategic options**

Strategic issue	Strategic option	Comments	Overall contribution towards SA objectives and sustainable development
1	A	This option is consistent with the SA objectives however it does not support a reduction in road transport (SA Obj 18) as the promotion of minerals extraction is likely to lead to increased HGV movements. However this should be minimal due to the Local Plan's increased emphasis on sustainable transport movements and schemes should be developed to have minimal impact.	Calculating the provision rates using the 10 year sales figure will ensure that future demands are met and that the scale of mineral extraction taking place in Northampton at any given time is not inappropriate in relation to requirement.
	B	This option is consistent with the SA objectives however it does not support a reduction in road transport (SA Obj 18) as the promotion of minerals extraction is likely to lead to increased HGV movements. However this should be minimal due to the Local Plan's increased emphasis on sustainable transport movements and schemes should be developed to have minimal impact.	Adjusting the 10 year sales figures to reflect more local level requirements will further ensure that the level of extraction and the scale of mineral workings are appropriate and mirror the requirements of economic development – this option provides for a higher level contribution towards both the SA objectives and sustainable development
2	A	This option is consistent with the SA objectives however it does not support a reduction in road transport (SA Obj 18) as the promotion of waste management is likely to lead to increased HGV movements. However this should be minimal due to the Local Plan's increased emphasis on sustainable transport movements and schemes should be developed to have minimal impact.	This option provides for a higher level contribution towards both the SA objectives and sustainable development as it factors in local circumstance and recent trends, this will assist in delivering a sustainable waste management network aimed at servicing the county's needs so that we can work towards becoming self sufficient in terms of waste management. Maximising recovery of resources and energy from waste contributes towards the development of sustainable communities.
	B	This option is generally consistent with the SA objectives however it does not support a reduction in road transport (SA Obj 18) as the development of waste management facilities is likely to lead to increased HGV movements. However this should be minimal due to the Local Plan's increased emphasis on sustainable transport movements and schemes should be developed to have minimal impact. In addition it may conflict with SA Obj 1 and 19 as the previous forecasts do not factor in the economic downturn and so may not provide appropriate guidance for investment and waste management infrastructure to support growth.	Although this option also sets out waste management requirements it does not include more recent trends and local circumstances and so may result in an over-estimation of capacity requirements.
3	A	This option is consistent with the SA objectives in that it supports sustainable waste principles and transport.	This option provides for a higher level contribution towards both the SA objectives and sustainable development as it encourages the disposal of waste close to its source, seeks to minimise transport movements and ensure the best use of existing waste facilities.
	B	This option could potentially conflict with SA Obj 10, 18 and 20 as it may conflict with	This option potentially enables waste to travel further distances

Strategic issue	Strategic option	Comments	Overall contribution towards SA objectives and sustainable development
		sustainable waste principles and communities taking responsibility for their waste, resulting in increased transport movements and distances, and may displace existing waste uses.	than may be necessary as there would be no restrictions on LLW waste disposal within the county. A localised policy regarding LLW ensures that it is dealt with closer to source.
4		<b>Not applicable</b>	
5	A	This option is consistent with the SA objectives. There is a potential for conflict (short term) with SA Obj 1 linked to an increase in developer requirements to incorporate energy efficiency improvements and take account of flood risk and water resources.	The long term gains associated with supporting the move towards a low carbon economy greatly increase this options contribution towards both the SA objectives and sustainable development. Having a more detailed localised policy will ensure that further steps are taken to ensure that carbon emissions are reduced through industrial practises and associated processes.
	B	This option is generally consistent with the SA objectives however there are opportunities for improvement and delivery of greater sustainability benefits.	A broad brush approach will positively contribute towards SA objectives and sustainable development however key opportunities for the implementation of carbon reduction measures could be missed.
6	A	This option conflicts with SA Obj 10 as reducing developer requirements for neighbourhood waste management could potentially reduce the integration of sustainable waste measures and ultimately waste being diverted from landfill.	Including a policy which does not include specific developer requirements for waste management facilities may reduce sustainability benefits achieved through implementation of the plan.
	B	This option is consistent with the SA objectives and (as part of the adopted plan) has been successfully implemented. As such the continuance of this policy will create greater opportunities for sustainable waste management within the county. In addition the SPD provides for practical guidance.	A more specific policy reflecting local circumstance will provide increased opportunities for the development of neighbourhood waste management facilities and support the integration of sustainable waste management measures with other development. This option provides for a higher level contribution towards both the SA objectives and sustainable development.
7	A	This option is consistent with the SA objectives and ties the issue of sustainable transport back to practical measure such as the requirement for a transport assessment and catchment areas.	This option increases the emphasis on sustainable transport movements, as such it provides for a higher level contribution towards both the SA objectives and sustainable development.
	B	This option is generally consistent with the SA objectives however there are opportunities for improvement and delivery of greater sustainability benefits.	A broad brush approach will positively contribute towards SA objectives and sustainable development however key opportunities for the implementation of sustainable transport movements, including tying these back to practical measures, could be missed.
8	A	This option is consistent with the SA objectives – strengthening of the existing policy would reinforce delivery of sustainability outcomes	This option supports the SA objectives and sustainable development. Strengthening of the existing policy approach would

Strategic issue	Strategic option	Comments	Overall contribution towards SA objectives and sustainable development
			ensure delivery of a high standard of restoration and after-use are as part of minerals and waste development schemes. This may also aid clarity with respect to developer requirements.
	B	This option is consistent with the SA objectives and (as part of the adopted plan) has been successfully implemented.	This option supports the SA Objectives and sustainable development at a local level in relation to restoration and after-use preferences; in addition the SPD provides practical guidance.
9	A	This option is consistent with the SA objectives and provides clarity regarding the need to address potential impacts.	A more detailed localised policy will ensure that impacts are minimised and local issues are taken into consideration more fully. As such it provides for a higher level contribution towards both the SA objectives and sustainable development.
	B	This option is generally consistent with the SA objectives however there are opportunities for improvement and delivery of greater sustainability benefits.	This option provides for a good general policy which requires the impacts of minerals and waste development to be minimised, and although it will positively contribute towards SA objectives and sustainable development it may neglect to capture more localised issues.

5.7. In considering the range of options, the capacity for contribution towards the SA objectives and sustainable development, locally specific requirements and the feasibility of the option were taken into consideration. In some instances where consultation responses or emerging local issues have identified alternatives which value-add, options have been amended or 'blended' with other options to ensure the plan addresses sustainability issues at an appropriate level and maximises positive effects.

5.8. Overall, the following options were considered to have a satisfactory capacity for contribution towards the SA objectives and sustainable development, and as such would form the most preferred option:

- 1(B) – Calculating aggregate apportionments / provision rates based on a 10 year rolling period but also including minor adjustments (for crushed rock) to reflect possible local circumstances.
- 2(A) – Identifying our future waste management needs based on more recent data and trends and factoring in local circumstance.
- 3(A) – Addressing LLW by making the best use of our existing facilities, encouraging sustainable transport movements and encouraging the disposal of LLW and VLLW to take place (where possible) at existing non-inert landfills closer to its source rather than being imported to Northamptonshire.
- 5(A) – Increasing the policy coverage of climate change through the plan, including increased support for energy efficiency improvements and taking full account of flood risk and water supply.
- 7(A) – Strengthening the existing policy through practical measures such as sustainable transport assessments and linking development to catchment areas.
- 9(A) – Strengthening the existing policy by expanding the scope to pick up on any key elements of previous national guidance on minerals and waste that are no longer specifically covered in the NPPF.

5.9. No changes are proposed to the spatial strategy, site allocations or specific development criteria as part of this partial review, as such this matter (Issue 4) has been dropped from further consideration and assessment.

- 5.10. The preferred option for Issue 6 was (B) – Retaining the existing policy on neighbourhood waste facilities and related developer requirements to continue to deliver integration of sustainable waste management measures with other forms of development. No amendments have been made to this policy as such this matter has been dropped from further consideration as this policy has been fully assessed through the MWDF plan-making and SA process (further assessment would only serve to reiterate the findings of this process). MWDF policy CS8 has been directly carried over to the Local Plan as has Policy 31: Co-location of waste management facilities with new development.
- 5.11. Although the SA determined that option 8(A), strengthening the existing policy to include restoration requirements not captured through the NPPF, it is considered that the existing policy, guidance set out through the SPD and requirements of the NPPF (and associated technical guidance) provide sufficient coverage of restoration requirements. Including increased coverage through the Local Plan would not add value to the plan and may reiterate existing requirements unnecessarily. The existing policy approach sets out locally specific restoration requirements and makes a positive contribution towards delivery of the SA Objectives and sustainable development, as such this is considered to be an appropriate way forward for Northamptonshire. No amendments have been made to this policy as such this matter (Issue 8) has been dropped from further consideration as these policies have been fully assessed through the MWDF plan-making and SA process (further assessment would only serve to reiterate the findings of this process). MWDF policies CS13 and CMD13 have been merged to form Local Plan Policy 28): Restoration and after-use.
- 5.12. All other options identified as having a lower capacity for contribution towards the SA objectives and sustainable development were dropped from further consideration and assessment.

### Proposed mitigation measures

- 5.13. Overall, the objectives of the Local Plan are in compliance with the SA Framework and contribute towards sustainable development. However, in order to ensure consistent implementation and effective county-wide application of the Local Plan, practical implementation measures were developed to ensure integration with the planning application process and existing administrative processes. Planning measures and tools developed to assist in the implementation of the Local Plan objectives are outlined in Table 9.
- 5.14. The effects of implementation of the Local Plan will be monitored through the MWMR, and review undertaken where necessary. Additionally, the Local Plan will be reviewed and updated on a regular basis alongside review of the policies to which it relates.

**Table 9: Proposed mitigation measures**

Implementation measures	Planning tool (reporting requirements and guidance)
<b>Identifying Northamptonshire's aggregate apportionments / provision rates</b>	
<ul style="list-style-type: none"> <li>Identification of the annual provision requirements in the Plan.</li> </ul>	<ul style="list-style-type: none"> <li>Annual sales and landbanks will be used to monitor aggregate provision rates; this will be reported through the Local Aggregates Assessment and MWMR.</li> <li>Proposals are to demonstrate compliance with the Local Plan</li> </ul>
<b>Identifying Northamptonshire's waste management needs</b>	
<ul style="list-style-type: none"> <li>Identification of waste management capacity requirements.</li> </ul>	<ul style="list-style-type: none"> <li>Waste forecasts provide guidance on future waste arisings which will feed into the waste management capacity and facility requirements and inform the development assessment decision making process. Forecasts will be monitored against actual arisings and release of new data, this will be reported through the MWMR, as will the permitted management / disposal capacity. Where necessary the local waste needs assessment will also be revised.</li> <li>Proposals are to demonstrate compliance with the Local Plan.</li> </ul>
<b>Addressing low level radioactive waste (LLW)</b>	
<ul style="list-style-type: none"> <li>Development of a policy setting out development criteria for LLW.</li> </ul>	<ul style="list-style-type: none"> <li>Proposals are to demonstrate compliance with the Local Plan.</li> </ul>

Implementation measures	Planning tool (reporting requirements and guidance)
<b>Addressing climate change</b>	
<ul style="list-style-type: none"> <li>Expansion of the existing policy to incorporate energy efficiency improvements and take full account of flood risk and water supply. Where appropriate additional guidance may be set out in the SPD.</li> </ul>	<ul style="list-style-type: none"> <li>Proposals are to demonstrate compliance with the Local Plan and guidance set out through the SPD (where identified).</li> </ul>
<b>Encouraging sustainable transport movements</b>	
<ul style="list-style-type: none"> <li>Expansion of the existing policy to incorporate sustainable transport assessments and link operations to catchment areas</li> </ul>	<ul style="list-style-type: none"> <li>Proposals are to demonstrate compliance with the Local Plan.</li> </ul>
<b>Minimising impacts of minerals and waste development</b>	
<ul style="list-style-type: none"> <li>Expansion of the existing policy to incorporate a wider scope of potential impacts.</li> </ul>	<ul style="list-style-type: none"> <li>Proposals are to demonstrate compliance with the Local Plan.</li> </ul>

## 6. THE LOCAL PLAN POLICIES

### Developing the policy direction

- 6.1. Consultation responses, local sustainability issues and the assessment of strategic options were taken into consideration in the development of the preferred options and the resultant policy direction. The relationship between the emerging policy direction and preferred options is summarised in Table 10. The proposed policies are outlined below:

#### **Policy 1 (Policy CS5): Providing for an adequate supply of aggregates**

Provision will be made over the plan period 2011 to 2031 for the extraction of:

- 10 million tonnes of sand and gravel (equivalent to an annual average of 0.50 million tonnes) provided from glacial and pre-glacial deposits, and the river valleys of the Nene (west of Wellingborough) and the Great Ouse.
- 7.8 million tonnes of crushed rock (limestone) (equivalent to an annual average of 0.39 million tonnes) provided from deposits outside unworked river valleys or from sites with old permissions upgraded to modern conditions.

The maintenance of a landbank of at least seven years for sand and gravel, and at least ten years for crushed rock will be sought.

This provision will come from both extensions to existing sites and new sites if they meet the spatial strategy for mineral extraction and are assessed as meeting environmental, amenity, and other requirements of the Local Plan. Allocations to meet the required provision are identified in the Local Plan

#### **Policy 11 (Policy CS1): Northamptonshire's waste management capacity**

The development of a sustainable waste management network to support growth and net self-sufficiency within Northamptonshire will involve the provision of facilities to meet the following indicative waste management capacity requirements during the plan period:

Hierarchy level	Management method	Indicative capacity requirement (million tonnes per annum)	
		2021	2031
<b>Preparing for re-use and recycling</b>	Recycling (non-inert)	0.26	0.28
	Composting and anaerobic digestion	0.17	0.19
	Inert recycling	0.74	0.74
	Hazardous recycling	0.02	0.02
<b>Other recovery</b>	Advanced treatment	0.86	0.92
	Hazardous treatment	0.01	0.01
	Inert fill or recovery	0.16	0.16

This provision will come from a mix of extensions to existing sites, intensification or re-development of existing sites and new sites, providing they all meet the spatial strategy for waste

management and are assessed as meeting environmental, amenity and other requirements. Allocations for waste development will also contribute to meeting this provision.

**Policy 18 (Policy CS3): Strategy for waste disposal**

Provision should be made to meet the following indicative waste disposal capacity requirements during the plan period:

Hierarchy level	Management method	Indicative capacity requirement (million tonnes per annum)	
		2021	2031
Disposal	Non-inert landfill	0.82	0.85
	Inert fill or recovery	0.16	0.16
	Hazardous landfill	0.02	0.02

Provision of capacity for general non-inert waste disposal should only be made if the need for this can be justified and it is only for residual wastes. Where it can be clearly demonstrated that additional landfill capacity for residual wastes should be provided, preference would be for an extension to an existing site, unless it can be shown that a standalone site would be more sustainable and better located to support the management of waste close to its source.

**Policy 21: Development criteria for radioactive waste disposal**

Proposals for the disposal of radioactive waste must demonstrate that:

- Disposal forms the last available management option.
- It is in line with the principle that communities take more responsibility for their own waste and therefore enables waste to be disposed of in one of the nearest appropriate installations. Options for disposal should be rigorously assessed with clear justification provided as to why the (rejected) option is impracticable.
- The proposal complies with national guidance and the principles of sustainable waste management including the waste hierarchy. In doing so it should identify the intended catchment area and detail how it supports sustainable transport movements.
- Any adverse impacts can be mitigated to an acceptable level.
- The proposal will not prejudice the existing use where the proposal is for co-location on an operational or committed waste site.

Where proposals come forward as a consequence of operations at and / or decommissioning of a nuclear licensed site(s) the following will have first had to apply and be clearly demonstrated:

- The proposed site would have been assessed as complying with a sequential approach specifically related to that site based on: (i) on-site management / disposal, (ii) adjacent or near-site management / disposal, (iii) management / disposal at other licensed nuclear sites, and (iv) management / disposal at other sites (with those closest to the origin of the waste being considered first).
- Community engagement and consultation requirements have been satisfied in respect of: (i) the waste management plan for the licensed nuclear site(s), and (ii) the communities in the vicinity of the proposed site.

**Policy 22 (Policy CS14): Addressing the impact of proposed minerals and waste development**

Proposals for minerals and waste development must demonstrate that the following matters have been considered and addressed:

- protecting Northamptonshire’s natural resources and key environmental designations (including heritage assets),
- avoiding and / or minimising potentially adverse impacts to an acceptable level, specifically addressing air emissions (including dust), odour, bioaerosols, noise and vibration, slope stability, vermin and pests, birdstrike, litter, land use conflict and cumulative impact,
- impacts on flood risk as well as the flow and quantity of surface and groundwater,
- ensuring built development is of a design and layout that has regard to its visual appearance in the context of the defining characteristics of the local area,
- ensuring access is sustainable, safe and environmentally acceptable, and
- ensuring that local amenity is protected.

Where applicable a site-specific management plan should be developed to ensure the implementation and maintenance of mitigation measures throughout construction, operation, decommissioning and restoration works.

**Policy 23 (Policy CS9): Encouraging sustainable transport**

Minerals and waste related development should seek to minimise transport movements and maximise the use of sustainable or alternative transport modes. Where possible minerals and waste related development should be located, designed and operated to enable transport by rail, water, pipeline or conveyor.

Minerals and waste related development should be well placed to serve their intended markets or catchment area(s) in order to reduce transport distances and movements in order to support the development of sustainable communities that take responsibility for the waste that they produce and work towards self sufficiency.

Proposals for new development or development that would result in a significant increase in transport movements should include a sustainable transport statement to demonstrate how the above has been taken into consideration.

**Policy 30 (Policy CS7): Sustainable design and use of resources**

New built development should seek to utilise the efficient use of resources in both its construction and its operation through:

- Design principles and construction methods that minimise the use of primary aggregates and encourage the use of building materials made from secondary and recycled sources,
- Construction and demolition methods that minimise waste production, and re-use and recycle materials (as far as practicable) on-site,
- The use of non-primary mineral construction materials, except where there is a need to protect and conserve the existing character of the area, which require traditional building materials (such as building and roofing stone),
- Design and layout that allows the sorting, recycling, biological processing, and storage of waste
- Supporting the move to a low carbon economy by way of reduced greenhouse gas production through design and layout that incorporates energy and water efficiency, and where appropriate flood mitigation or attenuation measures.

**Table 10: Identifying the preferred option and resultant policy direction**

Key issue and preferred option	Policy direction
<p><b>1: Identifying Northamptonshire’s aggregate apportionments / provision rates</b>                      B - Calculating aggregate provision rates based on a 10 year rolling period but also including minor adjustments (for crushed rock) to reflect possible local circumstances.</p>	Policy 1 (Policy CS5): Providing for an adequate supply of aggregates
<p><b>2: Identifying Northamptonshire’s waste management needs</b>                      A - Identifying our future waste management needs based on: for MSW using the JMWMS model; for C&amp;I waste using the ADAS model and applying management rates based on maximising recovery; for CD&amp;E waste taking a conservative approach; and for hazardous linking arisings to C&amp;I sector output (as per the ADAS model).</p>	Policy 11 (Policy CS1): Northamptonshire’s waste management capacity Policy 18 (Policy CS3): Strategy for waste disposal
<p><b>3: Addressing low level radioactive waste (LLW)</b>                      A - Making the best use of our existing facilities and encouraging sustainable transport movements through disposal of LLW and VLLW (where possible) at existing non-inert landfills closer to its source rather than being imported to Northamptonshire - a county that does not produce LLW or VLLW at a significant rate.</p>	Policy 21: Development criteria for radioactive e waste disposal
<p><b>5: Addressing climate change</b>                      A - Increase the policy coverage of climate change through the plan, such as supporting energy efficiency improvements to existing developments and making sure that schemes are in-line with the Government’s zero carbon buildings policy and other national standards. There is also opportunity for this policy to take full account of flood risk and water supply.</p>	Policy 30 (Policy CS7): Sustainable design and use of resources

<b>7: Encouraging sustainable transport movements</b> A - Strengthen policy relating to sustainable transport and link this to other related areas of the Plan, such as the use of catchment areas for waste-related development.	Policy 23 (Policy CS9): Encouraging sustainable transport
<b>9: Minimising impacts of minerals and waste development</b> A -Strengthen the plans coverage of these matters by expanding the policy scope to pick up on any key elements of previous national guidance on minerals and waste that are no longer specifically covered in the NPPF.	Policy 22 (Policy CS14): Addressing the impact of proposed minerals and waste development

## Significant sustainability effects of the Local Plan

- 6.2. It is important to predict the social, environmental and economic effects of the preferred options as they have been translated into emerging Local Plan policies. Potential effects need to be quantified where appropriate, or judgement made, with reference to the baseline situation. Prediction involves the identification of changes to the sustainability baseline resulting from implementation of the Local Plan.
- 6.3. Significant effects resulting from implementation of the Local Plan policies were assessed against the SA objectives in order to determine the overall effect of each component of the LPD in relation to sustainability issues. Many of the SA objectives (and hence issues or problems) are interrelated and are able to be captured through consideration under their broader titles and as such it was seen as unnecessary to undertake assessment against individual SA objectives. Specific sustainability issues and problems were identified and investigated through the appraisal.
- 6.4. Predicted significant effects of the relevant Local Plan policies are detailed in Table 12, where the potential effect is indicated as follows: ++ very positive, + positive, ? uncertain, □ neutral, - negative, -- very negative.
- 6.5. The table provides an indicative statement as to whether or not the policy option is contributing towards sustainability or potentially detracting from it.

**Table 11: Key to levels of significance of predicated effects**

		Impact magnitude				
		High	Medium	Low	Negligible	Neutral
Geographic significance	International	Severe	Severe	Major	Moderate	Neutral
	National	Severe	Major	Moderate	Minor	Neutral
	Regional	Major	Moderate	Minor	Negligible	Neutral
	Local	Moderate	Minor	Negligible	Negligible	Neutral

## Cumulative effects of the Local Plan

- 6.6. The assessment of cumulative effects assists in the identification of the total direct and indirect effect on receptors. Often, effects may result from the accumulation of multiple small and often indirect effects rather than few large obvious ones.
- 6.7. Assessment should consider effects resulting from the implementation of the Local Plan as well as those which may result from interaction with the effects of other plans and programmes. In addition, the impact on the receptors capacity or threshold to remain productive or sustainable should also be considered, where the cumulative effect is negative. The level of uncertainty should also be taken into account.
- 6.8. The SEA Directive requires the assessment of effects including secondary, cumulative and synergistic effects. Secondary or indirect effects are those that are not a direct result (of the Local Plan), but occur away from the original effect or as a result of a complex pathway. Cumulative effects arise where several individual insignificant effects have a combined significant effect. Synergistic effects interact to produce a total effect greater than the sum of the individual effects.

6.9. Cumulative effects resulting from implementation of the relevant Local Plan policies were assessed against the individual SA objectives (Table 13).

**Table 12a: Predicted significant effects – Policy 1 (Policy CS5): Providing for an adequate supply of aggregates**

Predicted effects				Justification for assessment
Nature of effect	Assessment of effect & likely term			
	Short	Medium	Long	
<b>Economic</b> - Sustainable, innovative and productive economy that delivers high levels of employment				
Moderate	+	+	++	Likelihood: High Scale: Local Duration: Through out the plan period Assumptions: Interest and investment in relation to Northamptonshire's mineral industry will increase and continue throughout the plan period
<b>Environment</b> - Effective protection of the environment				
Minor	?	?	+	Likelihood: Medium Scale: Local Duration: Environmental impacts will largely result from individual site operations however mitigation measures will act to avoid and or reduce potential effects, Long term affects relate to potential beneficial restoration. Assumptions: The level of impact will depend on the nature of operations and receiving environment.
<b>Environment</b> - Prudent use of natural resources				
Moderate	+	+	+	Likelihood: High Scale: Local Duration: Throughout the plan period Assumptions: Interest and investments from the minerals industry will remain active within Northamptonshire. The policy hierarchy (including Local Plan policies) provide for the prudent use of nature resources including restoration).
<b>Social</b> – A just society that promotes social inclusion, sustainable communities and personal wellbeing				
Minor	?	?	+	Likelihood: Medium Scale: Local Duration: Social and human health effects will be largely resultant from individual site operations however mitigation measures will act to avoid and or reduce potential impacts to an acceptable level. Long term effects relate to potential for beneficial restoration and the provision of aggregates to support growth, Assumptions: The level of effect will depend on the nature of operations and proximity to sensitive receptors.
<b>Spatial</b>				
Minor	?	?	+	Likelihood: Medium Scale: Local Duration: Throughout the plan period Assumptions: Aggregates extracted from within Northamptonshire will largely be used for local construction industry.

**Table 12b: Predicted significant effects –Policy 11 (Policy CS1): Northamptonshire’s waste management capacity and Policy 18 (Policy CS3): Strategy for waste disposal**

Predicted effects				Justification for assessment
Nature of effect	Assessment of effect & likely term			
	Short	Medium	Long	
<b>Economic</b> - Sustainable, innovative and productive economy that delivers high levels of employment				
Moderate to major	?	+	++	<p><i>Likelihood:</i> High  <i>Scale:</i> Local to sub-regional  <i>Duration:</i> Initial effects are uncertain due to the time required to determine planning applications, develop facilities etc. Medium and long term effects relate to the identification of the waste management capacity required to support growth in Northamptonshire by the end of the plan period.  <i>Assumptions:</i> Interest and investment will remain active within Northamptonshire through out the plan period.</p>
<b>Environment</b> - Effective protection of the environment				
Moderate to Major	?	+	+	<p><i>Likelihood:</i> High  <i>Scale:</i> Local to sub-regional  <i>Duration:</i> Initial effects are uncertain due to time required to determine planning applications, develop facilities etc. Medium and long term effects relate to potential for decreasing waste sent to landfill and associated environmental benefits (reduction in greenhouse gas emissions, potential for leachate contamination, etc). Environmental effects will be largely result from individual site operations however mitigation measures will act to avoid and or reduce potential impacts.  <i>Assumptions:</i> Increasing external pressure (e.g. landfill tax) will have a similar effect at national scale in relation to reducing waste sent to landfill. The level of effects will depend on the natural of operations and receiving environment.</p>
<b>Environment</b> - Prudent use of natural resources				
Moderate	?	+	++	<p><i>Likelihood:</i> High  <i>Scale:</i> Local  <i>Duration:</i> Initial effects are uncertain due to time required to determine planning applications, develop facilities etc. Medium and long term effects relate to identifying waste as a potential resource and maximising resource recovery.  <i>Assumptions:</i> Interest and investments from the waste industry will remain active within Northamptonshire.</p>
<b>Social</b> – A just society that promotes social inclusion, sustainable communities and personal wellbeing				
Minor	?	?	+	<p><i>Likelihood:</i> Medium  <i>Scale:</i> Local  <i>Duration:</i> Initial to medium term effects are uncertain however the development of a sustainable waste management network will require education and behavioural changes regarding individual and corporate waste management.  <i>Assumptions:</i> Increasing external pressure (e.g. landfill tax) will have a similar effect at national scale in relation to reducing waste sent to landfill.</p>
<b>Spatial</b>				
Moderate to major	?	+	++	<p><i>Likelihood:</i> High  <i>Scale:</i> Local to sub-regional  <i>Duration:</i> Initial effects are uncertain due to time required to determine planning applications, develop facilities, etc. Medium and long term impacts relate to the development of a sustainable waste management network and supporting infrastructure.  <i>Assumptions:</i> Northamptonshire’s sustainable waste management network will be primarily used to deal with waste arising from within Northamptonshire.</p>

**Table 12c: Predicted significant effects – Policy 21: Development criteria for radioactive waste disposal**

Predicted effects				Justification for assessment
Nature of effect	Assessment of effect & likely term			
	Short	Medium	Long	
<b>Economic</b> - Sustainable, innovative and productive economy that delivers high levels of employment				
Moderate to major	?	+	+	<p><i>Likelihood:</i> Medium  <i>Scale:</i> National  <i>Duration:</i> Initial effects uncertain due to the complexity and nature of LLW management and the policy hierarchy, time required to determine planning applications and to develop facilities etc. Alternative more sustainable disposal locations will take priority, however potential disposal is available throughout plan period.  <i>Assumptions:</i> Interest and investment will remain active within Northamptonshire through out the plan period.</p>
<b>Environment</b> - Effective protection of the environment				
Moderate	?	+	+	<p><i>Likelihood:</i> Medium  <i>Scale:</i> Regional to national  <i>Duration:</i> Initial effects are uncertain due to time required to determine planning applications, develop facilities etc. Medium and long term effects relate to mitigation of possible environmental effects. These will largely result from individual site operations however the policy requires mitigation measures will act to avoid and or reduce potential impacts.  <i>Assumptions:</i> Alternative more sustainable disposal locations will be sought nationally. The level of effects will depend on the nature of operations and receiving environment.</p>
<b>Environment</b> - Prudent use of natural resources				
Major	?	+	+	<p><i>Likelihood:</i> Medium  <i>Scale:</i> National  <i>Duration:</i> Initial effects are uncertain due to time required to determine planning applications, develop facilities etc. Medium and long term effects relate to policies support for sustainable waste management principles including driving waste up the hierarchy..  <i>Assumptions:</i> Alternative more sustainable management and / or disposal options and locations will be sought nationally.</p>
<b>Social</b> – A just society that promotes social inclusion, sustainable communities and personal wellbeing				
Moderate	?	+	+	<p><i>Likelihood:</i> Medium  <i>Scale:</i> Regional to national  <i>Duration:</i> Initial effects are uncertain due to time required to determine planning applications, develop facilities etc. Medium and long term effects relate to mitigation of possible adverse effects and promotion of sustainable waste principles such as encouraging communities to take more responsibility for the waste they produce and disposing of waste as close as possible to its origin..  <i>Assumptions:</i> Alternative more sustainable management and / or disposal options and locations will be sought nationally.</p>
<b>Spatial</b>				
Moderate	?	?	+	<p><i>Likelihood:</i> Medium  <i>Scale:</i> Regional to national  <i>Duration:</i> Initial to medium effects are uncertain due to time required to uncertainty regarding the national waste strategy (and specifically spatial strategy for LLW), determine planning applications, develop facilities, etc. Long term impacts relate to the plans emphasis on net self sufficiency.  <i>Assumptions:</i> Alternative more sustainable management and / or disposal options and locations will be sought nationally. Northamptonshire's sustainable waste management network will be primarily used to deal with waste arising from within Northamptonshire.</p>

**Table 12d: Predicted significant effects – Policy 30 (Policy CS7): Sustainable design and use of resources**

Predicted effects				Justification for assessment
Nature of effect	Assessment of effect & likely term			
	Short	Medium	Long	
<b>Economic</b> - Sustainable, innovative and productive economy that delivers high levels of employment				
Minor	?	+	++	<p><i>Likelihood:</i> Medium  <i>Scale:</i> Local  <i>Duration:</i> Initial minor local adverse financial and resource implications for developers however implementation on a medium to long term basis will stabilise in line with standard practices and assist in moving towards a low carbon economy. Presents opportunities for market innovation.  <i>Assumptions:</i> Increasing external pressure will have a similar effect in relation to decreasing disposal of recycled or secondary aggregates.</p>
<b>Environment</b> - Effective protection of the environment				
Minor	?	+	+	<p><i>Likelihood:</i> Medium  <i>Scale:</i> Local  <i>Duration:</i> Indirect effects relating to a reduction in the requirement for primary resources. Initial effects will be reduced and are anticipated to increase over the medium to long term as implementation and industry practice becomes standardised.  <i>Assumptions:</i> Increasing external pressure will have a similar effect in relation to decreasing disposal of recycled or secondary aggregates.</p>
<b>Environment</b> - Prudent use of natural resources				
Minor	?	+	++	<p><i>Likelihood:</i> Medium  <i>Scale:</i> Local  <i>Duration:</i> Indirect effects relating to a reduction in requirement for primary resources. Initial effects will be reduced and are anticipated to increase over the medium to long term as implementation and industry practice becomes standardised.  <i>Assumptions:</i> Increasing external pressure will have a similar effect in relation to decreasing disposal of recycled or secondary aggregates.</p>
<b>Social</b> – A just society that promotes social inclusion, sustainable communities and personal wellbeing				
Minor	?	+	+	<p><i>Likelihood:</i> Medium  <i>Scale:</i> Local  <i>Duration:</i> It is uncertain what the short term effect will be however it is anticipated that positive effects will be delayed as industry behaviour and practices adjust.  <i>Assumptions:</i> Increasing external pressure will have a similar effect in relation to decreasing disposal of recycled or secondary aggregates.</p>
<b>Spatial</b>				
Minor	?	+	++	<p><i>Likelihood:</i> Medium  <i>Scale:</i> Local  <i>Duration:</i> It is uncertain what the short term effect will be however it is anticipated that there will be minor indirect effects relating to increased requirements and market capacity for resource efficient technologies. Increased consideration of flood risk associated with climate change and resulting attenuation measures will have a long term positive impact at a broader landscape level.  <i>Assumptions:</i> Increasing external pressure will have a similar effect in relation to decreasing disposal of recycled or secondary aggregates.</p>

**Table 12f: Predicted significant effects – Policy 23 (Policy CS9): Encouraging sustainable transport**

Predicted effects				Justification for assessment
Nature of effect	Assessment of effect & likely term			
	Short	Medium	Long	
<b>Economic</b> - Sustainable, innovative and productive economy that delivers high levels of employment				
Minor	?	+	+	<p><i>Likelihood:</i> Medium  <i>Scale:</i> Local  <i>Duration:</i> Initial impact may result in minor financial and resource implications for developers however over the longer term this should stabilise and increase opportunities for industry competitiveness and innovation.  <i>Assumptions:</i> Increasing external pressure regarding climate change mitigation will act to compliment sustainable transport movements.</p>
<b>Environment</b> - Effective protection of the environment				
Moderate	?	+	++	<p><i>Likelihood:</i> High  <i>Scale:</i> Local  <i>Duration:</i> Potential for significant permanent long term beneficial effects regarding protection and enhancement of environment resulting from reduction in greenhouse gas emissions.  <i>Assumptions:</i> The scale of effects would be largely determined by measures implemented.</p>
<b>Environment</b> - Prudent use of natural resources				
Moderate	?	+	++	<p><i>Likelihood:</i> High  <i>Scale:</i> Local  <i>Duration:</i> Potential for beneficial effects regarding increased use of sustainable transport options and reduce transport requirements.  <i>Assumptions:</i> The scale of effects would be largely determined by measures implemented.</p>
<b>Social</b> – A just society that promotes social inclusion, sustainable communities and personal wellbeing				
Moderate	?	+	++	<p><i>Likelihood:</i> High  <i>Scale:</i> Local  <i>Duration:</i> Initial effects are uncertain however a reduction in road based transport or transport distances will have significant benefits for human health and safety.  <i>Assumptions:</i> The scale of effects would be largely determined by measures implemented.</p>
<b>Spatial</b>				
Minor	?	+	++	<p><i>Likelihood:</i> Medium  <i>Scale:</i> Local  <i>Duration:</i> Over the medium to long term a reduction in transport requirements / increase in alternative transport methods would reduce pressure on road infrastructure networks. In addition linking operations to catchment areas will assist in determining the overall catchment area of the county's waste management capacity.  <i>Assumptions:</i> The scale of effects would be largely determined by measures implemented.</p>

**Table 12h: Predicted significant effects – Policy 22 (Policy CS14): Addressing the impact of proposed minerals and waste development**

Predicted effects				Justification for assessment
Nature of effect	Assessment of effect & likely term			
	Short	Medium	Long	
<b>Economic</b> - Sustainable, innovative and productive economy that delivers high levels of employment				
Minor	+	+	+	<p><i>Likelihood:</i> Medium  <i>Scale:</i> Local  <i>Duration:</i> Developer requirements are already established through adopted policy – expanding the scope of this to address matters previously captured under national policy presents opportunities for market innovation, enterprise and competitiveness.  <i>Assumptions:</i> The Local Plan will act to provide guidance in relation to developer obligations and practical implementation.</p>
<b>Environment</b> - Effective protection of the environment				
Minor	+	+	+	<p><i>Likelihood:</i> Medium  <i>Scale:</i> Local  <i>Duration:</i> Developer requirements are already established through adopted policy – expanding the scope of this to address matters previously captured under national policy will ensure that potentially adverse effects are avoided and / or reduced to acceptable levels.  <i>Assumptions:</i> Increasing external pressure (from within the policy context) will have a similar effect at broader scale.</p>
<b>Environment</b> - Prudent use of natural resources				
Moderate	+	+	++	<p><i>Likelihood:</i> High  <i>Scale:</i> Local  <i>Duration:</i> Developer requirements are already established through adopted policy – expanding the scope of this to address matters previously captured under national policy will continue to support the prudent use of natural resources.  <i>Assumptions:</i> Increasing external pressure (from within the policy context) will have a similar effect at national scale.</p>
<b>Social</b> – A just society that promotes social inclusion, sustainable communities and personal wellbeing				
Minor	+	+	+	<p><i>Likelihood:</i> Medium  <i>Scale:</i> Local  <i>Duration:</i> Developer requirements are already established through adopted policy – expanding the scope of this to address matters previously captured under national policy will ensure that potentially adverse effects are avoided and / or reduced to acceptable levels. <i>Assumptions:</i> Increasing external pressure (from within the policy context) will have a similar effect at national scale.</p>
<b>Spatial</b>				
Minor	+	+	+	<p><i>Likelihood:</i> Medium  <i>Scale:</i> Local  <i>Duration:</i> Developer requirements are already established through adopted policy – expanding the scope of this to address matters previously captured under national policy will ensure that potentially adverse effects are avoided and / or reduced to acceptable levels which will have wider landscape impacts, help to reduce land use conflict and support sustainable development.  <i>Assumptions:</i> Increasing external pressure (from within the policy context) will have a similar effect at national scale.</p>

**Table 13: Cumulative effects of the Local Plan policies**

SA Obj	Local Plan policy						Cumulative effects	Comments on significant effects
	1	11/18	21	22	23	30		
1	++	++	++	+	+	+	++	There is likely to be positive cumulative effects on economic development resulting from the provision of minerals for the local construction and related industries as well as the provision of waste management and disposal facilities and services. Carbon reduction measures can be included within new development schemes which will result in positive effects on the addressing of climate change. Minimising the effects of minerals and waste development may require some economic costs, in the long term the impact on the economy will positive.
2				+	+	?	++	There is likely to be positive cumulative effects to the built and natural environment through the addressing of climate change and potential adverse effects. Reduced transport movements will have positive effects on the built and natural environment.
3				+	+	?	++	There is likely to be positive cumulative effects on air quality through the addressing of climate change and potential adverse effects. Reduced transport movements will have positive effects on air quality
4				+		+	++	There is likely to be positive cumulative effects on water resources through addressing the effects of climate change, flood risk, restoration and potential adverse effects of development.
5				+		+	+	There is likely to be positive cumulative effect on cultural heritage assets including architecture and archaeology through addressing the effects of climate change and potentially adverse effects of development.
6				+	++	++	++	There is likely to be positive cumulative effects in relation energy efficiency and a reduction in greenhouse gas emissions through the addressing of climate change. Reduced transport movements will reduce energy requirements and greenhouse gas emissions.
7	+	+	+	+	++	+	++	There are likely to be positive cumulative effects in relation to ensuring the prudent use of natural resources through identifying Northamptonshire's requirements for aggregates and waste management. Addressing the issue of LLW may also produce positive effects as the policy supports sustainable waste management principles.
8								The policies arising as a result of the partial review have a neutral effect with regards to the use of previously developed land.
9						+	+	Positive indirect effects may occur through the consideration of flood risk and attenuation measures interacting with (or occurring as a product of) restoration.
10		++	+				++	Positive synergistic effects will occur as a result of sustainable waste management principles being promoted through the identification of Northamptonshire's waste management needs and addressing LLW. .
11	+						+	Direct positive effects will take place in relation to avoiding sterilisation of mineral resources through the identification of Northamptonshire's aggregates requirements.
12	++						++	Direct positive effects will be delivered through identifying Northamptonshire's aggregate provision rates and therefore ensuring that there is a steady and adequate supply of minerals as a result.
13	?	?	?	++	+		+	Positive cumulative effects are possible as a result of the minimising adverse impacts of minerals and waste

SA Obj	Local Plan policy						Cumulative effects	Comments on significant effects
	1	11/18	21	22	23	30		
						+		development as well as addressing climate change and sustainable transport. It is possible that indirect negative effects result from site specific operational processes however development control policies and those aimed at avoiding and / reducing potential adverse effects will counter-act this.
14	+	+	+		+	+	+	There is likely to be a positive synergistic effect resulting from the development of sustainable communities, including the promotion of sustainable waste management principles, materials resource efficiency, addressing climate change and sustainable transport / reduced transport distances.
15				+			+	Positive indirect effects will take place through the identification of potentially adverse impacts resulting from development and avoiding or reducing these so as to ensure the community can have access to and benefit from the use of recreational facilities.
16		+			+	+	+	Positive cumulative effects on sustainable development and design are likely to occur as a result of the development of a sustainable waste management network, addressing climate change, promoting of resource efficiency measures and sustainable transport.
17	?	?		+			+	Protecting and enhancing the quality, character, integrity and distinctiveness of Northamptonshire's landscapes and townscapes is crucial to sustainable development. There is likely to be indirect positive effects resulting from the identifying and addressing potentially adverse impacts of development. It is possible that indirect negative effects result from site specific operational processes however development control policies and those aimed at avoiding and / reducing potential adverse effects will counter-act this.
18					+		+	There will be a direct positive effect from the promotion of sustainable transport measures.
19	+	+	+				+	The provision of aggregates to support construction and identification of waste management capacity requirements will produce an indirect positive effect with regards to facilitating the development of necessary infrastructure.
20			+	+			+	By reducing the potential for land use conflict and identifying development control policies for LLW there will be an indirect positive effect with regards to the safeguarding of existing land-uses from other forms of development.

## Consideration of identified problems during development of the Local Plan

- 6.10. Consideration of sustainability issues and identified problems throughout the development of the Local Plan was facilitated through the analysis of potential effects of the strategic options, as well as analysis of significant and cumulative effects of the Local Plan policies.
- 6.11. The SA Framework forms the basis for appraising sustainability effects, and represents relevant sustainability issues including economic, environmental, social and spatial issues. Analysis against the SA objectives assists in identifying the contribution towards sustainable development and any relevant problems.
- 6.12. Consideration of sustainability issues and identified problems throughout the development of the Local Plan is summarised below. Conclusions drawn from the appraisal have influenced the development of the Local Plan, in this manner it is believed that the preferred options offers the most significant (positive) contribution towards sustainable development and provides a healthy balance of potential sustainability effects.

### Economic

- 6.13. Economic effects can be predicted based on available evidence however the level of confidence in predictions, and magnitude of effects, is reliant on industry and market response to the policy context surrounding waste and environmental management.
- 6.14. The appraisal of the significant and cumulative effects resulting from implementation of the Local Plan policies addresses all of the SA objectives to varying levels. Economic effects associated with implementation are most likely to be cumulative. Interestingly, the appraisal indicated that there would be two distinct effects. Firstly, the provision of minerals and waste management facilities to support Northamptonshire growth would result in positive cumulative effect. Secondly, increased requirements placed on developers (such as promotion of sustainable development and reporting requirements) are likely to have a minor initial adverse effects regarding resource implications for developers, however this would be expected to stabilise and be succeeded by increased potential for innovation and industry competitiveness.
- 6.15. Table 14 outlines specific sustainability issues or problems identified through the SA Framework, and the results of their consideration throughout the development of the Local Plan.

**Table 14: Consideration of economic issues and problems throughout development of the Local Plan**

Key sustainability issue	Consideration through development of the Local Plan
Low skill levels and training take-up rates for employment related training reflecting a lack of ongoing learning and skills development.	Requirement for innovative materials resource efficiency and waste management should encourage increased learning and skills development.
Coping with economic diversification and ensuring quality employment opportunities for all.	Increased opportunities for innovation and technology options (and potentially employment) within the minerals and waste industry markets.
Tackling a lack of innovation and enterprise culture, especially in disadvantaged communities.	Requirement for increased materials resource efficiency and sustainable design should encourage innovation and enterprise.
Retention of wealth generation within the County to enable opportunity for participation in local economy.	Emphasis on identification of local market base (catchment), strategic location with respect to growth areas, use of locally sourced materials and the proximity principle should assist in retention of wealth.
Balance growth, communities and the environment whilst harnessing the economic potential of the rural areas.	Identification of significant issues through the general development criteria and spatial strategy for minerals and waste development.
Tackling a lack of access to facilities and services in rural areas.	Increased opportunities for provision of facilities and services through integration of development and restoration practices.

### Environmental

- 6.16. Environmental effects, although complex, can be predicted based on available evidence however the level of confidence in predictions, and magnitude of effects, is dependent on the nature of development and surrounding environment.
- 6.17. The appraisal of the significant and cumulative effects resulting from implementation of the Local Plan policies addresses the majority of the SA objectives to varying levels. Environmental effects

associated with implementation include secondary, cumulative and synergistic effects. The appraisal indicated that whilst overall the effect was positive, operational effects from individual minerals and waste developments may result in localised adverse effects (dependant on the nature of the operations and receiving environment), however this is balanced by the requirement for mitigation measures and policies supporting the enhancement and protection of the built and natural environment.

6.18. Specific sustainability issues or problems identified through the SA Framework, and the results of their consideration throughout the development of the Local Plan, are outlined in Table 15.

**Table 15: Consideration of environmental issues and problems throughout development of the Local Plan**

Key sustainability issue	Consideration through development of the Local Plan
Balancing economic growth and development whilst protecting the environment.	Identification and requirement for consideration of environmental protection through development criteria.
Improvement in the quality of the natural and built environment.	Increased requirements for sustainable design, enhancement and protection of the built and natural environment through development criteria (and leading objectives).
Halting and reversing the decline in biodiversity.	Identification of potentially adverse impacts and mitigation measures.
Availability and quality of water resources.	Requirement for consideration of environmental protection and enhancement through development criteria and leading objectives.
Reducing the contribution to and adapting to the effects of, climate change.	Increased requirement for sustainable design and sustainable / alternative transport modes.
Limited use of renewable energy.	Increased requirement for sustainable design practices and potential for integration of CHP / emerging technology waste management options with other forms of development.
Inefficient and often wasteful use of our natural resources, often as a result of poor design.	Increased requirement for materials resource efficiency, recognition of waste as a resource and incorporation of sustainable design principles.
Minimise potential adverse impacts on the environment and community resulting from minerals and waste development.	Identification and requirement for consideration of environmental protection and human health and safety through the development criteria and leading objectives.
Optimise the use of previously-developed land and ensure appropriate restoration and after use of sites.	This is addressed through the adopted policy approach.
Encourage sustainable waste management.	Focus on the need for and provision of sustainable waste management facilities.
Ensure a steady and adequate supply of minerals whilst protecting the environment and safeguarding resources.	Focus on the need for and provision of minerals for the local construction industry.

## Social

6.19. Social effects are often quite difficult to predict as they are most likely to be qualitative and occur through secondary effects rather than direct or manifest. The appraisal of the significant and cumulative effects resulting from implementation of the Local Plan addresses all of the SA objectives to varying levels, but does not adversely affect social issues.

6.20. Specific sustainability issues or problems identified through the SA Framework, and the results of their considered throughout the development of the Local Plan policies, are outlined in Table 16.

**Table 16: Consideration of social issues and problems throughout development of the Local Plan**

Key sustainability issue	Consideration through development of the Local Plan
Providing for the region's growing population with respect to housing, infrastructure, facilities and services.	Identification of the provision of minerals (for the local construction industry) and waste management capacity (and facilities) to support Northamptonshire's growth.
Ensuring infrastructure, services and facilities reflects growth patterns.	This is addressed through the adopted policy approach.
Addressing changing demographics.	Consideration of current and future generations needs through development of a flexible waste management network.
Lack of awareness and engagement with respect to environmental issues.	Encourage ongoing learning and behavioural change within the community and industry through innovative materials resource efficiency and waste management.
Access to recreational opportunities.	The identification of potential impacts will ensure access to recreational opportunities.
Adverse impact of transport on communities and the environment.	Increased requirements regarding reduction in transport and promotion of sustainable / alternative transport modes.
Addressing social exclusion, inequalities, disadvantage and discrimination.	Access to services and facilities will be addressed through the development of a network of waste management facilities.

## Spatial

- 6.21. Spatial effects can be predicted based on available evidence however the level of confidence in predictions, and magnitude of effects, is dependent on the nature of development and the broad landscape context.
- 6.22. The appraisal of the significant and cumulative effects resulting from implementation of the Local Plan policies addresses all of the SA objectives to varying levels. The appraisal indicated that significant positive effects exist in relation to the promotion of sustainable development and efficient design, and facilitation of development of necessary infrastructure.
- 6.23. Specific sustainability issues or problems identified through the SA Framework, and the results of their considered throughout the development of the Local Plan, are outlined in Table 17.

**Table 17: Consideration of spatial issues and problems throughout development of the Local Plan**

Key sustainability issue	Consideration through development of the Local Plan
Provision of appropriate infrastructure to support current and future needs of modern economy and community.	Focus on the need for and provision of aggregates and a sustainable waste management network to support Northamptonshire's growth.
Provision of an integrated transport network that supports economic development and land use patterns and minimises adverse impacts on environment and community.	Consideration of sustainable transport options and catchment areas.
Adequate protection of townscapes and landscapes.	Identification and requirement for consideration of protection of townscapes and landscapes through the development criteria and leading objectives.
Availability of land for development in appropriate locations.	This is addressed through the adopted policy approach.
Safeguarding existing land-use.	This is addressed through the adopted policy approach.
Ensuring appropriate facilities for waste management.	Identification of waste management requirements will promote the need for and provision of a network of sustainable waste management facilities.
Availability of robust data for waste and minerals development.	Increased reporting and monitoring requirements for all forms of development where relevant to the Local Plan.

## Mitigation measures

- 6.24. Measures to prevent, reduce or offset significant adverse effects, or 'mitigation measures' of implementing the Local Plan must be identified through the SA Environmental Report. Mitigation measures can include proactive avoidance of adverse effects, actions taken after effects are noticed, and recommendations for improving beneficial effects.

### Mitigation measures - Potential adverse effects

- 6.25. There are limited potential adverse effects resulting from the implementation of the Local Plan. Those identified through the SA and proposed mitigation measures are outlined below.
- 6.26. Initial minor financial and / or resource implications for developers have been identified as a potential adverse effect particularly with respect to incorporating materials resource efficiency, sustainable design and waste management with other development. It is believed that this effect will be localised and temporary, with implementation over the medium to long-term stabilising or reversing this effect in line with evolving industry practice and market capacity.
- 6.27. In order to reduce any adverse effects relevant industry references have been identified through the SP) and other industry bodies (e.g. British Geological Survey, BGS) which include guidance on practical implementation measures.
- 6.28. Operational effects resulting from individual minerals and waste developments on the receiving environment were also identified as a potential adverse effect. The level of impact is dependent on the nature of operations and receiving environment. Proposals for development are required to identify potential effects and provide for adequate mitigation measures to avoid and / or reduce the potential impact to an acceptable level.

### Mitigation measures - Beneficial effects

- 6.29. The Local Plan seeks to set out the long-term vision for waste and minerals development in Northamptonshire and identifies measures to ensure the provision of facilities and services to support growth. The most substantial benefits resulting from the Local Plan are likely to occur as a result of the cumulative effect of all the policies being implemented together. In order to ensure consistent implementation and increase potential benefits a range of measures pertaining to practical implementation and awareness have been developed, these include:
- reporting requirements to address locally specific development criteria and sustainability issues,
  - monitoring requirements and enforcement measures (annual reporting, standard conditions and planning agreements),
  - waste forecasts have been developed to provide an estimated capacity and facility requirements for the plan period (these forecasts can be easily amended to reflect changing trends and / or targets),
  - integration with the existing planning application process, and
  - identification of industry guidance (where possible) to assist in the identification of desired environmental outcomes.

### Uncertainties and risks

- 6.30. Uncertainties and risks identified through the SA process include limitations in terms of availability of quantitative information and subsequently confidence of assessment (where based on qualitative judgement). The process of undertaking SA inevitably relies on an element of subjective judgement. Resources utilised to assist in predicting and assessing the sustainability effects of the Local Plan include analysis of the baseline situation (evidence base), characteristics of Northamptonshire and relevant sustainability issues, relevant case studies, as well as professional experience and judgement (including formation of rational assumptions).
- 6.31. These resources have been applied where possible to determine potential effects of implementation of the Local Plan. It is important to recognise that there exists an inherent risk in all prediction techniques, and as such the worst case scenario has been assumed throughout the SA process where uncertainty exists.

## 7. IMPLEMENTATION AND MONITORING

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

- 7.1. The broad context in which the Local Plan will operate has been identified through the SA process as part of the policy context. In order to ensure consistent implementation of the LPD, linkages to other tiers of plans and programmes have been maximised, these include:

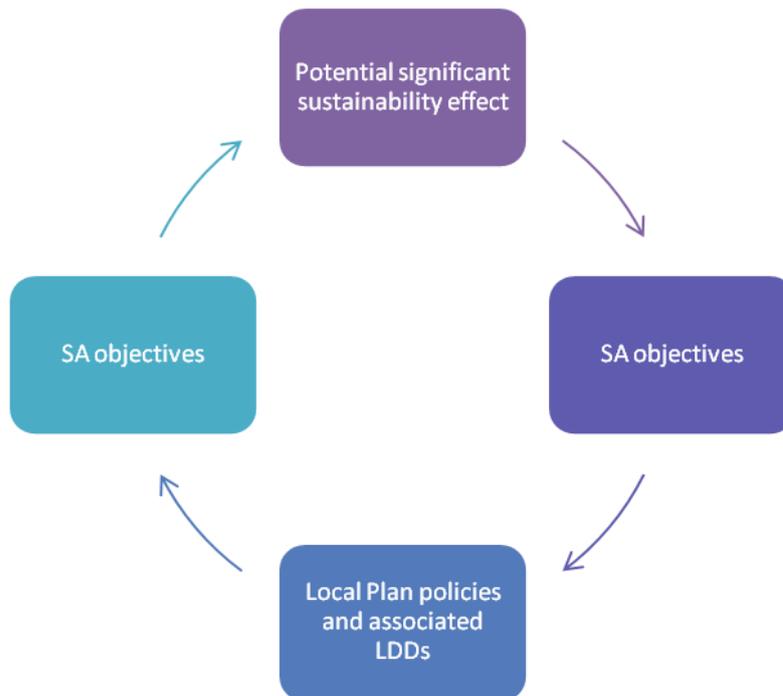
- integration with the existing planning application process including potential to incorporate Local Plan reporting requirements as a component of existing requirements,
- whilst national planning policy has not been re-iterated, where necessary such policies have been amended to reflect locally specific sustainability issues,
- adoption of existing planning mechanisms, and
- incorporation of existing plans, policies and programmes where appropriate (e.g. Northamptonshire Joint Waste Management Strategy).

## Monitoring framework

- 7.2. The purpose of monitoring is twofold as it needs to consider both beneficial and adverse effects. Firstly, it should measure the actual significant sustainability effects of implementing the LPD against those predicted in the SA and measure contribution towards achievement of desired objectives. **Secondly**, it assists in identification of unforeseen adverse effects and the need to undertake appropriate remedial action. Monitoring should aim to answer questions such as:
- Were the assessments predications of sustainability effects accurate?
  - Is the LPD contributing to the SA objectives and targets?
  - Are mitigation measures performing as well as expected?
  - Are there any adverse effects? Are these within acceptable limits, or is remedial action desirable?
- 7.3. The approach taken to monitoring should be objective and target led. Given that sufficient information about environmental effects is provided for individual plans (and SEA Directive requirements are satisfied), it may be beneficial for the Local Plan monitoring requirements to build on existing monitoring systems (such as the SA monitoring framework). This provides scope for authority wide monitoring.
- 7.4. It is not necessary to monitor everything, or monitor an effect indefinitely. Instead monitoring should be focussed on significant sustainability effects. SA monitoring involves measuring indicators which may establish a causal link between implementation of the plan and the likely significant effects being monitored. Contextual monitoring of social, environmental or economic change may assist in measuring effects of sustainability and identifying changes in the broader context.
- 7.5. The SEA Directive does not require the Local Plan to be modified if monitoring reveals adverse effects; however it should enable mitigation activities to be taken.
- 7.6. The County Council is responsible for conducting monitoring on implementation of the Local Plan, however the District and Borough Councils have a role in monitoring at the local scale where monitoring relates to residential, commercial or industrial development (not minerals and waste development) as noted in the proposed monitoring frameworks. The most appropriate vehicle for monitoring is likely to be the MWMR; monitoring is intended to be undertaken on an annual basis (unless otherwise specified). Gaps in existing information will be identified so that consideration can be given to how these could be addressed in the longer term. The monitoring framework for the Local Plan is outlined in Table 18.

## Monitoring the SA and the Local Plan

- 7.7. Implementing standardised monitoring of the SA and Local Plan policies enables possible trends and issues to be highlighted which can then be used to identify any existing or potential issues. A combined monitoring approach for the SA and the Local Plan also enables all potential significant (negative and positive) effects and various indicators to be monitored and compared simultaneously. The results can be used to develop a baseline with potential effects being measured over time.
- 7.8. The baseline information forms a 'snapshot' of the relevant sustainability issues influencing minerals and waste planning. This snapshot can be used to compare the effects of implementing the plan (on sustainability issues) to the current situation.



**Figure 1: Linking of the monitoring framework**

- 7.9. Combining the monitoring framework for the SA and the Local Plan allows for the use of the same indicators, strengthening the linkage between the two documents. This enables the plans effects to be monitored effectively and for any effects to be identified quickly, this is especially important when considering potential negative effects.
- 7.10. The MWMR reports on key indicators and identifies trends and constraints. These indicators are set out in both the SA and the plan, with most being shared or related. The indicators for each monitoring topic (potential significant sustainability effect) form the measuring tools. It is the results of these measurements that form the baseline information, published annually in the MWMR. The plans monitoring framework also includes remediation triggers and measures necessary to respond to adverse impacts identified through the monitoring process.

**Table 18: Proposed monitoring framework**

Potential significant sustainability effect and link to SA objective	Indicator	Comparators and target	Likely significant effects	Links to Local Plan
<b>Minerals</b>				
<b>Aggregate extraction</b> Steady and adequate supply of aggregates  SA objectives: 19, 20	Level of aggregates extracted	To meet S&G and CR annual provision rates: S&G – 0.50 Mt CR – 0.39 Mt Building and roofing stone will be provided for restoration, conservation, and enhancement Capacity for inert fill processing of secondary aggregates will increase	Aggregate extraction levels meet the provision rates  Sufficient aggregates are made available to support growth and development of sustainable communities	Local Plan objectives: 1,2, 4  Local Plan policy & LDD: 1, 3, 4, 5, 6, 7, 8, 9, 10, 22, 33, 34,
<b>Landbanks</b> Maintain landbanks  SA objectives:11, 12	Landbank for S&G and CR (years)	S&G 7 years CR 10 years	Maintenance of landbanks	Local Plan objectives: 1, 2, 4, 6, 7  Local Plan policy & LDD:32, 33, 34
<b>Sterilisation</b> Protect economically important resources from sterilisation  SA objectives: 7, 11, 12	Number of applications in MSAs satisfying Local Plan requirements	100% of all new development	Economically important mineral reserves do not become unnecessarily sterilised	Local Plan objectives: 1, 4, 7  Local Plan policy & LDD: 32, 33, 34
<b>Development adversely affecting minerals development</b> Development does not adversely affect committed or allocated minerals development, including the safeguarding of minerals-related uses (such as storage / processing, rail head / links and wharfage facilities) from other forms of development  SA objectives: 20	Number of applications satisfying Local Plan requirements	100% of all new development	M&W (committed or allocated) development and associated use are not adversely affected by other development	Local Plan objectives: 7  Local Plan policy & LDD: 2, 32, 33, 34

<b>Sustainable minerals transport movements</b> Promote the use of sustainable transportation movements / methods  SA objectives: 6, 13, 16, 18	Number of applications including a sustainable transport assessment or incorporating alternative transport methods	100% of all new minerals development	Increase in developments incorporating sustainable transportation movements and methods	Local Plan objectives: 1, 2, 4  Local Plan policy and LDD: 30
<b>Waste</b>				
<b>Sustainable use of resources</b> Development including the sustainable use of secondary aggregates, use of recycled materials and waste minimisation measures  SA objectives:7	Development that includes use of secondary & recycled aggregates, and construction & demolition methods which minimise waste	100% of all new development (10% increase per annum in the number of new developments utilising secondary & recycled aggregates)	Increase in the use of secondary & recycled aggregates  Decrease in construction & demolition waste	Local Plan objectives: 1, 2, 3, 4, 6  Local Plan policy & LDD: 30, SPD
<b>Sustainable waste transport movements</b> Promote the use of sustainable transportation movements / methods  SA objectives: 6, 10, 13, 16, 18	Number of applications including a sustainable transport assessment	100% of all new waste development	Increase in developments incorporating sustainable transportation movements / methods	Local Plan objectives: 1, 2, 5  Local Plan policy & LDD: 21, 23, 30
<b>Waste management associated with general development</b> Promote integration of sustainable waste management measures with other forms of development  SA objectives: 10	Number of applications satisfying Local Plan requirements for minimisation of development related waste and provision of waste management facilities	100% of all new development (where relevant)	Increase in developments incorporating waste management measures such as waste audits, waste management facilities and design features	Local Plan objectives: 1, 2, 3, 5, 8  Local Plan policy & LDD: 12, 18, 27, 31, SPD
<b>Waste arisings and management methods</b> Drive waste up the waste hierarchy  SA objectives: 10	Waste arisings (MSW, C&I, C&D, hazardous and LLW) and management methods (recycling, treatment, and disposal rates)	Decrease in waste disposed of to landfill JMWMS targets	Increase in rates of sustainable waste management methods	Local Plan objectives: 1, 2, 3, 5, 8  Local Plan policy & LDD: 11, 13, 14, 15, 16, 17,18, 19, 20, 21, 29, SPD
<b>Waste management capacity (permitted / operational)</b> Increase in more sustainable management methods and	Waste management capacity of permitted / operational facilities	Indicative waste management capacity requirements Landfill capacity sufficient to	Increase in waste management capacity to meet capacity requirements	Local Plan objectives: 2, 3, 5, 8  Local Plan policy & LDD: 11, 12,

reduction in disposal to landfill SA objectives: 10		meet ten years requirement		13, 21, 23, 31, SPD
<b>Catchment areas for waste management facilities</b> Waste management facilities within Northamptonshire contribute towards reduced transport movements, communities taking responsibility for their waste and Northamptonshire achieving net-self sufficiency SA objectives: 10	Number of applications satisfying Local Plan requirements	100% of waste management facilities have an identified catchment area	Decrease in transport movements and positive move towards self-sufficiency.	Local Plan objectives: 1, 2, 8 Local Plan policy & LDD: 21, 33, 34, SPD
<b>Development adversely affecting waste development</b> Development does not adversely affect committed or allocated waste development, including the safeguarding of waste sites from other forms of development SA objectives: 20	Number of applications satisfying Local Plan requirements	100% of all new development	M&W (committed or allocated) development is not adversely affected by other development	Local Plan objectives: 1, 2, 3, 4, 6 Local Plan policy & LDD: 30, SPD
<b>Environment and landuse</b>				
<b>Natural</b> Protect and enhance the natural environment Avoid and / or minimise environmental impacts where necessary SA objectives: 2, 3, 4, 13, 17	The number of incidents of enforcement action taken by NCC against the M&W industry relating to environmental impact	Reduction in the number of incidents where enforcement action is taken against the M&W industry in relation to environmental impact	Reduction in substantiated complaints and pollution incidents requiring enforcement action for developments satisfying Local Plan requirements	Local Plan objectives: 10, 11, 12 Local Plan policy & LDD: 22, 24, SPD
<b>Historic</b> Conserve and enhance the historic environment, heritage assets and their setting SA objectives: 5, 13, 17	Number of M&W developments that have an approved scheme addressing the historic environment or include a scheme which secures a supply of building and roofing stone (where relevant)	100% of all new development (where relevant)	Increase in the proactive management of historic environment	Local Plan objectives: 9, 10 Local Plan policy & LDD: 6, 22, 26, SPD

<b>Built</b> M&W development which is complementary to the surrounding landscape and townscape SA objectives: 2, 13, 17	Number of M&W applications that include a landscape character assessment and satisfy the SPD principles relating to innovation and design (where relevant)	100% of all applications (where relevant)	Increase in creative design and innovation of M&W developments	Local Plan objectives: 2, 6, 9, 10, 11, 12 Local Plan policy & LDD: 1, 30, 22, 25, 28, SPD
<b>Flood risk</b> Avoid adverse impact on flood risk from M&W development SA objectives: 4, 13, 17	Number of M&W applications receiving permission contrary to Environment Agency advice on flooding	All applications / permissions meet flood management requirements	Decrease in potentially adverse impacts on flood risk and prevention of flood risk impacts on surrounding areas	Local Plan objectives: 1, 2, 10 Local Plan policy & LDD: 22, 24, SPD, SA
<b>Restoration and after-use</b> After-use should enhance biodiversity, the historic & natural environment and amenity whilst benefitting the local community and / or economy SA objectives: 2, 9, 15, 17	Number of M&W permissions that include an approved restoration scheme that seeks to maximise beneficial outcomes	100% of all new development (where relevant) Increase in creation of BAP priority habitats (BAP targets)	Increase in the enhancement of biodiversity (BAP targets), the historic & natural environment, amenity with increased benefits to the local community and / or economy	Local Plan objectives: 11, 12 Local Plan policy & LDD: 22, 25, 28, SPD
<b>Climate change</b>				
<b>Climate change reduction measures</b> Carbon emission reduction within the M&W industry SA objectives: 6, 13, 14, 16, 18, 19	Number of applications satisfying the Local Plan requirements relating to reduction of greenhouse gas emissions and enhancing energy efficiency i.e. the regular servicing of vehicles, landfill gas extraction, methane gas recovery	100% of all development	County carbon emissions continue to decrease	Local Plan objectives: 1, 2 Local Plan policy & LDD: 30, SPD, SA
<b>Energy production</b> Increase in renewable energy production within the M&W industry SA objectives: 6, 13, 14, 16, 19	Increase in energy production from waste developments (e.g. energy from waste facilities, landfill gas extraction, anaerobic digestion, etc)	Net increase	County carbon emissions continue to decrease	Local Plan objectives: 1, 2 Local Plan policy & LDD: 30, SPD, SA
<b>Economic and community benefits</b>				
<b>Employment</b> Increase in investment and employment in the M&W industry	Continued investment in M&W development (e.g. new waste management facilities and	Net increase	Economic growth due to further investment and increased skills / knowledge	Local Plan objectives: 1, 3 Local Plan Policy & LDD: SPD

SA objectives: 1, 14	mineral workings)			
<b>Health and safety</b> Ensure that M&W development does not adversely affect the health and safety of our communities.  SA objectives: 2, 3, 4, 6, 8, 9, 10, 13, 14, 15, 18, 20	Number of applications that satisfy the Local Plan requirements relating to sustainable transport , avoiding and / or reducing potentially adverse impacts, prevent landuse conflict and reducing carbon emissions	100% of all development	Decrease in potentially adverse impacts on health and safety	Local Plan objectives:1, 2, 7, 8, 11, 12  Local Plan policy & LDD: 22, 23, 24, 25, 26, 28, 30, 31, 34, SPD, SA

\* The coloured shading in the above table indicates the broad topic areas as relevant to the partial review process:

Orange – Minerals planning

Green – Waste planning

Blue – General policies

## APPENDIX 1: POLICY CONTEXT

Documents given due consideration in the review of material and subsequent development of the Local Plan are listed below. Objectives and policies relating specifically to minerals and waste management have been used to identify shared objectives, targets and indicators. The detailed policy context review is available in the SA Scoping Report (June 2012), this will be updated as new material becomes available.

Policy context of the plan and SA
<b>International policy context</b>
Aalborg Charter*
Aarhus Convention*
European Union Spatial Development Perspective
The Strategic Environmental Assessment Directive 2001/42/EC
EC Waste Framework Directive 75/442/EEC
EC Hazardous Waste Directive 91/689/EEC
EC Directive on Landfill 1999/31/EC
EC Waste Directive 2006/12/EC
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