Oxfordshire County Council

Interim Draft Sustainability Appraisal Report on the Approach to Site Delivery

Oxfordshire Minerals and Waste Local Plan:

Part 2 – Site Allocations

2020-2031

January 2021

Contents

1. Introduction

1.1 The Oxfordshire MWLP: Part 1 – Core Strategy (hereafter called the Core Strategy) provides the planning strategies and policies for the development that will be needed for the supply of minerals and management of waste in Oxfordshire over the period to the end of 2031. It sets out policies to guide minerals and waste development over this plan period and common core policies which address development management issues relevant to both minerals and waste. The Core Strategy was adopted in September 2017 and has a plan period up to 2031.

1.2 The Oxfordshire MWLP: Part 2 – Site Allocations Document (hereafter called the Sites Plan) will identify site-specific allocations for minerals and waste development, within the policy parameters, to meet the minerals and waste requirements as established by the Core Strategy for the period to 2031. As well as allocating sites it will also identify the minerals and waste facilities to be safeguarded, review and determine the extent of Mineral Safeguarded Areas and include any further development management policies that are necessary in relation to the allocated sites.

1.3 An initial request for site nominations (for minerals and waste development) was undertaken in January 2018. This was followed by a further request for sites during the Sites Plan Issues and Options (I&O) consultation in August 2018. The Sustainability Appraisal (SA) Scoping Report and Proposed Site Assessment Methodology were also published at this time, alongside the I&O consultation document.

1.4 The preferred site options were identified in the Draft Sites Plan (Regulation 18) consultation document which was published in January 2020, alongside the Preliminary Draft SA of Sites Report, Initial Sites Assessment, and other supporting evidence. Additional sites that had been identified after the Draft Plan consultation document had been prepared were also consulted upon at this stage within the Additional Site Consultation (Regulation 18) (January 2020) document.

1.5 In light of information received in response to the Draft Plan consultation the Council has decided that additional work is required to ensure that the best available information has been utilised to inform the plan-making process in order to provide robust and sound evidence. This includes reconfirmation with site nominators that their site is available and considered deliverable, reviewing the site assessments, as well as further work on the SA, Habitats Regulation Assessment (HRA), and the Strategic Flood Risk Assessment (SFRA).

1.6 It is intended to consult on the Revised Draft Plan (including site assessments) and the Draft SA Report of the Revised Draft Plan and other supporting documents in August 2021. Prior to this occurring it is necessary to appraise the sustainability effects of the approach to site delivery.

1.7 This Interim Draft SA Report has been developed to appraise the approach to site delivery and its contributions towards sustainable development, this in

turn will act to inform preparation of the Revised Draft Plan, site assessments, and the Draft SA Report of the Revised Draft Plan.

1.8 All documents published to support preparation of the Core Strategy and Sites Plan are available on the Council's website: www.oxfordshire.gov.uk

Sustainability Appraisal

1.9 Under the Planning and Compulsory Purchase Act 2004 (the Act), SA is mandatory for Local Development Documents 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. The purpose of the Interim Draft SA Report is to detail the appraisal process and the likely significant sustainability effects of implementation of the Plan and reasonable strategic options. This Interim Draft SA Report was developed to appraise the contribution of this spatial plan towards sustainable development. The approach adopted for this Interim Draft SA Report is largely dictated by Government guidance.

1.10 This Interim Draft SA Report was prepared for Oxfordshire County Council (OCC, or the County Council) by Northamptonshire County Council (NCC) alongside the emerging Sites Plan.

1.11 The Interim Draft SA Report aims to fulfil requirements of the Act, its Regulations and the SEA Directive, and was produced in accordance with government guidance, including A Practical Guide to Strategic Environmental Assessment (SEA) Directive (2005).

Appraisal methodology

1.12 The approach for preparing SA Reports is largely dictated by Government guidance. The SA was undertaken primarily on the basis of professional judgment informed by the evidence base and other information made available to the Council. In undertaking the assessment of the potential effects any judgments of significance were systematically documented in accordance with Government guidance. The range of techniques used in the prediction and assessment of effects included professional judgment, compatibility assessment, GIS analysis, and consultation. The appropriateness of individual techniques to meet the Council's needs and requirements were assessed accordingly.

Consultation

SA Scoping Report

1.13 Public consultation is a key part of SA (including the SEA Directive) and the plan-making process and forms a regulatory requirement for both the SA Scoping Report and any subsequent SA Report(s). Consultation on the Draft SA Scoping Report was undertaken in January 2018, followed by consultation on the SA Scoping Report alongside the I&O consultation document in August – October 2018 with consultation responses given due consideration and amendments made accordingly.

1.14 The main outcomes achieved through consultation on the SA Scoping Report were the identification and consideration of the policy context, this included minor amendments to the SA objectives and Proposed Site Assessment Methodology to align more closely with national policy and illustrate linkages between the SEA topic areas. The consultation also assessed the baseline information and sustainability objectives that influence the Plan and the SA. Consultation responses are detailed in the Proposed Site Assessment Methodology and Sustainability Appraisal Scoping Report – Analysis of Responses to Initial Informal Consultation January – February (Amended August 2018) with subsequent amendments to the SA Scoping Report implemented through the SA Scoping Report (Amended August 2018). Consultation on the SA Scoping Report has helped to develop a comprehensive and robust SA framework and appraisal methodology able to support the Plan through the plan-making process.

SA Report

1.15 Public consultation on the Preliminary Draft SA Report of the preferred site options occurred January – March 2020 and included the required SEA Consultation Bodies and other appropriate parties. Representations received were given due consideration. It was determined that further evidence was required to ensure that the Plan is based on a sound evidence base. In addition, the Councils position on planning permissions and resolutions to grant planning permissions has been updated, this was considered to have implications on the selection of preferred site options and require a review of the evidence on which such decisions were made.

1.16 In light of information received in response to the Draft Plan consultation the Council has decided that additional work is required to ensure that the best available information has been utilised to inform the plan-making process in order to provide robust and sound evidence. This includes reconfirmation with site nominators that their site is available and considered deliverable, reviewing the site assessments, as well as further work on the SA, HRA, and the SFRA.

1.17 It is intended to consult on the Revised Draft Plan (including site assessments) and the Draft SA Report of the Revised Draft Plan and other supporting documents in August 2021. Prior to this occurring it is necessary to appraise the sustainability effects of the approach to site delivery.

Consultation on the Interim Draft SA Report

1.18 Consultation on the Interim Draft SA Report is currently being undertaken (alongside consultation on the Updated Site Assessment Methodology) and has been focused on the required Strategic Environmental Assessment (SEA) Consultation Bodies and other appropriate parties. Consultation commences on 20 January 2021 for a period of eight weeks. The closing date for feedback is 17 March 2021, all responses must be received before 5:00pm on this date. Other stakeholders and the public can also make comments during this time. Responses received will be given due consideration in preparing the Draft SA Report of the Revised Draft Plan.

2. Background

Purpose of the SA and the SA Report

2.1 SA is mandatory for Local Plans as part of the plan-making process under the Planning and Compulsory Purchase Act 2004 (the Act). The process of undertaking SA assists planning authorities to fulfil the objective of integrating sustainable development principles into the plan-making process.

2.2 When preparing Local Plans 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. Although the requirement to carry out SA and SEA are distinct, 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.

2.3 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.

2.4 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 economic, social and environmental objectives of sustainable development.

2.5 The purpose of this Interim Draft SA Report is to detail the appraisal process and the likely significant sustainability effects of implementation of the Plan and reasonable strategic options. The Interim Draft SA Report details:

- A summary of the baseline situation and identification of sustainability issues and problems;
- Prediction and appraisal of the effects of implementation of the strategic options and the Plan;
- Consideration and selection of the preferred approach (informing the Draft Plan);
- Consideration of sustainability issues in selection of preferred approach;
- Mitigation measures incorporated into the Plan; and
- Proposed monitoring arrangements.

Detailed application of the SA process for the Local Plan

2.6 The Core Strategy, adopted September 2017, provides the planning strategies and policies for the development that will be needed for the supply of minerals and management of waste in Oxfordshire over the period to the end of 2031. The Core Strategy plan-making process explored a range of local issues and the policy context influencing the Plan as a whole. As part of the Core Strategy plan-making process the Plan objectives were developed with due consideration of the policy hierarchy influencing both the Plan and the SA. The Plan's objectives as well as the SA objectives were appraised

against the SA framework as part of the Core Strategy plan-making process, which tested the Plan objectives for compatibility against the SA objectives. Overall, the Plan objectives were found to be consistent with the SA objectives. For further detail on this process please refer to Oxfordshire MWLP: Part 1 – Core Strategy, SA Report Update (February 2017).

2.7 The Sites Plan will identify site-specific allocations for minerals and waste development, within the policy parameters, to meet the minerals and waste requirements, established by the Core Strategy for the period to 2031. As well as allocating sites it will also identify the minerals and waste facilities to be safeguarded, review and determine the extent of Mineral Safeguarded Areas and include any further development management policies that are necessary in relation to the allocated sites.

2.8 An initial request for site nominations (for minerals and waste development) was undertaken in January 2018. This was followed by a further request for sites during the Sites Plan Issues and Options (I&O) consultation in August 2018. The SA Scoping Report and Proposed Site Assessment Methodology were also published at this time, alongside the I&O consultation document.

2.9 The preferred site options were identified in the Draft Sites Plan (Regulation 18) consultation document which was published in January 2020, alongside the Preliminary Draft SA of Sites Report, Initial Sites Assessment, and other supporting evidence. Additional sites that had been identified after the Draft Plan consultation document had been prepared, were also consulted upon at this stage within the Additional Site Consultation (Regulation 18) (January 2020) document.

2.10 In light of information received in response to the Draft Plan consultation the Council has decided that additional work is required to ensure that the best available information has been utilised to inform the plan-making process in order to provide robust and sound evidence. This includes reconfirmation with site nominators that their site is available and considered deliverable, reviewing the site assessments, as well as further work on the SA, Habitats Regulation Assessment (HRA), and the Strategic Flood Risk Assessment (SFRA).

2.11 It is intended to consult on the Revised Draft Plan (including site assessments) and the Draft SA Report of the Revised Draft Plan and other supporting documents in August 2021. Prior to this occurring it is necessary to appraise the sustainability effects of the approach to site delivery.

2.12 This Interim Draft SA Report has been developed to appraise the approach to site delivery and its contributions towards sustainable development, this in turn will act to inform preparation of the Revised Draft Plan, site assessments, and the Draft SA Report of the Revised Draft Plan.

2.13 The SA process involves five stages, outlined below.

Stage A: Setting the context and scope

2.14 The SA Scoping Report (January 2018 and August 2018) set the context and scope for the Plan, provided a sound base for both the Plan and the Draft SA Report, and sought to satisfy legislative and SEA Directive requirements. This stage also involved Council renewing a request to the minerals and waste

industry operators and/or their agents and landholders to put forward site nominations, allowing Council to gauge industry interest in investing in minerals and waste development within the County to identify potential sites.

Stage B: Developing and refining options, and assessing effects

2.15 The appraisal of the sustainability effects of the MWLPs key principles (or objectives) and core policies, was assessed through the SA process for the Core Strategy (February 2017).

2.16 Local issues and the policy context of the emerging Sites Plan were explored through the (I&O) consultation document August 2018. Following on from the request for site nominations, the identified site-specific options were then appraised through the preliminary SA process. Sites were subject to assessment as per the Proposed Site Assessment Methodology (August 2018).

2.17 The preferred site options were identified in the Draft Plan (Regulation 18) consultation document (January 2020). The assessments for all sites, including those not taken forward, were also published within the Minerals and Waste Sites Assessment Report (January 2020). Additional sites that were identified after the site assessment work had been undertaken, and the Draft Plan consultation document prepared, were identified in the Additional Site Consultation (Regulation 18) (January 2020) document.

2.18 Public consultation on the Draft Plan and Preliminary SA Report of the preferred site options occurred January – March 2020 and included the required SEA Consultation Bodies and other appropriate parties. Representations received were given due consideration. The scope of the Preliminary SA Report was limited to the appraisal of the site-specific options.

2.19 In light of information received to the consultation, particularly in relation to the evidence base, the Council have decided that to ensure a robust and sound evidence base, additional work is required. This includes further work on assessing the sustainability effects of the Plan, including appraisal of the approach to site delivery, which is the main matter addressed through this Interim Draft SA Report.

Stage C: Preparing the SA Report

2.20 The appraisal of the sustainability effects of the Plan and its elements were assessed against the SA framework objectives identified through the SA Scoping Report (Amended August 2018).

2.21 The purpose of this Interim Draft SA Report is to appraise the sustainability effects of the approach to site delivery. Site-specific elements and any other policies to be set out through the Revised Draft Plan will be assessed through the Draft SA Report of the Revised Draft Plan to be consulted on in August 2021.

Stage D: Consulting on the Plan and the SA Report

2.22 Preparation of the Plan and the SA process will be undertaken concurrently.

2.23 Following the consultation on the Draft Sites Plan, Draft SA Report and other supporting documents, a Revised Draft Plan and Draft SA Report of the

Revised Draft Plan are to be produced, to be consulted on in August 2021. This will then be subject to further consultation (Regulation 19) anticipated March 2022, before submission to the Secretary of State in November 2022.

Stage E: Monitoring implementation of the Plan

2.24 Following adoption, monitoring of implementation of the Local Plan (Core Strategy and Site Allocations Plan) will be undertaken by the County Council according to proposals for monitoring set out in the Core Strategy, the SA Report and in accordance with national guidance.

Site Assessment Methodology

2.25 The identification of site-specific allocations and designations for minerals and waste development should be based upon a robust and credible assessment of site suitability, environmental capacity, and potential contribution towards sustainable development.

2.26 The SA process considers the sustainability effects of implementing a land-use plan at a strategic level. In order to ascertain what potential impacts could arise as a result of minerals and waste development a more focused site assessment method is needed. The site assessment process forms part of both the SA and plan-making process. The SA objectives form the foundation of the Site Assessment Methodology, with the criterion refined to: capture site-specific effects; take account of the policy framework set out through the adopted Core Strategy and other relevant policies; and ensure that the assessment requirements set out through the methodology are appropriate, practicable, and at a level that is proportionate to the plan-making process. The link between the site assessment criteria and SA objectives is set out in Table 1 below.

2.27 The purpose of the Site Assessment Methodology is to ensure consistency, maintain transparency and provide a sound basis for site assessment and the selection of the preferred site options. The findings of the SA and site assessment process coupled with consultation throughout the plan-making process will assist in identifying sites that are appropriate to take forward as allocations.

2.28 The site assessment process is not intended to provide an exhaustive listing of decision-making criteria, or to replace the planning application decision process. Rather, it seeks to identify those factors that will enable meaningful comparison of site suitability, sensitivity, and potential impacts. The cumulative impact of development on the well-being of the community is also taken into consideration, including any significant adverse economic, social, and environmental impacts. In this manner the Site Assessment Methodology fulfils the SA requirements and assists in identifying those sites considered to be consistent with the SA objectives and sustainable development.

2.29 Following on from the initial request for site nominations and identification of a long list of sites (Stages 1a and 1b of the Site Assessment Methodology), the long list of sites was consulted on as part of the I&O consultation document (Stage 2). Three further stages were identified in the Proposed Site Assessment Methodology (Amended August 2018) that complement the plan-making and SA process including: Stage 3a Initial Screening; Stage 3b:

Detailed Technical Assessment; and Stage 4: Identification of, and Consultation on, the Preferred Options.

2.30 It is important to note that both the Stage 3a and 3b assessment methodologies were modified from that published in the Proposed Site Assessment Methodology (Amended August 2018) during the assessment process. Changes were made as it was found that the level of detail set out was not practicable for the assessment level, it was necessary to reflect the qualitative nature of the assessments, and to reflect the risk associated with making finer judgements (particularly relating to the previous amber-green, amber, red-amber range). The planning history of each site was also recorded to assist to provide the background to each site. Although these changes were broadly discussed within the Minerals and Waste Sites Assessment, Minerals and Waste Local Plan (Adams Henry) (January 2020), they were not consolidated into an updated methodology document.

2.31 For further detail on the previous stages and the methodology applied please refer to the Proposed Site Assessment Methodology (Amended August 2018) and Minerals and Waste Sites Assessment, Minerals and Waste Local Plan (Adams Henry) (January 2020). It should be noted that two additional nominations were brought forward at Sutton Wick and High Cogges, these sites were previously nominated, but the site boundaries were amended. Both sites will be subject to full assessment.

Moving forward – Review of the site assessments

2.32 In preparation for review of the site assessments, a further survey was undertaken during the period October – November 2020 of all operators and their agents whose sites were identified as reasonable alternatives to confirm that the sites are still available. In total seven sites were withdrawn or found to be no longer deliverable or available. No new sites were brought forward.

2.33 It is proposed to undertake a review of the site assessments, the scope and method of this review is summarised below. Note that it is not intended to fully repeat Stages 1a, 1b, 2 & 3a of the site assessment process as a complete review is not warranted, i.e. there has been no significant changes to available data or local circumstances such that would warrant a complete review. The site assessments previously undertaken are fit-for-purpose and therefore do not require a complete review but it may be prudent to undertake a rapid analysis for the purpose of ensuring consistency.

2.34 A rapid analysis for the purposes of ensuring consistency with the newly nominated sites, is proposed to be undertaken on the Stage 3a initial screening assessments (of sites that are confirmed to be reasonably available). This will also help to ensure that the information is up-to-date. The outcome of which will be published alongside the Revised Draft Plan and associated SA Report with amendments shown in ‘tracked changes’ format (the correction of any typographical errors will not be shown).

2.35 Sites that were subject to Stage 3b (that are confirmed to be reasonably available), will be re-assessed as per the Updated Site Assessment Methodology in order to inform the Sites Plan preferred site options. The assessments for individual sites will be published alongside the Revised Draft Plan and associated SA Report.

2.36 Any new sites brought forward, or any amendments to sites, including Sutton Wick and High Cogges, will be subject to assessment as per the Updated Site Assessment Methodology (i.e. Stage 3a and 3b where applicable) and will also be published alongside the Revised Draft Plan and associated SA Report.

2.37 As it is proposed to undertake a rapid review of the Stage 3a initial assessments, the methodology for which is detailed in the Updated Site Assessment Methodology. Doing so also provides clarity on how any new sites will be assessed. Note that the Stage 3a methodology has not been changed from that applied in practice to previous site assessments, however, it does vary from that published in the Proposed Site Assessment Methodology (Amended August 2018) for the reasons stated in paragraph 2.30 above. As such the Updated Site Assessment Methodology captures the changes made in practice through previous site assessments insofar as they relate to Stage 3a.

2.38 In relation to the Stage 3b detailed assessments, although the overall principle of the methodology remains the same (as the Proposed Site Assessment Methodology, Amended August 2018), it has been necessary, in addition to the reasons stated in paragraph 2.30 above, to further update the Stage 3b methodology to: reflect the availability of data; ensure that the process is practicable; ensure that the level of assessment is proportionate to the plan-making process; and appropriately reflect national policy and guidance.

2.39 A summary of the site assessment process to be applied to site assessments undertaken herein (applied to new and revised sites), as set out in the Updated Site Assessment Methodology, for Stage 3a and 3b is set out below:

- Stage 3a: Initial screening – This stage involves screening of the sites in order to determine compliance with key policy considerations (which act as a first sieve) in order to rule out any sites that have overriding constraints such that they would not be deliverable. The initial screening will use a traffic-light system of assessment, based on a Red, Amber, Green (RAG) methodology to indicate whether based on that criterion, a site could be acceptable for the proposed development. An overall RAG score will be given for each site to provide an indication of the sites suitability to be taken forward through the plan-making process. Consideration of specific mitigation measures will not be taken into account at this stage. Sites with an overall ‘green’ or ‘amber’ rating will then go forward to the next stage of assessment (Stage 3b), as a ‘reasonable alternative’.
- Stage 3b: Detailed assessment – The reasonable alternatives identified from Stage 3a will first be screened to assess compliance with key policy considerations (e.g. for minerals - maintaining a steady and adequate supply of aggregates, or for waste – driving waste up the hierarchy). Any sites that do not comply with these key policy considerations will be discounted from further consideration at this point and will not proceed further in the Stage 3b assessment process. Sites will then be assessed in detail against a set of site assessment criteria derived from the relevant site selection criteria set out through the SA framework and the Core Strategy. This will involve a desktop assessment of existing datasets and information

sources against the assessment criteria in order to provide an overview of features, constraints, potential impacts, and capacity for avoidance and/or mitigation measures. This stage will also involve site visits for the purpose of ground-truthing. As per Stage 3a, a Traffic Light score will be applied for the detailed assessment stage. Potential for a site to provide enhancements will be reflected by use of a deep green RAG scoring. The purpose of Stage 3b is to identify the preferred site options.

- Stage 4: Identification of, and Consultation on, the Preferred Options – The preferred site options, i.e. those sites that are considered to best meet the identified requirements for minerals provision and waste management (as set out in the Core Strategy) will be identified, and consulted on, in the Revised Draft Plan (Regulation 18) document.

2.40 In addition, the Sequential Test will be applied to sites as part of the Stage 3b detailed assessment process, acting to inform the site assessments, plan-making and SA processes.

2.41 It should be noted that, if required, the assessment of broad locations against the criteria will be applied at a landscape (broader) level as it may not be practical to assess larger general areas in the same amount of detail as individual sites.

Table 1: Site assessment criteria and links to SA objectives

Environmental, social, and economic assessment criteria	Link to SA objective
Air quality Including dust, air emissions, bio-aerosols (waste), and odours (waste)	SA5
Protection of water quality, resources, and groundwater	SA4
Flood risk	SA7
Land and soil quality, including agricultural land classification, management of soils, land contamination (waste), and land instability (waste)	SA10
Noise and vibration	SA9
Nature conservation, biodiversity, and geodiversity	SA1
Historic environment and heritage assets (and setting)	SA3
Landscape character and visual impacts (including light)	SA2 & SA9
Built environment and townscape	SA2
Opportunities for beneficial restoration and after use	SA10
Climate change and opportunities for sustainable development	SA6
Proximity to sensitive receptors	SA1 & SA9
Compatibility of surrounding land-uses	SA2 & SA9
Litter, vermin, and birds (waste only) Birdstrike associated with restoration outcomes (minerals only)	SA9 & SA10
Impact on general amenity or character of the area	SA2, SA5 & SA9
Impact on recreational opportunities and open spaces (including rights of way)	SA9
Economic and employment opportunities	SA11 - SA13
Site access and impact on the local and strategic road network	SA8
Availability of and impact on infrastructure	SA8
Capacity for avoidance and/or mitigation measures (including the potential for residual environmental nuisance)	SA1-SA10
Potential for cumulative impacts	SA1-SA10

2.42 The Updated Site Assessment Methodology is being consulted on with the SEA Consultation bodies alongside this Interim Draft SA Report. Comments received will be given due consideration in finalising the methodology.

Outline of the MWLP content and objectives

2.43 The MWLP will form the land use planning strategy for minerals and waste development within the administrative area of Oxfordshire County. It provides guidance regarding industry investment, the level of development needed to support the development of sustainable communities and infrastructure, and where in the county such development should go. The Plan also addresses the design and impact of development and how it can best relate to the surrounding land use(s) and link with the wider community in order to optimise beneficial outcomes. The MWLP will provide the basis for determining planning applications for, or linked to, minerals and waste development in Oxfordshire. The plan period for the MWLP is up to the end of 2031.

2.44 The MWLP is divided into two parts, Part 1 – Core Strategy and Part 2 – Site Allocations Document. Jointly the MWLP will set out:

- the spatial strategy for minerals and waste development in the county and the amount of provision that will need to be made for such development;
- the vision and strategic priorities, or objectives, for minerals and waste development in Oxfordshire to 2031;
- development principles and policies for controlling and managing development and to address locally-specific issues;
- site-specific allocations for minerals and waste development; and
- a geographical presentation of the Plans policies, site specific allocations and designations (where possible) on a detailed OS map of the county (the Policies Map).

2.45 The Sites Plan will focus on the identification of site-specific allocations for minerals and waste development, as well as any supporting policies that are required to facilitate delivery of the sites.

MWLP vision and objectives

2.46 The MWLP Core Strategy identifies separate visions and objectives for minerals and waste development. The vision outlines the plans aspirations and intent in spatial planning terms; setting the context for development options for the Local Plan at a broad level. The vision also demonstrates a sense of local distinctiveness and considers the functional relationship between key environmental, social, economic, and spatial features of the area. The objectives encompass the strategic priorities for the plan area, setting out what the plan is aiming to achieve in spatial planning terms, and set the context for development options. The objectives facilitate delivery of the vision. The minerals and waste visions and objectives, as identified in the Core Strategy, are set out in Appendix 1.

3. Sustainability objectives, baseline, and context

Identifying the policy context

3.1 As part of plan preparation and SA Scoping Report a review was conducted of relevant policies, plans, and programmes influencing the policy context of the Plan and SA (refer to Appendix 2). Sustainability objectives within the policy context were also identified and taken into consideration through development of the SA framework.

3.2 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, national, and local policy context level.

3.3 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 and key sustainability issues

3.4 Baseline information provides the basis for predicting and monitoring effects and helps to identify key sustainability issues. The baseline information is set out in detail in the SA Scoping Report (Amended August 2018), which also details the development of the SA framework. Information on the current state and emerging trends of relevant economic, social, and environmental factors allow the effects of the MWLP to be adequately predicted and monitored.

3.5 A concise summary of the state of Oxfordshire, with respect to environmental, social, economic, 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.

3.6 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 and the baseline information as set out in the SA Scoping Report (Amended August 2018) focusing on matters specifically relevance to minerals and waste planning in Oxfordshire. A summary of the key sustainability issues is included in the following sections.

Oxfordshire in context

3.7 Oxfordshire covers an area of around 260,800 hectares (ha) and a population of around 692,000 (mid-2019). Although close to London the majority of the county is rural in nature, with around 78% classified as land under agricultural use. The population spread fairly evenly across the five districts of Cherwell, Oxford, South Oxfordshire, Vale of White Horse, and West Oxfordshire. The county features the Chiltern Beechwoods, the limestone grasslands of the Cotswolds, and the lowland meadows of the Thames Valley. There are no

National Parks in Oxfordshire or its vicinity, however, there are three Areas of Outstanding Natural Beauty (AONBs) that extend into Oxfordshire, covering around a quarter of the county; including parts of the Chilterns, parts of the Cotswold, and part of the North Wessex Downs AONBs.

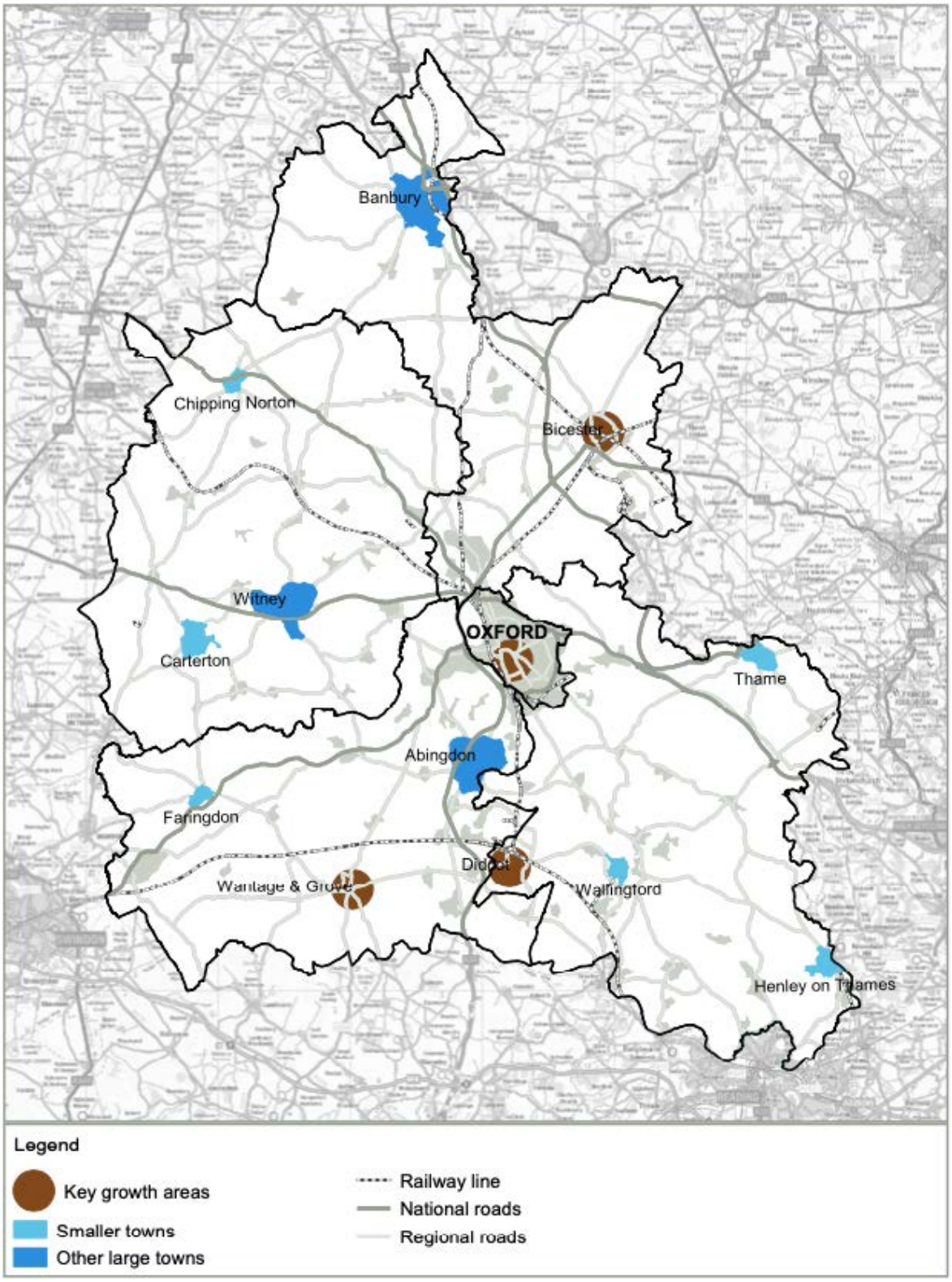

Figure 1: Oxfordshire's spatial context

Environmental resources and assets

Air quality

3.8 Air quality in Oxfordshire is generally good, however there are a number of areas within the county where elevated levels of pollutants have been detected, problems can result from a variety of sources, including traffic and industrial activity. Nine Air Quality Management Areas (AQMAs) have been designated in Oxfordshire, where levels of NO_2 from traffic exceed recommended government levels.

3.9 There may be potential for air quality impacts from minerals and waste associated transportation; including impacts on AQMAs (dependent on location of individual sites and the market that they serve). Dust and odour are of particular relevance to minerals and waste facilities, no widespread issues have been identified, but localised problems can arise. No data is currently available on the level of emissions associated with minerals and waste development and no significant air quality issues have been identified in relation to existing development.

3.10 Emissions from any new waste management facilities will be regulated as part of the licensing process by the Environment Agency (EA) to ensure no negative impacts result, particularly on human health.

3.11 Key issues regarding air quality can be summarised as follows: reducing vehicle movements and potential impacts of emissions associated with road transport; maintaining a good level of air quality in Oxfordshire and meeting air quality targets; avoiding and/or minimising potentially adverse impacts (including dust, odours, and other air emissions) on human health and the environment.

Water resources

3.12 Oxfordshire has major rivers the Leach, Windrush, Evenlode, Glyme, Cherwell, Ray, Ock, and Thame and many smaller tributaries that flow through the county and into the Thames, the majority of the county is covered by the Thames Catchment Area. The county has approximately 2,434 kilometres (km) of rivers and streams; of which 1,880 km are classified as main river. The Grand Union Canal connects into Aylesbury and Wendover with a disused arm to Buckingham. The quality of both ground and surface water varies across the county, with the county achieving a slightly higher percentage of waterbodies in good status and fewer that are ‘poor’ or ‘bad’ when compared to the national figures.

3.13 Water is becoming an increasingly scarce resource, from both groundwater and river sources, with additional future threats from climate change being predicted. Oxfordshire has low rainfall levels and the Thames Water area is one of the most water stressed in the country. It is therefore important to ensure that sites and development proposals do not have a significantly detrimental impact upon water quality and availability, including avoiding disruption to water flows and over abstraction.

3.14 Minerals and waste operations use water as part of their processes and so have the potential to impact on and pollute water resources and disrupt flow through abstraction, runoff or leachate.

3.15 Key issues regarding water resources can be summarised as follows: continued improvements to water quality in watercourses; conserving water resources, and prudent use of water, to ensure continued availability; and protecting water resources from adverse effects from minerals and waste development.

Flood risk and climate change

3.16 The county faces risks from flooding from a number of sources including surface water, fluvial, and groundwater. Although flooding is not a substantial problem for most parts of the County, there are localised problems of flood risk, and areas where flooding has caused major incidents.

3.17 SFRA's have been published for the five Districts providing coverage across the county, including the Minerals and Waste SFRA Addendum Report, Oxfordshire County Council (March 2019).

3.18 The majority of historic fluvial flood events are shown to be associated with the middle and lower reaches of the River Thames within Oxfordshire, affecting settlements including the City of Oxford, Botley, Abingdon, Wallingford, and Henley on Thames. Since 1894 records indicate nine notable fluvial flood events have occurred, most recently in the winter of 2013/14.

3.19 Throughout the winter of 2013/14, prolonged heavy rainfall across the UK led to saturated ground and widespread surface water flooding, as well as causing rivers to burst their banks, such as the River Bure in Bicester. This flood event affected areas across the West Thames area, as a result of the previously wet summer where the rivers across the area were already at or close to capacity prior to the onset of further winter rainfall.

3.20 Events of heavy rainfall on a saturated catchment have also affected the City of Oxford (River Thames) several times over the last twenty years.

3.21 Many settlements across the County have experienced one or two flood events in the past, particularly relating to the major flooding event in 2007 (all sources of flood risk).

3.22 Historic fluvial flooding has also been recorded in the River Ock catchment, since 1947 records indicate six notable events with the most recent in 2012. In the upper reaches of the catchment, affected villages include: Stanford in the Vale (Frogmore Brook); Charney Basset, and Lyford (Ock); and Wantage and Grove, and East Hanney (Letcombe Brook).

3.23 The River Cherwell to the north of the County has caused flooding in Banbury, with six notable events since 1932, with the most severe event occurring in 1998. In West Oxfordshire, the majority of recorded flood events have been associated with the River Windrush affecting Witney four times since 1947, with the most recent in 1998.

3.24 Datasets provide a picture of surface water flooding across the County and identify that the risk is widespread across most of the County.

3.25 A clustering of groundwater flood events has occurred in and around the City of Oxford, including areas such as New Hinksey, Grandpont, Oxford University, Headington, and Botley. It is recognised that groundwater flooding

in these areas may have occurred in combination with fluvial flooding, causing groundwater levels in the alluvial deposits to rise and flood basements.

3.26 There is the risk that future climate change will increase the occurrence of extreme weather events in the county, with increases in mean summer and winter temperatures, increases in mean precipitation in winter and decreases in mean precipitation in summer. Climate change may increase the frequency and severity of flooding in future years.

3.27 In order to provide adaptation to climate change, and particularly the increased risk of flood events, it is likely that new development will be required to incorporate Sustainable Urbans Drainage Systems (SuDS). Additionally, most new development, including that associated with minerals and waste operations, has the potential to increase flood risk. It is therefore important to avoid increasing and, where possible, seek to reduce flood risk and consider the impacts on the environment, human health and development.

3.28 Oxfordshire's total per capita CO2 emissions are higher than regional and national averages but is showing a generally decreasing trend between 2005 and 2018 in line with regional and national figures. This is likely to continue as energy efficiency measures, renewable energy production and new technologies become more widely adopted. Transport sources accounted for approximately 45% of the county's CO2 emissions, although the transport emission figure has fluctuated there has been little change in the amount of emissions, this limited change seems to match a number of authorities who have seen much bigger reductions in emission from industrial and commercial and domestic than has been from transport.

3.29 Potential impacts from and on climate change in relation to minerals and waste activities need to be considered, such as the potential for increased vehicle movements from minerals and waste operations contributing to CO2 emissions levels. Continuing to divert waste from landfill will assist in reducing methane emissions, a significant greenhouse gas, associated with the waste management industry. In addition, the utilisation of heat and energy generated from waste recovery processes should be encouraged.

3.30 Key issues regarding flood risk and climate change can be summarised as follows: avoid increasing and, where possible, seek to reduce flood risk (including surface-water run-off rates); reducing greenhouse gas emissions; encouraging sustainable transport movements; and minimising vulnerability and providing resilience to the impacts of climate change in new developments. The following key opportunities were also identified: the restoration of mineral and waste sites could help to alleviate this challenge by increasing water storage in the floodplain. The Oxford Flood Alleviation Scheme will also help to alleviate the risk of flooding around Oxford, and also contribute to the production of sand and gravel in its construction.

Biodiversity and geodiversity

3.31 Oxfordshire has a relatively rich biodiversity and geodiversity framework, with numerous sites of biodiversity value in the County, with designations ranging from the international to the local level. There are seven Special Areas of Conservation (SACs), 111 biological and geological Site of Special Scientific Interest (SSSIs), and 4 National Nature Reserve (NNR). The condition of the

County's SSSIs is: Favourable 45%, Unfavourable - Recovering 53%, Unfavourable - No Change 1%, and Unfavourable - Declining 2% (2017).

3.32 Oxfordshire currently has 362 Local Wildlife Sites (5,648 ha) with a further 101 proposed new or proposed extensions to LWS (1,880 ha in total) under assessment, 45 Local Geological Sites (LGS), 20 Biodiversity Action Plan (BAP) habitats of principal importance (as well as BAP species), 15 Local Nature Reserves (LNRs), and ancient woodland and veteran trees.

3.33 Thirty-six Conservation Targets Areas covering 20% of Oxfordshire have been identified, the aim of these areas is to ensure that existing habitats are protected and maintained in good condition and at the same time expansion of areas of biodiversity value and linkage between these areas is encouraged to provide more viable and sustainable biodiversity management units. In addition, the county has approximately 150 legally protected species records and around 260 species recognised as being a priority for conservation.

3.34 Ecosystem services provided by ecological networks contribute towards sustainable economic growth and our quality of life, as such it is important to recognise these wider benefits. The protection and enhancement of natural resources and assets is key to retaining these services and benefits into the future. There is an increasing need to balance economic growth and development with the effective protection of the environment. These sites need to be protected and, where possible, enhanced, with a target for a net gain in biodiversity. Protected species may be present within these sites, and the surrounding area, so potential impacts from proposed uses will need to be considered.

3.35 The key issues regarding biodiversity and geodiversity can be summarised as follows: the need to balance the need for economic growth and development whilst protecting environmental assets (including protected species); potential impacts on biodiversity value; and the need to ensure high quality restoration and aftercare – options may be constrained by designation of airfield safeguarding zones across much of Oxfordshire, which reduce the risk of bird strike to aircraft, and a lack of available inert fill to restore sites to uses such as reed bed or wet woodland. The following key opportunities were also identified: the restoration of mineral and waste sites offers opportunities for habitat creation and biodiversity gains.

Historic environment

3.36 The historic environment contributes towards Oxfordshire's distinct identity and character. Oxfordshire contains many historic buildings, conservation areas, designated parks and gardens, and landscapes, which together make up a valuable part of the county's heritage. The county features nearly 13,000 listed buildings, 2 registered battle fields, nearly 300 scheduled monuments, 56 registered historic parks and gardens, 200 conservation areas, and a World Heritage Site at Blenheim Palace and Park. In addition to these there are numerous archaeological sites and features, many of which are undesignated.

3.37 Minerals and waste operations can have significant impacts on heritage assets (and their setting) through visual intrusion/impact and extractive operations affecting archaeological assets.

3.38 The key issues regarding the historic environment can be summarised as follows: preventing loss of historic assets or adverse impacts on setting; and delivering growth whilst also protecting and enhancing heritage assets (and their setting). The following key opportunities were also identified: potential to enhance heritage assets through restoration and creating access and interpretation for archaeological assets.

Landscape character

3.39 Local landscape character has helped Oxfordshire to maintain a distinct identity and landscape character, which has gradually been formed by people over thousands of years. Landscape Character Assessments have been undertaken across the county and recognise the individual character of particular Landscape Character Areas. Landscape designations include the Chilterns, North Wessex Downs and Cotswold AONBs which cover around a quarter of the County.

3.40 Over 13% of Oxfordshire is included in the Oxford Green Belt. Although not a landscape or townscape designation, the Green Belt can have an indirect impact on landscape and townscape by maintaining openness, preventing urban sprawl, and preserving the character of towns. However, it can also result in negative impacts, such as increasing urban development outside of the Green Belt and preserving poor quality landscapes that may benefit from a degree of sensitive development.

3.41 The key issues regarding the landscape character can be summarised as follows: preventing loss of landscape features and visual impact; and delivering growth whilst also protecting and enhancing valued landscape – presence of AONBs (3) constrains development options. The following key opportunities were also identified: potential to enhance landscape character and connectivity through restoration.

Land and soil resources

3.42 Most of Oxfordshire falls within grade 3 of the Agricultural Land Classification (ALC) Best and Most Versatile (BMV) agricultural land with a higher percentage of the higher quality grade 1 (excellent) and 2 (very good) in the southern half of the County.

3.43 Increased growth and development pressures are likely to intensify both landtake and competition for land use. Where possible development should occur on brownfield or lower grade land, however it is recognised that minerals can only be worked where they are found. The quality of soils should be improved through restoration where possible.

3.44 Minerals and waste development have the potential to adversely affect soil resources, including through disturbance and pollution.

3.45 The key issues regarding land and soil resources can be summarised as follows: safeguarding the long-term potential of BMV agricultural land and conserving soil resources (including through restoration); and preventing soil contamination.

Predicted effects on environmental resources and assets from implementation of the Plan

3.46 Minerals and waste, like all forms of development, may result in potentially adverse impacts on the receiving environment (unmitigated). The form and scale of which is largely determined by site-specific factors and the nature of the surrounding environment. Assessment of potential adverse impacts is conducted on a site-by-site basis as part of the Site Assessment Methodology. This is complemented by policies for the control and management of development in line with national policy requirements and the development control process (e.g. through application of planning conditions and mitigation measures) as necessary to avoid and/or minimise adverse impacts to acceptable levels. The MWLP policies, set out through the Core Stratey, seek to facilitate minerals and waste development whilst protecting and enhancing environmental resources and assets (including biodiversity).

3.47 The Plan promotes high quality restoration and aftercare that delivers environmental enhancements including a net gain in biodiversity. It also supports wider, related, matters such as opportunities for flood risk management and adapting/building resilience to climate change effects.

3.48 Planned growth within Oxfordshire will result in increased pressure on natural resources, as such it is particularly important to reduce potential resource impacts associated with residential, industrial, and commercial development. The MWLP policies seek to promote the prudent use of natural resources and sustainable development in all forms of new development.

3.49 The general intent of the Local Plan is supportive of the protection and enhancement of environmental resources and assets.

Communities, health, and well-being

3.50 Oxfordshire has a population of around 692,000 (mid-2019), which is expected to increase to just under 802,000 by 2028. The County is made up of the five districts of Cherwell, Oxford City, South Oxfordshire, Vale of White Horse, and West Oxfordshire. The county's main towns are Abingdon, Banbury, Bicester, Carterton, Didcot, Kidlington, Thame, Wantage and Grove, and Witney, along with the city of Oxford. As previously noted, the population totals are fairly evenly spread across all five districts, but it is Oxford City that is the most densely populated especially when compared to West Oxfordshire which is one of the least densely populated districts in the South East.

3.51 Key locations for growth in existing and emerging local plans are: Science Vale UK at Didcot Garden Town, Wantage, Grove, Culham and Harwell. This area also includes the Enterprise Zones at Milton Park, Harwell Science and Innovation Campus, and Culham Science Centre. Science Vale UK is planned to deliver around 15,000 new homes by 2031 and 20,000 new jobs. Bicester, where further major housing and employment growth is planned, includes the North west Bicester Eco-town planned to deliver up to 6,000 new homes, and for which a masterplan will provide a long-term vision and framework for integrating growth of the town. Oxford, which remains a world class centre of education, research and innovation. Large housing developments (1000+ homes) are also proposed at sites including Banbury, Upper Heyford, A44

corridor at Begbroke-Yarnton, Witney, Eynsham, Carterton, Chipping Norton, Chalgrove, Berinsfield, and Dalton Barracks near Abingdon

3.52 This growth will ultimately result in both housing and employment growth, all of which needs to be underpinned by the appropriate infrastructure networks. Minerals will be required to support this growth. This growth will also result in a likely increase in waste arisings that will need to be managed appropriately.

3.53 The distribution of age groups within the county is relatively even. Oxfordshire's residents have a higher life expectancy than the national average. General health is predominantly favourable with the proportion of those reporting 'very good' health higher than both South East and nationally averages, and only 1% reporting 'very bad'.

3.54 Oxfordshire has generally low levels of deprivation. It is the 10th least deprived of 151 upper tier local authorities in England (up from 11th in 2014) which puts the county well within the top 10% least deprived. However, there is considerable variation across the county, with areas in Oxford City that rank in the 10% most deprived wards nationally with further areas within the county that are among the 10-20% most deprived nationally.

3.55 The key issues regarding communities, health, and well-being can be summarised as follows: ensuring appropriate infrastructure, facilities, and services are available to support existing communities and planned growth; providing adequate opportunities and facilities to enable communities and businesses to engage with and take more responsibility for their waste; and ensuring that operational impacts (including transport movements) arising from minerals and waste development does not have unacceptable adverse impacts on communities. The following key opportunities were also identified: minerals and waste development may help to increase access to rural areas, create recreational opportunities, and biodiversity gains; and the Circular Economy and education may help to reduce waste generation.

Predicted effects on communities, health, and well-being from implementation the Plan

3.56 Minerals and waste development contribute towards the development of sustainable communities and quality of life through the provision of materials to support growth, and waste management facilities to enable resource recovery as well as the potential for heat and energy generation. The MWLP seeks to facilitate delivery of aggregates (and local building materials) and waste management capacity required to support planned growth. The MWLP also seeks to increase community awareness and responsibility for resource consumption and recovery. This is complemented by measures such as materials resource efficiency, waste minimisation, and sustainable development practices.

3.57 Operational impacts resulting from minerals and waste development may result in potentially adverse impacts and/or environmental nuisance (unmitigated), acting to reduce levels of amenity. Landtake associated with such development may also (temporarily) impact on recreational opportunities. National guidance requires Local Plans to set out policies for the control and management of development to ensure a good standard of amenity and ensure that potentially adverse impacts are reduced to

acceptable levels. The MWLP policies, set out through the Core Strategy, seek to develop safe and healthy communities by reducing adverse impacts on human health and safety, and promoting opportunities for recreation. Restoration of sites may also provide opportunities to enhance access to green infrastructure, recreational opportunities, and environmental enhancements that may contribute towards ecosystem services necessary for achieving a good quality of life and sustaining human health. These factors have also been taken into consideration through the Site Assessment Methodology.

3.58 The general intent of the Local Plan is supportive of the development of sustainable communities, health and well-being.

Economic development

3.59 Oxfordshire is linked with strong economic areas (such as London) and is one of the strongest economies in the south east and so is a relatively affluent county that benefits from low unemployment and an average household income higher than the UK average. In general, the workforce is highly skilled, and has higher levels of employment than the national average. The most significant employment sectors in Oxfordshire include education (15.7% of those in employment), retail (14.6%), health (12%), and professional, scientific and technical (11.8%) (2018).

3.60 Employment within the minerals and waste industry is amongst the lowest in the county (0.06% employed in the mineral industry). Nevertheless, these industries are considered to be important contributors to Oxfordshire's local economy. New minerals and waste development may provide a further employment boost through construction jobs (on a temporary basis) and operative positions, but the number of associated jobs created is likely to be relatively small (when compared to other industries).

3.61 Population and job growth have implications for both minerals and waste development. Minerals and waste facilities will be required to support development (e.g. through the supply of building materials and handling of waste from construction) and throughout the community's life (e.g. provision of waste management facilities).

3.62 The key issues regarding economic development can be summarised as follows: balancing growth, communities, and the environment with economic development and the need for minerals and waste development to support this; increased pressures on natural resources from population growth; the need to and the availability of sufficient land to accommodate economic growth (employment use) whilst also providing for residential, commercial, and industrial needs as well as infrastructure requirements. The following key opportunities were also identified: minerals and waste development could support economic growth through job creation; increasing the amount of recycled and secondary aggregates and waste may help to reduce consumption of primary aggregates and resources; the Circular Economy and education may help to reduce waste generation; and restoration of minerals sites creating recreational and tourism opportunities.

Minerals

3.63 Minerals are a finite resource; this means that they must be utilised prudently and efficiently to ensure that they are not wasted. National policy requires that mineral resources of local and national importance are not needlessly sterilised by other forms of development. This is particularly of importance in areas experiencing growth and development pressures.

3.64 Minerals present in Oxfordshire include sharp sand and gravel, soft sand, limestone, ironstone, and Fullers Earth. With the most significant sand and gravels in the Thames Valley and its tributaries Evenlode, Windrush, and Thame. The average annual sales over the ten-year period 2009 to 2018 for: sharp sand and gravel sales 0.592 million tonnes (Mt); for soft sand 0.202Mt; and limestone (crushed rock) was 0.601Mt. Overall imports and exports of aggregates are roughly balanced (2014).

3.65 Soft sand is present in south west Oxfordshire, often in conjunction with limestone. The resources include extensive areas of ironstone that received planning permission for mineral extraction in the 1950s. Such permissions are subject to environmental (Review of Mineral Permissions (ROMP)) legislation that prevents further working until planning conditions, which accord with up-to-date environmental standards, have been agreed with the Mineral Planning Authority (MPA). Ironstone and limestone are present in the north and west of the county, with a deposit of Fuller's Earth (not currently worked) present in the south-west.

3.66 Alternative aggregates (secondary and recycled materials) are also produced within the county. National estimates indicate that around 25% of the overall need for aggregates is met by secondary and recycled materials.

3.67 Minerals are essential to support sustainable economic growth and our quality of life. It is important that there is a sufficient supply of material to support growth. Population expansion and economic growth in the county may increase demand for minerals. Whilst minerals development can have significant adverse impacts on the built and natural environment and communities, such impacts can often be avoided and/or mitigated to acceptable levels. In addition, the restoration of sites presents unique opportunities to enhance natural and heritage assets as well as contributing towards strategic plans and programmes, for example the BAP, green infrastructure, and flood alleviation schemes.

3.68 The key issues regarding mineral resources can be summarised as follows: minerals are a finite resource and can only be worked where they are found; predicted growth in the economy and population in the county will increase pressure on natural resources; minerals are essential to support growth however it is necessary to ensure that development does not have unacceptable adverse impacts on the built and natural environment and communities; ensuring prudent use of mineral resources; securing long-term conservation of mineral resources through safeguarding to avoid sterilisation; and ensuring high quality restoration and aftercare. The following key opportunities were also identified: potential to realise benefits to green infrastructure, biodiversity, landscape and environmental enhancements, recreation opportunities, and flood water storage through restoration.

Waste management

3.69 It is estimated that in 2018 Oxfordshire produced around 2.1 Mt of waste, made up of municipal (13%), commercial and industrial (C&I) (26%), construction, demolition and excavation (CD&E) (61%). Waste is now increasingly being diverted from landfill (14%) by recycling and treatment (86%). By the end of the plan period (2031) it is estimated that just over 2Mt of waste will be produced within the county.

3.70 Oxfordshire is committed to net self-sufficiency but recognises there are imports of waste from other areas. Oxfordshire also exports a small amount of waste for disposal and management elsewhere. Cross-boundary waste movements mostly occur as a result of contractual and operational (network) arrangements.

3.71 Waste management (including disposal) is required to support the development of sustainable communities. Population expansion and economic growth in the county will increase waste arisings, this coupled with waste targets will equate to a need for additional waste management capacity.

3.72 Waste management (including disposal) is required to support the development of sustainable communities. Population expansion and economic growth in the county will increase waste arisings, this coupled with waste targets equates to a need for additional waste management capacity. Whilst waste development can have significant adverse impacts on the built and natural environment, and communities such impacts can often be avoided and/or mitigated to acceptable levels. In addition, the restoration of (landfill) sites presents unique opportunities to enhance natural and heritage assets as well as contributing towards strategic plans and programmes, for example the BAP and green infrastructure schemes.

3.73 The key issues regarding waste management can be summarised as follows: reducing waste disposed of to landfill and associated greenhouse gas emissions; predicted growth in the economy and population in the county will increase waste arisings; waste management (including disposal) is required to support growth however it is necessary to ensure that development does not have unacceptable adverse impacts on the built and natural environment and communities; ensuring prudent use, and recovery of, resources. The following key opportunities were also identified: potential to realise benefits to green infrastructure, biodiversity, landscape and environmental enhancements, and recreation opportunities through restoration.

3.74 An updated Waste Needs Assessment (WNA) is currently being prepared, with the purpose of providing updated background evidence to the waste requirements identified within the Core Strategy. The report is anticipated to be published with the Revised Draft Plan (Preferred Options) Consultation in August 2021 will help to inform the plan-making process.

Predicted economic effects from implementation the Plan

3.75 The minerals and waste industries contribute towards the local economy through the supply of products and services that are integral to a range of industry and business operations, as well as supporting the growth of

communities, development of infrastructure, and job creation. Restoration of sites (mineral extraction or temporary waste uses) may also present opportunities to support economic growth.

3.76 The MWLP policies, set out through the Core Strategy, promote industry investment to facilitate the delivery of a steady and adequate supply of aggregates and development of a sustainable waste management network in order to support sustainable economic growth and quality of life. The MWLP policies also support innovation and implementation of sustainable development measures and technologies. Economic factors have been taken into consideration through the Site Assessment Methodology.

3.77 The general intent of the MWLP is supportive of sustainable economic growth, the transition to a low carbon future, and minerals and waste industries.

Transport and land use

3.78 There are good road and rail links between Oxfordshire and London, the West Midlands (via the M40), Heathrow Airport, and the south coast ports. However, despite spatial and economic relationships with cities in the east there is a lack of connectivity particularly with the high growth areas of Milton Keynes and Cambridge. However, these links are likely to be strengthened through the east-west rail link and, for road, the Oxford-Cambridge Expressway. The route for the High Speed 2 railway will run through a very small section of Oxfordshire, however, as there will be no passenger stops within the county this is unlikely to directly influence economic patterns. The road network currently experiences congestion in several areas. There are over 4000 km of public rights of way that enable access to the countryside and historic landscapes.

3.79 The number and timing of minerals and waste vehicles using particular routes has potential for adverse impacts. Rail is currently used to bring London's waste to be disposed of to landfill at Sutton Courtney landfill. The ability to use the canal for minerals and waste transportation is highly limited by its location.

3.80 The key issues regarding transport and land use can be summarised as follows: potential for adverse impact from transport on communities, environment, and the local and strategic road network; minimising road-based movements and encouraging alternative and/or sustainable transport options; constraints on transport movements/routes presented by lack of suitable crossings over the river Thames; and challenges for development options - reflecting the presence of AONBs (3) across the county.

Predicted effects on transport and land use from implementation of the Plan

3.81 Whilst minerals can only be worked where they occur, waste development may occur within a variety of locations, dependent on the facility type, design, and scale. In line with national policy priority is given to re-use of previously developed land, sites identified for employment uses, and redundant agricultural and forestry buildings and their curtilages. In addition, opportunities to co-locate waste management facilities together and with complementary activities is supported. Transportation of materials utilising

Heavy Goods Vehicles (HGVs) may have potentially adverse impacts on sensitive receptors within proximity to sites as well as along transport routes.

3.82 Site location, layout, and development design largely determine land-use and spatial impacts. The MWLP reflects national policy guidance relating to siting and preference for location for waste management facilities. The MWLP also seeks to direct development to the most appropriate locations through identification of spatial strategies and development principles that (where possible) relate to planned growth, infrastructure networks, and strategic transport networks. These factors have also been taken into consideration through the Site Assessment Methodology. In addition, the MWLP seeks to encourage sustainable transport through the efficient use of transport networks combined with good logistics and operational practices.

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

Difficulties in collecting data and data limitations

3.84 Obtaining up-to-date baseline data suitable for local use regarding minerals or waste can be difficult for a number of reasons including: availability and frequency of industry specific studies; government resourcing (allowing for studies to be undertaken); and industry co-operation in releasing data that may be considered commercially sensitive. This means that the evidence base for minerals and waste local plans may not be based on locally specific datasets or as recent, accurate, or complete as would be ideal. In addition, datasets may have specific limitations (e.g. scale and accuracy), as such are often caveated.

3.85 Gathering data to inform plan-making is a continual process. Data gaps are identified in the baseline information dataset and will be reviewed as necessary.

The SA framework

3.86 The SA framework is fundamental to the SA process and is used as the basis for appraising the plan. The SA framework sets objectives, sub-objectives, and indicators used to appraise the plan's objectives and policy options in order to identify specific sustainability issues and ascertain whether and how these issues are being addressed. Movement towards, or away from, SA objectives should be able to be monitored through the identified indicators. The SA framework also highlights the potential economic, social and environmental implications of the proposals set out in the Plan.

3.87 Objectives have been further developed to take account of local strategies and issues, identified by the policy context and key sustainability issues. SEA Directive topics were also cross-referenced with the SA objectives to indicate how these issues have been accounted for. Development of the SA framework and cross-referencing with the SEA Directive topics is detailed in the SA Scoping Report (Amended August 2018), also refer Appendix 3. Targets and comparators relating to the SA framework are outlined in the baseline information dataset.

3.88 The SA framework reflects local priorities for sustainable development to ensure that the plan, policy proposals, and processes are appraised at an appropriate level and that they contribute to the aims of sustainable development.

3.89 The SA objectives were developed as part of the SA process for the Core Strategy as documented in the SA Report (February 2017). Following on from the Core Strategy work commenced on plan-preparation of Part 2 – Site Allocations Document of the MWLP. A review of the SA framework was undertaken to reflect national policy and local circumstance, as documented in the updated SA Scoping Report (Amended August 2018). No significant changes to the SA framework were considered necessary (minor amendments were made however the intent remained the same). Amendments were also made to update the policy context and baseline data.

3.90 In line with the SA process the compatibility of the SA objectives was tested using a compatibility matrix through the SA process for the Core Strategy, as has the compatibility and consistency of the SA objectives with the MWLP objectives. This process assists in highlighting potential conflicts that may emerge between objectives. Overall, the MWLP plan objectives were found to be consistent with the SA objectives, where potential conflict was identified the levels were considered acceptable.

SA objectives

3.91 The SA objectives are below:

1. To protect, maintain, and enhance Oxfordshire's biodiversity and geological diversity including natural habitats, flora and fauna and protected species.

2. To protect and enhance landscape character and local distinctiveness.

3. To conserve and enhance the historic environment, significance of heritage assets and their settings.

4. To maintain and improve ground and surface water quality.

5. To improve and maintain air quality to levels which do not damage natural systems.

6. To reduce greenhouse gas emissions to reduce the cause of climate change.

7. To reduce the risk of flooding.

8. To minimise the impact of transportation of aggregates and waste products on the local and strategic road network.

9. To minimise negative impacts of waste management facilities and mineral extraction on people and local communities.

10. To protect, improve and where necessary restore land and soil quality.

11. To contribute towards moving up the waste hierarchy in Oxfordshire.

12. To enable Oxfordshire to be self- sufficient in its waste management and to provide for its local need for aggregates as set out in the LAA.

13. To support Oxfordshire's economic growth and reduce disparities across the county.

4. The main strategic options

4.1 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.

4.2 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 policy, or for operational reasons. This process, as applicable to the MWLP, has been recorded through this Interim Draft SA Report.

4.3 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.

4.4 The identification and development of strategic options is detailed in Table 2.

4.5 Although not identified in the I&O consultation document, an additional strategic issue (and options) relating to how the allocation of mineral extraction sites should be distributed within the County was identified through the plan-making process (refer Additional Question 20 in the table below). The strategy applied would then inform assessment and selection of site(s) to be taken forward through the plan-making process.

4.6 In reviewing the plan-making and SA process undertaken to date for the Sites Plan, the strategic issues and options identified in the I&O consultation document, and the additional issue discussed above, were considered against the adopted Core Strategy and wider planning framework. In order to ensure that the options assessed through this SA process are reasonable, realistic, relevant, and allowed meaningful comparisons to be made, the strategic issues and options identified were screened to determine the viable options to be taken forward. The screening process and outcomes is detailed in Table 3.

Consideration of identification of a contingency

4.7 Previous stages of the plan-making process for the Sites Plan have included consideration of the identification of a contingency allowance above the aggregate provision rates set out in the adopted Core Strategy. The reasoning for this was to give flexibility in case sites cannot be brought forward or prove to not be able to deliver the expected yield. Consultation on this matter through the I&O document (August 2018) suggested an even division

between those who supported contingency and those who opposed it. The contingency allowance was also included within the Draft Plan consultation (January 2020) with responses indicating that around 23% of respondents support a contingency and 37% do not; the remainder did not express support or object either way.

4.8 The review of the preferred sites will therefore not apply a contingency and will rely on the adopted Core Strategy provision rates. The addition of a contingency allowance is considered to be beyond the scope of the Sites Plan. The Core Strategy is scheduled for review in 2022, and the addition of a contingency allowance will be considered as part of that review.

4.9 The Core Strategy already provides for sufficient flexibility to respond to market drivers through Policy M5. This policy allows unallocated sites to come forward where the requirement to maintain a steady and adequate supply of aggregate in accordance with Policy M2 cannot be met from within those sites, and provided that the proposal is in accordance with the spatial strategy (Policy M3) and other relevant Local Plan policies (Policies C1-C12). As such the inclusion of a contingency is not considered to be necessary and may prove premature in light of the scheduled review process for the Core Strategy.

Table 2: Identification and development of strategic options – I&O consultation document (2018)

Description	Strategic options developed
Question 1 – Selection of site options	Taking into account the need for certainty about delivery of sites in order that the Sites Plan will meet the test of soundness that it is "effective", should site allocations: be drawn only from those sites that have been nominated by landowners or mineral/waste operators; or include other sites, in addition to those nominated, to be considered and, if so, how should they be selected?
Question 2 – Issues relating to nominated sites	In respect of each nominated site: What would be the impacts of the proposed minerals or waste development at this site (including environmental, economic and social impacts, both negative and positive)? How could any negative impacts be mitigated to make the development acceptable? Are there any other planning issues that affect this site? What are the potential opportunities for restoration of the site? How should the site be restored and what benefits could be gained through restoration? (this question is for mineral working and landfill sites only).
Question 3 – Other potential sites	Are there any other sites that the County Council should consider and assess for possible allocation for minerals or waste development in the Sites Plan?
Question 4 – Level of mineral working site provision	Core Strategy Policy M2 sets out the provision to be made for aggregate minerals throughout the plan period, from which the requirement for mineral working sites to be allocated in the Sites Plan is derived. Policy M2 states that, in maintaining landbanks in accordance with the LAA requirement rates, account must be taken of the need to maintain sufficient productive capacity to enable these rates to be realised. In order to maintain the identified provision rates throughout the plan period, should the Sites Plan: a) Make only the arithmetic minimum provision in site allocations that is required to meet the additional requirements for mineral working – i.e. consider only the total plan requirement? or b) Take into account the need to ensure there is sufficient production capacity available throughout the plan period to enable an adequate level of supply (recognising that reserves are not equally distributed between quarries and quarries have differing levels of output) – i.e. consider the contribution of site(s) annual production towards the annual provision rates, and seek to make up any shortfall (even where this would mean allocating more than the total plan requirement)?
Question 5 – Contingency provision for mineral working	Core Strategy Policy M2 sets out the provision to be made for aggregate minerals throughout the plan period, from which the requirement for mineral working sites to be allocated in the Sites Plan is derived, should the Sites Plan make some contingency to the requirements for mineral working site provision to give flexibility in case sites cannot be brought forward or prove not able to deliver the expected yield, and if yes, what level of contingency provision would it be appropriate to add: 10%, 20%, 25%, other?
Question 6 – Allocation of sites for soft sand and crushed rock	Calculations (2018) show there is no additional requirement for provision for soft sand or crushed rock but this position could change over time as new data on sales and remaining permitted reserves becomes available. In maintaining landbanks in accordance with the LAA requirement rates, account must be taken of the need to maintain sufficient productive capacity to enable these rates to be realised, which may mean that some additional site provision is required. Consequently, there may be a need for sites for the working of soft sand and/or crushed rock to be allocated; this need is likely to arise towards the end of the plan period. Should the Sites Plan: a) allocate

Description	Strategic options developed
	specific sites for soft sand and crushed rock; or b) make provision in some other way, such as by broader areas of search, and, if yes, what areas should be included as areas of search? Note: The Draft Plan (Preferred Options) (January 2020) consultation document (paragraph 2.12) identified a need for such mineral.
Question 7 – Size of sites for mineral working	There is usually a minimum size of site (by mineral yield) below which mineral working is unlikely to be economic. In addition, the potential impact of a larger number of small sites is likely to differ from that of a smaller number of large sites, including that more communities are likely to be affected. Should a minimum site size (by mineral yield) be applied in the allocation of sites for mineral working, and, if so, what size threshold or thresholds should be used?
Question 8 – Priority for extensions over new quarries	Core Strategy Policy M4 states that the allocation of sites in the Sites Plan should take into account 'priority for extension of existing quarries, where environmentally acceptable, before working new sites'. However, there may be other relevant factors that should be taken into account, such as the need to plan for a sufficient level of production capacity for each type of aggregate mineral to be available throughout the plan period. To what extent should the priority for extensions be applied in relation to other factors in the allocation of sites for: sharp sand and gravel, soft sand, and crushed rock?
Question 9 – Weight given to restoration objectives	Core Strategy Policy M4 states that allocation of sites in the Sites Plan should take into account 'potential for restoration and after-use and for achieving the restoration objectives of the Plan in accordance with Core Strategy Policy M10'. What weight should be given to the achievement of the restoration objectives relative to other factors in the allocation of sites for mineral working?
Question 10 – Specification of restoration requirements	(Related to Question 9 above) Should the Sites Plan specify how sites allocated for mineral working are to be restored and, if yes, how detailed should the specified restoration requirements be?
Question 11 – Allocation of sites already permitted for mineral working	Sites that already have planning permission for aggregate mineral working form part of the overall provision for the plan period (and in some cases beyond). If any of these permissions were 'lost' they would have to be replaced by equivalent provision elsewhere. Sites that already have permission could be 'protected' for mineral working by being included as site allocations in the Sites Plan. Should areas of land that already have planning permission for mineral working be included as site allocations in the Sites Plan?
Question 12 – Size of sites for recycled and secondary aggregates and waste management facilities	Waste management facilities come in a range of sizes, both in terms of site area and throughput. This is reflected in the spatial strategy in Core Strategy Policy W4, which specifies areas around the large towns where strategic (over 50,000tpa) and non-strategic (20,000 – 25,000tpa) facilities should be located but which says smaller scale facilities can be located more widely, including in more rural areas. Core Strategy Policy W3 refers only to sites for strategic and non-strategic waste management facilities being allocated. Should the Sites Plan identify a size threshold for sites for recycled and secondary aggregates and waste management facilities allocated in the Sites Plan? This may mean that smaller scale facilities are not allocated, with the Sites Plan only allocating sites for strategic and non-strategic facilities.
Question 13 – Identification of other sites	Relatively few site nominations have been received for recycled and secondary aggregates and waste management facilities. This may mean that, following the assessment of sites, there may not be enough sites available to meet the requirements identified in the Core Strategy. Such a possible shortfall of provision could be

Description	Strategic options developed
	addressed by other sites, which have not been nominated, being identified and assessed. This could also enable provision to be made over and above the minimum identified requirements. However, sites that do not have landowner and/or operator support will lack certainty of delivery. Should the County Council seek to identify other sites for recycling / secondary aggregate and waste management facilities for assessment (in addition to those that have been nominated)?
Question 14 – Allocation of industrial estates and employment areas	Many types of waste management facilities, particularly for recycling, that are normally accommodated inside buildings can be acceptably located on industrial estates alongside other industrial and commercial premises. Provision could therefore be made by identifying industrial estates and other areas of employment land where vacant units may be available, or become available in the future, which could be used to accommodate waste management facilities. Should the Sites Plan allocate industrial estates and other broad areas of employment land where waste management facilities could potentially be located and, if yes, should this be as well as or instead of the allocation of specific sites?
Question 15 – Sites for inert waste deposit or disposal	Core Strategy Policy W6 states that sites for permanent deposit to land or disposal to landfill of inert waste will be allocated in the Sites Plan. This policy also states that priority will be given to the use of inert waste that cannot be recycled as infill for restoration of active or unrestored quarries; and deposit or disposal of inert waste on land will not otherwise be permitted unless there would be overall environmental benefit. Should the Sites Plan: a) Only allocate active or unrestored quarries as sites for deposit or disposal of inert waste; or b) Also allocate other sites where deposit or disposal of inert waste on land would result in overall environmental benefit?
Question 16 – Mineral safeguarding areas	Core Strategy Policy M8 safeguards mineral resources through the identification of mineral safeguarding areas; shown on the Policies Map. They are currently limited to the strategic resource areas in Policy M3 and certain other large areas of sharp sand and gravel resource. Published geological mapping shows other areas of mineral resource within Oxfordshire and potentially workable minerals may exist in those areas but they are not safeguarded. Preparation of the Sites Plan could provide an opportunity to review the existing mineral safeguarding areas against the available geological information and, if considered appropriate, to add additional areas of mineral resource to the mineral safeguarding areas. Should the mineral safeguarding areas be reviewed and, if appropriate, amended to include other areas of mineral resource and, if yes, what other areas of mineral resource should be included within mineral safeguarding areas?
Question 17 – Safeguarding mineral infrastructure	Core strategy Policy M9 safeguards aggregate rail depot sites and says that other mineral infrastructure sites to be safeguarded will be defined in the Sites Plan. Which mineral infrastructure sites in Oxfordshire (in addition to the specified rail depot sites) should be defined in the Sites Plan to be safeguarded?
Question 18 – Safeguarding waste management sites	Core Strategy Policy W11 safeguards existing waste management sites and states that the Sites Plan will identify sites to be safeguarded for waste management use (in the longer term). To establish which sites should be identified for safeguarding in the Sites Plan, the current list of sites identified in the Core Strategy (Appendix 2) will need to be reviewed. Are there any waste management sites that should not be safeguarded and, if so, why? Are there any sites not included that should be safeguarded and, if so, why?
Question 19 – Any other matters the plan should cover	Is there anything else, not covered above in this consultation document, that the Sites Plan should contain?

Description	Strategic options developed
Additional Question 20 - Distribution of mineral extraction sites * Not identified through the I&O document	With respect to minerals development the adopted Core Strategy establishes that: for sharp sand and gravel there will be a 25:75 split in provision to be made between the north and south of the county; sites are to be within the identified strategic resources areas; and priority will be given to extensions of existing sites. In addition, Core Strategy Policy M4 sets out other factors addressing deliverability and potential impacts that are picked up through the Site Assessment Methodology*. This somewhat limits the options that can be tested for strategic approach to site delivery, however several options have been identified around the distribution or concentration of mineral extraction sites within the County. In allocating sites for mineral extraction, and bearing in mind the location of permitted mineral extraction sites and remaining requirements for the different types of aggregate, should the Sites Plan seek to: a) Allocate a single large site to meet the remaining requirement (i.e. apply a concentrated strategy); b) Allocate several smaller sites at a wider range of locations to meet the remaining requirement (i.e. apply a wider dispersal strategy); or c) Allocate one large site coupled with one or two smaller supplementary sites (i.e. apply a hybrid strategy).

* It should be noted that SA of the individual sites will be undertaken through the site assessment process and documented in the Draft SA Report.

Table 3: Screening of matters set out in the I&O consultation document against the planning framework

I&O matter	Consideration of policy framework	Screening outcome
Question 1 – Selection of site options	Of relevance to the selection of site options, the NPPF requires that plans be (amongst other factors) justified and effective, in that they take account of the reasonable alternatives and are deliverable over the plan period. The sites brought forward through the site nominations process represent the reasonably available options. As some time has passed since the initial site nominations process, an additional (more recent) survey has been undertaken to determine the status (including level of industry support) of the identified sites to ensure that the site options remain available and are deliverable. Sites that do not receive nominator confirmation and support are unlikely to be deliverable.	Screened out - No further assessment required through the SA process.
Question 2 – Issues relating to nominated sites	This matter relates to the identification of potential impacts and avoidance and/or mitigation measures required (including restoration) to ensure that there are no unacceptable effects resulting from the site options. Such matters are addressed through the Site Assessment Methodology and will be given due consideration through the site assessment process the results of which will be documented through the Draft SA Report of the Revised Draft Plan which will be prepared subsequent to this Interim Draft SA Report.	Screened out - No further assessment required through the SA process at this stage. Individual site options to be assessed as per the Site Assessment Methodology.
Question 3 – Other potential sites	Duplication of matters set out in Question 1 above.	Screened out - No further assessment required through the SA process.

I&O matter	Consideration of policy framework	Screening outcome
Question 4 – Level of mineral working site provision	Core Strategy Policy M2 allows for sites to come forward where justification can be made with regards to maintenance of landbanks in accordance with the annual requirement rates set out in the LAA, and to maintain sufficient productive capacity to enable realisation of the provision rates. This matter identifies strategic options to facilitate the delivery of the aggregate provision rates set out through the Core Strategy, being: a) providing the total plan requirement, or b) considering the contribution of site(s) annual production towards the annual provision rates, and seeking to make up any shortfall identified through projections of annual sales for permitted sites and potential allocations (even where this would mean allocating more than the total plan requirement). This matter and strategic options are not predetermined by the Core Strategy or wider planning framework and is appropriate to be considered through the Sites Plan to ensure that such factors are fed into the site assessment process at an appropriate level.	**Screened in - To be assessed in detail through the SA process.**
Question 5 – Contingency provision for mineral working	The provision rates are set out through Core Strategy Policy M2. This matter queries if further contingency should be applied to the aggregate provision rates set out through the Core Strategy (i.e. a 10-25% uplift to the figures). The purpose of the Sites Plan is to facilitate delivery of the provision rates set out through the Core Strategy through the identification of site-specific allocations. The Core Strategy policies provide for sufficient flexibility to respond to market drivers through Policy (refer to paragraphs 4.7 – 4.10 above). The addition of a contingency allowance is considered to be beyond the scope of the Sites Plan. The Core Strategy is scheduled for review in 2022, and the addition of a contingency allowance will be considered as part of that review.	Screened out - No further assessment required through the SA process.
Question 6 – Allocation of sites for soft sand and crushed rock	Core Strategy Policy M3 identifies the broad locations - strategic resource areas - within which it is proposed that future working for sharp sand and gravel, soft sand and crushed rock should take place. The strategic resource areas are shown on the Policies Map. The Core Strategy states that the strategic resource areas are different from 'Areas of Search'. Areas of search are defined as areas where knowledge of mineral resources may be less certain but within which planning permission may be granted, particularly if there is a potential shortfall in supply (NPPG). Strategic resource areas differ in that permission will normally only be granted for mineral working within them at sites that are allocated in the Sites Plan. Whilst permission may be granted within a strategic resource area but outside of an allocated site either prior to adoption of the Sites Plan or as an exception after adoption of the Sites Plan, the main purpose of the strategic resource areas is to define those areas of the county within which sites will be allocated and not areas where planning permission will necessarily be granted. Sufficient sites have been brought forward through the sites nomination process to deliver the remaining requirement for the various aggregates, and as such the identification of	Screened out - No further assessment required through the SA process.

I&O matter	Consideration of policy framework	Screening outcome
	Areas of Search is not necessary. In any case the Core Strategy identifies strategic resources areas and allowance is made through Policy M5 for sites to come forward within these areas where the requirement to maintain a steady and adequate supply of aggregate cannot be met from the allocated sites and provided that the proposal is in accordance with the locational strategy (i.e. strategic resource areas). The Core Strategy contains adequate guidance as to the preferred locations for mineral extraction. The identification of Areas of Search would not provide for options that are significantly distinct when compared to the approach already set out in the adopted Core Strategy.	
Question 7 – Size of sites for mineral working	This matter queries if a threshold (mineral yield) should be applied to extensions or new sites for mineral extraction. This may result in smaller sites not being allocated. This matter and strategic options are not predetermined by the Core Strategy or wider planning framework and is appropriate to be considered through the Sites Plan to ensure that such factors are fed into the site assessment process at an appropriate level. The subject of applying a threshold is also posed in Question 12, for efficiency these two related matters will be addressed together.	**Screened in - To be assessed in detail through the SA process.** **To be combined with Question 12 as both mattes relate to the application of thresholds.**
Question 8 – Priority for extensions over new quarries	The Core Strategy Policy M4 sets a priority for extensions to existing quarries where environmentally acceptable, before working new sites. This makes it clear that extensions to existing sites that are determined to be suitable in relation to need, economic considerations, and potential impacts would be viewed in preference to new standalone sites. The Core Strategy contains adequate guidance on this matter, in addition such matters are addressed through the Site Assessment Methodology and will be given due consideration through the site assessment process. The results of which will be documented through the Draft SA Report of the Revised Draft Plan which will be prepared subsequent to this Interim Draft SA Report. The Site Assessment Methodology does not apply weighted scores to individual assessment criterion.	Screened out - No further assessment required through the SA process.
Question 9 – Weight given to restoration objectives **&** **Question 10 – Specification of restoration requirements**	Both Question 9 and 10 relate to the identification of restoration outcomes for mineral extraction sites and weighting of restoration objectives for the individual site options. Core Strategy Policy M10 sets out requirements for restoration and factors to be taken into consideration in determining appropriate restoration outcomes on a site-by-site basis; reflecting the NPPG. The Core Strategy does not set a landscape scale or masterplan for restoration outcomes for specific areas. Further detail on restoration outcomes may be more usefully detailed through a Supplementary Planning Document (SPD), to provide guidance to industry with specific reference to local priorities.	Screened out - No further assessment required through the SA process at this stage. Individual site options to be assessed as per the Site Assessment Methodology.

I&O matter	Consideration of policy framework	Screening outcome
	Such matters are addressed through the Site Assessment Methodology and will be given due consideration through the site assessment process the results of which will be documented through the Draft SA Report of the Revised Draft Plan which will be prepared subsequent to this Interim Draft SA Report. The Site Assessment Methodology does not apply weighted scores to individual assessment criterion.	
Question 11 – Allocation of sites already permitted for mineral working	The safeguarding of sites that have extant permission for mineral working is provided for through Core Strategy Policy M9. The Core Strategy contains adequate guidance as to the safeguarding of mineral infrastructure, which includes sites with existing and permitted quarries with remaining reserves and the processing and other ancillary plan and facilities associated with them (Core Strategy paragraph 4.69 and Policy M9). The identification of further options for safeguarding would not provide for options that are significantly distinct when compared to the approach already set out in the adopted Core Strategy.	Screened out - No further assessment required through the SA process.
Question 12 – Size of sites for recycled and secondary aggregates and waste management facilities	This matter queries if a threshold (annual throughput - tpa) should be applied for facilities for processing of recycled and secondary aggregates. This may result in smaller sites not being allocated. This matter and strategic options are not predetermined by the Core Strategy or wider planning framework and is appropriate to be considered through the Sites Plan to ensure that such factors are fed into the site assessment process at an appropriate level. The subject of applying a threshold is also posed in Question 7 (refer above), for efficiency these two related matters will be addressed together.	**Screened in - To be assessed in detail through the SA process.** **To be combined with Question 7 as both mattes relate to the application of thresholds.**
Question 13 – Identification of other sites (recycled and secondary aggregates and waste management facilities)	Refer to Question 1 above.	Screened out - No further assessment required through the SA process.
Question 14 – Allocations for waste management sites	Core Strategy Policy W3 sets out that the Sites Plan will make provision for strategic and non-strategic waste management facilities (other than landfill) to meet identified requirements (for non-hazardous waste recycling) and for facilities that provide additional capacity for preparation for re-use, recycling or composting of waste or treatment of food waste. Core Strategy Policy W4 identifies locations (i.e. towns) within which strategic and non-strategic should be located, Policy W5 then details preferred siting for waste management facilities including land that is already in waste management or industrial use. The combined effect of Policies W4 and W5 means that strategic and non-strategic waste management facilities could be brought forward within Banbury, Bicester, Oxford, Abingdon, and Didcot, and for non-strategic facilities other large towns (Witney and Wantage & Grove) and small towns (Carterton, Chipping Norton, Faringdon, Henley- on-	**Screened in - To be assessed in detail through the SA process.**

I&O matter	Consideration of policy framework	Screening outcome
	Thames, Thame, and Wallingford). The locations exclude Oxford Meadows, Cothill Fen, Little Wittenham and Hackpen Hill SACs and a 200m dust impact buffer zone adjacent to these SACs. In addition, waste management facilities should not be located within AONBs or Green Belt areas. This matter queries if the Sites Plan should identify: a) only site-specific allocations; b) only industrial estates or other broad areas of employment land where wase management facilities could potentially be located; or c) a combination of site-specific allocations and industrial/broad employment land allocations. Unlike minerals, which can only be worked where they are found, waste management facilities can be sited on a wider range of locations, as such industry investment may be more fluid reflecting a wider range of potential location options. This matter and strategic options are not predetermined by the Core Strategy or wider planning framework and is appropriate to be considered through the Sites Plan to ensure that such factors are fed into the site assessment process at an appropriate level.	
Question 15 – Sites for inert waste deposit or disposal	Core Strategy Policy W6 states that sites for permanent deposit to land or disposal to landfill of inert waste will be allocated in the Sites Plan. For inert waste that cannot be recycled, there is a preference for such waste to be used as infill for restoration of active or unrestored quarries; deposit or disposal of inert waste on land will not otherwise be permitted unless there would be overall environmental benefit. This approach recognises that significant quantities of inert waste are required to restore worked out and permitted quarries. In addition, new quarries and extensions to existing quarries that involve infilling with inert waste to achieve restoration are expected to come into operation during the plan period. It is likely that there will be a shortage of this type of waste to achieve satisfactory restoration of worked out quarries. Inert waste is also managed through operational development schemes and projects such as noise bund construction and flood defence works. In such cases, proposals for disposal of inert waste on land should demonstrate that there is a positive environmental benefit and that there will be no adverse landscape impact. The Core Strategy contains adequate guidance as to the need for inert waste deposit/disposal sites and clearly identifies a preference for inert waste to be directed to mineral extraction sites to achieve restoration outcomes. The identification of further options would not provide for options that are significantly distinct when compared to the approach already set out in the adopted Core Strategy. This approach set out through the Core Strategy should be carried through to the Site Assessment Methodology. The results of the site assessment and selection process will be documented through the Draft SA Report of the Revised Draft Plan which will be prepared subsequent to this Interim Draft SA Report.	Screened out - No further assessment required through the SA process at this stage. Individual site options to be assessed as per the Site Assessment Methodology.

I&O matter	Consideration of policy framework	Screening outcome
Question 16 – Mineral safeguarding areas	Mineral safeguarding areas are identified through Core Strategy Policy M8. The Core Strategy contains adequate guidance as to the safeguarding of mineral resources, which includes: sharp sand and gravel resources of significance in the main river valleys, in particular including the strategic resource areas; soft sand within the strategic resource areas; limestone within the strategic resource areas; and fuller's earth in the Baulking-Fernham area (Core Strategy paragraph 4.64). No areas of other significant proven areas of important mineral resources have been identified. There have been no changes in local circumstance affecting economic or other considerations that would require review of the extent of safeguarded areas. The identification of further options for safeguarding would not provide for options that are significantly distinct when compared to the approach already set out in the adopted Core Strategy.	Screened out - No further assessment required through the SA process.
Question 17 – Safeguarding mineral infrastructure	The safeguarding of mineral infrastructure is provided for through Core Strategy Policy M9. The Core Strategy contains adequate guidance as to the safeguarding of mineral infrastructure, which includes sites with existing and permitted quarries with remaining reserves and the processing and other ancillary plan and facilities associated with them (Core Strategy paragraph 4.69 and Policy M9). The identification of further options for safeguarding would not provide for options that are significantly distinct when compared to the approach already set out in the adopted Core Strategy.	Screened out - No further assessment required through the SA process.
Question 18 – Safeguarding waste management sites	The safeguarding of waste management sites is provided for through Core Strategy Policy W11. The Core Strategy contains adequate guidance as to the safeguarding of waste management sites, which includes operational waste management sites with planning permission (existing and recently permitted but not yet operational), vacant sites last used for waste management purposes, and sites allocation in the Sites plan. The identification of further options for safeguarding would not provide for options that are significantly distinct when compared to the approach already set out in the adopted Core Strategy.	Screened out - No further assessment required through the SA process.
Question 19 – Any other matters the plan should cover	No further strategic options were identified through the I&O process.	Screened out - No further assessment required through the SA process.
Additional Question 20 - Distribution of mineral extraction sites	This matter identifies strategic options relating to the distribution of mineral extraction sites within the County (to be allocated through the Sites Plan), options identified include: a) allocate a single large site to meet the remaining requirement (i.e. apply a concentrated strategy); b) allocate several smaller sites at a wider range of locations to meet the remaining requirement (i.e. apply a wider dispersal strategy); or c) allocate one large site coupled with one or two smaller supplementary sites (i.e. apply a hybrid strategy). The Core Strategy establishes that: for sharp sand and gravel there will be a 25:75 split in provision to be made between the north and south of the county (Policy M3); sites are to	**Screened in - To be assessed in detail through the SA process.**

I&O matter	Consideration of policy framework	Screening outcome
	be within the identified strategic resources areas (Policy M3); and priority will be given to extensions of existing sites (Policy M4). In addition, Core Strategy Policy M4 sets out other factors addressing deliverability and potential impacts that are picked up through the Site Assessment Methodology. However, the approach to be taken to the distribution of allocations is not predetermined by the Core Strategy or wider planning framework. Therefore, it is appropriate to be considered through the Sites Plan to ensure that such factors are fed into the site assessment process at an appropriate level.	

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

4.10 Sustainability issues (including economic, social, and environmental issues) were taken into consideration in identifying the preferred approach 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 economic, social, and environmental characteristics of the area in order to inform the choice of the preferred approach to be applied to the Sites Plan.

4.11 Matters and strategic options identified through the I&O stage and plan-making process that are not predetermined by the Core Strategy and wider planning framework were screened-in (refer Table 3 above) and require further assessment through the SA process, these include:

- Question 4 - Level of mineral working site provision: Identifies strategic options to facilitate the delivery of the aggregate provision rates set out through the Core Strategy, being: a) providing the total plan requirement, or b) considering the contribution of site(s) annual production towards the annual provision rates, and seeking to make up any shortfall identified through projections of annual sales for permitted sites and potential allocations (even where this would mean allocating more than the total plan requirement).
- Question 7 - Size of sites for mineral working, and Question 12 - Size of sites for recycled and secondary aggregates and waste management facilities: Queries if a threshold (mineral yield / annual throughput tpa) should be applied to extensions or new sites for mineral extraction / for facilities for processing of recycled and secondary aggregates. This may result in smaller sites not being allocated.
- Question 14 – Allocations for waste management sites: Queries if the plan should identify: a) only site-specific allocations; b) only industrial estates or other broad areas of employment land where wase management facilities could potentially be located; or c) a combination of site-specific allocations and industrial/broad employment land allocations.
- Question 20 - Distribution of mineral extraction sites: Identifies strategic options relating to the distribution of mineral extraction sites within the County (to be allocated through the Sites Plan), options identified include: a) allocate a single large site to meet the remaining requirement (i.e. apply a concentrated strategy); b) allocate several smaller sites at a wider range of locations to meet the remaining requirement (i.e. apply a wider dispersal strategy); or c) allocate one large site coupled with one or two smaller supplementary sites (i.e. apply a hybrid strategy).

4.12 The appraisal of strategic options regarding comparison of the economic, social and environmental effects is detailed in Table 4. The potential effect is indicated as follows: ✓ Positive, ✗ Negative, ? Uncertain, and – Neutral. Potential sustainability effects of the strategic options are determined in Table 4 and discussed below.

Table 4: Comparison of the economic, social, and environmental effects of the strategic options

	SA objective												
Question and options	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**
Q4 Level of mineral working site provision													
a - Total plan requirement	?	?	?	?	?	?	?	?	?	?	–	✓?	✓
b - Annual production rate	?	?	?	?	?	?	?	?	?	?	–	✓	✓
Q7 & Q12 Application of an operational threshold													
Yes	?	?	?	?	?	?	?	✓?	?	?	✓	✓?	✓?
No	?	?	?	?	?	?	?	×?	?	?	✓	✓	✓
Q14 Allocations for waste management sites													
a - Site-specific	✓?	?	?	?	?	✓	?	?	?	?	✓	✓?	✓?
b - Industrial / employment locations	?	?	?	?	?	✓	?	✓?	?	?	✓	✓?	✓?
c - Combination of sites and locations	?	?	?	?	?	✓	?	✓?	?	?	✓	✓	✓
Q20 Distribution of mineral extraction sites													
a - Concentrated	✓?	?	?	?	?	?	✓?	?	?	?	?	✓?	✓?
b - Wider dispersal	?	?	?	?	?	?	✓?	?	?	?	?	✓	✓
c - Hybrid	?	?	?	?	?	?	✓?	?	?	?	?	✓	✓

Question 4 - Level of mineral working site provision

4.13 Both of the identified mechanisms for identifying the basis upon which provision will be delivered over the plan period (i.e. Option a - Total plan requirement, and Option b - Annual production rate) result in uncertainty in relation to SA objectives regarding potential impacts on the environment and communities. Such factors would depend on the site-specific allocations and the attributes of the receiving environment.

4.14 Both options are consistent with the SA objectives regarding providing for local needs for aggregates (SA12) and economic growth (SA13). Identification of sites to meet the total plan requirement (Option a) may result in shortfalls in annual provision if sites are not phased over the plan period, when compared to identifying sites on the basis of delivering the annual production rate, acknowledging that this may result in more sites being allocated than necessary to deliver only the total provision (Option b).

Question 7 & 12 - Application of an operational threshold

4.15 Both the application, or not, of an operational threshold for minerals or waste development result in uncertainty in relation to SA objectives regarding potential impacts on the environment and communities. Such factors would depend on the site-specific allocations and the attributes of the receiving environment.

4.16 The application of a threshold may be more consistent with the SA objective regarding minimisation of transport impacts on the local and strategic road network (SA8) as having a greater number of smaller sites may increase the

total movements and distribution, increasing the cumulative impact; this would depend on the site-specific allocations and the attributes of the receiving environment and so there is some uncertainty.

4.17 Both options are consistent with the SA objectives regarding contributing towards moving up the waste hierarchy (SA11), enabling self-sufficiency / providing for local needs for aggregates (SA12), and economic growth (SA13). The application of a threshold may stifle innovation (e.g. research and development of emerging technologies at a smaller scale) for waste development or hinder extraction from smaller or satellite sites for minerals development (preventing maximum resource recovery of proven resources). Therefore, the approach of not applying operational thresholds may provide for a higher-level contribution towards the SA objectives.

Question 14 - Allocations for waste management sites

4.18 All of the identified approaches to identifying opportunities for waste management sites (Option a - Site-specific allocations, Option b - Broad industrial or employment land locations, and Option c – Combination of sites and locations) result in uncertainty in relation to SA objectives regarding potential impacts on the environment and communities. Such factors would depend on the site-specific allocations and the attributes of the receiving environment. The identification of industrial or employment land locations is may be more consistent with minimising the impact of transportation of waste on the local and strategic road network (SA8) as such locations are more likely to have been developed with good access to such networks and to accommodate higher frequency HGV movements. All potential allocations will be subject to assessment as per the Site Assessment Methodology. The Core Strategy sets out policies for managing and controlling development that place an emphasis on avoiding and/or minimising potentially adverse impacts to acceptable levels, thereby acting to support the contribution towards the SA objectives and sustainable development.

4.19 All of the options are consistent with the SA objectives regarding reduction in greenhouse gases and tackling climate change through the diversion of waste from landfill (SA6), contributing towards moving up the waste hierarchy (SA11), enabling self-sufficiency (SA12), and economic growth (SA13). The identification of locations or a combination of sites and locations (Option b), may present some uncertainty regarding industry investment. Conversely, the certainty associated with the allocation of specific sites (Option a) is highly reliant on industry taking the sites forward, and it is acknowledged that industry interest and investment in sites for waste management is more fluid than that of minerals development. Therefore, the approach of identifying a combination of sites and locations (Option c) may provide for a higher-level contribution towards the SA objectives as it allows for greater flexibility to respond to changing market conditions.

Question 20 - Distribution of mineral extraction sites

4.20 All of the identified approaches to identifying opportunities for waste management sites (Option a - Concentrated, Option b - Wider dispersal, and Option c - Hybrid) result in uncertainty in relation to SA objectives regarding potential impacts on the environment and communities. Such factors would

depend on the site-specific allocations and the attributes of the receiving environment. Larger sites present greater opportunities for delivering net gains in biodiversity and geodiversity, as such Option a may have greater potential to contribute positively to enhancing biodiversity and geological diversity (SA1), though this would depend on the location and restoration outcomes for individual sites. Mineral extraction presents opportunities to create flood water storage (through restoration) and so all options have potential to contribute positively to reducing the risk of flooding (SA7), though this would depend on the location and restoration outcomes for individual sites. Larger sites present greater opportunities for strategic flood storage, though again this would depend on the location and restoration outcomes for individual sites. All of the potential allocations will be subject to assessment as per the Site Assessment Methodology. The Core Strategy sets out policies for managing and controlling development that place an emphasis on avoiding and/or minimising potentially adverse impacts to acceptable levels, thereby acting to support the contribution towards the SA objectives and sustainable development.

4.21 All of the options are consistent with the SA objectives regarding providing for local needs for aggregates (SA12) and economic growth (SA13). The approach of concentrating future provision from one large site (Option a) may present uncertainty if that site fails to come forward or is mothballed due to private organisational requirements, thereby reducing potential contribution towards SA objectives (SA12 and SA13).

4.22 On balance, the approach of identifying a combination of one large site coupled with one or two smaller supplementary sites (Option c) may provide for a higher-level contribution towards the SA objectives as it allows for opportunities for strategic gains, in particular biodiversity and flood storage, whilst also providing for greater flexibility to respond to changing market conditions.

Identifying the preferred approach

4.23 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. National policy and guidance, the adopted Core Strategy and local circumstance was also taken into account. In some instances, options have been refined to ensure that the plan addresses sustainability issues at an appropriate level and maximises positive effects.

4.24 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 approach:

- Question 4 - Level of mineral working site provision: Option b (considering the contribution of site(s) annual production towards the annual provision rates and seeking to make up any shortfall identified through projections of annual sales for permitted sites and potential allocations - even where this would mean allocating more than the total plan requirement), is considered to provide the highest capacity for contributing towards the SA objectives.

- Question 7 - Size of sites for mineral working, and Question 12 - Size of sites for recycled and secondary aggregates and waste management facilities: Not applying an operational threshold (mineral yield / annual throughput tpa) to extensions or new sites for mineral extraction / for facilities for processing of recycled and secondary aggregates is considered to provide the highest capacity for contributing towards the SA objectives
- Question 14 – Allocations for waste management sites: Queries if the plan should identify: Option c (A combination of sites and broad industrial and employment land) was considered to provide the highest capacity for contributing towards the SA objectives. However, when viewed against the backdrop of environmental designations and land use constraints present within the County (i.e. SACs, AONBs, and Green Belt), the adopted Core Strategy (Policies W4 & W5), and growth pressures (which affects market availability within industrial and employment land location) the options available for identification of broad industrial and employment land locations does not achieved a significantly distinct outcome than that produced through the combined effect of the adopted Core Strategy (and wider planning framework) and site-specific allocations, as illustrated in Appendix 4. This effectively means that Option a (Site-specific allocations) forms the preferred approach to be taken forward.
- Question 20 - Distribution of mineral extraction sites: Option c (Allocating one large site coupled with one or two smaller supplementary sites - i.e. apply a hybrid strategy) was considered to provide the highest capacity for contributing towards the SA objectives.

4.25 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

4.26 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 5.

4.27 The effects of implementation of the MWLP as a whole, including the Sites Plan, will be monitored through both the LAA and Authority Monitoring Report (AMR), with review undertaken where necessary. Additionally, the MWLP will be reviewed and updated on a regular basis alongside review of the policies to which it relates (in accordance with national policy requirement to maintain an up-to-date local plan).

Table 5: Proposed mitigation measures

Strategic matter	Implementation measure(s)	Planning tool
Level of mineral working site provision – identification of sites based on delivery of the annual production rates	The site selection process should take account of estimates of the timeframe for implementation (and phasing where relevant), annual production (tpa), remaining permitted reserves, and projected collective production rate to identify shortfalls in the annual production rate set out through the Core Strategy and seek to allocate sufficient and appropriate sites to address these.	Identification of site allocations in line with balancing provision with the need to ensure an adequate and steady supply reflecting annual production rates (refer Core Strategy). Identification of allocations to be determined in line with the Site Assessment Methodology. Annual production rates to be monitored and reported through the LAA and AMR.
No operational threshold	The site selection process will not include the application of operational thresholds.	Identification of allocations to be determined in line with the Site Assessment Methodology.
Allocations for waste management sites – site-specific allocations	Identification of waste management capacity to inform the quantum of future needs. The site selection process should seek to balance the need for sites with the capacity of the site and local area to accommodate the development. The overall contribution towards SA objectives and sustainable development for potential site options will be assessed as per the Site Assessment Methodology.	Waste forecasts provide guidance on future waste arisings, that inform the identification of waste management capacity and future needs (refer Core Strategy). Permitted waste management and disposal capacity to be monitored and reported through the AMR. Forecast arising's to be monitored against actuals / reported as managed (municipal, C&I, and CD&E waste). Identification of site-specific allocations to be determined in line with the Site Assessment Methodology. Take-up/progress of waste development of site-specific allocations to be monitored and reported through the AMR. Proposals are to demonstrate compliance with the Local Plan, including relevant development criteria.
Distribution of mineral extraction sites – hybrid strategy	The site selection process should take account of: the preferred approach (one large site coupled with one or two smaller supplementary sites); and balancing the need for sites with the capacity of the site and local area to accommodate the development. The overall contribution towards SA objectives and sustainable development for potential site options will be assessed as per the Site Assessment Methodology.	Identification of site allocations in line with balancing provision with the need to ensure an adequate and steady supply reflecting annual production rates (refer Core Strategy). Identification of allocations to be determined in line with the Site Assessment Methodology. Take-up/progress of allocated sites to be monitored and reported through the LAA and AMR. Proposals are to demonstrate compliance with the Local Plan, including relevant development criteria.

5. The approach to be applied

Developing the approach

5.1 The preferred approach(es) to site delivery, have yet to be translated into policy or site-specific allocations at this stage of the plan-making process. The next step is to review and update the site assessments for those sites brought forward through the previous consultation stages; the preferred approach to site delivery will help to inform this process. Where the site delivery approach is translated into Plan policy this will be appraised through the SA process (Draft SA Report of the Revised Draft Plan). However, at this stage it was considered to be more appropriate to reflect the preferred approach through an update to the Site Assessment Methodology as this is the mechanism to inform the site selection process.

Significant sustainability effects of the Local Plan

5.2 It is important to predict the economic, social, and environmental effects of the preferred approach(es). Potential effects need to be quantified where appropriate, or judgment made, with reference to the baseline situation. Prediction involves the identification of changes to the sustainability baseline resulting from implementation of the MWLP as a whole. The Core Strategy has been adopted and so forms part of the baseline.

5.3 Significant effects resulting from implementation of the preferred approach to site delivery were assessed against the SA objectives in order to determine the overall effect of each element of the Plan in relation to sustainability issues. Many of the SA objectives (and hence issues) are interrelated and are able to be captured through consideration under their broader titles (e.g. “economic”, “social”, etc.). 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.

Predicting significant effects of the preferred approach

5.4 Predicted significant effects of the preferred approach are detailed in the following tables, where the potential effect is indicated as follows: ✓✓ Significant positive/beneficial, ✓ Positive/beneficial, ? Uncertain, – Neutral, × Negative /adverse, ×× Significant negative/adverse. The levels of significant and nature of predicted effects is set out in Table 6.

Table 6: Key to levels of significance and nature of predicted effects

	Likelihood (of effect occurring)				
Scale	**High**	**Medium**	**Low**	**Negligible**	**Neutral**
International	Severe	Severe	Major	Moderate	Neutral
National	Severe	Major	Moderate	Minor	Neutral
Regional	Major	Moderate	Minor	Negligible	Neutral
Local	Moderate	Minor	Negligible	Negligible	Neutral

5.5 The assessment tables (Tables 7.1 to 7.4) provide an indicative statement as to whether or not the preferred approach is contributing towards sustainability or potentially detracting from it.

Table 7.1: Predicted significant effects of level of mineral working site provision - identification of sites based on delivery of the annual production rates

Predicted effects **Nature of effect and assessment of effect and likely term**	**Justification for assessment**
Environment (SA objectives 1, 2, 3, 4, 5, 6, 7, 10 & 11)	
Nature: Minor Short: ? Medium: ✓ Long: ✓✓	Likelihood: Medium Scale: Local Duration: Environmental impacts will largely result from individual site operations however mitigation measures will act to avoid and/or minimise potential adverse impacts to an acceptable level. Long-term effects relate to potential for beneficial restoration outcomes (e.g. net gain in biodiversity, nature conservation, flood storage, adaptation/resilience to climate change, etc.) at a county wide scale, however these would be dependent on individual site outcomes. Assumptions: The level of impact will depend on the nature of operations, receiving environment, and site outcomes. The policy hierarchy and associated regulations provide for the prudent use of natural resources and avoidance and/or minimisation of potential adverse impacts.
Social (SA objectives 9 & 13)	
Nature: Minor Short: ? Medium: ? Long: ✓	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 minimise potential adverse impacts to an acceptable level. Long-term effects relate to potential for minerals to contribute towards development of sustainable communities (e.g. planned growth, infrastructure) and beneficial restoration outcomes (e.g. recreational opportunities, green infrastructure, etc.) at a county wide scale, however these would be dependent on individual site outcomes. Assumptions: The level of impact will depend on the nature of operations, receiving environment, and site outcomes. The policy hierarchy and associated regulations provide for the prudent use of natural resources and avoidance and/or minimisation of potential adverse impacts.
Economic (SA objectives 12 & 13)	
Nature: Moderate Short: ✓ Medium: ✓ Long: ✓✓	Likelihood: High Scale: Local and possibly wider (where aggregates are exported) Duration: The delivery of a steady and adequate supply minerals will support economic growth throughout the plan period. Assumptions: Provision rates are appropriate to support planned growth. Interest and investment in relation to the mineral industry will continue throughout the plan period.
Spatial (SA objectives 8, 11 & 13)	
Nature: Moderate Short: ✓ Medium: ✓ Long: ✓✓	Likelihood: High Scale: Local and possibly wider (where aggregates are exported) Duration: Throughout the plan period as minerals are used to deliver planned growth and infrastructure not only within Oxfordshire but wider where aggregates are exported to other areas. Assumptions: Mineral resources are economically viable to attract industry investment and can be used to support planned growth and infrastructure.

Table 7.2: Predicted significant effects of no operational threshold

Predicted effects **Nature of effect and assessment of effect and likely term**	**Justification for assessment**
Environment (SA objectives 1, 2, 3, 4, 5, 6, 7, 10 & 11)	
Nature: Minor Short: ? Medium: ?✓ Long: ✓	Likelihood: Medium Scale: Local Duration: Environmental impacts will largely result from individual site operations however mitigation measures will act to avoid and/or minimise potential adverse impacts to an acceptable level. Smaller scale extraction may also allow for opportunities for building stone for restoration of historic buildings, although it is noted that the intent of allocating sites is to deliver sites for working of aggregate minerals with non-aggregate mineral working addressed under Core Strategy Policy M7. Medium to long-term effects relate to potential for beneficial restoration outcomes for mineral extraction sites with potential for a series of smaller sites to create habitat stepping stones (dependent on individual site outcomes), and to increasing inert recycling and waste management capacity over the plan period which has a flow-on effect of reducing pressure on primary resources and environmental capital. Assumptions: The level of impact will depend on the nature of operations, receiving environment, and site outcomes. The policy hierarchy and associated regulations provide for the prudent use of natural resources, recovery of resources (including inert waste), and avoidance and/or minimisation of potential adverse impacts.
Social (SA objectives 9 & 13)	
Nature: Minor Short: ? Medium: ? Long: ✓	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 minimise potential adverse impacts to an acceptable level. Long-term effects relate to potential for minerals to contribute towards development of sustainable communities (e.g. planned growth, infrastructure, etc.) and beneficial restoration outcomes (e.g. recreational opportunities, green infrastructure, etc.) at a county wide scale, however these would be dependent on individual site outcomes. Smaller waste management sites may be able to be integrated with complementary activities and growth areas, acting to reinforce the link between businesses, community and taking responsibility for the waste that they produce. Assumptions: The level of impact will depend on the nature of operations, receiving environment, and site outcomes. The policy hierarchy and associated regulations provide for the prudent use of natural resources and avoidance and/or minimisation of potential adverse impacts.
Economic (SA objectives 12 & 13)	
Nature: Minor Short: ? Medium: ?✓ Long: ✓	Likelihood: Medium Scale: Local Duration: Potential for extraction from smaller or satellite sites (linked to larger sites) will help to maximise resources recovery, taking advantage of existing infrastructure, and facilitate delivery of a steady and adequate supply of minerals. Potential for smaller scale waste management facilities may allow for opportunities for innovation and integration with complementary activities and growth areas. Uncertainty in the short to medium term relates to economic viability and market adjustment. Both mineral extraction and sustainable waste management will support economic growth throughout the plan period.

Predicted effects Nature of effect and assessment of effect and likely term	Justification for assessment
	Assumptions: Smaller scale sites are economically viable. Interest and investment in relation to the mineral and waste industry will continue throughout the plan period.
Spatial (SA objectives 8, 11 & 13)	
Nature: Minor Short: ✓ Medium: ✓ Long: ✓	Likelihood: Medium Scale: Local Duration: Smaller scale sites contribute towards the provision of aggregates and waste management capacity. Throughout the plan period as minerals and waste sites are used to support planned growth and infrastructure – smaller scale facilities likely to have a local catchment. Assumptions: Smaller scale sites are economically viable and serve a local catchment.

Table 7.3: Predicted significant effects of allocations for waste management sites – site-specific allocations

Predicted effects Nature of effect and assessment of effect and likely term	Justification for assessment
Environment (SA objectives 1, 2, 3, 4, 5, 6, 7, 10 & 11)	
Nature: Moderate Short: ? Medium: ✓ Long: ✓✓	Likelihood: High Scale: Local Duration: Environmental impacts will largely result from individual site operations however mitigation measures will act to avoid and/or minimise potential adverse impacts to an acceptable level. The MWLP includes policies to avoid and/or minimise these. Medium to long-term effects relate to increasing waste management capacity over the plan period resulting in increased recovery of resources and reducing greenhouse gas emissions (through the diversion of waste from landfill). The policy context set through the Core Strategy will assist to direct development to less sensitive locations, thereby avoiding and/or reducing potentially adverse impacts on the environment. Assumptions: The level of impact will depend on the nature of operations, receiving environment, and site outcomes. Industry interest will remain active within Oxfordshire to facilitate the development of a waste management sites. Increasing external pressure (e.g. landfill tax) will have a similar effect at a wider scale regarding driving waste up the hierarchy and net self-sufficiency.
Social (SA objectives 9 & 13)	
Nature: Minor Short: ? Medium: ✓ Long: ✓	Likelihood: Medium Scale: Local Duration: Potential adverse impacts on communities may result from individual site operations however mitigation measures will act to avoid and/or minimise potential adverse impacts to an acceptable level. Medium to long-term effects relate to the benefits to the community regarding the development of a sustainable waste management network, resource recovery, and enabling businesses and communities to take more responsibility for their waste. The existing waste management capacity within the county is significant and so the capacity to be delivered through the Sites Plan to help delivery net self-sufficiency is relatively minor but nevertheless important as it relates to preparing for reuse and recycling. The policy context set through the Core Strategy will assist to direct

Predicted effects Nature of effect and assessment of effect and likely term	Justification for assessment
	development to less sensitive locations, thereby avoiding and/or reducing potentially adverse impacts on the environment. Assumptions: Increasing external pressure (e.g. landfill tax and community focussed education campaigns) will have a similar effect at a wider scale regarding driving waste up the hierarchy and net self-sufficiency.
Economic (SA objectives 12 & 13)	
Nature: Moderate Short: ✓ Medium: ✓ Long: ✓✓	Likelihood: Medium Scale: Local and possibly wider (dependant on the catchment area of individual facilities) Duration: The identification of site-specific allocations coupled with the policy context set through the Core Strategy provides for strategic guidance in relation to industry investment regarding waste management throughout the plan period, and how such development should relate to growth areas, land use patterns, and designations/constraints. Long-term effects relate to the level of confidence provided to the waste industry and development of supporting infrastructure networks. Assumptions: Industry interest will remain active within Oxfordshire to facilitate the development of a waste management sites to meet future needs.
Spatial (SA objectives 8, 11 & 13)	
Nature: Moderate Short: ? Medium: ✓ Long: ✓✓	Likelihood: Medium Scale: Local and possibly wider (dependant on the catchment area of individual facilities) Duration: There is uncertainty regarding initial effects as such development is likely to be implemented (under the emerging plan) over the medium to long term. Provision of guidance regarding industry investment and development of a waste management sites to meet future needs over the long term will increase confidence in land-use planning and investment in development of facilities and necessary infrastructure. Assumptions: Industry interest will remain active within Oxfordshire to facilitate the development of a waste management sites to meet future needs. Increasing external pressure (e.g. landfill tax) will have a similar effect at a wider scale regarding driving waste up the hierarchy and net self-sufficiency.

Table 7.4: Predicted significant effects of distribution of mineral extraction sites – hybrid strategy

Predicted effects Nature of effect and assessment of effect and likely term	Justification for assessment
Environment (SA objectives 1, 2, 3, 4, 5, 6, 7, 10 & 11)	
Nature: Moderate Short: ? Medium: ✓ Long: ✓✓	Likelihood: High Scale: Local Duration: Environmental impacts will largely result from individual site operations however mitigation measures will act to avoid and/or minimise potential adverse impacts to an acceptable level. Minerals can only be worked where they are found, however, the Core Strategy includes policies to avoid and/or minimise these. Long-term effects relate to the potential for net gains and environmental enhancement resulting from restoration (dependent on individual site outcomes). Whilst larger sites have more potential to deliver strategic/landscape scale outcomes, smaller sites can

Predicted effects Nature of effect and assessment of effect and likely term	Justification for assessment
	provide important stepping stones helping to join up fragmented habitats and landscapes which is important for encouraging genetic diversity. Assumptions: The level of impact will depend on the nature of operations, receiving environment, and site outcomes. Mineral resources in the strategic resource areas and site-specific allocations are appropriate to attract industry investment and support planned growth and infrastructure.
Social (SA objectives 9 & 13)	
Nature: Moderate Short: ? Medium: ✓ Long: ✓	Likelihood: High Scale: Local Duration: Potential adverse impacts on communities may result from individual site operations however mitigation measures will act to avoid and/or minimise potential adverse impacts to an acceptable level. The Core Strategy includes policies to avoid and/or minimise these. Long-term effects relate to facilitating the delivery of a steady and adequate supply of aggregates to support planned growth and infrastructure required for development of sustainable communities. Restoration of mineral extraction sites also presents opportunities for benefits to the community such as recreational opportunities and green infrastructure. Support for traditional building materials will also produce long-term positive effects relating to community connection with the historic environment through local identity. Assumptions: The level of impact will depend on the nature of operations, receiving environment, and site outcomes. Mineral resources in the strategic resource areas and site-specific allocations are appropriate to attract industry investment and support planned growth and infrastructure.
Economic (SA objectives 12 & 13)	
Nature: Moderate to major Short: ✓ Medium: ✓ Long: ✓✓	Likelihood: High Scale: Local and possibly wider (where aggregates are exported) Duration: The identification of site-specific allocations coupled with the policy context set through the Core Strategy provides for strategic guidance in relation to industry investment regarding minerals development over the plan period. Long-term effects relate to the level of confidence regarding ongoing investment by the minerals industry. Assumptions: The allocation of one large site coupled with one or two smaller supplementary sites is likely to provide greater flexibility to respond to market drivers. Mineral resources in the strategic resource areas and site-specific allocations are appropriate to attract industry investment and support planned growth and infrastructure.
Spatial (SA objectives 8, 11 & 13)	
Nature: Moderate Short: ? Medium: ✓ Long: ✓✓	Likelihood: High Scale: Local and possibly wider (where aggregates are exported) Duration: There is uncertainty regarding initial effects as such development is likely to be implemented (under the emerging plan) over the medium to long term. The provision of aggregates will support planned growth throughout the plan period as minerals are used to deliver planned growth and infrastructure not only within Oxfordshire but neighbouring areas also. Assumptions: The allocation of one large site coupled with one or two smaller supplementary sites is likely to provide greater flexibility to respond to market drivers and help to ensure a steady and adequate supply of aggregates. The site options brought forward by industry through the site nominations process present a variety of sites that allow the delivery of the preferred approach. Mineral resources in the strategic resource areas and site-specific allocations are appropriate to attract industry investment and support planned growth and infrastructure.

Cumulative effects

5.6 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.

5.7 Assessment should consider effects resulting from the implementation of the Local Plan as well as those that 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.

5.8 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 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.

5.9 Cumulative effects resulting from implementation of the preferred approach were assessed against the individual SA objectives, detailed in Table 8. Potential effects of the Local Plan policies on the SA objectives are indicated as follows: ✓✓ Significant positive/beneficial, ✓ Positive/beneficial, ? Uncertain, – Neutral, × Negative/adverse, ×× Significant negative/adverse.

Table 8: Assessment of cumulative effects

	Level of mineral working site provision - delivery of annual production rates	No operational threshold	Allocations for waste management sites - site-specific allocations	Distribution of mineral extraction sites - hybrid strategy
SA1	? ✓	? ✓	?	? ✓
	Cumulative effect: ? ✓ Minerals extraction and waste management facilities are likely to have an impact on the environment, however, the scale and extent of this is dependent on the nature of operations and the receiving environment. Land-take will have a direct impact on the site and a wider indirect cumulative impacts on environmental networks. Mitigation measures will be applied on a site-specific basis to avoid and/or minimise the potential impact(s) to an acceptable level. The impact of many individual operations throughout the county (and wider) is likely to have both a secondary and cumulative effect as some effects may be indirect whilst others will act directly but appear insignificant on an individual basis. In the long-term restoration presents opportunities for net gains and environmental enhancement, resulting in direct impact on the site and a wider synergistic effects on environmental networks. Operations within the same area or acting upon the same sensitive receptor may be required to be worked in phases throughout the plan period, and proposals for restoration should seek to maximise beneficial outcomes and contribute towards landscape scale outcomes, including creation of habitat stepping stones.			
SA2	? ✓	? ✓	?	? ✓
	Cumulative effect: ? ✓ Impacts from individual sites may interact to form both secondary and cumulative effects on landscape and local distinctiveness. Mitigation measures will be applied on a site-specific basis to avoid and/or minimise the potential impact(s) to an acceptable level. In the long-term restoration presents opportunities for environmental enhancement, resulting in secondary cumulative beneficial effects on landscape character.			
SA3	?	? ✓	?	? ✓
	Cumulative effect: ? ✓ Impacts from individual sites may interact to form both secondary and cumulative effects on landscape and local distinctiveness. Mitigation measures will be applied on a site-specific basis to avoid and/or minimise the potential impact(s) to an acceptable level.			
SA4	?	?	?	? ✗
	Cumulative effect: ? Impacts (including draw-down) from individual sites may interact to form both secondary/indirect and cumulative effects on ground and surface water quality. Mitigation measures will be applied on a site-specific basis to avoid and/or minimise the potential impact(s) to an acceptable level. Draw-down effects on SACs is assessed through the Habitats Regulation Assessment process.			
SA5	?	?	? ✗	? ✗
	Cumulative effect: ? ✗ Dust and vehicle emissions from individual sites may interact to form secondary effects. Mitigation measures will be applied on a site-specific basis to avoid and/or minimise the potential impact(s) to an acceptable level.			
SA6	?	? ✓	✓	?
	Cumulative effect: ? ✓			

	Level of mineral working site provision - delivery of annual production rates	No operational threshold	Allocations for waste management sites - site-specific allocations	Distribution of mineral extraction sites - hybrid strategy
	Support for increased waste management capacity, particularly for preparing for reuse and recycling, will divert waste from landfill producing synergistic effects and reducing greenhouse gas emissions that cause climate change.			
SA7	✓	✓	?	✓
	Cumulative effect: ✓ Restoration of mineral extraction sites presents opportunities for creation of flood water storage, particularly with larger sites or related sites, producing direct (site-specific) and cumulative (landscape scale) effects. All sites, including those for waste management, will be assessed as per the Sequential Test.			
SA8	?	? ✓	? ×	? ×
	Cumulative effect: ? Impacts from transportation associated with minerals and waste operations at individual sites may interact to produce cumulative effects on local and strategic road network. Mitigation measures will be applied on a site-specific basis to avoid and/or minimise the potential impact(s) to an acceptable level. Smaller or satellite sites for mineral extraction may allow for use of existing infrastructure, whilst smaller sites for recycled and secondary aggregate processing facilities may allow for sites located closer to growth areas; resulting in reduced transport movements and producing cumulative beneficial effects.			
SA9	? ✓	? ✓	? ✓	? ✓
	Cumulative effect: ? ✓ Impacts from minerals and waste operations at individual sites may interact to produce secondary and cumulative effects on amenity, affecting local communities. Where sites are located close to sensitive receptors there is the potential for direct effects. Mitigation measures will be applied on a site-specific basis to avoid and/or minimise the potential impact(s) to an acceptable level. In the long-term restoration presents opportunities for environmental enhancement including recreational opportunities and green infrastructure, resulting in secondary cumulative beneficial effects for communities.			
SA10	? ✓	?	?	? ✓
	Cumulative effect: ? ✓ Impacts from minerals and waste operations at individual sites are likely to produce direct effects relating primarily to land-take (minerals extraction), restoration may reinstate or enhance soil quality where the outcome includes a return to agricultural land. Mitigation measures will be applied on a site-specific basis to avoid and/or minimise the potential impact(s) to an acceptable level.			
SA11	-	✓	✓	-
	Cumulative effect: ✓ Strategic guidance to inform industry investment and/or identification of sites for waste management facilities, particularly for preparing for reuse and recycling, will produce cumulative beneficial outcomes in relation to contributing towards and moving waste up the waste hierarchy.			
SA12	✓✓	✓	✓✓	✓✓
	Cumulative effect: ✓✓ Strategic guidance to inform industry investment and/or identification of sites for mineral extraction and waste management facilities, particularly for preparing for reuse and recycling, will produce cumulative beneficial outcomes in relation to providing for local needs for aggregates and contributing towards net self-sufficiency for waste management capacity.			

	Level of mineral working site provision - delivery of annual production rates	No operational threshold	Allocations for waste management sites - site-specific allocations	Distribution of mineral extraction sites - hybrid strategy
SA13	✓	✓	✓✓	✓✓
	Cumulative effect: ✓✓ Strategic guidance to inform industry investment and/or identification of sites for mineral extraction and waste management facilities will produce cumulative beneficial outcomes in relation to supporting planned growth and infrastructure needs; supporting economic growth and providing secondary beneficial effects for communities.			

Consideration of identified problems during development of the Local Plan

5.10 Consideration of sustainability issues and identified problems throughout the development of the Sites Plan was facilitated through the analysis of potential effects of the strategic options, as well as analysis of significant and cumulative effects of the MWLP policies as a whole (i.e. Core Strategy and the Sites Plan).

5.11 The SA framework forms the basis for appraising sustainability effects and represents relevant sustainability issues including environmental, social economic, and spatial issues. Analysis against the SA objectives assist in identifying the contribution towards sustainable development and any relevant problems.

5.12 Consideration of sustainability issues and identified problems throughout the development of the approach to site selection (to be applied through the plan-making process for the Sites Plan) is summarised below. Conclusions drawn from the appraisal have influenced the development of the Sites Plan, in this manner it is believed that the preferred approach(es) offer the most significant (positive) contribution towards sustainable development and provide a healthy balance of potential sustainability effects.

Environmental resources and assets (environmental)

5.13 Effects on environmental resources and assets, 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.

5.14 The appraisal of the significant and cumulative effects resulting from the implementation of the preferred approach(es) to site selection (to be applied through the plan-making process for the Sites Plan) addresses the majority of the SA objectives to varying levels. Environmental effects associated with implementation include cumulative, direct, indirect, secondary, 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 (dependent on the nature of the operations and receiving environment), however this is balanced by Core Strategy policies for the control and management of development and the protection and enhancement of environmental resources and assets, as well as other regulatory controls.

5.15 Specific sustainability issues or problems identified through the SA framework, and the results of their consideration throughout the development of the Sites Plan are detailed in the Table 9.1 below.

Table 9.1: Consideration of environmental issues throughout development of the Local Plan

Key sustainability issue	Consideration through development of the MWLP (Core Strategy and Sites Plan)
Air quality –	The adopted Core Strategy (Policies C5 & C10) supports implementation of sustainable transport measures/practices and alternative

Key sustainability issue	Consideration through development of the MWLP (Core Strategy and Sites Plan)
Reducing vehicle movements and potential impacts of emissions associated with road transport Maintaining a good level of air quality in Oxfordshire and meeting air quality targets Avoiding and/or minimising potentially adverse impacts (including dust, odours, and air emissions) on human health and the environment	transport modes and sets out development criteria and policies for the control and management of minerals and waste development, with a requirement for potential adverse impacts to be avoided and/or minimised to acceptable levels, including along transport routes. Consideration of potential adverse impacts and environmental factors through the Site Assessment Methodology.
Water resources – Continued improvements to water quality in watercourses Conserving water resources, and prudent use of water, to ensure continued availability Protecting water resources from adverse effects from minerals and waste development	The adopted Core Strategy (Policies C4 & C5) requires proposal to demonstrate that there would be no unacceptable adverse impacts on, or risk to water resources and sets out development criteria and policies for the control and management of minerals and waste development. Consideration of potential adverse impacts and environmental factors through the Site Assessment Methodology.
Flood risk and climate change – Avoid increasing and, where possible, seek to reduce flood risk (including surface-water run-off rates) Reducing greenhouse gas emissions Encouraging sustainable transport movements New development should minimise vulnerability and provide resilience to the impacts of climate change Realising opportunities for flood alleviation through restoration	The adopted Core Strategy (Policies C2 & C3) requires proposals to take account of climate change for the lifetime of the development and addresses flood risk, including consideration of these matters through restoration plans. The adopted Core Strategy (Policy C10) supports implementation of sustainable transport measures/practices and alternative transport modes. The adopted Core Strategy (Policies W1-W3) supports delivery of net self-sufficiency for waste management capacity, diversion of waste from landfill, and driving waste up the waste management hierarchy. Consideration of potential adverse impacts and environmental factors through the Site Assessment Methodology.
Biodiversity and geodiversity – The need to balance the need for economic growth and development whilst protecting environmental assets (including protected species) Achieving a net gain in biodiversity Ensuring high quality restoration and aftercare	The adopted Core Strategy (Policies C5, C7 & M10) support the conservation of biodiversity and geodiversity, delivery of a net gain in biodiversity, and restoration of sites to a high standard and that takes account of local characteristics. Consideration of potential adverse impacts and environmental factors through the Site Assessment Methodology.
Historic environment – Preventing loss of historic assets or adverse impacts on setting Delivering growth whilst also protecting and enhancing heritage assets (and their setting) Realising opportunities to enhance heritage assets through restoration	The adopted Core Strategy (Policies C4, C5, C9 & M10) support the conservation of the historic environment and archaeological assets, and require restoration of sites to a high standard and that takes account of local characteristics (including the historic environment). Consideration of potential adverse impacts and environmental factors through the Site Assessment Methodology.
Landscape character –	The adopted Core Strategy (Policies C5, C8 & M10) support the enhancement of landscape

Key sustainability issue	Consideration through development of the MWLP (Core Strategy and Sites Plan)
Preventing loss of landscape features and visual impact Delivering growth whilst also protecting and enhancing valued landscape (AONBs) Realising opportunities to enhance landscape through restoration	character, and require restoration of sites to a high standard and that takes account of local characteristics (including landscape character). Consideration of potential adverse impacts and environmental factors through the Site Assessment Methodology.
Land and soil resources – Safeguarding the long-term potential of BMV agricultural land and conserving soil resources (including through restoration) Preventing soil contamination	The adopted Core Strategy (Policies C5, C6 & M10) support the enhancement of landscape character, and require restoration of sites to a high standard and that takes account of local characteristics (including a return to agricultural land). Consideration of potential adverse impacts and environmental factors through the Site Assessment Methodology.

Communities, health, and well-being (social)

5.16 Effects on communities, health, and well-being are difficult to predict as they are most likely to be qualitative and occur through secondary and cumulative effects. The appraisal of the significant and cumulative effects resulting from implementation of the approach to site selection (to be applied through the plan-making process for the Sites Plan) addresses all of the SA objectives to varying levels but does not adversely affect social issues. Although there are sources of potential conflict regarding potential adverse impacts arising from the operational of individual minerals and waste developments, the Core Strategy includes policies for the control and management of development. In addition, some facets of operations (e.g. emissions from waste management facilities) are governed by regulatory controls.

5.17 Specific sustainability issues or problems identified through the SA framework, and the results of their consideration throughout the development of the Sites Plan are detailed in the following table.

Table 9.2: Consideration of social issues and problems throughout development of the Local Plan

Key sustainability issue	Consideration through development of the Local Plan
Ensuring that operational impacts from minerals and waste development does not have unacceptable adverse impacts on communities (including transport movements)	The adopted Core Strategy (Policies C5 & C10) sets out development criteria and policies for the control and management of minerals and waste development, with a requirement for potential adverse impacts to be avoided and/or minimised to acceptable levels, including along transport routes. Consideration of potential adverse impacts and environmental factors through the Site Assessment Methodology.

Key sustainability issue	Consideration through development of the Local Plan
Ensuring appropriate infrastructure, facilities and services are available to support existing communities and planned growth Enabling communities and businesses to engage with and take more responsibility for their waste	The adopted Core Strategy (Policies M1-M3 & W1-W4) identifies the provision to be made for minerals and future waste management needs, and sets out the spatial strategies for minerals and waste development which guide development (as far as possible) towards areas that are well-related to strategic infrastructure and transport networks, and planned growth areas. Consideration of spatial strategies and the preferred approach to site selection through the Site Assessment Methodology.
Maintaining and realising opportunities for increased access to rural areas, recreational opportunities, and biodiversity gains.	The adopted Core Strategy (Policy M10) requires restoration of sites to a high standard and that takes account of local characteristics (including opportunities for recreation and green infrastructure). Consideration of potential adverse impacts and environmental factors through the Site Assessment Methodology.

Economic development (economic)

5.18 Effects on economic development 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 minerals and waste development and environmental management.

5.19 The appraisal of the significant and cumulative effects resulting from the approach to site selection (to be applied through the plan-making process for the Sites Plan) addresses all of the SA objectives to varying levels. The identification of sites for mineral and waste development to support Oxfordshire's growth is likely to result in positive cumulative effects on the economy.

5.20 Specific sustainability issues or problems identified through the SA framework, and the results of their consideration throughout the development of the Sites Plan are detailed in the following table.

Table 9.3: Consideration of economic issues and problems throughout development of the Local Plan

Key sustainability issue	Consideration through development of the MWLP
Balancing growth, communities, and the environment with economic development and the need for minerals and waste development to support this The availability of sufficient land to accommodate economic growth (employment use) whilst also providing for residential, commercial and industrial needs and infrastructure requirements	The adopted Core Strategy (Policies M1-M3 & W1-W4) identifies the provision to be made for minerals and future waste management needs, and sets out the spatial strategies for minerals and waste development which guide development (as far as possible) towards areas that are well-related to strategic infrastructure and transport networks, and planned growth areas. Consideration of spatial strategies and the preferred approach to site selection through the Site Assessment Methodology.

Key sustainability issue	Consideration through development of the MWLP
Mineral resources – Minerals are a finite resource and can only be worked where they are found Predicted growth in the economy and population in the county will increase pressure on natural resources Minerals are essential to support growth however it is necessary to ensure that development does not have unacceptable adverse impacts on the built and natural environment and communities Ensuring prudent use of mineral resources Securing long-term conservation of mineral resources through safeguarding to avoid sterilisation Ensuring high quality restoration and aftercare	The adopted Core Strategy provides for: - identifies the provision to be made for minerals, supports processing of recycled and secondary aggregates, and sets out the spatial strategies for mineral extraction (including identification of strategic resource areas) which guide development (as far as possible) towards areas that are well-related to strategic infrastructure and transport networks, and planned growth areas (Policies M1-M3), - safeguarding of important resources against needless sterilisation and mineral infrastructure against incompatible development and other uses (Policies M8 & M9), - development criteria and policies for the control and management of minerals development, with a requirement for potential adverse impacts to be avoided and/or minimised to acceptable levels, and - high quality restoration outcomes (Policy M10). Consideration of spatial strategies, the preferred approach to site selection, and potential adverse impacts and environmental factors through the Site Assessment Methodology.
Waste management – Reducing waste disposed of to landfill and associated greenhouse gas emissions Predicted growth in the economy and population in the county will increase waste arisings Waste management (including disposal) is required to support growth however it is necessary to ensure that development does not have unacceptable adverse impacts on the built and natural environment and communities Ensuring prudent use, and recovery of, resources Ensuring high quality restoration and aftercare (landfill sites)	The adopted Core Strategy provides for: - identifies future waste management targets and capacity needs, moving towards net self-sufficiency, and sets out the spatial strategies for waste development which guide development towards areas that are well-related to strategic infrastructure and transport networks, and planned growth areas (Policies W1-W4), - safeguarding of important waste infrastructure/sites against incompatible development and other uses (Policy W11), - development criteria and policies for the control and management of waste development, with a requirement for potential adverse impacts to be avoided and/or minimised to acceptable levels, and - high quality restoration outcomes (Policy M10). Consideration of spatial strategies, the preferred approach to site selection, and potential adverse impacts and environmental factors through the Site Assessment Methodology.

Transport and land use (spatial)

5.21 Effects on transport and land use patterns 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.

5.22 The appraisal of the significant and cumulative effects resulting from the approach to site selection (to be applied through the plan-making process for

the Sites Plan) addresses all of the SA objectives to varying levels. The appraisal indicated that whilst adverse effects may occur from transport movements associated with minerals and waste development this is likely to be balanced with positive effects occurring in relation to the increased support for alternative and sustainable transport options and measures, minerals and waste development supporting the delivery necessary of infrastructure and facilities to support growth and sustainable communities, and potential for restoration outcomes resulting in environmental enhancements, recreation opportunities, and green infrastructure. The Core Strategy includes policies for the control and management of development. In addition, some facets of operations (e.g. emissions from waste management facilities) are governed by regulatory controls.

5.23 Specific sustainability issues or problems identified through the SA framework, and the results of their consideration throughout the development of the Sites Plan are detailed in the following table.

Table 9.4: Consideration of spatial issues and problems throughout development of the Local Plan

Key sustainability issue	Consideration through development of the Local Plan
Potential for adverse impact from transport on communities, environment and the local and strategic road network Constraints on transport movements/routes presented by lack of suitable crossings over the river Thames Challenges for development options - reflecting the presence of AONBs (3) across the county	The adopted Core Strategy (Policies M1-M3 & W1-W4) identifies the provision to be made for minerals and future waste management needs, and sets out the spatial strategies for minerals and waste development which guide development (as far as possible) towards areas that are well-related to strategic infrastructure and transport networks, and planned growth areas. Consideration of spatial strategies and the preferred approach to site selection through the Site Assessment Methodology.
Minimising road-based movements Encouraging alternative and/or sustainable transport options	The adopted Core Strategy (Policies C5 & C10) supports implementation of sustainable transport measures/practices and alternative transport modes and sets out development criteria and policies for the control and management of minerals and waste development, with a requirement for potential adverse impacts to be avoided and/or minimised to acceptable levels, including along transport routes. Consideration of potential adverse impacts and environmental factors through the Site Assessment Methodology.

Mitigation measures

5.24 Measures to prevent, reduce or offset significant adverse effects, or 'mitigation measures' of implementing the approach to site selection, to be applied through the plan-making process for the Sites Plan, must be identified through the SA Report.

5.25 Mitigation measures can include proactive avoidance of adverse effects, actions taken after any effects are noticed, and recommendations for improving beneficial effects.

Mitigation measures - Potential adverse effects

5.26 There are limited potential adverse effects resulting from the approach to site selection to be applied through the plan-making process for the Sites Plan. This is because the Core Strategy includes policies for the control and management of development. Minerals and waste developments are also subject to other regulatory mechanisms that ensure such impacts are avoided and/or minimised (e.g. species protection, HRA, emissions and pollution control, etc.).

5.27 Potential adverse effects identified through the SA process primarily relate to the implementation of individual sites which have yet to be identified. The level of impact is dependent on the nature of operations, receiving environment, and site outcomes.

5.28 The assessment of preferred site options will be set out through the Draft SA Report of the Revised Draft Plan. Mitigation measures to address these uncertainties and potential adverse effects are provided through the Core Strategy. In addition, the consideration of potential adverse impacts and environmental factors is captured through the Site Assessment Methodology.

Mitigation measures - Beneficial effects

5.29 The MWLP seeks to facilitate a steady and adequate supply of minerals and development of waste management capacity to support growth and sustainable communities. The most substantial benefits resulting from implementation of the MWLP are likely to occur as cumulative effects resulting from the interaction of related policies. In order to ensure consistent implementation and increase potential benefits the Core Strategy includes a range of measures for the control and management of development.

5.30 Mitigation measures that can be applied to the approach to site selection (to be applied through the plan-making process for the Sites Plan) to maximise beneficial effects relate to: giving consideration of the existing policy context; balancing need with capacity and environmental feasibility in accordance with Site Assessment Methodology; taking account of the most up-to-date LAA, AMR, and WNA; and ensuring appropriate levels of community engagement.

Uncertainties and risks

5.31 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 judgment). The process of undertaking SA inevitably relies on an element of subjective judgment.

5.32 Resources utilised to assist in predicting and assessing the sustainability effects of the Plan include: analysis of the baseline including Plan evidence base documents; identification of the Oxfordshire's environmental, social, economic, and spatial characteristics; identification of key sustainability issues; and professional experience and judgement (including formation of

rational assumptions). These resources have been applied where possible to determine potential effects of implementation of the Plan.

5.33 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.

6. Implementation and monitoring

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

6.1 The context within which the Sites Plan will operate is primarily determined through the Core Strategy. The wider policy context of the MWLP has been identified through the Core Strategy SA Report (February 2017) with linkages to other tiers of plans and programmes maximised through the Core Strategy plan-making process in order to ensure consistent implementation of the development plan.

Monitoring framework

6.2 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 development plan 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 development plan 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?

6.3 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 MWLP monitoring requirements to build on existing monitoring systems (such as the SA monitoring framework). This provides scope for authority wide monitoring.

6.4 It is not necessary to monitor everything or to monitor an effect indefinitely. Instead monitoring should be focused 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.

6.5 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.

6.6 The County Council is responsible for conducting monitoring on implementation of the MWLP, however the District 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 below monitoring framework.

6.7 The most appropriate vehicle for monitoring is likely to be the AMR; 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.

6.8 The SA framework including possible indicators were identified in the SA Scoping Report (Amended August 2018). The possible indicators have been refined to reflect availability of data and provide for a more practical monitoring framework, refer Appendix 3.

Monitoring the SA and the Local Plan

6.9 Shared or linked monitoring indicators of the SA and MWLP policies enables possible trends and issues to be highlighted which can then be used to identify any existing or potential issues. This approach also enables potential significant (negative and positive) effects and various indicators to be monitored and compared. The results can be used to develop a baseline with potential effects being measured over time.

6.10 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.

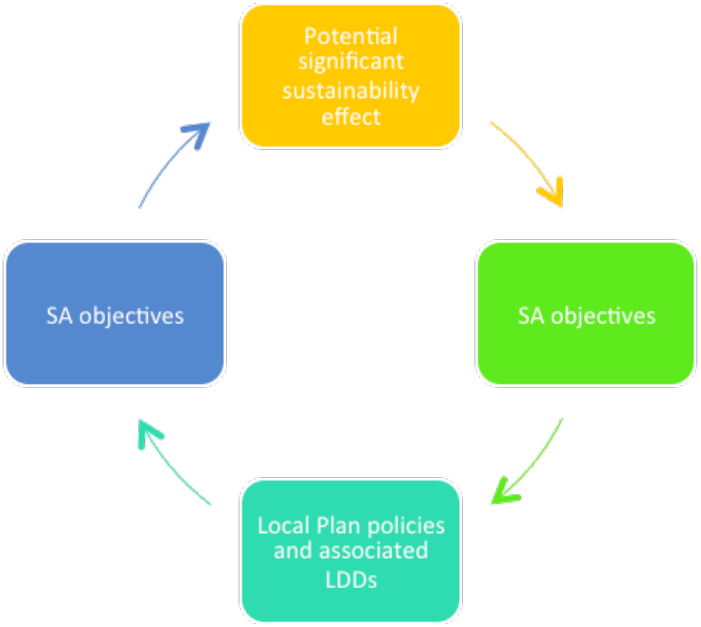

Figure 2: Linking of the monitoring framework

6.11 The monitoring framework for the SA and the MWLP include indicators that are shared or linked. 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.

6.12 The AMR 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 AMR. The plans monitoring framework also includes remediation triggers and measures necessary to respond to adverse impacts identified through the monitoring process.

Appendix 1: The MWLP vision and objectives

Minerals planning vision

The vision for minerals planning in Oxfordshire in 2031 is that:

a) There will be a sufficient supply of aggregate materials available to meet the development needs of the county with a world class economy, and make an appropriate contribution to wider needs, provided from the following sources (in order of priority): recycled and secondary aggregate materials (where practicable); locally produced sharp sand and gravel, soft sand, limestone and ironstone; and import of materials such as hard crushed rock that are not available locally.

b) Mineral workings and supply facilities will be located and managed to minimise: the distance that aggregates need to be transported by road from source to market; the use of unsuitable roads, particularly through settlements; and other harmful impacts of mineral extraction, processing and transportation on Oxfordshire's communities and natural and historic environment.

c) Restored mineral workings will enhance the quality of Oxfordshire's natural environment and the quality of life for Oxfordshire residents by: delivering a net gain in biodiversity, and making a significant contribution to establishing a coherent and resilient ecological network, through the creation of priority habitats at a landscape scale; enhancing the green infrastructure within Oxfordshire, providing opportunity for access to the countryside and recreation activity; and helping to reduce the risk of flooding and adding to flood storage capacity.

Minerals planning objectives

i. Facilitate the efficient use of Oxfordshire's mineral resources by encouraging the maximum practical recovery of aggregate from recycled and secondary materials for use in place of primary aggregates.

ii. Make provision for a steady and adequate supply of sharp sand and gravel, soft sand and crushed rock over the plan period to meet the planned economic growth and social needs of Oxfordshire.

iii. Make an appropriate contribution to meeting wider needs for aggregate minerals, having regard to the strategic importance of Oxfordshire's mineral resources, particularly sand and gravel.

iv. Enable a continued local supply of limestone and ironstone for building and walling stone for the maintenance, repair and construction of locally distinctive buildings and structures, and of clay to meet local needs for engineering and restoration material.

v. Provide a framework for investment and development by mineral operators and landowners through a clear and deliverable spatial strategy which is sufficiently flexible to meet future needs and has regard to existing and planned infrastructure.

vi. Minimise the flood risk associated with minerals development and contribute to climate change mitigation and adaptation, including through restoration schemes which provide habitat creation as a mechanism for addressing climate change adaptation and additional flood storage capacity in the floodplain where possible.

vii. Minimise the transport impact of mineral development on local communities, the environment and climate change by minimising the distance minerals need to be transported by road and encouraging where possible the movement of aggregates by conveyor, pipeline, rail and on Oxfordshire's waterways.

viii. Protect Oxfordshire's communities and natural and historic environments (including important landscapes and ecological, geological and archaeological and other heritage assets) from the harmful impacts of mineral development (including traffic).

ix. Provide benefits to Oxfordshire's natural environment and local communities through the restoration and aftercare of mineral workings at the earliest opportunity, in particular by contributing to nature conservation, enhancing the quality and extent of Conservation Target Areas, contributing to landscape character, improving access to the countryside, safeguarding local amenity, providing opportunities for local recreation and providing benefit to the local economy.

x. Implement a biodiversity-led restoration strategy that delivers a net gain in biodiversity and contributes to establishing a coherent and resilient ecological network, through the landscape-scale creation of priority habitat.

xi. Safeguard important known resources of sharp sand and gravel, soft sand, crushed rock and fuller's earth to ensure that those resources are not needlessly sterilised and remain potentially available for future use and are considered in future development decisions.

xii. Safeguard important facilities for the production of recycled and secondary aggregate, railhead sites for the bulk movement of aggregate into Oxfordshire by rail and other infrastructure to support the supply of minerals in Oxfordshire.

Waste planning vision

a) The vision for waste planning in Oxfordshire in 2031 is that there will have been a transformation in the way that waste is managed in Oxfordshire, with: increased re-use, recycling and composting of waste; treatment (so far as is practicable) of all residual waste that cannot be recycled or composted; and only the minimum amount of waste that is necessary being disposed of at landfill sites.

b) The county will remain largely self-sufficient in dealing with the waste it generates. An economically and environmentally efficient network of clean, well-designed recycling, composting and other waste treatment facilities will have been developed to recover material and energy from the county's waste and support its thriving economy.

c) Waste management facilities will be distributed across the county, with larger-scale and specialist facilities being located at or close to Oxford and other large towns, particularly the growth areas, and close to main transport links, and with smaller-scale facilities serving more local areas. Facilities will be located and managed to minimise the use of unsuitable roads, particularly through settlements, and other harmful impacts of waste management development on Oxfordshire's communities and natural and historic environment. This network of waste management facilities will have helped to build more sustainable communities that increasingly take responsibility for their own waste and keep to a minimum the distance waste needs to be moved within the county.

Waste planning objectives

i. Make provision for waste management (including residual waste disposal) capacity that allows Oxfordshire to be net self-sufficient in meeting its own needs for municipal solid waste, commercial and industrial waste, and construction, demolition and excavation waste.

ii. Make provision for facilities for the management of agricultural waste, waste water, hazardous waste and radioactive waste produced in Oxfordshire, recognising that specialist facilities for hazardous and radioactive wastes often require provision at a sub-national or national level.

iii. Support initiatives that help reduce the amounts of waste produced and provide for the delivery, as soon as is practicable, of waste management facilities that will drive waste away from landfill and as far up the waste hierarchy as possible; in particular facilities that will enable increased re-use, recycling and composting of waste and the recovery of resources from remaining waste.

iv. Seek to provide for waste to be managed as close as possible to where it arises, and encourage other Waste Planning Authorities to become net self- sufficient in meeting their own waste needs, to: minimise the distance waste needs to be transported by road; reduce adverse impacts of waste transportation on local communities and the environment; and enable communities to take responsibility for their own waste.

v. Provide for a broad distribution of waste management facilities to meet local needs across Oxfordshire and make more specific provision for larger facilities that are needed to serve the whole or more substantial parts of the county or a wider area.

vi. Seek to ensure that the waste management facilities required in Oxfordshire are provided as an integral part of the infrastructure of the county and where possible are located to enable local employment and local use of energy (heat and power) recovered from waste.

vii. Seek to maintain opportunity for necessary disposal of residual waste from Oxfordshire and other areas in operational landfill sites.

viii. Avoid the unnecessary loss of green field land when making provision for sites for waste management facilities, giving priority to the re-use of previously developed land.

ix. Protect Oxfordshire’s communities and natural and historic environments (including important landscapes and ecological, geological and archaeological and other heritage assets) from the harmful impacts of waste management development (including traffic).

x. Secure the satisfactory restoration of temporary waste management sites, including landfills, where the facility is no longer required or acceptable in that location.

Appendix 2: Policy context influencing the Plan and SA

Documents given due consideration in the review of material and subsequent development of the MWLP and the detailed policy context review is documented in the SA Scoping Report (Amended August 2018), this will be updated as necessary as new material becomes available.

Objectives and policies relating specifically to minerals and waste management were used to identify shared objectives, targets, and indicators for the plan-making and SA process.

Since the publication of the SA Scoping Report (Amended August 2018) – the following documents, which form part of the policy context, have been issued:

A Green Future: Our 25 Year Plan to Improve the Environment, 2019, HM Government

Sets out a comprehensive and long-term approach to protecting and enhancing England's natural environment for the next generation. The Plan and SA framework adequately address the need to minimise impacts on the natural environment. No amendments to the Plan or SA framework necessary.

Clean Air Strategy, 2019, Department for Environment, Food, and Rural Affairs (DEFRA)

This Strategy discusses how different sources of air pollution can be tackled and sets out comprehensive actions required across all parts of government and society to improve air quality, including: transport, at home, farming, and industry. The Plan and SA framework adequately address the need to minimise impacts on air quality. No amendments to the Plan or SA framework necessary.

NPPF, 2019, MHCLG

No significant amendments that warrant a review of the Plan or SA framework as the objectives adequately reflect the principles of the NPPF.

Resources and Waste Strategy for England, 2018, DEFRA and Environment Agency (EA)

Sets out how material resources will be preserved by minimising waste, promoting resource efficiency, and moving towards a circular economy in England. The Strategy seeks to achieve more sustainable and efficient resource management by moving to a more circular economy and includes elimination of avoidable waste of all kinds (including plastics) by 2050. Includes/reflects existing targets for recycling of household waste (50% by 2020), recycling and disposal to landfill of municipal waste (65% and 10% respectively by 2035), and for recycling of packaging (75% by 2030). The Plan and SA framework adequately address sustainable waste management (including the above targets) and seek to deliver net self-sufficiency. No amendments to the Plan or SA framework necessary.

Appendix 3: SA framework

Table A3.1: SEA Directive topic areas cross-referenced with the SA objectives

SEA Directive topic	SA objective
Biodiversity, flora, fauna	SA1
Soil	SA10
Water	SA4 & SA7
Air	SA5, SA6 & SA8
Climatic factors	SA6, SA7 & SA8
Material assets	SA11, SA12 & SA13
Cultural heritage including architectural and archaeological heritage	SA3
Landscape	SA2
Human health	SA9
Population	SA8 & SA9

Table A3.2: SA framework

SA Objective	Appraisal criteria – Will the Plan …	Possible indicator
SA1: To protect, maintain, and enhance Oxfordshire's biodiversity and geological diversity including natural habitats, flora and fauna and protected species	protect, maintain, and enhance UK habitats of principal importance? conserve and enhance internationally, nationally, and regionally important sites of nature conservation importance? protect, maintain, and enhance UK species of principal importance? contribute to the aims of the Conservation Target Areas? protect and conserve geological SSSIs and Local Geology Sites?	Delivery of beneficial outcomes from restoration including net gain in biodiversity (BAP targets), contribution towards Conservation Target Area, and geodiversity (protection or enhancement of Local Geology Sites or geological SSSIs) – hectares (ha)
SA2: To protect and enhance landscape character and local distinctiveness	conserve and enhance Oxfordshire's AONBs & their settings and take into account guidelines associated with specific landscape types? respect, maintain, and strengthen local character and distinctiveness?	Delivery of beneficial outcomes from restoration including enhancement of landscape character, and/or protection or restoration of statutory or non-statutory landscape designations Production of local traditional building/roofing stone
SA3: To conserve and enhance the historic environment, significance of	protect, conserve, and/or enhance heritage assets and the historic/prehistoric environment of Oxfordshire? contribute to the better management of heritage assets?	Increase in the proactive management of the historic environment: requirement for archaeological investigations prior to approval, mitigation strategies, or conditions for the

SA Objective	Appraisal criteria – Will the Plan …	Possible indicator
heritage assets and their settings	improve the quality of the historic environment? provide for increased access to and enjoyment of the historic environment? lead to the potential loss of historic landscape and features? alter the hydrological conditions of water-dependent heritage assets, including paleo-environmental deposits? provide for increased understanding and interpretation of the historic environment? secure a supply of local building and roofing materials?	protection or enhancement of the historic environment - % of applications Area of highly sensitive historic landscape characterisation type(s) that have been altered and their character eroded – ha Production of local traditional building/roofing stone.
SA4: To maintain and improve ground and surface water quality	affect groundwater quality? affect surface water quality?	Number or proportion (%) of permitted applications: - affecting source protection zones (1, 2 & 3) - requiring abstraction licences - that incorporate SUDS Emissions to water are within allowed limits and do not cause harm to the environment Number of substantiated complaints and pollution incidents requiring enforcement action for developments satisfying Local Plan requirements
SA5: To improve and maintain air quality to levels which do not damage natural systems	lead to increased traffic congestion in built up areas? lead to increased dust and/or odours? lead to increased effect of air quality on biodiversity?	Number or proportion (%) of permitted applications with routeing agreements that avoid AQMAs Emissions to air are within allowed limits and do not cause harm to the environment Number of substantiated complaints and pollution incidents requiring enforcement action for developments satisfying Local Plan requirements
SA6: To reduce greenhouse gas emissions to reduce the cause of climate change	lead to a decrease in production of greenhouse gases such as CO_2 and methane?	Number of permitted applications that involve alternative transport methods / proportion (%) of waste and aggregates transported by rail or water Biodegradable wastes diverted from landfill (% of municipal and C&I waste arisings) Total energy production capacity provided by waste management facilities kilowatt hour (kWh)
SA7: To reduce the risk of flooding	Will the proposal seek to maintain or reduce flood risk?	Number or proportion (%) of permitted sites for minerals and waste development within the flood plain (flood zone 3) Delivery of beneficial outcomes from restoration including schemes identified for flood attenuation – ha/capacity.

SA Objective	Appraisal criteria – Will the Plan …	Possible indicator
SA8: To minimise the impact of transportation of aggregates and waste products on the local and strategic road network	reduce distances travelled by road? Are sites in the Plan well located in relation to surrounding settlements for waste, or markets for minerals? Will the waste facilities or mineral operation serve local needs? Does the Plan facilitate HGV routeing agreements and developer contributions for infrastructure improvements?	Number of permitted applications that involve alternative transport methods / proportion (%) of waste and aggregates transported by rail or water Number or proportion (%) of permitted applications with routeing agreements Number of substantiated complaints requiring enforcement action for developments satisfying Local Plan requirements
SA9: To minimise negative impacts of waste management facilities and mineral extraction on people and local communities	have impacts which could have a harmful effect on human health? result in loss of amenity through visual impact, noise, dust, or vibration for local communities? provide opportunities for enhancement of local amenity and access to the countryside?	Number of substantiated complaints and pollution incidents requiring enforcement action for developments satisfying Local Plan requirements Delivery of beneficial outcomes from restoration including increased access to countryside and recreational opportunities
SA10: To protect, improve and where necessary restore land and soil quality	affect high grade agricultural land? lead to soil pollution or contamination?	Retention of BMV agricultural land – ha of high grade agricultural land lost to minerals and waste development Incidences of land contamination related to minerals and waste development.
SA11: To contribute towards moving up the waste hierarchy in Oxfordshire	increase the amount of waste re-used, recycled, or recovered?	
SA12: To enable Oxfordshire to be self-sufficient in its waste management and to provide for its local need for aggregates as set out in the LAA	reduce the need for waste to be transported outside Oxfordshire for treatment or disposal? reduce the need for Oxfordshire to import aggregates?	Net self-sufficiency for waste management capacity: - proportion of total waste arisings (estimated/as managed) for municipal, C&I and CD&E waste managed within Oxfordshire county administrative area - capacity gap (waste arisings minus existing capacity) for broad waste management methods (tonnes) Sufficient aggregate is made available to support planned growth: - total annual production rate for aggregates (sand and gravel, soft sand, and crushed rock) meet the annual provision rates - total existing capacity for recycled and secondary aggregates (tpa) - maintenance of landbanks (years)
SA13: To support Oxfordshire's economic	encourage the provision of more locally based skills and facilities? generate new jobs for the county?	Number of direct jobs created in the waste and mineral sector per annum

SA Objective	Appraisal criteria – Will the Plan …	Possible indicator
growth and reduce disparities across the county	support and encourage the growth of small and medium size business?	Number of new planning permissions for mineral and waste development granted, including: total aggregate yield and annual production rate (for minerals), annual throughput tpa (for recycled and secondary aggregates and waste management facilities)

Appendix 4: Assessment of availability of potential options for industrial locations or employment land for waste management facilities

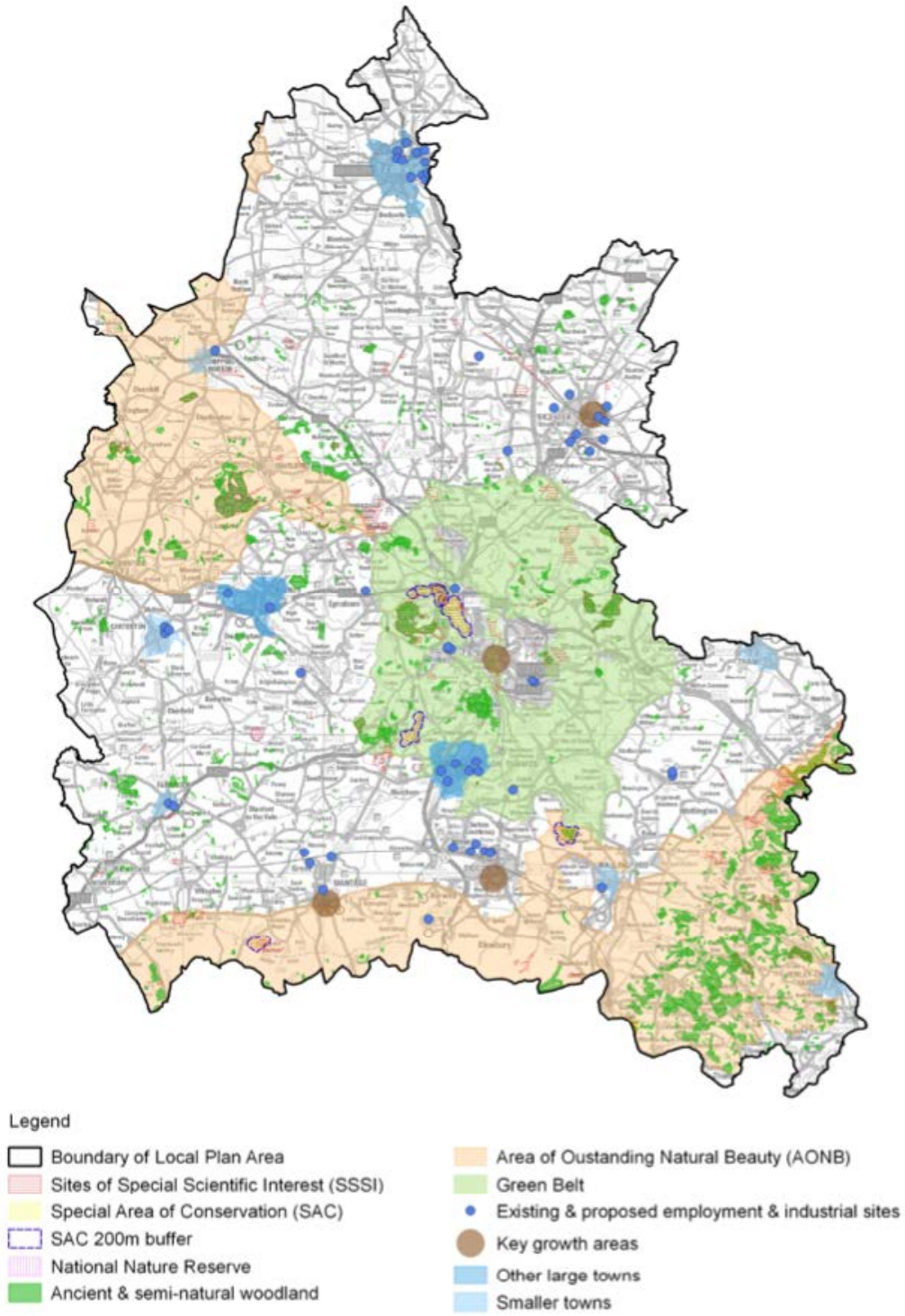

Figure A4.1: Effect of Core Strategy policies combined with environmental designations and land use constraints present within the County on potential options for identfication of industrial locations or employment land for waste management facilities