

Worcestershire Minerals Local Plan

Evolution of the Minerals Local Plan and reasonable alternatives up to Fourth Stage Consultation

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1. Introduction

- 1.1. This document seeks to 'tell the story' of how the current Minerals Local Plan (MLP) has been developed. It records the alternatives that have been considered through the development of the MLP and the Sustainability Appraisal (SA), and reasons why they were rejected or taken forward. It highlights the iterative nature of plan development: where options were discounted in early stages, this has not precluded them from being reconsidered at later stages if consultation responses, SA recommendations or new evidence suggest the approach should be reconsidered.

How reasonable alternatives have been considered in the MLP and in the SA

- 1.2. The SEA Directive requires the Environmental Report undertaken alongside the plan (in this case the SA) to provide "An outline of the reasons for selecting the alternatives dealt with".
- 1.3. During the Third Stage Consultation on the emerging Minerals Local Plan it became apparent that although the consultation document included a "Developing the Third Stage Consultation" section at the end of every chapter (apart from *Chapter 1: Introduction* and *Chapter 9: Implementation and monitoring framework*) that provide a useful summary of how the MLP has developed, to get a full understanding of the alternatives considered consultees would also need to refer to previous consultation and background documents.
- 1.4. The SA Environmental Report provided a helpful commentary on the alternatives, however the Council has developed this document to improve transparency and provide a full narrative on the development of the emerging Minerals Local Plan. It is structured to consider the development of each broad section of the plan in turn:
 - Section 2: Overview of the stages of development of the Minerals Local Plan
 - Section 3: Evolution of the Portrait of Worcestershire

2. Section 4:

- Evolution of the Vision and Objectives
- Section 5: Evolution of the Spatial Strategy
- Section 6: Evolution of the Steady and Adequate Supply of Mineral Resources
- Section 7: Evolution of the Development Management policies
- Section 8: Evolution of Safeguarding Mineral Resources and Supporting Infrastructure policies

3. Overview of the stages of development of the Minerals Local Plan

Background: The County of Hereford and Worcester Minerals Local Plan 1997

- 2.1. The County of Hereford and Worcester Minerals Local Plan was adopted in 1997 and was intended to be in place until in 2003. However, some of its policies were "saved" as part of the Development Plan by the Secretary of State under the provisions of the Planning and Compulsory Purchase Act 2004 and remain extant until they are superseded by the adoption of a new Minerals Local Plan for Worcestershire.
- 2.2. The County of Hereford and Worcester Minerals Local Plan 1997 was prepared when Herefordshire and Worcestershire were combined as a single county authority and set out policies for the extraction and restoration of minerals sites across this geography with a focus on the extraction of aggregates. It was intended to be read alongside a Structure Plan which set out overarching strategic planning policies for the area.
- 2.3. As set out in the report to cabinet of 27th September 2012 (item 8) for the approval of the revised Mineral and Waste Local Development Scheme:

"Strategic minerals policy is currently set out in the West Midlands Regional Spatial Strategy (RSS). The Council's current planning policies for mineral development are set out in the saved policies of the Structure Plan for Worcestershire (2001) and the Hereford and Worcester Minerals Local Plan (1997).

The West Midlands RSS was formulated in 1998, based on earlier data, and sets requirements which run out in 2016. The Government has stated its intention that the RSS will be revoked in the near future.

The Structure Plan was adopted in 2001 and was intended to apply until 2011. The data on which it was based is now out of date and the Structure Plan is likely to be abolished with the RSS.

The Minerals Local Plan was intended to expire in 2003. It reflects earlier values and plans and does not address the non-aggregate minerals found in Worcestershire (silica

sand, building stone, brick clay, coal, oil, gas and brine). Few of the policies were 'saved' and those that were need updating to take into account the approach in the NPPF and to reflect modern conditions and expectations. For example, the current Minerals Local Plan does not consider how the impacts of modern working practices should be mitigated or set any priorities for how mineral workings should be restored.

The current Minerals Local Plan identifies preferred areas for mineral extraction. All but one of these areas has now been worked or has permission to be worked. This means that there is now little strategic direction to control mineral development in the county.

The saved policies to assess new proposals are simplistic, dated and need review."

- 2.4. Only 5 of the policies in the adopted Minerals Local Plan were "saved" as part of the Development Plan by the Secretary of State under the provisions of the Planning and Compulsory Purchase Act 2004. The legal and policy framework for how Planning Policy must be prepared and what it should contain had also changed significantly since the plan was adopted, and the government had announced its intention to revoke all Regional Spatial Strategies and Structure Plan policies.
- 2.5. Together, these factors were considered to mean that it would not be reasonable or practicable to refresh the existing plan, and therefore the 2012 Local Development Scheme set out a timetable for the preparation of a new plan, rather than to review and amend the existing plan.

A New Worcestershire Minerals Local Plan: Stages of preparation

- 2.6. Throughout the evolution of the Minerals Local Plan, the approaches to the vision, objectives, and location and criteria-based policies have been refined according to the changing evidence base, consultation responses, and SA recommendations.

First Stage Consultation (Autumn/Winter 2012/13)

- 2.7. Production of the Minerals Local Plan began with a 'First Stage Consultation'. This early consultation was primarily an awareness raising and evidence gathering exercise but also gave estimates of the amount of minerals that were thought be required and gave a broad overview of the approach to directing the location of development, which at that time was based on areas of search and criteria polices and did not include specific sites. Comments were also requested on a series of background documents which had been prepared to provide evidence on what sort of minerals might be needed in Worcestershire, in what quantities and how they might be worked. This consultation was accompanied by the first stage of Sustainability Appraisal (SA), which was the Scoping Report. The SA Scoping Report was intended to establish the 'sustainability framework' against which the draft MLP

would be assessed and, as such, it did not make any recommendations to be addressed in the Second Stage Consultation

Second Stage Consultation (Autumn 2013 – Spring 2014)

2.8. The 'Second Stage Consultation' built on responses received on the first consultation to provide a clearer direction for minerals working and restoration in Worcestershire. It set out the likely scale of mineral development that the plan would need to provide for, and alternatives for the ways in which targets could be met. It also set out more details on the key issues through a 'Portrait of Worcestershire', and included elements common to most planning policy documents: a draft vision and objectives, and a range of options for addressing specific issues through policies which would be developed for the next stage of consultation. It also proposed "areas of search" for aggregates and an "opportunity area" for clay, as well as ideas for how policies could direct the restoration of mineral workings in these areas to contribute to strategic priorities. Options for how minerals could be safeguarded were also included. This consultation was accompanied by an 'Initial Sustainability Appraisal', which sought to appraise the emerging options in order to inform the next stage of MLP preparation.

1st and 2nd Call for Sites (Summer 2014 and Summer 2015)

2.9. In the summers of 2014 and 2015, Worcestershire County Council undertook two further consultations. These¹ were 'calls for sites' designed to allow landowners and minerals operators to propose locations for the council to consider as site allocations for future mineral working. These consultations marked a shift in the Council's approach to considering the location of future mineral development, as a change in government policy and responses to the Second Stage consultation made it clear that specific site allocations should be explored in preference to areas of search alone. The call for sites consultations were not accompanied by any SA documents, as they did not themselves set out any proposals, and were part of the technical evidence base to inform the Third Stage Consultation.

Third Stage Consultation and 3rd Call for Sites (Winter 2016/17)

2.10. The 'Third Stage Consultation' built on previous consultation responses and included "you said / we did" sections explaining how the approach in each chapter had been developed. The sites submitted in response to the calls for sites and subsequent evidence gathered during assessment of the sites was reflected in the Third Stage consultation.

¹ The 2015 consultation also included a call for mineral resources or supporting infrastructure which should be safeguarded, and asked for comments on the suite of background evidence documents.

- 2.11. The consultation document was more detailed than at earlier stages, setting out a full draft of proposed policy wording and site allocations to enable comment on the principles of the plan and the specific issues it sought to address. The consultation document included policies to: protect and enhance health, well-being and the natural and historic environment; safeguard important mineral resources and mineral infrastructure for the future; and identified 'strategic corridors' (with the status of areas of search) to direct where and how mineral development should take place to deliver co-ordinated multifunctional green infrastructure benefits, as well as identifying proposed 'specific site' and 'preferred area' site allocations.
- 2.12. The Third Stage Consultation also included a further (3rd) call for sites.
- 2.13. The Third Stage Consultation was accompanied by a full SA Environmental Report which sought to appraise the emerging options in order to inform the next stage of MLP preparation.

4th Call for Sites (Autumn/Winter 2017/18)

- 2.14. A significant concern was apparent in responses to the Third Stage Consultation in relation to Worcestershire's ability to supply adequate mineral resources, particularly sand and gravel, due to the small number proposed site allocations and low level of industry interest. There was also some concern about the robustness of the site selection process.
- 2.15. In response to this a further call for sites was undertaken, working with Worcestershire County Council's Content and Communications team to specifically target the minerals industry and landowners. The call for sites was open for a period of 18 weeks to provide as much opportunity as possible for landowners and operators to gather the necessary information.
- 2.16. The call for sites consultation was not accompanied by any SA documents, as it did not set out any proposals, and was part of the technical evidence base to inform the Fourth Stage Consultation.

Fourth Stage Consultation (Winter 2018/19)

- 2.17. The 'Fourth Stage Consultation' is a further full draft of proposed policy wording. In general, the direction of the plan remains broadly similar to the Third Stage Consultation, but with amendments to address issues raised in responses to the Third Stage Consultation and in the SA Environmental Report, as well as reflecting changes to national policy in the revised National Planning Policy Framework which was published in July 2018. As required by national policy, it differentiates between strategic policies and non-strategic policies.

- 2.18. In response to the Third Stage Consultation, concerns were raised about the ability for the plan to supply adequate sand and gravel resources and the reliance on windfall. This was due to the small number of specific sites and preferred areas proposed in the consultation document, the robustness of the site selection process and the large scale of strategic corridors (which had the status of areas of search) lacking certainty about where development would take place. As such, one of the key changes to the plan between the Third and Fourth Stage consultations is the removal of specific sites and preferred areas, which will now be allocated through a separate Mineral Site Allocations Development Plan Document, following more assessment work to be undertaken (which will include Sustainability Appraisal). This approach has been pursued to maximise the ability for preparation of the main Minerals Local Plan to stay on course and for strategic policies to be put in place as quickly as possible. In addition, it will build in flexibility for the Site Allocations to be reviewed and revised if necessary without affecting the strategic policies set out in the Minerals Local Plan.
- 2.19. The strategic corridor boundaries and mineral safeguarding areas have been amended since the Third Stage to account for key constraints, for example to remove settlements and sites allocated in other parts of the Development Plan. In addition, the role of strategic corridors has been reviewed so that rather than having the status of areas of search in themselves, they now provide policy direction, with specific areas of search for different mineral types being identified within them (based on the location of mineral after applying viability, environmental and amenity screening criteria).²
- 2.20. The Fourth Stage Consultation is accompanied by a further stage of Sustainability Appraisal.

² Worcestershire County Council (August 2018) *Worcestershire Minerals Local Plan Background Document: Location of development: screening and site selection methodology*

4. Evolution of the Portrait of Worcestershire

First Stage Consultation	Second Stage Consultation	Third Stage Consultation	Fourth Stage Consultation
<p>The First Stage Consultation did not include a Portrait of Worcestershire, but it did set out information about the mineral resources in Worcestershire under the headings "What are minerals and why do we need them?", and "What minerals we have in Worcestershire" and asked consultees to respond with information which would help to identify the issues the MLP needed to address.</p> <p>SA recommendations:</p> <p>None included.</p>	<p>A short Portrait of Worcestershire was set out that summarised key facts and figures about the county and provided some very high-level information about minerals in Worcestershire and minerals extraction.</p> <p>Consultation responses to the Second Stage Consultation broadly supported the issues considered and suggested additional evidence which could inform the portrait, but also suggested that there was a need for a sharper focus on the things that make Worcestershire unique.</p> <p>SA recommendations:</p> <p>The Initial Sustainability Appraisal considered the Portrait of Worcestershire, stating that the section provided a useful overview of Worcestershire and particularly welcomed the focus on green infrastructure, but it also stated that the section would benefit from drawing out some of the particular strengths and weaknesses of Worcestershire's economy, society and environment, and went on to identify some specific issues that could be strengthened:</p> <ul style="list-style-type: none"> • the cultural and economic importance of horticulture; • demographic pressures (including ageing populations in parts of the county); • proximity to the proposed HS2 rail line; 	<p>The Portrait was expanded to include a brief context on Worcestershire, and detailed information on the minerals resources of the county, plus background on the county's economy, environment and health and well-being of Worcestershire's communities.</p> <p>Following the recommendations in the Initial Sustainability Appraisal, reference was included to horticulture, demographic pressures, and the low number of water courses satisfying Water Framework Directive targets. No specific reference was made to the proposed HS2 rail line, but a section was included on rail transport.</p> <p>SA recommendations:</p> <p>The SA Environmental Report stated that no sustainability issues were identified within the Portrait of Worcestershire, and that there are no reasonable alternatives to the Portrait of Worcestershire as such; it does not seek to set a framework for development and does not include any policies or guidance on how or where minerals should be developed and restored. However, it did highlight some issues which could usefully be included in future iterations (the demand for affordable housing, the role of Neighbourhood Plans and other community initiatives; and the successes of partnership working).</p>	<p>The Portrait has been updated and amended to ensure it focuses on the issues which the Minerals Local Plan can and should address, but continues to provide a brief context on Worcestershire, and detailed information on the minerals resources of the county, plus background on the county's economy, environment and health and well-being of Worcestershire's communities.</p>

First Stage Consultation	Second Stage Consultation	Third Stage Consultation	Fourth Stage Consultation
	<ul style="list-style-type: none"> • low number of water courses satisfying Water Framework Directive targets; • affordable housing pressures; • Neighbourhood Plans and other community initiatives being taken forward; • the successes of partnership working. 	<p>These recommendations had been suggested in the Initial Sustainability Appraisal. They had not been included in the Portrait of Worcestershire in the Third Stage Consultation because:</p> <ul style="list-style-type: none"> • The demand for affordable housing was not considered to be a significant issue for the Minerals Local Plan, although the development targets for both housing and employment land in the county were referred to, recognising that minerals, particularly aggregates and brick clay, will be required to support this growth and deliver the new homes, businesses and infrastructure required. • Neighbourhood Plans and other community initiatives were not referred to specifically in the Portrait of Worcestershire as the section is intended to provide strategic-level information. However, the need to consider Neighbourhood Plans as part of the Development Plan for the county was referred to throughout the Third Stage Consultation document. • Success of partnership working was not included as it was too early in the plan making process to include any definitive comments on this. 	

4. Evolution of the Vision and Objectives

First Stage Consultation	Second Stage Consultation	Third Stage Consultation	Fourth Stage Consultation
<p>Vision</p> <p>The First Stage Consultation did not include a Vision, but it did set out broad issues which the MLP would seek to address, including how much mineral is needed, when it will be needed, how mineral sites should be worked and restored, and where minerals should be extracted, and asked consultees to respond with information which would help to identify the issues the MLP needed to address.</p> <p>SA recommendations:</p> <p>None</p>	<p>The Second Stage Consultation set out a vision for the Plan based on the amount of minerals required throughout the lifetime of the plan, safeguarding resources for future use, sustainable working of sites and for sustainable benefits to be achieved through restoration and to deliver integrated green infrastructure benefits. The vision was linked to the spatial strategy which identified the locations where working mineral resources could meet market demand and identified restoration priorities.</p> <p>Further alternatives:</p> <p>Another alternative to the draft vision set out in the Second Stage Consultation would have been not to take an integrated approach to the winning and working of minerals, linking the location of mineral resources to the achievement of green infrastructure priorities. In this scenario, sites would have been considered individually. This was dismissed because, as the minerals planning authority, we considered that by having an integrated vision for sites, and considering potential for social, economic and environmental benefits holistically, there will be more benefits for Worcestershire communities and environment and restoration can be planned and integrated across sites, rather than an ad hoc approach. This was considered to better reflect the National Planning Policy Framework's</p>	<p>The Third Stage Consultation provided a narrative to explain the links between Worcestershire's unique issues set out in the Portrait and the "lasting legacy" and "holistic approach" which the vision and objectives seek to achieve. As a holistic approach is central to the plan, the vision makes reference to "enhancing the natural, built and historic environment" and Worcestershire's multi-functional green infrastructure in the vision rather than listing biodiversity, geodiversity, landscape character, water quality, flood alleviation, soil resources, heritage assets and archaeology separately.</p> <p>The suggestions made in the Initial Sustainability Appraisal that the Vision should reflect the need to mitigate and adapt to climate change, reduce energy and water consumption and maximise sustainable transport were integrated into the vision in the Third Stage Consultation. Whilst the term "sustainable transport" was not used within the vision because opportunities to use sustainable modes of transport such as rail and water are limited given the location of the minerals resources in Worcestershire, the vision did address the issues which sustainable transport would seek to address, stating that minerals transport would be energy efficient and would mitigate and adapt to the impacts of climate change.</p> <p>SA recommendations:</p>	<p>The vision in the Fourth Stage Consultation is largely the same as in the Third Stage Consultation, but with some strengthening of the concepts around delivering a "lasting legacy". The reference to achieving a seven year landbank of permitted sand and gravel reserves by 2025 has been removed as this has already been achieved, and therefore the vision in the Fourth Stage Consultation is to provide a steady, adequate and sustainable supply of locally and nationally important minerals.</p> <p>The SA Environmental Report accompanying the Third Stage Consultation suggested that reference could be reinstated to local building stone. This has not been included, as the vision refers to all locally and nationally important minerals together, rather than differentiating between the different types of resources in the county.</p> <p>The SA Environmental Report accompanying the Third Stage Consultation also suggested that reference could be included to agricultural land, green belt, and water and air quality in the vision. The vision in the Fourth Stage Consultation explicitly refers to the water environment, and with this amendment it is considered that these issues are captured within the vision's statement that "The winning, working and lasting legacy of minerals development in Worcestershire will be</p>

First Stage Consultation	Second Stage Consultation	Third Stage Consultation	Fourth Stage Consultation
	<p>requirement for the plan to set out the strategic priorities for the area and to contain a clear strategy for enhancing the natural, built and historic environment.</p> <p>SA recommendations:</p> <p>The Initial Sustainability Appraisal noted that a potential alternative would be to not include a Vision in the MLP, but concluded that this would not comply with the NPPF, and raised the need for local specificity.</p> <p>The vision should refer not only to the environmental benefits of a green infrastructure approach to restoration, but also to the economic and social benefits which collectively deliver sustainable development.</p> <p>The vision should reflect the need to mitigate and adapt to climate change, reduce energy and water consumption and maximise sustainable transport.</p>	<p>The SA Environmental Report stated that the vision and objectives are valuable parts of the MLP, but do not set policy and, as such, do not require the consideration of reasonable alternatives. Notwithstanding this, different approaches to the vision and objectives can still perform differently in SA terms, and the previous SA made recommendations to improve their sustainability performance. All of these suggestions, apart from the call to reference sustainable transport, have been integrated into the vision in the Third Stage Consultation. The previous SA also recommended the inclusion of geodiversity in the vision, but this addition has not been made.</p> <p>The SA Environmental Report suggested that consideration could be given to reinstating reference to local building stone, and including reference to agricultural land, green belt, and water and air quality in the Vision.</p>	<p>part of a holistic approach to delivering sustainable economic growth, supporting health and quality of life, and enhancing the built, historic, natural and water environment, that together contribute to the diverse character of the county and surrounding area."</p>

First Stage Consultation	Second Stage Consultation	Third Stage Consultation	Fourth Stage Consultation
Objectives			
None included	<p>The Second Stage Consultation introduced objectives. These were based on the key issues that emerged from an evidence base review and consultation responses on the First Stage Consultation. Eight draft objectives were proposed which are considered below.</p>	<p>The Third Stage Consultation refined the objectives to reflect the recommendations of the SA and consultation responses on the Second Stage Consultation. The numbering below reflects the numbering of the objectives in the Third Stage Consultation, but have been grouped to follow the themes established at the Second Stage.</p> <p>SA recommendations:</p> <p>All of the SA recommendations on the draft objectives have been addressed in the Third Stage Consultation MLP.</p>	<p>Whilst the objectives in the Third Stage Consultation were broadly supported, the Fourth Stage Consultation refines or removes some of the objectives to ensure that they focus on what the plan should do in order to achieve the vision. The objectives have been considered alongside refining the Monitoring Framework to ensure that it will be possible to monitor whether the objectives are being achieved.</p> <p>The numbering below reflects the numbering of the objectives in the Fourth Stage Consultation, but have been grouped to follow the themes established at the Second Stage.</p>
	<p>SA recommendation (issue not addressed in draft objectives):</p> <p>Efficiency of resources in all its forms (including efficiency of transport, land, assets, energy, etc.) is an omission which could compromise delivery of the Vision and delivery of complementary plans and strategies.</p>	<p>See Objectives 2 and 9 below.</p>	<p>The Fourth Stage Consultation includes objective MO 6: Ensure the prudent use of natural resources.</p> <p>In addition, objective MO 1 (see below) to enable the supply of minerals is intended to incorporate the contribution of substitute, secondary and recycled materials and minerals waste to overall mineral supply.</p>
	<p>SA recommendation (issue not addressed in draft objectives):</p> <p>Consideration should be given to the inclusion of new or amended objectives which refer to the appropriate location of mineral operations.</p>	<p>A new objective was included which linked the objectives with the spatial strategy and gave a broad indication of the locations for development</p> <p>1. Deliver development in accordance with the priorities of the spatial strategy.</p>	<p>This objective has been removed from the Fourth Stage Consultation as it was considered that the spatial strategy is not an objective of the plan, rather a mechanism by which other objectives will be delivered.</p>
	<p>SA recommendation (issue not addressed in draft objectives):</p>	<p>SA recommendations:</p> <p>There is no specific mention of transport</p>	<p>The Fourth Stage Consultation does not include reference to transport in the objectives, as it was considered that this</p>

First Stage Consultation	Second Stage Consultation	Third Stage Consultation	Fourth Stage Consultation
	<p>There is no mention of transport in the draft MLP Objectives, although it could be considered a component of the climate change and environmental protection objectives. The impact of HGV movements associated with minerals operations can be considerable, and the MLP Objectives could include reference to the need to maximise the use of sustainable transport.</p>	<p>in any of the objectives, but Objectives 2, 3, 4, 5, 6, and 7 could all indirectly support reducing the need to travel and moving towards more sustainable travel patterns. Consideration could be given to specifically mentioning the need to reduce transport movements.</p>	<p>is not an objective of the plan. Instead transport is addressed through the plan's policies to ensure the impacts of transport are minimised whilst still enabling the necessary movement of materials and people using the most sustainable transport options.</p>
	<p>Draft objective 1 Ensure adequate and steady supply of aggregate, industrial and energy minerals over the life of the plan.</p> <p>Draft objective 2 Ensure the long term sustainability of supply of minerals resources.</p> <p>SA recommendations:</p> <p>More clarity over the minerals supply objectives (1 and 2) and how they related to each other. The Initial Sustainability Appraisal also suggested that building stone warranted inclusion within the objectives, given the important contribution it can make to maintaining local character.</p>	<p>The Third Stage Consultation refined the objectives 1 and 2 from the second stage consultation into the 6 objectives listed below to reflect the recommendations of the SA, and provides clarity with regard to the supply of each type of mineral, including building stone.</p> <ol style="list-style-type: none"> 2. Maximise the contribution of substitute, secondary and recycled materials and minerals waste to overall mineral supply. 3. Maintain the steady and adequate supply of sand and gravel and address shortfalls in the landbank of permitted reserves. 4. Maintain the county's role in the steady and adequate supply of brick clay, bricks and brick products. 5. Foster an adequate and diverse supply of building stone. 6. Enable the sustainable supply of other locally and nationally important mineral resources found in the county, including crushed rock and silica sand. 7. Safeguard locally and nationally important minerals and supporting infrastructure from being needlessly sterilised. <p>SA recommendations:</p>	<p>The Fourth Stage Consultation returns to fewer, broader objectives:</p> <p>MO 1: Enable the supply of minerals</p> <p>MO 6: Ensure the prudent use of natural resources</p> <p>The previous format of very specific objectives about mineral supply (2-6) risked those objectives not being flexible enough to adapt to changes in national policy or local circumstances. The policy framework in the Fourth Stage Consultation continues to address each of the mineral types, and the Monitoring Framework will ensure that the status of supply from the county for each mineral type will be monitored over the life of the plan.</p> <p>The specific objective about safeguarding resources and infrastructure has not been included in the Fourth Stage Consultation, as it was considered that this is not in itself an objective of the plan, rather safeguarding these is a mechanism by which other objectives (mineral supply, protecting and enhancing the local</p>

First Stage Consultation	Second Stage Consultation	Third Stage Consultation	Fourth Stage Consultation
		None included.	economy, and ensuring the prudent use of resources) will be delivered.
	<p>Draft objective 3 Protect and enhance Worcestershire's key economic sectors.</p> <p>SA recommendations: Concern that the economic objective focussed only on "key sectors", rather than the economy as a whole could risk compromising the ability of Worcestershire's wider economy to thrive.</p>	<p>The economic objective was refined to reflect the wider Worcestershire economy and removed the emphasis on key sectors.</p> <p>12. Ensure that mineral development protects and enhances the vitality of the local economy</p> <p>SA recommendations:</p> <p>None included.</p>	<p>The Fourth Stage Consultation retains this objective, with only a slight change to the style of wording.</p> <p>MO 5: Protect and enhance the vitality of the local economy</p>
	<p>Draft objective 4 Ensure mineral operations are resilient to and mitigate the impacts of climate change.</p> <p>Draft objective 5 Utilise mineral restoration to enhance the climate change resilience of the county</p> <p>SA recommendations:</p> <p>SA called for efficiency of all resources to be included to ensure delivery of the (then) MLP vision and to better accord with other plans and strategies, such as the Worcestershire Waste Core Strategy, Worcestershire Local Transport Plan 3, and Worcestershire Climate Change Strategy.</p> <p>Further alternatives:</p> <p>An alternative approach would be to rely on national policy rather than</p>	<p>Objective 4 and 5 were combined to include both mitigation and adaptation to climate change, along with the prudent use of natural resources.</p> <p>9. Ensure that mineral development contributes to the mitigation of and adaptation to climate change and makes prudent use of natural resources</p> <p>SA recommendations:</p> <p>None included.</p>	<p>Specific reference to climate change is not included in the objectives in the Fourth Stage Consultation, as it was considered that other objectives address climate change (see objectives MO 2, MO 3, MO 4, MO 5, MO 6). The policy framework includes specific reference to climate change.</p>

First Stage Consultation	Second Stage Consultation	Third Stage Consultation	Fourth Stage Consultation
	<p>highlighting these issues as an objective, however given the importance given to climate change and resource efficiency in the county and the potential for mineral workings to have significant impacts this was not considered to be a desirable alternative.</p>		
	<p>Draft objective 6 Protect and enhance the natural and historic environment.</p> <p>SA recommendations:</p> <p>Inclusion of enhancement as well as protection of the natural and historic environment was welcomed, as this stresses the need to seek net benefit rather than just mitigating harm. There may also be value in including a separate issue of 'locally-distinctive building stone' under this draft objective.</p>	<p>Objective 6 was refined to better reflect the inclusion of "local distinctiveness" in the vision.</p> <p>11. Ensure that mineral development protects and enhances the natural and historic environment and distinctive local character.</p> <p>SA recommendations:</p> <p>None included.</p>	<p>This objective is refined in the Fourth Stage Consultation to better reflect the vision:</p> <p>MO 3: Protect and enhance the quality, character and distinctiveness of the built, historic, natural and water environment</p> <p>An additional objective has been included to make explicit reference to the economic and social as well as environmental function of Worcestershire's green infrastructure.</p> <p>MO 2: Protect and enhance the environmental and socio-economic function of Worcestershire's network of green spaces and natural elements (green infrastructure)</p>
	<p>Draft objective 7 Protect and enhance health and amenity.</p> <p>SA recommendations:</p> <p>None included.</p>	<p>Objective 7 was developed further in response to the consultation comments received, and was broadened in its scope to include wellbeing and safety of the Worcestershire communities.</p> <p>10. Ensure that mineral development protects and enhances the health, well-being, safety and amenity of people and communities in and around Worcestershire</p> <p>SA recommendations:</p>	<p>The Fourth Stage Consultation retains this objective, with only a slight change to the style of wording.</p> <p>MO 4: Protect and enhance the health, well-being, safety and amenity of people and communities</p>

First Stage Consultation	Second Stage Consultation	Third Stage Consultation	Fourth Stage Consultation
		None included.	
	<p>Draft objective 8 - Involve all those affected as openly and effectively as possible.</p> <p>Further alternatives:</p> <p>Community engagement cannot be a policy requirement so one alternative would be to exclude this from the objectives of the plan. This would be contrary to current council practice and the values of the Council, the Community Strategy and the Statement of Community Involvement. It is not considered to be a desirable alternative.</p> <p>SA recommendations:</p> <p>Objectives to include a broad indication of the location of development, as the objectives set the overarching basis for the plan and should give greater certainty to the reader.</p>	<p>Objective 8 was refined in line with the desire to better align with the local distinctiveness and legacy aspects of the vision.</p> <p>8. Promote community inclusion in mineral development from inception to after-use so that local issues are understood and addressed</p> <p>A new objective was included which linked the objectives with the spatial strategy and gave a broad indication of the locations for development</p> <p>1. Deliver development in accordance with the priorities of the spatial strategy.</p> <p>SA recommendations:</p> <p>None included.</p>	<p>Objective 8 from the Third Stage Consultation has been removed from the Fourth Stage Consultation as it was considered that this is not an objective which the plan itself can deliver, rather is a best practice approach to development management by which other objectives (protecting and enhancing health, well-being, safety and amenity, the quality, character and distinctiveness of the environment, the vitality of the local economy and the functionality of green infrastructure) will be delivered. Instead, the need for public consultation and the benefits of liaison committees are referenced throughout the plan, but as noted previously (see the Second Stage Consultation column), community engagement cannot be required by the policies in the plan.</p> <p>As noted above, Objective 1 from the Third Stage Consultation has been removed from the Fourth Stage Consultation as it was considered that the spatial strategy is not an objective of the plan, rather a mechanism by which other objectives will be delivered.</p>

5. Evolution of the Spatial Strategy

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<p>An initial decision was made to develop an entirely new Minerals Local Plan with a new spatial strategy.</p> <p>An alternative would have been to undertake a review and update of the existing MLP, rolling forward any site allocations. This was considered not to be a reasonable alternative, as the geographic basis for the existing (Herefordshire and Worcestershire) and new (Worcestershire) MLPs had changed, very little of the existing plan was "saved", there were very few remaining preferred areas, and there were no areas of search to be rolled forward.</p>	N/A	N/A	N/A
Option 1: Direct development based on sites proposed by landowners and minerals industry			
<p>An alternative considered was to develop the spatial strategy based on sites proposed by the minerals industry and landowners, subjecting these to a sieve test to consider each site in its immediate context.</p> <p>This was considered to be a reasonable alternative, but was not pursued because:</p> <ul style="list-style-type: none"> • early discussions with the minerals industry and recent planning history indicated that it was likely that not enough sites would be put forward to rely on over the life of the plan and therefore areas of search and criteria based policies would also be required • it was considered that, whilst a 	<p>Building on the direction established through the First Stage Consultation, the Second Stage Consultation stated that we did not intend to identify specific sites for the working of minerals.</p> <p>SA recommendations:</p> <p>Identifying more specific site allocations (rather than broad areas of search) would have the benefit of providing increased certainty for operators and communities over where development is likely to take place. This alternative, however, is not considered to be realistic; the MLP confirms that evidence on the precise location and extent of mineral deposits is uncertain, and it is therefore impossible to provide site-</p>	<p>In response to the Second Stage Consultation, there was a strong level of disagreement regarding the intention not to allocate specific sites, with concern expressed by local residents, the minerals industry and other Local Authorities that this might create unacceptable levels of uncertainty over where minerals development might take place.</p> <p>Responses to the Second Stage Consultation also included suggestions for specific sites and preferred areas from industry stakeholders, but an open call for sites had not been undertaken as part of the development of the emerging minerals plan.</p> <p>In addition, National Planning Practice Guidance for minerals published in 2014</p>	<p>Responses to the Third Stage Consultation highlighted that the small number of specific sites and preferred areas proposed in the Third Stage consultation document were not enough to deliver the level of minerals supply required from the County, as required by the national minerals policy and regional supply calculations, and expressed concern over the resulting reliance on windfall sites. Concerns were also raised about the robustness of the site selection process, in light of the preference it would create for development on allocated sites.</p> <p>In response to this, the County Council committed to undertake a 4th call for sites, and to reconsider the approach to site allocations.</p>

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<p>restrictive sieving process along the lines of that used in the existing MLP may provide protection for environmental assets, it could miss opportunities for betterment,</p> <ul style="list-style-type: none"> a new plan could be in place more quickly if it did not contain specific sites and it was considered that, due to the age and limited number of saved policies of the existing MLP, speed should be a priority . <p>SA recommendations:</p> <p>None included.</p>	<p>specific levels of accuracy. The MLP's proposed approach is considered the most appropriate option, as it provides a degree of indication on the likely areas for minerals development, whilst allowing additional evidence to inform more specific locations as and when it becomes available through industry or academic research.</p>	<p>provided clarity that designating specific sites, preferred areas or areas of search should be approached in that order of priority, and set out high level tests that sites would need to meet to be allocated at each level.</p> <p>To address these issues, a call for sites was undertaken (summer 2014), requesting "information about preferred locations for aggregate extraction in Worcestershire". This 1st call for sites did not result in sufficient proposals to meet anticipated need for the life of the plan, and therefore a 2nd call for sites (for all mineral types) was undertaken in summer 2015. The Third Stage Consultation itself included a further (3rd) call for sites.</p> <p>These calls for sites requested estimates of the quantity of mineral resource (with borehole or survey information for the sites proposed if possible) as well as details of mineral operator interest and landowner support for the site to be worked. This places a burden on the site proposer at an early stage and may prevent some proposals coming forward due to commercial sensitivity of the data, but it was considered to be the most appropriate level of data for the identification of specific sites.</p> <p>A total of 30 sites were submitted in response to the Second Stage Consultation and the 1st and 2nd calls for sites (both for new locations and for extensions to existing workings), all of which were either for sand and gravel extraction or the mineral type was unclear.</p>	<p>The 4th call for sites was undertaken from September 2017 to January 2018, with support from Worcestershire County Council's Content and Communications team to specifically target the minerals industry and landowners. The call for sites was open for a period of 18 weeks to provide as much opportunity as possible for landowners and operators to gather the necessary information. An additional 5 sites have been submitted in response to the 4th call for sites, and further information provided in relation to 6 of the earlier site proposals.</p> <p>Due to the need identified above to reassess the method for site selection, it was not appropriate to simply assess these submissions against the criteria used in the Third Stage Consultation. Options for managing and addressing these requirements were considered alongside the need to have an up to date policy framework in place.</p> <ul style="list-style-type: none"> a. Consult on new site selection methodology ahead of Fourth Stage Consultation – this would have enabled consideration of all sites against the new methodology for potential inclusion as site allocations in the Fourth Stage Consultation. It would have provided a high level of certainty in relation to whether stakeholders considered the method to be appropriate and robust, but would have

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		<p>Sites were assessed through both site visits and through a targeted consultation of statutory consultees and other relevant bodies as to whether they considered that "minerals development on each of the sites is likely or unlikely to be acceptable in planning terms". Some consultees expressed concern that they were unable to make a definitive comment on acceptability planning terms because of limited information on how the site would be worked or restored, matters which would be addressed through the detail of a planning application. To address this and provide some certainty, whilst avoiding overly onerous information requirements from site proposers, a criteria-based system was developed for the Deliverability Assessment³ of submitted sites. Using the information provided with the site submission, this graded each site in relation to criteria designed to assess the national policy tests of whether viable resources are known to exist, whether landowners are supportive of minerals development, and whether the proposal is likely to be acceptable in planning terms:</p> <ul style="list-style-type: none"> • Green - site is highly likely to be deliverable • Amber - concerns over the deliverability of the site based on the information received • Red – likely to be serious constraints to delivering the site 	<p>significantly delayed the progression of the strategic policies in the plan.</p> <p>b. Consider sites for inclusion in Fourth Stage consultation against draft site selection methodology without prior consultation – this would have enabled consideration of all sites against the draft methodology for potential inclusion as site allocations in the Fourth Stage Consultation but with little certainty in relation to whether stakeholders would consider the method to be appropriate and robust. This could have resulted in further changes having to be made to the method and significantly higher risk of substantive objections to site allocations. This would have caused some definite delay to the progression of the strategic policies in the plan, as well as a high risk of additional delays.</p> <p>c. Progress strategic elements of the Minerals Local Plan and consult on new site selection methodology, but address site allocations in a separate Development Plan Document with its own preparation schedule – this would ensure that the strategic elements of</p>

³ Worcestershire County Council (November 2016) *Worcestershire Minerals Local Plan Background Document: Call for Sites – Deliverability Assessment*. Available at www.worcestershire.gov.uk/mineralsbackground.

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		<p>The overall category for each site was determined by the lowest score against any criterion. The Deliverability Assessment informed the Third Stage Consultation, those sites graded green proposed as specific sites, those graded amber proposed as preferred areas, and those graded red were not proposed for allocation.</p> <p>This resulted in three Specific Sites and two Preferred Areas proposed in the Third Stage Consultation, and a remaining shortfall for sand and gravel of approximately 10 million tonnes which would need to be delivered through windfall sites.</p> <p>Alternatives considered :</p> <p>Option 1: Where insufficient information on the quantity of mineral resource was provided, an alternative would have been to rely on the estimates set out in the <i>Analysis of Resources</i> which is based on BGS data. This information was not considered robust enough for the identification of specific sites.</p> <p>Option 2: Require detailed site investigations with robust resource estimates and detailed site working plans from the parties proposing the site to provide a high level of certainty. This was considered to be too onerous and not reasonable to require detailed proposals to be laid out before the policy requirements of the Minerals Local Plan are known.</p> <p>Option 3: At this stage the option of buffering environmental assets and sensitive receptors and undertaking a</p>	<p>the Minerals Local Plan could be progressed as quickly as possible to provide certainty over the vision, objectives, spatial strategy and development management policies. This would provide a high level of certainty in relation to whether stakeholders consider the method to be appropriate and robust, but would significantly delay the certainty provided to communities and developers by allocating Specific Sites and Preferred Areas.</p> <p>Option C was considered to maximise the ability for preparation of the main Minerals Local Plan to stay on course and for strategic policies to be put in place as quickly as possible. In addition, it will build in flexibility for the Site Allocations to be reviewed and revised if necessary without affecting the strategic policies set out in the Minerals Local Plan. It was therefore the option progressed in the revised Local Development Scheme which was approved by Cabinet in July 2018, which introducing a timetable for the preparation of a separate Mineral Site Allocations Development Plan document.</p> <p>This change in approach is consistent with the revised National Planning Policy Framework (July 2018) in relation to setting out strategic policies, and takes into account the new requirement that, from April 2018, under Regulation 10A</p>

First Stage Consultation	Second Stage Consultation	Third Stage Consultation	Fourth Stage Consultation
		<p>sieve test of sites was not considered appropriate to determine the acceptability of sites in planning terms, because the impact on the environment will vary according to the detail of any proposals and information on how the sites will be worked which will come forward as part of a planning application, with protection provided through policy criteria in the plan.</p> <p>SA recommendations:</p> <p>The SA Environmental Report appraised the following alternatives:</p> <ul style="list-style-type: none"> • Do not allocate specific sites or preferred areas <p>The Third Stage Consultation MLP makes clear that there are few practical benefits to allocating specific sites or preferred areas; proposals would be assessed against exactly the same policy whether or not they were within these allocations. The only meaningful benefit to the allocations is to provide a degree of certainty to industry and communities over where minerals operations may be expected to come forward. As noted in section 7.6.1 above, however, some allocations within the last Minerals Local Plan were not developed, so the allocations are no guarantee of development. Not allocating specific sites or preferred options is not a reasonable alternative, as government guidance is clear that "<i>Mineral planning authorities should plan for the steady and adequate supply of minerals in one or more of the following ways (in order of priority):</i></p> <p><i>1. designating Specific Sites ...</i></p>	<p>of The Town and Country Planning (Local Planning) (England) Regulations 2012 (as amended), local planning authorities must review local plans at least once every five years from their adoption date to ensure that policies remain relevant and effectively address the needs of the local community.</p> <p>The draft method for identifying specific site and preferred area allocations in the separate Mineral Site Allocations Development Plan Document has been developed alongside considering the approach to strategic corridors and areas of search, so that screening criteria can be applied consistently across all aspects, and this will be consulted on alongside the Fourth Stage Consultation on the Minerals Local Plan as the first step in progressing the Mineral Site Allocations Development Plan Document.</p>

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		<p>2.designating Preferred Areas ... 3.designating Areas of Search".</p> <ul style="list-style-type: none"> • Allocate a larger or smaller number of specific sites/preferred areas <p>This is another alternative that is not reasonable, as the sites and preferred areas must be subject to an evidence-based deliverability assessment, meaning that their allocation is based on technical, rather than policy reasons (although the technical appraisal is to enable policy aims). Allocating sites and preferred areas that cannot be delivered would not be reasonable. Similarly, failing to allocate sites and preferred areas that are deliverable and potentially-deliverable, respectively, would not be reasonable.</p> <p>The SA Environmental Report appraised each of the 30 site proposals submitted by landowners and operators, rather than only those sites proposed as Specific Site or Preferred Area allocations. This showed that the three specific sites and two preferred areas do not immediately appear the most sustainable options, but there is insufficient evidence to conclusively state whether or not they may be better or worse than some of the other alternatives.</p>	
Option 2: Direct development to areas which would cause least harm			
<p>An alternative considered was to develop the spatial strategy based on directing development to areas of least harm.</p> <p>This was considered to be a reasonable alternative and would most likely be achieved through identifying environmentally important features and</p>	<p>Building on the direction established through the First Stage Consultation, the spatial strategy in the Second Stage Consultation pursued directing development to areas which could deliver most benefit, with protection of assets to be secured through criteria based policies.</p>	<p>As well as seeking to allocate Specific Sites and Preferred Areas, the spatial strategy in the Third Stage Consultation built on the direction established through the First and Second Stage Consultations, directing development to areas which could deliver most benefit, with protection of assets to be secured through criteria</p>	<p>Concerns were raised in response to the Third Stage Consultation about the robustness of the site selection process in light of site allocations establishing the principle of development if these had not been subject to sufficiently robust assessment against environmental or amenity issues.</p>

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<p>sensitive receptors and using these to identify areas that were "unsuitable" for mineral development. This approach was used in the County of Hereford and Worcester Minerals Local Plan 1997 and would offer a level of protection to the environment and communities. However after careful consideration this option was not pursued as the Mineral Planning Authority did not think that this protection would be any greater than that which could be achieved through strong development management policy criteria which offer a much more sophisticated, flexible and effective approach to assessing potential harm and managing appropriate mitigation. This opinion was based on local experience and examples of best practice.</p> <p>SA recommendations:</p> <p>None included.</p>	<p>SA recommendations:</p> <p>It is not clear why the Minerals Local Plan is being used as the starting point for identifying constraints (see MLP section 11.53/54, Appendix 1, and elsewhere). The MLP recognises that the 'old' MLP is out-dated, and there seems little value in justifying the inclusion or exclusion of constraints by reference to the old plan. It would be better to approach the constraints anew, informed by the relevant up-to-date policy context and local issues, as for other aspects of the MLP.</p> <p>The value of the section on buffers and stand-offs was questioned, stating that it would probably be sufficient to briefly state that no buffers or stand-offs are being proposed, because the nature, scale and impact of minerals development will be considered through criteria-based policies.</p>	<p>based policies.</p> <p>SA recommendations:</p> <p>The SA Environmental Report appraised the potential alternative of "focus[ing] strategic corridors where green infrastructure is in poor condition", stating that opportunities not only to protect, but also to improve, extend and enhance green infrastructure are strongly promoted throughout the plan, not least in the development management policies. The MLP could seek to direct this potential to those areas where the need is greatest. This would accord with national policy, which states that "Plans should allocate land with the least environmental or amenity value, where consistent with other policies in this Framework".</p> <p>In broad terms, the likely positive effects would be the improvement of some of the poorest areas of green infrastructure in the county. This could also play an important social role, as improving these areas could potentially open up new opportunities for people to enjoy the natural environment, through improved access and recreation and ability to experience the natural environment with the educational and health benefits this can bring. However, it would fail to achieve cohesiveness across the restoration areas compared to the MLP's proposed strategic corridors. Opportunities to secure enhancements at</p>	<p>To address this, the <i>Analysis of Minerals Resources</i> has been refreshed to take account of environmental and amenity screening criteria as set out in background document <i>Location of development: screening and site selection methodology</i>.⁴</p> <p>The role of the strategic corridors was also reviewed, and rather than having the status of areas of search in themselves, as in the Third Stage Consultation, the strategic corridors in the Fourth Stage Consultation instead provide policy direction, with areas of search being identified within them based on the mineral resource areas following application of the environmental and amenity screening criteria. In addition, to increase certainty over where mineral development is likely to take place and minimise conflict with other forms of development, the strategic corridor boundaries have also been trimmed to remove settlement boundaries and site allocations from adopted Development Plan Documents.</p> <p>By ensuring that the areas where most harm would result have been screened out and are not allocated as Areas of Search in the Fourth Stage Consultation, this means the Minerals Local Plan directs development to areas which would cause least harm.</p>

⁴ Both the *Analysis of Mineral Resources in Worcestershire* and the *Location of development: screening and site selection methodology* documents are available at www.worcestershire.gov.uk/mineralsbackground.

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		<p>a landscape scale would be likely to be lost, and so the delivery of restoration across multiple mineral sites that is 'greater than the sum of its parts' would be lost. The economic effects would be significantly negative, as the areas where GI is poorest are relatively small, and would include only a very small fraction of Worcestershire's viable mineral resource. This alternative, therefore, would wholly fail to provide for the supply of minerals where and when they are needed. As such, this can be discounted as a reasonable alternative.</p>	
Option 3: Direct development to areas which could deliver most benefit			
<p>An alternative considered was to develop the spatial strategy based on directing development to areas of greatest benefit.</p> <p>Although identifying areas of search would provide less certainty to developers and communities than allocating individual sites, this was considered to be a reasonable alternative based on best practice examples of habitat enhancement through mineral site restoration,⁵ and discussions with the Environment Agency about flood alleviation opportunities. The emerging Worcestershire Green Infrastructure Framework also informed this approach. It was considered that this positive approach was more likely to deliver benefits than option 2 above and that best fitted the requirement in the NPPF to</p>	<p>In order to build on the direction established through the First Stage Consultation to direct development to areas which could deliver greatest benefit, the following steps were undertaken as outlined in more detail below:</p> <ul style="list-style-type: none"> • consideration was given to whether areas of search could be defined for each type of mineral in Worcestershire - different approaches were taken forward for different mineral types • consideration was given to how areas of search (for aggregate minerals) should be defined • consideration was given to how the opportunity area (for clay) should be defined 	<p>The 30 sites submitted did not result in sufficient deliverable sites for allocation to meet the landbank requirements for the plan. Therefore it was clear that areas of search would still be required to enable further "windfall" sites to be developed.</p> <p>The ethos of the green infrastructure benefits approach in the Second Stage Consultation was largely supported, but some concerns were raised about aspects of the method for identifying the areas of search. The consultation responses and the Initial Sustainability Appraisal suggested that the thresholds used to identify the clusters of aggregate resources were either arbitrary or not fully justified in the document, and ignored the potential of smaller resource areas to deliver benefits across the different green</p>	<p>The spatial strategy in the Third Stage Consultation, with green infrastructure priorities for each strategic corridor, was well received, although the potential to better integrate flood betterment and water quality enhancements was raised. Comments also indicated that alterations were needed to strengthen the requirement for proposals to contribute positively towards the corridor priorities during both working and restoration phases and to clarify the need to balance comprehensive extraction of mineral resources with the need for landforms and restoration schemes which are appropriate within the landscape. There was also a misconception that the corridors and their priorities were entirely based on environmental considerations, and</p>

⁵ RSPB, Miro (2006) *Nature After Minerals: how mineral site restoration can benefit people and wildlife*
http://ww2.rspb.org.uk/Images/natureaftermineralsreport_tcm9-257075.pdf

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<p>pursue sustainable development by seeking positive improvements in the quality of the built, natural and historic environment, as well as enabling requirements for net biodiversity gain and the opportunities for the restoration of mineral working to contribute positively to flood betterment which is a high priority issue in Worcestershire. In addition:</p> <ul style="list-style-type: none"> it would enable the new plan to be in place more quickly in order to provide a robust policy framework for the county, it would set the framework to direct the location of all sites which was considered particularly important as a reliance on windfall sites was anticipated, it would enable planning and environmental constraints to be considered at application stage when detailed proposals would be known and could be fully assessed whilst maximising potential benefits from co-ordinated rather than piecemeal development, it was considered that a subsequent site allocations document could be pursued if this proved to be necessary through plan monitoring, and It was considered that protection of assets could be secured through criteria based policies. <p>This option was pursued in the First Stage Consultation which proposed developing the spatial strategy for mineral development based on working viable resources in the areas where there is</p>	<ul style="list-style-type: none"> consideration was given to how to direct development so that it would deliver benefits <p>Could areas of search could be defined for each type of mineral:</p> <ul style="list-style-type: none"> Aggregate minerals (crushed rock, sand and gravel) - to be taken forward through defined areas of search, because of the availability of data on the locations and quantity of these resources, the significant demand for aggregates and the limited landbank in Worcestershire. Relying on criteria based policies only was therefore ruled out as not a reasonable alternative. 2 areas of search for crushed rock and 17 areas of search for sand and gravel were identified (11 for terrace and glacial sand and gravel, and 6 for solid sands). Clay - Both criteria based policies and areas of search were identified as reasonable alternatives for clay because: <ul style="list-style-type: none"> data is available about the broad location of resources, but there is uncertainty over the quality and quantity of the resource, and although there is an existing landbank, there is also potentially significant demand. <p>To provide a balance between</p>	<p>infrastructure strands. The approach to clustering in the Second Stage Consultation was considered to be a poor tool for delivering a landscape scale approach, focusing on proximity of resources rather than whether the localities shared any issues or characteristics. As such it was felt that the clusters, as defined in the Second Stage Consultation, would make negligible contribution to the delivery of the vision.</p> <p>The spatial distribution of mineral resources and the ability to deliver benefits was therefore looked at afresh in developing the Third Stage Consultation document, considering each of the Green Infrastructure components to identify whether there was any coherence between resources on a landscape scale or whether a set of county-wide priorities would be a better approach. This consideration led to fewer, larger "strategic corridors" being identified which were given the status of areas of search, enabling priorities to be developed to guide how mineral working and restoration should take place to achieve locally appropriate benefits within each corridor.</p> <p>The definition of the strategic corridors was based on where clusters of locally and nationally important mineral resources exist, considered alongside each of the components of green infrastructure. The strategic corridors were defined following analysis of where the greatest green infrastructure gains can be delivered at a cohesive landscape scale, but no precise threshold is given as</p>	<p>therefore the influence of mineral resources and other economic and social factors needed to be made more explicit. There was also some concern that some of the strategic corridors are too wide to provide certainty.</p> <p>To address these issues, the strategic corridors have been reviewed following the reassessment of mineral resources (outlined above) to ensure they continue to represent significant clusters of mineral resources within coherent landscapes, and they have also been trimmed to remove settlement boundaries and site allocations from adopted Development Plan Documents in order to increase certainty over where mineral development is likely to take place and minimise conflict with other forms of development. The strategic corridors have been retained as a policy driver in the Fourth Stage Consultation, with the text of the policies and reasoned justification being amended to draw out the economic and social, as well as environmental, benefits of green infrastructure. Collaborative work has been undertaken with the Environment Agency and Lead Local Flood Authority to ensure flooding and water quality issues are better integrated. Policy MLP 3 "Green Infrastructure" has been included to help draw out the need to consider the local economic, social and environmental context of sites, climate change, and site-specific opportunities to contribute to the various green infrastructure components, as well as the strategic corridor priorities, and includes provision to ensure that green</p>

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<p>greatest ability for viable resources to be worked and restored to achieve restoration priorities informed by economic policies, environmental policies, community strategies and cross-cutting policies.</p> <p>This approach was considered to address the practical limitations associated with allocating sites and undertaking high-level assessment of whether sites would be "suitable". It was thought to be a positive and proactive approach to development which was especially important due to the need to enable adequate opportunities to increase low landbanks for sand and gravel and crushed rock. It was also considered to add much greater strategic direction than simply identifying known resources, which was already publically available information.</p> <p>This approach was largely supported in responses to the First Stage Consultation.</p> <p>SA recommendations:</p> <p>None included.</p>	<p>uncertain data and significant demand, an "opportunity area" was identified for clay which had less weight than areas of search but more weight than relying solely on criteria based policies. The approach was considered to show the areas where clay working is possible and highlight its importance in the spatial strategy.</p> <ul style="list-style-type: none"> • Silica sand (naturally bonded moulding sand) - to be taken forward through criteria based policies only due to data limitations on the locations of silica sand deposits in the wilder Wildmoor Formation and minimal demand for naturally bonded moulding sand. The use of defined areas of search was determined not to be a reasonable alternative unless silica sand was identified as part of a wider sand and gravel area of search covering the Wildmoor Formation. • Building stone - to be taken forward through criteria based policies only, as very little data on the location of resources and little indication of demand. Areas of search for building stone was not a reasonable alternative due to the lack of data. 	<p>to the minimum size of viable resource that could constitute a corridor. The approach was developed in discussion with members of a Minerals Green Infrastructure Steering Group.</p> <p>Distribution of mineral resources:</p> <ul style="list-style-type: none"> • Aggregates – sand and gravel Key and significant terrace, glacial and solid sand resources were considered and clusters of these resources led to the identification of the Avon and Carrant Brook, Lower Severn, North West Worcestershire, and North East Worcestershire Strategic Corridors. The strategic corridors proposed in the Third Stage Consultation contained approximately 70% of Worcestershire's key and significant sand and gravel resources. • Aggregates – crushed rock: During the preparation of the Third Stage Consultation significant discussion was undertaken with the West Midlands and surrounding Aggregate Working Parties about the recognised constraints on Worcestershire's crushed rock resources.⁶ Whilst clusters of crushed rock resources were identified which could have been designated as a Malvern Hills 	<p>infrastructure benefits will be secured for the long term. Appendix 2 is included in the Fourth Stage Consultation document to set out how the strategic corridors have been identified and defined.</p> <p>The strategic corridors and the identified green infrastructure priorities direct mineral development to appropriate locations and will help to realise the potential for minerals development to address some of Worcestershire's important economic, environmental and social issues. The priorities will drive how mineral working and restoration takes place in order to maximise the multifunctional green infrastructure gains at a landscape scale to benefit the environment, the economy and communities.</p> <p>It is considered that whilst individual sites could deliver on-site green infrastructure benefits in isolation, greater gains can be delivered by pursuing a coordinated approach to maximise the opportunities presented by mineral working throughout the entire life of the site. The priorities have been tailored to each strategic corridor, identifying integrated multifunctional priorities that are outcome focused. They are intended to enable the achievement of benefits across multiple sites that are greater than could be achieved by considering each site in</p>

⁶ See Worcestershire County Council (September 2016) Minerals Local Plan background document *Strategic cross boundary issue: Crushed rock supply in Worcestershire. Summary of action undertaken under the duty to cooperate.*

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	<ul style="list-style-type: none"> • Salt and brine - to be taken forward through criteria based policies as limited data on the location of halite (salt) resources, no data on the extent of brine resources and little indication of demand. Areas of search for salt and brine were not a reasonable alternative due to the lack of data. • Coal - although both criteria based policies and areas of search were identified as reasonable alternatives, with some data available on the location of coal resources, there was little indication of demand. Consultation with the industry body recommended that criteria based policies were applicable in Worcestershire because of the limited area and shallow coal resources. Therefore criteria based policies were taken forward. • Unconventional hydrocarbons – to be taken forward through criteria based policies only, as there is no data available to suggest these resources exist in the county, therefore areas of search were not a reasonable alternative. <p>SA recommendations:</p> <p>None included</p> <p>Defining areas of search for aggregate minerals:</p>	<p>Strategic Corridor and a Bredon Hill Strategic Corridor, due to the impact of these constraints on potential deliverability of supply, it was not considered reasonable for these corridors to be included in the Spatial Strategy in the Third Stage Consultation. Instead, policy provision was made to enable crushed rock development to come forward outside the Strategic Corridors.</p> <ul style="list-style-type: none"> • Building stone Following the Second Stage Consultation, former building stone quarries were identified through the Herefordshire and Worcestershire Earth Heritage Trust's project <i>A Thousand Years of Building with Stone</i>. The quarries identified (up to March 2016) were considered to be the best indication of where building stone resources are likely to be found in Worcestershire. These did not indicate any significant clusters which should drive the identification of strategic corridors, but the corridors proposed in the Third Stage Consultation contained approximately 9% of the former building stone quarries identified (up to March 2016), and policy provision was also made to enable building stone development to come forward outside the Strategic Corridors. • Clay Following the Second Stage Consultation, the Earth Heritage 	<p>isolation. Identifying these priorities will provide certainty to developers and decision makers as to the expectations for mineral working and restoration, whilst the plan as a whole provides the flexibility for site-specific issues to be taken into account. As the identified priorities are multifunctional and are appropriate to the landscape character, ecology, geology and hydrology of the corridor, they should be cost effective for developers to implement whilst maximising gains across the components of green infrastructure.</p>

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	<p>The significance of each mapped deposit was established using the method set out in the background document <i>Analysis of Mineral Resources in Worcestershire</i>. Those identified as "key" or "significant" were taken forward and those identified as "not significant" or "compromised" were not taken forward.</p> <p>Identifying all key and significant resources as areas of search was not considered to be a reasonable alternative as it would not set a direction for the location of development in the county, would not provide certainty for industry or communities and would not take into account the contribution mineral development can make to wider strategic priorities.</p> <p>Clusters of more than 200ha of resource were identified by analysing where "key" resources and "significant" resources within 500m of a "key" resource could be found, and a 250m buffer was applied around those clusters to identify areas of search. The 200ha threshold for areas of search was developed with the support of the Minerals Green Infrastructure Steering Group as a reasonable alternative which was pursued in the Second Stage Consultation as it was considered to be a scale at which there is realistic potential to deliver strategic restoration benefits and to enable development of a landscape-scale approach to restoration and identification of priorities which could be delivered across multiple sites over the life of the Minerals Local Plan.</p>	<p>Trust helped us to better understand the nature of the Mercia Mudstone Group, and that not all the formations within it would be suitable for use as brick clay. Considering this led to the identification of the Salwarpe Tributaries Strategic Corridor. This area was identified to include the area where modern commercial brick clay working has taken place and is therefore most likely to offer opportunities for further brick clay working. The strategic corridors proposed in the Third Stage Consultation contained approximately 20% (by area) of the Mercia Mudstone Group, as well as areas of Sherwood Sandstone and Lias Group deposits which may possess some clay properties.</p> <ul style="list-style-type: none"> • Salt and brine No further information was available following the Second Stage Consultation to indicate where brine resources exist, but policy provision was made to enable salt or brine development to come forward outside the Strategic Corridors. • Silica sand The consideration of solid sand resources (for aggregates) included the Wildmoor Formation which contains silica sand (naturally bonded moulding sands). The North West Worcestershire and North East Worcestershire Strategic Corridors were identified around 	

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	<p>As well as ensuring the areas of search were of a sufficient scale to enable landscape-scale restoration priorities to be achieved, the overall method was intended to ensure the Areas of Search were of a sufficient scale to enable new sites which would require significant investment in plant to be developed (key resources of over 2 million tonnes were considered able to provide this opportunity), whilst taking account of other significant resources which may be able to be worked in association if they were in close enough proximity.</p> <p>A further alternative was to consider whether the areas of search were in locations that were best placed to serve likely market needs over the life of the plan. To do this, the level of housing growth identified in adopted and emerging Local Plans for settlements in and around Worcestershire was used as a proxy for market demand, and the following distance thresholds applied:</p> <ul style="list-style-type: none"> • 15km - settlements where 1,500 homes or more are proposed over the plan period • 10km – settlements where 750-1,500 homes are proposed over the plan period • 5km – settlements where 250 – 750 homes are proposed over the plan period <p>Where an area of search was identified as being outside of these “market-pull” thresholds, it was intended to exclude it from further consideration, however all areas of search at this stage were within the relevant proximity of one or more of</p>	<p>this formation. The strategic corridors proposed in the Third Stage Consultation contained approximately 72% (by area) of the Wildmoor Formation.</p> <p>Green infrastructure components:</p> <ul style="list-style-type: none"> • Landscape: Within Worcestershire, there is a strong relationship between the location of mineral resources and the character of landscapes where they are found. The Worcestershire the <i>Landscape Character Assessment</i> identifies the landscape character types for individual parcels of land, establishing precise boundaries where the landscape character changes. Landscape character reflects many other aspects of green infrastructure and was considered to provide a robust basis for identifying cohesive clusters of resources and to identify the precise boundaries of the strategic corridors. Some of the corridors consist of more than one landscape type where the characteristics of those landscape types are similar or complementary. This approach does not take account of the condition of the landscape or identify one landscape type as more able or less able to accommodate mineral development than another, but it is a useful indicator of cohesion within corridors. The characteristics of the landscape 	

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	<p>these settlements.</p> <p>These thresholds were developed taking account of information from the Mineral Products Association that about 80% of mineral products are used within 30 miles (48 km) of the quarry they are worked at. The 15km threshold to show the highest level of demand (approximately a third of the distance identified by the Mineral Products Association) with the reduced thresholds of 10km and 5km to indicate where levels of demand are likely to be lower.</p> <p>Although it was acknowledged that this was a relatively crude indicator and did not take into account detailed criteria such as transport routes, and wider influence of larger sites, it did show that the majority of the county was covered by these distance thresholds, and therefore that there was likely to be some demand for mineral resources from all areas of the county. It was therefore considered that proximity to market was not a reasonable alternative as a primary driver for the spatial strategy.</p> <p>SA recommendations:</p> <p>None included.</p> <p>Defining the opportunity area for clay:</p> <p>The opportunity area was identified based on the Mercia Mudstone Group deposits as it was known that this is worked in Worcestershire for brickmaking and no information was</p>	<p>types provide a basis for locally appropriate priorities for each of the strategic corridors.</p> <ul style="list-style-type: none"> • Biodiversity: There is a strong coherence between landscape character and the types of habitats that exist within them. The hedgerows, streams and other features that contribute towards landscape character also contribute towards habitat networks and the movement of species. The consideration of landscape character in defining the boundaries of the strategic corridors was therefore considered an appropriate mechanism for identifying landscape-scale coherence in relation to biodiversity. The ecological zones identified in <i>Biodiversity and mineral sites in Worcestershire: Guidance for the sustainable management of biodiversity action plan habitats at Worcestershire mineral sites</i>, the patterns of Biodiversity Action Plan priority habitats identified in the <i>Worcestershire Habitat Inventory</i> and the <i>Biodiversity Delivery Areas</i> identified by the Local Nature Partnership also verify the validity of this approach. This approach does not take account of the condition of existing habitats as this is more meaningful on a site-by-site basis than on a corridor scale. However the distribution of high value habitats such as SSSIs, BAP habitats and Local Wildlife Sites 	

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	<p>available to identify whether any sub-groups or particular areas of the resource are more important than others to refine this to meaningful areas of search.</p> <p>No other reasonable alternatives were identified for defining the opportunity area.</p> <p>SA recommendations:</p> <p>None included.</p> <p>Directing development to deliver benefits:</p> <p>Strategic restoration priorities:</p> <p>These were identified for each of the areas of search and the opportunity area, with restoration profiles for each of these included as appendices in the Second Stage Consultation</p> <p>The significance of each of the strategic restoration priorities in each area of search was assessed as being:</p> <ul style="list-style-type: none"> • A determining factor, • A significant component, • A consideration to be integrated into restoration where possible, or • Not likely to be a significant consideration in that particular area of search <p>In order to give strategic direction in the Spatial Strategy, the patterns of determining factors for the areas of search were used to identify overarching considerations for different</p>	<p>has been considered alongside the ecological zones and Biodiversity Delivery Areas to inform the priorities set for each corridor.</p> <ul style="list-style-type: none"> • Agriculture and soils: There is significant overlap between mineral resources and the distribution of Best and Most Versatile Agricultural Land. Although not normally considered a component of green infrastructure, local agricultural practices influence landscape character and as such using landscape character to inform the boundaries of the strategic corridors is a useful way of taking agriculture into account. This is more appropriate for identifying coherence than considering the distribution of Best and Most Versatile Agricultural Land, as it allows the predominant land-use to be considered, identifying patterns of arable use, horticulture, grazing or mixed agriculture at a landscape-scale. The distribution of Best and Most Versatile Agricultural Land has informed the priorities for each strategic corridor. • Water environment: River catchments are large areas and were not consider a meaningful basis on their own to facilitate the integration of other green infrastructure components, however they have informed the definition of the strategic corridors. The boundaries of the 	

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	<p>sections of the county and were shown on the spatial strategy diagram. This was considered to provide a real opportunity to deliver strategic restoration benefits rather than piecemeal restoration schemes.</p> <p>The Second Stage Consultation then set out reasonable alternatives for driving the delivery of the restoration priorities for each area of search</p> <p>Alternative A: To develop a single set of policies that would apply to all areas of search and the opportunity area for clay, Alternative B: To develop individual policies for each area of search and the opportunity area for clay, outlining area specific issues for each one, Alternative C: To develop a “spatial master-plan” and policies for each area of search and the opportunity area for clay, outlining and visually interpreting the area specific issues for each one</p> <p>The options of developing these alternatives in combination with future production of an SPD was explored as a consultation question.</p> <p>The Second Stage. Consultation did not include any preference for which of these alternatives should be pursued.</p> <p>SA recommendations:</p> <p>The MLP could set out a restoration approach that is guided more by economic and social opportunities, either as an equal focus alongside the current environmental (GI) goals, or as the primary driver(s).</p>	<p>Lower Severn Strategic Corridor and Salwarpe Tributaries Strategic Corridor are partly defined by the catchment areas identified in the <i>River Severn Catchment Flood Management Plan</i>.</p> <ul style="list-style-type: none"> • Geodiversity: Although the occurrence of features of geodiversity interest is dependent on the underlying geology, the distribution of designated features did not generally show a strong geographic pattern of distribution. Therefore geodiversity was not used to identify the boundaries of the strategic corridors, but did inform the priorities for the strategic corridor which overlap with the Abberley and Malvern Hills Geopark and the Malvern Hills and Cotswolds Areas of Outstanding Natural Beauty where there are clusters of designated and non-designated features of interest. • Historic environment: The historic environment is formed of many different features and their settings, and this is often best considered on a local-scale. The distribution of designated and non-designated heritage assets and the <i>Worcestershire's Historic Landscape Characterisation</i> were considered, but no patterns were identified to define the strategic corridors on the basis of the historic environment. However, there is a strong relationship between landscape character and 	

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	<p>Alternative A is 'light touch', providing only high-level guidance and policies to be interpreted by each minerals developer as sites come forward. Alternative B would provide a greater level of guidance by specifying the overall priorities for each area of search, as well as setting out broad principles of how linkages can be made. Alternative C is the most prescriptive, providing master-plans, informed by the Green Infrastructure Partnership, for each area of search. One issue that should be considered is how regularly the evidence base will need to be updated and how simple it will be to do this through either the MLP itself or through specific SPDs.</p> <p>The MLP proposes, broadly speaking, that restoration efforts are concentrated on ensuring the best resources remain in good condition. While it could be argued that the 'hierarchy' approach perpetuates the low quality status of some habitats (in the 'integrate' approach, for example, it is only high-value features that should be retained or restored), this is necessarily pragmatic and recognises that particular sites, even in combination, are unlikely to create new features such that fragmented habitat becomes high-quality. It would therefore be misguided to expend limited resources improving poor-quality habitat that does not link well into the wider network.</p> <p>The MLP's alternative options for restoration policies include listing/mapping known assets within the</p>	<p>the historic environment, with landscape influencing historic land-uses and these land-uses and features then influencing the landscape character. Defining the boundaries of the strategic corridors based on landscape character was therefore considered an appropriate mechanism for addressing the historic environment at a landscape scale. <i>Worcestershire's Historic Landscape Characterisation</i> was used to verify the validity of this approach.</p> <ul style="list-style-type: none"> • Access and recreation: Patterns of access and recreation assets (rights of way, long distance paths, accessible natural green space) were considered, but no patterns were identified to define the strategic corridors on the basis of access and recreation. However patterns of access and recreation were closely associated with specific landscape types, as the patterns of land-use and enclosure influence the extent of public access networks. This further supports the use of landscape type as the primary mechanism for identifying the boundaries of the strategic corridors. <p>The strategic corridors do not include all known mineral resources in the county, but seek to reflect a 'best fit' of where mineral development and the potential for green infrastructure enhancement overlap</p>	

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	<p>policy and spatial plan. Whilst this would ensure those known assets are taken fully into account in development restoration proposals, it is unclear how the policy could be kept sufficiently up to date. Even the further option of using SPDs to expand on the main policy could be too restrictive, given the long timescales involved in SPD preparation and revision. If this approach is to be progressed, it is important that some form of dynamic database is used, or that applicants are referred to the source information. A failure to reflect up-to-date data could risk those assets identified after the MLP is published being overlooked in restoration proposals, and potentially compromised. Although Alternatives B and C potentially offer a finer degree of detail, the valuable flexibility of Alternative A is lost.</p>	<p>and can best work together. Some mineral resources in close proximity to the strategic corridors were excluded because, being in different landscape types, they were not considered to have significant potential to contribute towards the delivery of coordinated benefits and are therefore unable to contribute to a cohesive and coordinated approach at a landscape-scale. While individual sites might be able to deliver on-site green infrastructure benefits in isolation, it was considered that much greater gains could be delivered from a network approach. The <i>Third Stage Consultation</i> sought to consider the nature of the issues and the opportunities for mineral working to contribute to them throughout the entire life of the site rather than only through site restoration. Rather than ranking the issues to give a generic priority level, the <i>Third Stage Consultation</i> gave a tailored approach for each strategic corridor, identifying integrated multifunctional priorities that are outcome focused and specific to each strategic corridor. They are intended to give greater direction for the developer and decision maker and provide the flexibility for site-specific issues to be taken into account, enabling the achievement of benefits across multiple sites that are greater than could be achieved by considering each site in isolation.</p> <p>SA recommendations:</p> <p>The SA Environmental Report assessed the use of Environmental Character Areas (ECA)s from the Worcestershire Green Infrastructure Strategy instead of strategic</p>	

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		<p>corridors, this was appraised as a reasonable alternative by the SA. This concluded that use of the ECA's would facilitate enhanced performance against economic objectives as minerals could be extracted wherever they were found, could better take into account cultural heritage, architecture and archaeology as the historic environment is considered in more detail in the ECA's, but would lead to worse performance against the climate change and energy objective.</p> <p>The SA Environmental Report further comments that the sole use of ECA's without some form of targeting is unlikely, given the requirement of national policy to develop "areas of search". The ECA objectives are also relatively generic and further work would be required to develop them into detailed plan objectives.</p> <p>Other options considered in the SA Environmental Report were the use of biodiversity delivery areas, and flood catchment, both of which were eliminated as not reasonable alternatives as they do not take minerals into account.</p> <p>The SA Environmental Report further debated a different number of strategic corridors. Whilst supporting the elimination of the two crushed rock corridors due to their deliverability, corridors of different sizes with finer grained information allowing local constraints to be better reflected was considered a reasonable alternative. Although this could offer benefits for local considerations including social and economic, it would lose the strategic benefits of the larger corridors is corridor</p>	

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		and sites are not well connected or for larger scale issues such as flooding.	

6. Evolution of the Steady and Adequate Supply of Mineral Resources

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<p>Annual requirements, aggregates.</p> <p>In Autumn 2012 the Council published The Draft Local Aggregates Assessment for Worcestershire 2012 for consultation. This document set out 9 alternative methods for calculating provision requirements which assessed each option in full.</p> <p>The First Stage Consultation set out the levels of aggregate minerals that were thought to be required within the plan period, based on evidence in the Local Aggregates Assessment (2012) concluding that the requirements for Worcestershire should be based on a range, between the highest and lowest of the alternative options. The annual figures were not included in the First Stage Consultation, but this equated⁷ to:</p> <ul style="list-style-type: none"> • Sand and gravel: 0.78-1.57 million tonnes per annum • Crushed rock: 0.14-0.28 million tonnes per annum • Secondary and recycled 	<p>As a result of consultation feedback, the methodology in the Local Aggregates Assessment was altered. The Local Aggregate Assessment for Worcestershire 2013 used a phased approach to forecasting demand to give minimum figures rather than a range, and the Second Stage Consultation was based on this.</p> <p>Up to and including 2016: The Council would continue to follow the agreement between West Midlands Mineral Planning Authorities and industry regarding the provision to be made by each authority. This agreement does not extend beyond 2016.</p> <ul style="list-style-type: none"> • Sand and gravel - 0.871 million tonnes per annum • Crushed rock - 0.163 million tonnes per annum <p>Beyond 2016: Annual provision requirements will be calculated from a</p>	<p>Following the Second Stage Consultation, guidance on the production of Local Aggregates Assessments was published in national Planning Practice Guidance (March 2014) and by the Planning Officers Society and Mineral Products Association (April 2015) which changed the approach to the production of LAA's nationally. The Worcestershire Local Aggregate Assessment 2016 (using data up to December 2015) was developed in accordance with the latest guidance, taking into account consultation comments received on previous versions and the comments of the West Midlands Aggregate Working Party. It was also informed by the focused discussions which were undertaken with the West Midlands and surrounding Aggregate Working Parties about the recognised constraints on Worcestershire's crushed rock resources.⁸</p> <p>The Third Stage Consultation was based</p>	<p>Some comments on the Third Stage Consultation suggested that the annual and total levels of provision the plan will make should be included within the policy. Although it is recognised that many Minerals Local Plans have included an annual provision figure within policy, it is considered that this was a sensible approach when plans were based on a set "annual apportionment" figure which the plan should seek to achieve. However, as the latest national requirements and guidance are for a Local Aggregates Assessment (LAA) to be prepared and updated annually taking into account a rolling average of 10-years sales data, other relevant local information, an analysis of supply options, and an assessment of the balance between demand and supply, the resulting "Annual Production Guideline" will inevitably vary from year to year. It is therefore considered that inclusion of an</p>

⁷ The lower figures in the range were static, but the higher figures for sand and gravel and for crushed rock increased over the anticipated life of the plan. The figures quoted here are those projected for 2035, as per Table 4.4 of the Draft Local Aggregates Assessment 2012, available at www.worcestershire.gov.uk/amr.

⁸ See Worcestershire County Council (September 2016) Minerals Local Plan background document *Strategic cross boundary issue: Crushed rock supply in Worcestershire. Summary of action undertaken under the duty to cooperate.*

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<p>aggregates: 0.31-0.42 tonnes per annum</p> <p>SA recommendations:</p> <p>None included.</p>	<p>rolling average of annual sales levels in Worcestershire in the last 10 years.</p> <ul style="list-style-type: none"> • Sand and gravel - 0.764 million tonnes per annum (this was the current figure, but it was stated that this would be updated annually) • Crushed rock - 0.118 million tonnes per annum (this was the current figure, but it was stated that this would be updated annually) <p>The Second Stage Consultation did not include annual provision figures for secondary or recycled aggregates, stating that "Provision [for secondary and recycled aggregates] is addressed through the Waste Core Strategy and is monitored through the Annual Monitoring Report under the Waste Core Strategy monitoring indicators. This strategy seeks to achieve enough capacity to recycle 75% of construction and demolition waste."</p> <p>SA recommendations:</p> <p>The simplest approach, for plan making and for interpretation by applicants and others, would be to adopt the 10 years' sales averages as the defining measure throughout the entire plan period. This would have the benefit of avoiding two different calculations and accommodating the changes in provision that arise accordingly. However, this would fail to recognise the more robust, evidence-based apportionments under the RAWP which the MLP accommodates.</p>	<p>on the Local Aggregates Assessment 2016.</p> <ul style="list-style-type: none"> • Annual production guideline for sand and gravel: 0.637 million tonnes per annum • Annual production guideline for crushed rock: 0 (zero) tonnes per annum <p>The Third Stage Consultation did not include annual provision figures for secondary or recycled aggregates, stating that "some responses suggested that targets should be set for secondary and recycled aggregates to reduce the demand for primary aggregates, and the Initial Sustainability Appraisal suggested that an explicit, positive approach to secondary and recycled aggregates in the Minerals Local Plan would help to strengthen resource efficiency. The updated methodology used in Worcestershire's 2016 Local Aggregate Assessment considers substitute, secondary and recycled materials and the potential to increase contribution from secondary and recycled materials before considering the amount of primary materials required. The policies in this Third Stage Consultation have been developed to encourage the use of substitute, secondary and recycled materials and mineral wastes to minimise the requirement for all types of primary mineral resources, not just aggregates. However, there is very little data available."</p> <p>SA recommendations:</p>	<p>annual (or total) supply figure within the policy itself would become out of date almost immediately, and is therefore not a reasonable option.</p> <p>In addition, the Minerals Local Plan is not able to control whether a particular amount of mineral is extracted and sold in any particular year, but it can ensure that a steady and adequate supply is secured through enabling planning permissions for a sufficient landbank of reserves and sufficient productive capacity to be maintained. It is considered that the policy will be more robust if it seeks to provide an adequate supply by maintaining an adequate landbank rather than seeking an annual provision figure. This would also enable annual supply to be increased if the adopted but out-dated Minerals Local Plan has been responsible for artificially suppressing supply, or if market demands change significantly.</p> <p>Following the Third Stage Consultation, a further Local Aggregate Assessment using data up to December 2016 was produced, which took account of updated practice guidance from the Planning Officers Society and Mineral Products Association (May 2017), and comments from the West Midlands, East Midlands and South West Aggregate Working Parties.</p> <p>The Fourth Stage Consultation uses the Local Aggregate Assessment (using data to December 2016) as its baseline, with reasoned justification referring to the annual production guidelines of 0.607 million tonnes per annum of sand and gravel and 0 (zero) tonnes per</p>

First Stage Consultation	Second Stage Consultation	Third Stage Consultation	Fourth Stage Consultation
	<p>Expressing levels as maxima: Expressing levels as maxima, rather than minima, could lead to beneficial sustainability impacts for certain criteria, as the risk of environmental degradation arising from minerals from minerals development would be limited; however, significant negative impacts would be likely to arise, through the importation of minerals from outside the county, adding to CO2 emissions and creating unsustainable patterns of development. Limiting aggregate levels could also increase construction costs in Worcestershire due to scarcity of resources, and compromise delivery of essential economic and social development, and housebuilding. This approach would not be compatible with national policy and was not considered as a reasonable alternative in plan preparation.</p> <p>Including a target for recycled/secondary aggregates: Whilst the level of such aggregates was built into levels of provision for primary aggregates, a clearly expressed target could raise the profile of the need to minimise extraction of new resources and could help increase resource efficiency.</p>	None included.	<p>annum of crushed rock, but also stating that the plan has been developed to be flexible enough to accommodate changes to the balance of demand and supply identified in the Local Aggregate Assessment annually.</p> <p>The policies in the Fourth Stage Consultation continue to encourage the use of substitute, secondary and recycled materials and mineral wastes to minimise the requirement for all types of primary mineral resources, but no additional data has become available to enable any targets to be set.</p>
Aggregate landbanks			
<p>The First Stage Consultation identified a required level of sand and gravel provision of 18-35 million tonnes; 4-7 million tonnes of hard (crushed) rock; and 5-7 million tonnes of secondary and recycled aggregates over the life of the plan.</p>	<p>Evidence showed that Worcestershire did not have a sufficient landbank of resources to satisfy national policy requirements.</p> <p>Quantity of landbank shortfalls: Three options for assumptions relating</p>	<p>As a result of the SA and consultation responses, the Third Stage Consultation considered sand and gravel requirements separately to crushed rock.</p> <p>Sand and gravel: Policy MLP8 only referred to the need to increase the landbank of permitted sand and gravel reserves and subsequently</p>	<p>Sand and gravel: Following the Third Stage Consultation, planning permissions had been granted for additional sand and gravel reserves. These were taken into account in the Local Aggregate Assessment using data up to December 2016 which provides the baseline for the Fourth Stage</p>

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<p>This was based on the cumulative total for annual provision between 2015-2030 with an additional provision of 7 years for sand and gravel, and 10 years for crushed rock to allow for the minimum required landbank at the end of the plan period.</p> <p>SA recommendations:</p> <p>None included.</p>	<p>to the quantity of the shortfall were proposed in the Second Stage Consultation Document:</p> <p>A) Assume there is no permitted landbank at the start of the plan period: This method would make provision for 7 years of sand and gravel (6.1 million tonnes) and 10 years of crushed rock (1.63 million tonnes). This approach was considered likely to be realistic for crushed rock and would avoid the risk of under-provision for sand and gravel This was the preferred option.</p> <p>B) Assume the shortfall in landbank continues at current levels: This method would make provision for 2.5 years of sand and gravel (2.18 million tonnes) and 6.5 years of crushed rock (1.06 million tonnes). There was considered to be a moderate risk of under-provision if this option was selected.</p> <p>C) Assume there is no shortfall in landbank at the start of the plan period: This method would not make provision for any shortfall in landbank (0 years of sand and gravel and 0 years of crushed rock). There was considered to be a high risk of under-provision if this option was selected.</p>	<p>maintain them at a minimum of 7 years. Tonnages were not included in the policy to allow the supply/requirement balance to reflect changes in the annual Local Aggregates Assessment and avoid quickly becoming out of date, but estimated requirements were included in the reasoned justification, stating that "in combination with annual production requirements, the Minerals Local Plan aims to enable at least 16.254-16.304 million tonnes of sand and gravel in order to reach and subsequently maintain a 7 year landbank of permitted reserves to 2035 and beyond".</p> <p>Because of the low starting landbank level (which at 31st December 2015 stood at 1.41-1.48 years), the policy required the landbank to be increased as quickly as possible in the period 2016-2025, and subsequently maintained at the 7 year level as a minimum.</p> <p>Crushed rock:</p> <p>Policy MLP9 sought to enable the increase or maintenance of the landbank of crushed rock, and the maintenance or enhancement of productive capacity. Unlike sand and gravel, the policy did not seek to deliver a minimum landbank. This reflected the reality that there are no current permitted reserves within Worcestershire and the recognised</p>	<p>Consultation, meaning that the landbank at the end of 2016 stood at approximately 7 years,¹⁰ meeting the requirement for a minimum of 7 years set out in national policy.</p> <p>This means that the Fourth Stage Consultation no longer needs to include a mechanism to increase the landbank to minimum levels as these have already been reached, and therefore Policy MLP 10 now requires applicants to demonstrate the contribution the proposed development will make towards maintaining a landbank of permitted sand and gravel reserves in Worcestershire of at least 7 years and towards enabling Worcestershire's productive capacity for sand and gravel supply to be maintained or enhanced.</p> <p>The reasoned justification states that "The Minerals Local Plan enables the provision of at least a further 11.53 million tonnes of sand and gravel over the life of the plan to maintain a landbank of at least 7 years to 2035 and beyond... whilst being flexible enough to accommodate changes to the balance of demand and supply identified in the Local Aggregate Assessment annually."</p> <p>Some responses to the Third Stage Consultation questioned how this would be delivered, and therefore the reasoned justification in the Fourth Stage Consultation states that delivery</p>

First Stage Consultation	Second Stage Consultation	Third Stage Consultation	Fourth Stage Consultation
	<p>Milestones for addressing the landbank shortfall:</p> <p>The Second Stage Consultation also put forward three alternative approaches to setting milestones to achieve the landbank targets:</p> <p>a) Aim for permitted reserves that will provide a minimum 7 year landbank for sand and gravel and 10 year landbank for crushed rock throughout the plan period</p> <p>b) Aim for permitted reserves that will provide a minimum 7 year landbank for sand and gravel and 10 year landbank for crushed rock by halfway through the plan period</p> <p>c) Aim for permitted reserves that will provide a minimum 7 year landbank for sand and gravel and 10 year landbank for crushed rock by the end of the plan period</p> <p>The Second Stage Consultation expressed a preference for option b) as it was considered to achieve the best balance between an ambitious and a deliverable approach.</p>	<p>constraints on Worcestershire's crushed rock resources⁹ which are likely to inhibit crushed rock development in Worcestershire for the foreseeable future.</p> <p>SA recommendations:</p> <p>Seeking to reach a 10 year landbank of crushed rock as soon as possible This alternative would better accord with national policy, which states that <i>"planning authorities should plan for a steady and adequate supply of aggregates by [inter alia] making provision for the maintenance of landbanks of at least ... 10 years for crushed rock"</i>. It is, however, not considered a reasonable alternative, as evidence, including cross-boundary discussions, demonstrates that crushed rock production is unlikely to exceed 0 tonnes per annum; setting a landbank target that is not practically achievable is not reasonable.</p> <p>Secondary and recycled aggregates: The Third Stage Consultation maintains the approach of not having a target level of provision of recycled/secondary aggregates, as "there are no reliable assessments to indicate the level of demand for or contribution to sustainable</p>	<p>of a steady and adequate supply is supported by the identification of areas of search, and that specific sites and preferred areas will be allocated in a separate Mineral Site Allocations Development Plan Document.</p> <p>Crushed rock:</p> <p>In the Third Stage Consultation, the policy did not include reference to a minimum landbank for crushed rock (as outlined in the Third Stage Consultation column). However, consultation responses highlighted that this was not in conformity with National Policy, despite the constraints on Worcestershire's crushed rock resources. In the Fourth Stage Consultation, policy MLP 11 therefore requires applicants to demonstrate the contribution the proposed development will make towards maintaining a landbank of permitted crushed rock reserves in Worcestershire of at least 10 years and towards enabling Worcestershire's productive capacity for crushed rock supply to be maintained or enhanced. The reasoned justification recognises that the constraints surrounding Worcestershire's crushed rock resources mean that crushed rock</p>

¹⁰ At 31st December 2016, Worcestershire had 4.244-4.294 million tonnes of permitted sand and gravel reserves (due to one site submitting their remaining reserve figure as a range). The landbank therefore stood at 6.99-7.07 years. See Worcestershire County Council (July 2018) *Worcestershire Local Aggregate Assessment (using data covering the period up to 31/12/2016)*.

⁹ See Worcestershire County Council (September 2016) Minerals Local Plan background document *Strategic cross boundary issue: Crushed rock supply in Worcestershire. Summary of action undertaken under the duty to cooperate*.

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	<p>An equal number of responses agreed and disagreed with option b) being used as the preferred option and basis for the vision. Some written responses suggested that whilst option b) was sensible in terms of trying to meet the requirements outlined in national policy and giving a realistic timeframe to achieve the delivery of the required landbank, it should not lessen the impetus to try and achieve the landbank reserves sooner. Others suggested that full provision should be aimed for throughout the plan period, preferably with the allocation of specific sites at the beginning and falling back on areas of search towards the end of the plan period if necessary. The Initial Sustainability Appraisal stated that option b) suggested a lack of urgency, and that calling for reserves to be met as soon as possible may be more encouraging.</p> <p>SA recommendations:</p> <p>To an extent, options B and C for identifying the quantity of landbank shortfalls are unlikely to be realistic and, as such, may not merit appraisal under the SA framework. However, due to the inherent difficulties in reaching a robust conclusion on the scale of landbank required, there are no obvious viable alternatives.</p> <p>The following potential alternatives were suggested:</p> <p>Expressing the levels of aggregates</p>	<p>aggregate supply at a local level". However, it does include a specific policy to encourage such provision, and this reflects the recommendation of the Initial SA Report. "Substitute materials" and "mineral waste" have now been added to the policy wording and references to reflect the provisions of the NPPF and to recognise the important role these materials can play in reducing the need for primary extraction.</p>	<p>working at a significant scale is unlikely during the life of the plan and the production guideline is likely to remain as 0 tonnes per annum, but that the plan has been developed to be sufficiently flexible to adapt to any changes in the production guideline. The Monitoring Framework also incorporates this flexibility by using the following target to determine whether any action is required in relation to the landbank for crushed rock:</p> <p><i>"The constraints on Worcestershire's crushed rock resources identified in the Minerals Local Plan are still extant and duty to cooperate discussions continue to indicate that surrounding Mineral Planning Authorities are able to accommodate supplying Worcestershire's demand for crushed rock</i></p> <p>OR</p> <p><i>Landbank of at least 10 years",</i></p> <p>Secondary and recycled aggregates:</p> <p>The policies in the Fourth Stage Consultation continue to encourage and enable the use of substitute, secondary and recycled materials and mineral wastes to minimise the requirement for all types of primary mineral resources, but no additional data has become available to enable any targets to be set.</p>

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	<p>as maxima, rather than minima: this could lead to beneficial sustainability impacts for certain environmental indicators, as the risk of environmental degradation arising from minerals development would be limited; however, significant negative impacts would be likely to arise, through the importation of minerals from outside the county, adding to CO2 emissions and creating unsustainable patterns of development. Limiting aggregate levels could also increase construction costs due to scarcity of resources, and compromise delivery of essential economic and social development, and housebuilding.</p> <p>Separate landbanks for sand & gravel, and crushed rock: Landbank calculations could be aided by considering the crushed rock and sand and gravel requirements separately. This would allow the greater confidence over likely levels of sand and gravel to be drawn out. This would more accurately reflect the different levels of reliability of data for each category of mineral and could improve sustainability performance by allowing more specific, tailored recommendations to be made.</p> <p>Include a target for recycled/secondary aggregates: Whilst the level of such aggregates is currently built into the Options, a clearly expressed target could raise the profile of the need to minimise extraction of new resources and could help increase resource efficiency.</p> <p>Maintaining a seven year landbank for crushed rock: The Hereford and</p>		

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	<p>Worcester Minerals Local Plan sought to maintain a seven year landbank of both crushed rock and sand & gravel. This was in accordance with national requirements at the time, contained in Minerals Planning Guidance This approach was no longer compliant with national policy, as it would result in a shortfall in provision of crushed rock. Having only a seven year landbank for both crushed rock and sand & gravel was therefore not a viable alternative.</p> <p>In relation to addressing the landbank shortfall, the Interim SA Report stated that Option B suggested a lack of urgency, and an option calling for reserves to be met as soon as possible may be more encouraging. However, the degree of influence the MLP can have on bringing forward the required landbank is limited, and successful delivery will largely depend on market forces and developer confidence. In seeking to reach a balance between ambition and realism, the MLP proposes a reasonable compromise in Option B. A brief commentary on why the current landbank is so low would be valuable here, as well as an indication of the likely economic/policy drivers needed to reverse what appears to be a recent under-provision in supply.</p> <p>Given the relative urgency in the need to build up minerals stocks (as demonstrated by an assumed landbank of zero), it is unclear why an intervention which could hasten permissions (the preparation of site-specific planning policies) will only being considered if targets are not being met by halfway</p>		

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	through (or by the end of) the plan period. This is a reactive approach, and a proactive approach would be more useful.		
Non-aggregate minerals annual supply and stocks of permitted reserves			
<p>The First Stage Consultation suggested that there was already a sufficient supply of silica sand and clay, and that neither salt nor coal were likely to be viable.</p> <p>SA recommendations:</p> <p>None included.</p>	<p>The Second Stage Consultation maintained the approach to non-aggregate minerals that was set out in the First Stage Consultation. No specific levels of provision were set out, as there was either:</p> <ul style="list-style-type: none"> • already a sufficient landbank (for clay), • insufficient evidence of viability (building stone), • evidence that there was no viability (for coal, conventional and unconventional hydrocarbons, salt and brine), or • no evidence on which to set a required level of provision (silica sand). <p>SA recommendations:</p> <p>Silica sand: More information on the reasoning behind the proposed approach would be welcomed, including further explanation of why the methodology for calculating crushed rock and sand & gravel provision could not be applied to silica sand.</p> <p>Clay: The data supporting assumptions on the landbank of clay dates from November 2011, and there may be a need to revisit this evidence base to ensure the MLP is informed by the best available evidence.</p>	<p>Silica sand: A background document on silica sand was subsequently developed and published (2015) which considers the available data on silica sand sales. The policies in the <i>Third Stage Consultation</i> were developed to reflect this alongside national policy requirements.</p> <p>Clay: The background document on clay in Worcestershire was updated in summer 2015, although there was no more recent data on sales or the level of reserves.</p> <p>Coal: The background document on coal in Worcestershire was updated in summer 2015, confirming that "<i>CoalPro and the Coal Authority have confirmed that there is no surface coal resource in any meaningful sense in Worcestershire1 and that although deep coal reserves do exist at present the cost of establishing new, modern, deep mines would be prohibitive even if suitable resources existed</i>".</p> <p>The policies for industrial minerals supply (MLP 10 for brick clay, MLP 11 for silica sand, MLP 12 for building stone, MLP 13 for other locally and nationally important industrial minerals) do not set specific landbank targets, as there is insufficient evidence of supply and/or viability, or - in the case of brick clay – the existing permitted reserves are sufficient for the plan period.</p> <p>Policy MLP14 on energy minerals adopts</p>	<p>Consultation responses suggested that the policies for silica sand and brick clay should refer to specific landbank requirements to reflect national policy (referring to 25 years for brick clay, and 10 years for silica sand). This was considered, but was not pursued as there was some uncertainty over whether the national policy requirement was for those stocks of reserves to be maintained at a county level, or whether they were intended to apply at a site level to support specific plant or investment. Instead, the policies (MLP 12 and MLP 13) have been refined to require applicants to demonstrate the contribution the proposed development will make towards supporting investment in developing, maintaining or improving new or existing plant and equipment, and/or enabling Worcestershire's productive capacity for silica sand for industrial uses to be maintained or enhanced. This is considered to accord with the increased emphasis afforded to these aspects in the revised National Planning Policy Framework (July 2018).</p> <p>In response to the Third Stage Consultation, there was significant support for the inclusion of the policy to enable the supply of building stone. This policy (MLP 14) has been retained with only a slight change to the style of wording.</p>

First Stage Consultation	Second Stage Consultation	Third Stage Consultation	Fourth Stage Consultation
	Coal: Although the background document refers to a BGS opinion that Worcestershire is "unlikely to attract any further opencast interest", it would be useful to confirm whether this is also the case for deep mines, given the historic precedent for such workings in the north of the county	a far more restrictive stance for coal extraction than is the case for other minerals, to reflect national policy. The policy makes provision for onshore oil and gas development in areas licenced by government for exploration or production, although evidence suggests that no such areas are likely to come forward during the plan period. SA recommendations: None included.	There was little response to the Third Stage Consultation in relation the supply of other locally and nationally important industrial minerals, although there was some support for enabling the supply of salt. This policy (MLP 15) has been retained with only a slight change to the style of wording. The policy relating to the supply of energy minerals (policy MLP 16) has been amended to more closely reflect the revised National Planning Policy Framework (July 2018).

7. Evolution of the Development Management policies

First Stage Consultation	Second Stage Consultation	Third Stage Consultation	Fourth Stage Consultation
The First Stage Consultation did not include specific policies, but rather set out the broad issues that should be considered when developing such policies in the next stages of the plan. It listed three overarching issues that could guide future policies: •The environment (including habitats, species, landscape, archaeology, historic environment, surface and ground water); •Transport (including site access and methods for transporting materials including road, rail, water, conveyors and pipelines); and •Impacts on those nearby (including noise, dust, vibrations, visual impacts). SA recommendations:	The Second Stage Consultation did not include specific policy wording, instead setting out detailed issues to be addressed through policy criteria in relation to: <ul style="list-style-type: none"> • how mineral will be worked (with detailed issues under the following headings - sustainable supply of mineral resources; impacts on health, amenity and Worcestershire's key economic sectors; transport; sustainable design and operation; natural and historic environment; open and effective engagement) • where minerals will be worked (with detailed issues under the following headings - sustainable transport; climate change; natural and historic environment; other issues) 	The Third Stage Consultation developed the issues set out in the Second Stage Consultation into proposed policy wording. All but one of these policies can be traced back to the issues set out in the Second Stage Consultation (Policy MLP26 on Sustainable Development Delivery). The policies take into account and address all of the issues raised in the Initial SA Report. Planning Obligations: Policy MLP26 on Sustainable Development Delivery sets out the circumstances for requiring developer contributions. The plan states the reason for the new policy as being that, due to the nature and scale of minerals	The policies in the Fourth Stage Consultation maintain the direction set in the Third Stage, with some changes to specific wording to address issues raised in consultation responses, to reflect changes in national policy, or to ensure consistency in the style of wording throughout the plan. The most significant changes are outlined below. Part of the previous "Sustainable Design Principles" policy has been moved to form part of policy MLP 3 (Green Infrastructure) in the Spatial Strategy chapter. Other parts of the previous policy now form part of policy MLP 17 "Prudent Use of Resources". There is no longer a policy point requiring cumulative impacts to be addressed, rather the reasoned justification for each relevant policy refers to cumulative

First Stage Consultation	Second Stage Consultation	Third Stage Consultation	Fourth Stage Consultation
None included.	<ul style="list-style-type: none"> how mineral workings will be restored (with detailed issues under the following headings - impacts on health, amenity and Worcestershire's key economic sectors; climate change; sustainable transport; natural and historic environment; open and effective engagement; other issues). <p>SA recommendations:</p> <p>The Initial SA Report did not consider any reasonable alternatives to the policy issues, as they were too broad at this stage to allow for a meaningful appraisal. Responses to the consultation also raised concerns that the issues were too broad at this stage to assess whether they would adequately address protection and mitigation concerns.</p> <p>However, the Initial SA Report provided a broad commentary on the emerging policy direction, and found that, if addressed appropriately, the issues identified would help to ensure negative sustainability impacts were minimised during operational phases of mineral workings and that where possible, net benefits were secured for the economy, environment, and communities.</p> <p>The Initial SA Report noted that visual intrusion should recognise impacts</p>	<p>development, "it may be necessary to use planning obligations to ensure delivery of key elements of infrastructure and/or long term net gain to the environment or local communities".</p> <p>Green Belt:</p> <p>Although the Initial SA Report felt there was value in recognising green belt as an issue to be developed into policy, this was not carried forward into the Third Stage Consultation because it was considered that Green Belt policy is set at the national level and sufficient information is provided in the National Planning Policy Framework, Planning Practice Guidance, and the City, Borough and District Local Plans within Worcestershire.</p> <p>SA recommendations:</p> <p>The SA Environmental Report stated that the policies in the Third Stage Consultation take into account and address all of the SA issues raised in the Initial SA Report. In particular, the plan now places far greater emphasis on the benefits of green infrastructure and securing gains from development that contribute to landscape-scale improvements.</p> <p>Planning obligations: The value of the planning obligations policy was questioned in the SA Environmental Report. It stated that the policy does</p>	<p>impacts as part of what technical assessments will need to address. There is no longer a policy point requiring development not to give rise to unacceptable hazards as the issues this policy point was intended to cover are now either managed elsewhere in the plan, are covered by other legislation, or are no longer considered sufficient to warrant policy coverage in the MLP:</p> <ul style="list-style-type: none"> Land stability - is now covered by policy MLP 19 (Amenity) Aviation safety - Annex 3 of the The Town and Country Planning (Safeguarded Aerodromes, Technical Sites and Military Explosives Storage Areas) Direction 2002¹¹ sets out the list of aerodromes which need to be safeguarded. Based on the distance thresholds for safeguarding these, only one is relevant to Worcestershire (Birmingham airport) and this does not coincide with any of the Strategic Corridors. It was therefore considered that it is not necessary for the plan to include reference to aviation safety. Other hazards / impact on utilities - safety requirements apply through other legislation regardless of planning policy and therefore should not be duplicated.

¹¹ <https://www.gov.uk/government/publications/safeguarding-aerodromes-technical-sites-and-military-explosives-storage-areas/the-town-and-country-planning-safeguarded-aerodromes-technical-sites-and-military-explosives-storage-areas-direction-2002#annex-3-officially-safeguarded-civil-aerodromes>.

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	<p>arising from transport (access roads, etc.) and associated infrastructure, as well as those impacts more directly related to sites. It found the overriding emphasis to be on 'conserving' assets, rather than 'enhancing' them as part of a GI network, and considered that a more positive approach would be beneficial. Indeed, it stated that "While the individual components of green infrastructure are covered, the holistic consideration of GI, including its role as a positive enabler, could be strengthened". It noted that consideration should be given to biodiversity offsetting. The Initial SA Report noted the Second Consultation Draft's recognition of the Green Belt as an issue to be considered, and felt it should help to maintain Worcestershire's local character and distinctiveness. The Initial SA Report stated that the archaeology issues should include a focus on significance, and that the MLP should recognise the potential for restored sites to host renewable energy and to play a role in water storage. The Initial SA Report felt that the potential cumulative effects of multiple HGV movements were not fully set out. It also noted that community engagement should be more than simply "encouraged" if levels of participation envisaged in the respective SA objective were to be achieved.</p>	<p>provide useful information on the potential requirements for planning obligations arising from minerals development, but not having a planning obligations policy was considered unlikely to have significant negative sustainability effects. On balance, it concluded that this policy should be retained.</p> <p>Green belt: It suggested that including a Green Belt policy would strengthen the recognition that Green Belt can be an important consideration for some aspects of minerals development, and the Green Belt does extend into three of the plan's strategic corridors.</p> <p>The SA Environmental Report stated that the development management policies do not include specific thresholds, such as distances from sensitive receptors, decibel measures of noisy activities, or particulate levels from dusty operations. They adopt a more nuanced approach, and place the onus on developers to demonstrate that their proposals do not cause unacceptable harm, and contribute to improvements to Worcestershire's economy, society, and environment. This approach recognises that all sites, locations, and receptors are different, and a 'one size fits all' approach can fail to recognise specific local sensitivities. However, the following reasonable alternative was identified:</p> <ul style="list-style-type: none"> • Use a 'buffer' or threshold approach to protect sensitive receptors <p>Buffers or thresholds could be based on various measurable parameters covering, for example, distance, sound, light, air</p>	<p>As well as addressing water and energy efficiency, Policy MLP 17 "Prudent Use of Resources" strengthens requirements to balance the need for mineral resources with the need to achieve final landforms and restoration that delivers multifunctional benefits. It has been developed to balance the benefits of maximising mineral extraction with the need to design developments in a way which will deliver green infrastructure priorities, provide an appropriate landform for beneficial after-use, deliver high quality restoration at the earliest opportunity, protect and enhance inherent landscape character, and manage or mitigate impacts on the built, historic, natural and water environment and amenity. It requires the appropriateness and availability of fill materials to be considered, and recognises that in some cases the sterilisation of some of the mineral resource may be necessary in order to balance all these requirements. These concepts were referred to in the Third Stage Consultation but consultation responses highlighted that they needed to be strengthened in order to ensure high quality development and restoration would be delivered.</p> <p>A policy on Green Belt has been included in the Fourth Stage Consultation to address the SA recommendations and concerns raised in consultation responses. It closely reflects national green belt policy, but provides an opportunity for the reasoned justification to expand on how this</p>

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		<p>pollution, etc. In broad terms, the benefits of this approach would be greater certainty for developers and communities over which areas may be more or less likely to be developed. Employing buffer zones is a recognised and accepted practice in decision-making when looking at many issues of relevance to guide minerals development and, indeed, it has been used to inform some of judgements in this SA. It can, however, be a crude approach that fails to take account of circumstances specific to each site.</p>	<p>applies to mineral development in Worcestershire.</p> <p>The previous policy on agriculture and soils has been split into two policies, MLP 24 "Soils" and MLP 25 "Best and Most Versatile Agricultural Land", to ensure that it was clear that all soil resources should be protected, not only those on high quality agricultural land.</p> <p>The previous policy on the water environment has been split into two policies, MLP 27 "Water Quality and Quantity" and MLP 28 "Flooding", to aid clarity around each issue.</p> <p>The previous two transport policies (transport to and from site, and transport within mineral sites) have been combined into a single policy, MLP 29 "Transport", as the majority of issues relating to transport within sites (such as impacts on amenity or landscape) were considered to be sufficiently covered by other policies.</p> <p>In relation to the SA Environmental Report's discussion of whether the development management policies should include specific thresholds or buffer distances, the Fourth Stage Consultation does not do so. It was considered that in most cases these are a relatively crude approach that fails to take account of circumstances specific to each site and which could therefore result in unacceptable impacts if thresholds/distances are too low, or lead to unnecessary sterilisation of viable resources if thresholds/distances are</p>

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			unnecessarily high. The development management policies have been developed to be outcome focused, requiring applications to include sufficient technical assessment so that the issues can be understood in the context of each specific application and appropriate design and mitigation measures incorporated to ensure that unacceptable impacts will be avoided.

8. Evolution of Safeguarding Mineral Resources and Supporting Infrastructure policies

First Stage Consultation	Second Stage Consultation	Third Stage Consultation	Fourth Stage Consultation
<p>The First Stage Consultation recognised that there would be a need for safeguarding of mineral resources, stating that "The Minerals Local Plan needs to ... include policies to "safeguard" mineral resources so that we can still get to them and use them when we need them in years to come". Beyond this, however, no indication was provided on the policy approach to achieving such safeguarding, and no specific questions on this issue were included in the consultation.</p> <p>SA recommendations:</p> <p>None included.</p>	<p>The Second Stage Consultation considered safeguarding in more detail. It recognised that safeguarding was a requirement of national policy, and although it did not propose specific policy, it did set out how the issues would be approached in the next stage(s). It established that the intended policy framework would:</p> <ul style="list-style-type: none"> • Identify mineral resources of local and national importance and use these to define Mineral Safeguarding Areas (MSA); • Develop policies to protect Mineral Safeguarding Areas from needless sterilisation; • Set out the circumstances when non-mineral development in Mineral Safeguarding Areas might be appropriate; and • Identify other appropriate mineral infrastructure that should be safeguarded, setting out how this should be done. 	<p>The Third Stage Consultation addressed the points raised in the Initial SA Report, as well as others made during the consultation.</p> <p>The approach to building stone has been amended following consultation responses and the Initial SA Report's concern that the Strategic Stone Study from English Heritage [now Historic England] needed to be informed by local evidence. The Third Stage Consultation used former quarries identified in the Herefordshire and Worcestershire Earth Heritage Trust's project A Thousand Years of Building with Stone.</p> <p>The approach to clay also accorded with the Initial SA's findings; the Third Stage Consultation narrowed down the safeguarded areas to those identified by industry, because safeguarding the entire resource, without better information over likely viable areas, would place an undue burden on development and would</p>	<p>Exemptions from safeguarding requirements:</p> <p>The exemptions proposed in the Third Stage Consultation were broadly supported. However, one consultee suggested that rural exception sites should be included in the list of exempt developments to ensure they remain viable. This was considered, but has been discounted as it could have a significant effect on sterilising mineral resources or supporting infrastructure. It was considered that the implications of this type of development will need to be considered on a case-by-case basis. Decision makers will then be able to weigh the benefits of developing such rural exception sites against the impacts on mineral resources and supporting infrastructure.</p> <p>Safeguarding mineral resources:</p>

First Stage Consultation	Second Stage Consultation	Third Stage Consultation	Fourth Stage Consultation
	<p>The Second Stage Consultation stated that there are several alternatives which could be used to identify Mineral Safeguarding Areas and that it may be appropriate to use a different approach for different mineral resources. It set out the proposed approach for each mineral type as follows:</p> <ul style="list-style-type: none"> • Building stone: Base MSAs on quarries in the English Heritage [now Historic England] Strategic Stone Study. • Clay: two alternatives were suggested: <ul style="list-style-type: none"> • A) to base MSAs on all Mercia Mudstone in the county. • B) not to identify any clay resources for safeguarding, because we don't know which particular sub-groups of Mercia Mudstone are more important than others. <p>Option A was the option promoted in the Second Stage Consultation, "as it would enable the council to require further information and thereby ensure that the importance of the resource is adequately assessed. Although this has benefits for ensuring the long-term supply of mineral resources it might place</p>	<p>perform poorly in sustainability terms – particularly against economic objectives.</p> <p>The proposal to not establish MSAs for salt and brine (due to a lack of viability) or oil and gas (no evidence of any resources) was maintained. In the light of this evidence, there were not considered to be any reasonable alternatives to this approach.</p> <p>The approach to silica sand, too, has been maintained, despite the SA raising concerns that a failure to specifically safeguard the resource could see it used as a conventional aggregate, thereby potentially wasting its ability to be used for a more specific purpose. There is insufficient evidence to identify specific silica sand deposits within the wider sand and gravel MSA and, as such, there is no reasonable alternative to the approach that has been chosen.</p> <p>Coal was previously proposed as an MSA, but this was not continued in the Third Stage Consultation. This was because more up-to-date data from the Coal Authority showed there is no viable resource in the county. There is therefore no reasonable alternative to not having a coal MSA.</p> <p>The approach of the Second Stage Consultation's option (c) for aggregates safeguarding has been taken forward into</p>	<p>The approach to safeguarding mineral resources in the Fourth Stage Consultation largely continues that established in the Third Stage, but has been refined.</p> <p>In order to address consultee concerns around potential conflict with other forms of permitted and allocated development and other constraints, the refreshed <i>Analysis of Minerals Resources</i> (which takes account of environmental and amenity screening criteria as set out in background document <i>Location of development: screening and site selection methodology</i>¹²) has been used to re-define the Mineral Safeguarding Areas (MSA) for mineral resources. These screening criteria include settlement boundaries and site allocations from adopted Development Plan Documents. Mineral Consultation Areas (MCA) have been developed in a similar manner to the Third Stage Consultation, to include the area covered by the Mineral Safeguarding Areas and an additional 250m around them to ensure both direct and indirect impacts are considered. However, in the Fourth Stage Consultation they have been trimmed to remove any areas within defined settlement boundaries and sites allocated in adopted Local Plans in order to recognise that the resources in these areas are already compromised to a large extent, and that</p>

¹² Both the *Analysis of Mineral Resources in Worcestershire* and the *Location of development: screening and site selection methodology* documents are available at www.worcestershire.gov.uk/mineralsbackground.

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	<p>additional burdens on developers."</p> <ul style="list-style-type: none"> • Salt and brine: Do not have any MSAs. Salt and Brine resources in Worcestershire were not considered to be of national or local importance, or likely to be workable/commercially attractive due to ground stability/subsidence. • Silica sand: Do not have specific MSAs for silica sand, but include it as part of the provision for safeguarding solid sand deposits (see aggregates below). It was stated that an argument could be made to safeguard silica sand from working for use as an aggregate, but given the decline in the use of naturally bonded moulding sand, it was not intended to safeguard silica sand for such purposes. • Coal: Base MSAs on the Coal Authority's safeguarding areas. • Oil and Shale Gas: Do not have MSAs, as these resources were not thought to be found in the county. • Aggregates: Three alternative approaches were put forward, with no one preferred option: <ul style="list-style-type: none"> • A) Identify all aggregate resources shown on BGS mapping as MSAs • B) Identify all aggregate resources above 10 ha in size and 200m in width as MSAs • C) Identify those aggregate 	<p>the current plan, as there has been no evidence to support any alternative.</p> <p>The Third Stage Consultation largely follows the Second Stage Consultation's approach to safeguarding minerals infrastructure, although there is greater detail on the safeguarding process, and on those types of development that will be 'exempt'. A 250m extension buffer has been proposed around the Mineral Infrastructure Safeguarding Areas, to ensure that workable areas are protected, and this accords with the Initial SA Report's suggestion that "The MLP should provide further information on ... whether any or all of the Minerals Consultation Areas deriving from the safeguarded areas will include buffer zones".</p> <p>SA recommendations:</p> <p>No further recommendations or alternatives were suggested in the SA Environmental Report.</p>	<p>any new development in those areas would be unlikely to increase the risk of sterilising a mineral resource.</p> <p>The MSAs for building stone in the Fourth Stage Consultation continue to be based on former quarries identified in the Herefordshire and Worcestershire Earth Heritage Trust's project A Thousand Years of Building with Stone, but has been updated with the final dataset from the project.</p> <p>The MSAs for brick clay in the Fourth Stage Consultation continue to be those identified by industry, as no other reasonable alternatives have been identified.</p> <p>There has been no additional evidence for oil and gas, and therefore no MSAs have been identified in the Fourth Stage Consultation.</p> <p>Brine working has recommenced in the county at a small scale since the Third Stage Consultation, using a historic brine pump in the centre of Droitwich Spa. However, there continues to be little evidence of exactly where brine resources could be accessed or where they would be inhibited by surface development, given that extraction is taking place in the centre of a settlement, and therefore the Fourth Stage Consultation continues not to identify MSAs for salt and brine.</p> <p>The Fourth Stage Consultation identifies MSAs for silica sand based on the extent of the Wildmoor Sandstone</p>

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	<p>resource areas assessed to be 'key' or 'significant' in the "Analysis of Mineral Resources in Worcestershire" as MSAs. The implications of each of these options were set out.</p> <p>To ensure mineral safeguarding would not place undue burden on developers and would be practical in its application, a set of circumstances was set out where it was considered that non-mineral development could be appropriate in Minerals Safeguarding Areas, as well as a list of types of development which it was considered should be exempt from the requirements of mineral safeguarding policies.</p> <p>The Second Stage Consultation also proposed the safeguarding of mineral infrastructure. The approaches to the various types of infrastructure that could be important to the extraction, processing and movement of minerals were set out in the Second Stage Consultation as follows:</p> <ul style="list-style-type: none"> • Existing, planned and potential rail heads, rail links to quarries, wharfage and associated storage, handling and processing facilities: <ul style="list-style-type: none"> • Not to safeguard any rail or sea links to quarries as none existed in Worcestershire • To safeguarded wharfages at hub/processing sites but not to safeguard wharfages 		<p>Formation. It is still unclear which parts of this formation might contain silica sand, but it is considered that identifying this as a separate MSA will ensure sufficient consideration is given to this potential resource.</p> <p>There has been no additional evidence for coal, and therefore no MSAs have been identified in the Fourth Stage Consultation.</p> <p>For aggregates, MSAs continue to be based on the "key" and "significant" resource areas. Refreshing the <i>Analysis of Minerals Resources</i> (as outlined above) has resulted in some changes to the MSAs for sand and gravel, but significant changes for crushed rock as almost all of the crushed rock deposits are now categorised as "compromised".</p> <p>Safeguarding mineral sites and supporting infrastructure:</p> <p>Whilst the approach to safeguarding minerals sites and supporting infrastructure in the Third Stage Consultation was supported, and the broad approach has been retained in the Fourth Stage Consultation, some amendments have been made to the specific mechanism for safeguarding these assets. The Third Stage Consultation sought to identify MSA and MCA for mineral sites and supporting infrastructure, but stated that: "the number and status of sites will alter over time as planning permissions are granted, reserves are exhausted and</p>

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	<p>at "satellite sites" which have been fully worked.</p> <ul style="list-style-type: none"> • Existing, planned and potential sites for concrete batching, the manufacturing of coated materials, other concrete products and the handling, processing and distribution of substitute, recycled and secondary aggregate material: <ul style="list-style-type: none"> • As batching plant are not "County Matters", further investigation was needed into the location of these assets, but it was proposed that they would be subject to a safeguarding policy • It was proposed not to safeguard any plant for manufacturing coated materials or other concrete products, as none were known to exist in the county, but it was suggested that any subsequently permitted sites should be included subject to a safeguarding policy • It was stated that facilities for the handling, processing and distribution of recycled aggregate materials are safeguarded by policy WCS 16 in the Waste Core Strategy, and that there were no known facilities for substitute or secondary aggregate materials but it was suggested that any 		<p>sites restored, or planning permissions lapse which have not been implemented. Sites will therefore be added to the interactive minerals mapping tool available at www.worcestershire.gov.uk/minerals and designated as Mineral Infrastructure Safeguarding Areas as planning permission is granted, and the status of sites will be reviewed and updated annually as part of the <i>Annual Monitoring Report</i>."</p> <p>The Council's legal team advised that MSAs and MCAs cannot be amended outside of a formal plan review process, and therefore this was not the most appropriate mechanism for safeguarding mineral sites and supporting infrastructure. Therefore, instead of allocating MSAs and MCAs, policy MLP 32 in the Fourth Stage Consultation has been developed as a criteria-based policy which defines the types of mineral sites and supporting infrastructure which will be safeguarded.</p>

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	<p>subsequently permitted sites should be included subject to a safeguarding policy.</p> <p>SA Recommendations:</p> <p>The Initial SA Report noted that the resource areas considered unviable at the time of preparing the Second Stage Consultation, and therefore discounted from inclusion, may not necessarily be unviable in future. It found that the sustainability effects of the different approaches were difficult to predict, as the exact impacts would vary depending on the location of the resource and the type of development proposed. It recommended that there should be further information on what the safeguarding policies would mean for prospective developers, and whether any or all of the Minerals Consultation Areas deriving from the safeguarded areas would include buffer zones. It found the environmental effects uncertain, and the economic effects generally negative in the short term, preventing or inconveniencing development that could bring jobs and growth. In the longer term, however, the value of having protected resources would be felt, as future mineral supplies would continue to be available locally; if resources were sterilised by development then economic growth could be hampered. The Initial SA Report found that the social impacts could vary; important development, including housing or health facilities,</p>		

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	<p>could be compromised by safeguarding, but valuable social resources such as public rights of way or green open spaces could be safeguarded alongside the mineral deposits beneath. The Initial SA Report considered the approach to safeguarding building stone to be appropriate, provided that the Strategic Stone Study underpinning the MSAs was robust and correlated local expertise, to confirm that all relevant assets which contribute to Worcestershire's distinctiveness are identified.</p> <p>The Initial SA Report considered the proposed policy approach to safeguarding clay, and noted it was "precautionary", but would potentially hinder economic and social development in urban and rural areas, as identification as a safeguarded area could have financial and time implications on developers. It also expressed concern over the implications for mineral planning authority resources. The Initial SA Report said that, given the stated landbank of clay already available, safeguarding the entire resource may be excessive, and noted that a more refined, proportionate approach could be to remove those areas which can reasonably be judged to be technically and/or commercially unviable, or which fall within existing or proposed development land.</p> <p>The Initial SA Report suggested that the Second Stage Consultation MLP included conflicting proposals on the approach to silica sand. Whilst stating</p>		

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	<p>that it would be safeguarded through being part of wider safeguarded solid sand deposits, it also stated that it would not be safeguarded for a specific purpose. It may not be appropriate for the MLP to seek to limit safeguarding of a mineral resource based on speculation on the end-use of that resource. The NPPF identifies silica sand as a mineral of local and national importance and without clear evidence to the contrary, the arguments for not safeguarding it are unclear. It seems that the logic applied later in the MLP in relation to aggregates (that identifying large areas would "remove the risk of assumptions about the viability of resources, which may change in the future") would apply equally to silica sand. The Initial SA Report recommended that the MLP should clarify whether the silica sand within solid sand deposits can be identified as a separate resource.</p> <p>The SA found that the proposed approach of safeguarding all coal resources would be unlikely to interfere with economic and/or social development to a significant degree, due to the historic pattern of coal mining in this area, and the relative lack of significant urban areas and future development areas in the vicinity. It found that, given the lack of evidence of the existence of oil and shale gas in the county, there were no reasonable alternatives to the MLP's proposed approach of not having safeguarded areas. It suggested that not safeguarding silica sand could see it being used for conventional aggregate</p>		

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	<p>purposes, rather than for its specialised use.</p> <p>The Initial SA Report considered a further alternative in the safeguarding of aggregates – the adoption of a more onerous approach that required the extraction of resources before any development takes place. This was felt to be unreasonably onerous on developers and could potentially hinder the realisation of economic, social and environmental benefits. It would also create administrative burdens on county and district councils through unnecessary consultation and analysis.</p> <p>The SA found no major sustainability effects from the proposals for safeguarding mineral infrastructure, but did caution that failing to safeguard wharfages at "satellite sites" which have been fully worked should be carefully considered to ensure that the wharfage could not provide a more sustainable transport solution for other current or potential future minerals sites.</p>		