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West Sussex and South Downs National Park Joint Minerals Local Plan Proposed Submission Draft (Regulation 19)

**Sustainability Appraisal including Strategic Environmental
Assessment**

Non-Technical Summary

Prepared by LUC
December 2016

Project Title: West Sussex and South Downs National Park Joint Minerals Local Plan Proposed Submission Draft (Regulation 19): Sustainability Appraisal including Strategic Environmental Assessment Non-Technical Summary

Client: West Sussex County Council and South Downs National Park Authority

Version	Date	Version Details	Prepared by	Checked by	Approved by
V1	08/04/2016	Draft NTS for SA of Draft JMLP (Regulation 18)	Katie Norris	Taran Livingston	Taran Livingston
V2	12/04/2016	NTS for SA of Draft JMLP (Regulation 18)	Katie Norris	Taran Livingston	Taran Livingston
V3	24/10/2016	Draft NTS for SA of JMLP Proposed Submission Draft (Regulation 19)	Katie Norris	Taran Livingston	Taran Livingston
V4	09/11/2016	NTS for SA of JMLP Proposed Submission Draft (Regulation 19)	Katie Norris	Taran Livingston	Taran Livingston
V5	07/12/2016	NTS for SA of JMLP Proposed Submission Draft (Regulation 19)	Katie Norris	Taran Livingston	Taran Livingston



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1 Introduction

- 1.1 This Non-Technical Summary of the Sustainability Appraisal/Strategic Environmental Assessment Report relates to the West Sussex Proposed Submission Draft Joint Minerals Local Plan (Regulation 19) (January 2017) (referred to for simplicity as the "Proposed Submission Draft JMLP"), which was produced by West Sussex County Council (WSCC) working in partnership with the South Downs National Park Authority (SDNPA). The Proposed Submission Draft JMLP sets out the long-term spatial vision and strategic priorities for minerals development within the county and South Downs National Park, as well as the policies that are required to deliver that vision over the period up to 2033.
- 1.2 Plans and strategies such as the Proposed Submission Draft JMLP are subject to a process called Sustainability Appraisal (SA), which assesses the potential impacts of a plan on social, economic, and environmental issues. Sustainability Appraisal incorporates 'Strategic Environment Assessment' (SEA) that is required by an EU Directive¹. WSCC and SDNPA have commissioned independent consultants (LUC) to carry out the SA of the Joint Minerals Local Plan on their behalf. This Non-Technical Summary relates to the full SA Report (December 2016) for the Proposed Submission Draft JMLP (January 2017), and should be read alongside those two documents.

The West Sussex Joint Minerals Local Plan

- 1.3 WSCC and the SDNPA as the Minerals Planning Authority (MPA) and Waste Planning Authority have been working on minerals and waste local plans in accordance with their Local Development Schemes (LDS) which set out how the Authorities will prepare the plans within stated time period. The National Planning Policy Framework (NPPF) advises (paragraph 156) that planning authorities should produce Local Plans and that a series of separate Development Plan Documents should only be produced where justified. Therefore, WSCC and the SDNPA are now producing a single Minerals Local Plan which will be a plan for the development of future mineral supply activities which will replace the West Sussex Minerals Local Plan that was adopted in May 2003.
- 1.4 The Proposed Submission Draft JMLP (January 2016) includes:
- **The Vision and Strategic Objectives** – presents the aspirations for minerals supply in West Sussex and details how these are likely to be achieved. The 14 Strategic Objectives concern how minerals supply in West Sussex meets demand taking into account local issues.
 - **Minerals in West Sussex** – provides background information on the type, location, supply and demand of minerals in West Sussex including their imports and exports.
 - **The Spatial Context** – details West Sussex's current position within the mineral sector including the main opportunities and challenges as well as identifying the relevant policies and strategies.
 - **Strategy and Policy Context** – describes the European and National policy, legislation and guidance as well as considering local strategies and plans which inform the Plan.
 - **Strategic Minerals Supply** – sets out strategies for addressing the key minerals issues and challenges that have been identified in West Sussex. The strategies that are needed in order to meet the Vision and Strategic Objectives as well as acting on the key challenges facing the minerals sector in West Sussex. The 11 use-specific policies (M1-M10) in this section take forward the strategies (note that Policy M7 is divided into M7a and M7b).
 - **Strategic Site Allocations** – includes one policy (M11) which identifies two site allocations that are considered suitable for mineral extraction, and therefore informs both local communities and developers about the development of local sites as well as provides additional certainty to the minerals industry. However, site allocation does not necessarily mean that the site will be developed – a planning application will determine this.

¹ European Directive 2001/42/EC 'on the assessment of the effects of certain plans and programmes on the environment' – known as the 'SEA' Directive.

- **Development Management Policies** – provides 15 policies (M12-M26) that both support the Strategic Objectives and ensure that the natural and built environment, businesses, residents and visitors to West Sussex are protected from unacceptable harm derived from mineral supply activity. These policies will guide planning applications seeking the development of a minerals site.

Sustainability Appraisal and Strategic Environmental Assessment

- 1.5 The requirements for SEA are set out in the Environmental Assessment of Plans and Programmes Regulations 2004 (known as the SEA Regulations). The Government recommends that these two requirements are met through one integrated process, referred to as Sustainability Appraisal (or SA).
- 1.6 The purpose of SA is to promote sustainable development through the better integration of sustainability considerations into the preparation and adoption of plans. It should be viewed as an integral part of good plan making, involving ongoing iterations to identify and report on the potential social, economic and environmental effects of the plan and the extent to which sustainable development is expected to be achieved.
- 1.7 This Non-Technical Summary relates to the SA Report for the Proposed Submission Draft JMLP (January 2017). The SA Report has been produced alongside the emerging JMLP in order to provide sustainability guidance during its development.
- 1.8 SA should be conducted in accordance with Government guidance, and must meet the requirements of the European Strategic Environmental Assessment Directive. The approach taken to the SA of the JMLP is based on current best practice and the following guidance:
 - Practical Guide to the SEA Directive, Office of the Deputy Prime Minister (September 2005).
 - Sustainability Appraisal guidance included in the Government's Planning Practice Guidance website².
- 1.9 A description of the method used in carrying out the SA of the Proposed Submission Draft JMLP (January 2017) is set out below.

Stage A: Scoping

- 1.10 The SA process began in 2014 with the production of a Scoping Report for the JMLP, which was prepared by LUC on behalf of WSCC and SDNPA.
- 1.11 The Scoping stage of SA involves collating information about the social, economic and environmental baseline for the plan area and the key sustainability issues facing it, as well as information about the policy context for the preparation of the plan. The Scoping Report also sets out the SA Framework (sustainability objectives) against which potential effects will be assessed. The development of the SA Framework which has been used for the appraisal of the JMLP, including the minerals site options, is presented further ahead in this NTS.
- 1.12 The draft SA Scoping Report was published in June 2014 for a five week consultation period with the statutory consultees under the SEA Regulations (Natural England, the Environment Agency and Historic England). The comments received during the consultation were then reviewed and addressed as appropriate and a final version of the Scoping Report was published in January 2015. Chapter 3 and Appendices 2 and 3 in the main SA Report include updated versions of the review of relevant plans, policies and programmes and baseline information, from the Scoping Report.

Stage B: Developing and Refining Options and Assessing Effects

- 1.13 Developing options for a plan is an iterative process undertaken by the local planning authority usually involving a number of consultations with public and stakeholders. Consultation responses and the SA can help to identify where there may be other 'reasonable alternatives' to the options being considered for a plan (e.g. additional sites that may be suitable for development). The SA

² <http://planningguidance.planningportal.gov.uk/blog/guidance/strategic-environmental-assessment-and-sustainability-appraisal/>

can also help decision makers by identifying the potential positive and negative sustainability effects of each option.

- 1.14 The SEA and SA findings are not the only factors taken into account when determining a preferred option to take forward in a plan. There will often be an equal number of positive or negative effects identified for each option, such that it is not possible to 'rank' them based on sustainability performance in order to select a preferred option. Factors such as public opinion, deliverability, conformity with national policy will also be taken into account by plan-makers when selecting preferred options for their plan.

Alternatives considered in the preparation of the JMLP to date

Draft JMLP (April 2016)

- 1.15 The options or reasonable alternatives that were considered during development of the Draft JMLP (April 2016) comprised the following:
- Proposed Vision and Strategic Objectives.
 - Policy Options (covering Minerals Supply, Minerals Resource Safeguarding and Minerals Infrastructure Safeguarding).
 - Draft Development Management (DM) Policies.
 - Potential Minerals Site Options.
- 1.16 WSCC and SDNPA prepared a Background Document which describes in detail how the options were identified and their evolution into policies within the JMLP. **Table A4.1** in **Appendix 4** of the full SA report summarises the audit trail of the reasonable alternatives identified and considered by WSCC and the SDNPA for each policy area in the MLP at each stage in its development, and explains which alternatives were taken forward into the final Draft MLP or discounted.
- 1.17 The draft reasonable site options and SA findings are presented in **Appendix 7** of the full SA report. The Minerals Sites Selection Report prepared by WSCC and SDNPA explains how the draft site options were identified, and the assessment undertaken by the authorities to help determine which sites to propose for allocation within the JMLP. Twenty-five sites were initially identified, and these sites were reduced from 25 to 16 due to some further landscape assessment carried out by the SDNPA prior to the technical assessment stage (including the SA), and due to deliverability issues which were identified following further discussions with landowners and operators. Therefore, only 16 of the site options were considered as reasonable alternatives and subject to SA along with other technical assessments: Habitats Regulations Assessment (HRA), Transport Assessment (TA), Flood Risk Assessment (FRA) and Landscape Assessment (LA). All of these technical assessments have been referred to in the SA, as well as the authorities' own assessment.
- 1.18 The draft policy and site options were provided to the SA team in advance of the complete Draft JMLP. The SA team sent draft SA matrices and summaries of findings to WSCC and SDNPA regarding the site options at the end of July 2015, and draft SA matrices and summaries of findings for the policy options in mid-November 2015. WSCC and SDNPA made some revisions in the final version of the Draft JMLP based on some of the SA recommendations. In this way, the SA process was able to inform and influence the Authority's decisions regarding the proposed site allocations and draft policies to be included in the final Draft JMLP. The findings of the options appraisal stage are summarised further ahead in this Non-Technical Summary, and the final version of the detailed policy option appraisal matrices are presented in **Appendices 5 and 6**, and the site options in **Appendix 7**.
- 1.19 Once the preferred policies for the Draft JMLP were drafted (including the two selected site allocations), they were sent to the SA team for appraisal. The SA findings were summarised in **Chapter 6** and the detailed appraisal matrices were presented in **Appendices 8 and 9** of the April 2016 SA Report.
- 1.20 Consultation responses received on the SA Report for the Draft JMLP (April 2016) have been considered and addressed where relevant within the current full SA Report, as summarised in **Table A1.2** in **Appendix 1**.

Proposed Submission Draft JMLP (January 2017)

- 1.21 As a result of consultation responses received during the consultation on the Regulation 18 Draft JMLP (April – June 2016), the Authorities made a number of amendments to the Vision, Strategic Objectives and Policies. In addition the boundary of one of the site allocations, Ham Farm, has been changed such that the area of the site has reduced overall. The changes to the Vision, Strategic Objectives and Policies that have been made in the Proposed Submission Draft JMLP and the reasons for the changes are shown in **Table A4.2** in **Appendix 4** of the full SA Report.
- 1.22 Most of the changes to the Proposed Submission Draft JMLP (January 2017) are minor clarifications to wording, and did not result in any revisions to the SA findings already identified at the Draft JMLP stage. However, the justification text for the appraisal of policies in **Appendices 8 and 9** has been updated where relevant to reflect the current wording of the policies. In addition, the SA findings for the Ham Farm site allocation in **Appendix 7** have been updated as required to reflect the revised boundary of Ham Farm.

Stage C: Preparing the sustainability appraisal report

- 1.23 The full SA Report and this NTS describes the process undertaken to date in carrying out the SA of the JMLP. They set out the findings of the appraisal, highlighting any likely significant effects (both positive and negative), and outlining proposed monitoring measures.

Stage D: Representations on the Proposed Submission Draft Joint Minerals Local Plan (Regulation 19) (January 2017) and this SA Report

- 1.24 WSCC and SDNPA are inviting representations on the Proposed Submission Draft JMLP (January 2017) and SA Report. The SA Report is being published on the Authorities' websites for consultation alongside the Draft JMLP for eight weeks during January and March 2017.

Stage E: Monitoring Implementation of the JMLP

- 1.25 Stage E will follow adoption of the JMLP. Proposals for monitoring the sustainability effects of the JMLP are set out in **Chapter 7** of the full SA Report and are summarised further ahead in this Non-Technical Summary.

Policy Context

- 1.26 The West Sussex JMLP should reflect the contents of other plans and programmes where relevant, to assist in their implementation. It must also conform to environmental protection legislation and the sustainability objectives established at the international, national and regional levels. It is a requirement of the SEA process that relevant international and national plans and programmes are reviewed in relation to their objectives, targets and indicators and their implications for the JMLP and the Sustainability Appraisal.
- 1.27 There are a large number of plans and programmes that are potentially relevant to the preparation of the West Sussex JMLP. The full review of plans, policies and programmes can be seen in **Appendix 2** of the full SA Report.
- 1.28 The most significant development in terms of the policy context for the JMLP was the 2012 publication of the NPPF which replaced the suite of Planning Policy Statements (PPSs) and Planning Policy Guidance (PPGs), including Minerals Policy Statements and Minerals Policy Guidance documents. A key Government intention was to streamline national planning policy and guidance. This resulted in the publication of national Planning Practice Guidance³ (PPG) as a streamlined web-based resource that accompanies the NPPF. This ensures that planning practice guidance supports national planning policy. A large majority of past guidance is included in the PPG; however, many guidance documents were also cancelled.
- 1.29 The West Sussex JMLP must be consistent with the requirements of the NPPF, which sets out information about the purposes of local plan-making. Para. 115 states that:

³ DCLG (2014). Planning Practice Guidance. Available at: <http://planningguidance.planningportal.gov.uk/>

"Local Plans must be prepared with the objective of contributing to the achievement of sustainable development. To this end, they should be consistent with the principles and policies set out in this Framework, including the presumption in favour of sustainable development."

- 1.30 Furthermore Para. 116 of the NPPF states: *Planning permission should be refused for major developments in these designated areas except in exceptional circumstances.* It continues by outlining that proposals should consider the local and national need of the development as well as any adverse impacts on the environment, landscape and recreational assets.
- 1.31 While the NPPF replaces the suite of Minerals Policy Statements, the principles for minerals planning are still retained in the NPPF including: planning for a steady and adequate supply of aggregates; the maintenance of landbanks for crushed rock and sand and gravel; designation of Mineral Safeguarding Areas; providing for restoration and aftercare at the earliest opportunity and to high environmental standards; and setting out environmental criteria against which planning applications will be assessed.

Baseline Information

- 1.32 West Sussex is predominantly rural where more than half the county has been designated for landscape conservation including the South Downs National Park. The High Weald Area of Outstanding Natural Beauty (AONB) and Chichester Harbour AONB are both partly within West Sussex, and Surrey Hills AONB is adjacent to the northwest of the County. The geology of West Sussex relates closely to the five main nationally-defined natural character areas of the County – the South Coast Plain, the South Downs, the Wealden Greensand, the Low Weald, and the High Weald. A large part of West Sussex is formally designated as being of international, national, regional and local importance for nature conservation.
- 1.33 The towns and villages of West Sussex include historic towns of national importance. Together with the coastal towns and seaside resorts, Crawley new town and a host of villages, these settlements contribute to the wider character of the five main natural character areas and of West Sussex as a whole. West Sussex is one of the most heavily wooded counties in England, accounting for about 19% of the land area. Together with the extensive hedgerow network, woodland is a major element in the character of West Sussex. In 2012, there were 4,146km of Public Rights of Way within the County. Tourism is an important part of the local economy. Much of the attraction of West Sussex derives from the character and quality of the landscape.
- 1.34 In West Sussex there are a large number of designations relating to the historic environment, including 235 Conservation Areas, 7,532 Listed Buildings (including 176 Grade I, and 300 Grade II* listed buildings), 34 Registered Park and Gardens, and 346 Scheduled Monuments.
- 1.35 Flooding can occur from six sources in the county; fluvial (river), tidal (the sea) and groundwater affect the largest areas. The other three sources are surface water, sewers and from artificial sources (e.g. canals and reservoirs). There are currently ten designated Air Quality Management Areas (AQMAs) in the county.
- 1.36 As of 2012, there were 815,100 people living in West Sussex, the population is forecast to rise to over 860,000 by 2026. The population is largely concentrated within the twenty-four towns and villages that cover just 12% of the land area. Over 70% live in the 11 main towns and adjoining urban areas along the coast; the rural areas of the County are sparsely populated with about 10% of the population.
- 1.37 West Sussex is generally an affluent County with longer than average life expectancy and a good quality of life for residents and overall, West Sussex has an older age structure than England. Indicators such as mortality rates and infant health continue to improve in all parts of the County. There are some communities in West Sussex that are relatively deprived, mainly in the towns along the coastal strip and in Crawley. Deprivation has a strong direct association with poorer health as well as other aspects of life that influence wellbeing, such as employment.
- 1.38 West Sussex is underlain by four main types of minerals: sand and gravel, chalk, clay and sandstone. There are 37 active mineral sites (21 sites within West Sussex and 16 in the South Downs National Park) where capacity is monitored, as well as 12 sites presently inactive, or in restoration and aftercare. The supply of primary aggregates is significantly augmented by

marine-dredged and other materials imported through wharves and railheads. Recycled and secondary aggregates have an important role to play in West Sussex as they can reduce the demand for extraction of primary aggregates.

Key Sustainability Issues

- 1.39 An up-to-date set of key sustainability issues facing West Sussex was identified during the Scoping stage of the SA and is presented in **Table 1**, which also describes the likely evolution of each key sustainability issue if the JMLP were not to be adopted.

Table 1: Key sustainability issues for West Sussex and the likely evolution of the environment in the absence of the JMLP

No.	Key Sustainability Issues	The likely evolution of the environment in the absence of the JMLP
1	<p>Poor health in some areas</p> <p>There are some communities in West Sussex that are relatively deprived, mainly in the towns along the coastal strip and in Crawley. Deprivation has a strong direct association with poorer health as well as other aspects of life that influence wellbeing, such as employment.</p>	<p>In the absence of the JMLP, there may be negative impacts on human health in some areas of West Sussex as a result of less stringent mitigation or poorly planned minerals development. However, there are fewer minerals sites in and around the towns along the coastal strip, and the minerals sector also contributes to employment levels, particularly in Adur District. Therefore, in the absence of the JMLP, employment in the minerals sector may decrease and have indirect effects on health and well-being due to unemployment.</p>
2	<p>Lower employment levels</p> <p>In 2015, 82.6% of residents that were of working age were employed, with 4.3% of residents unemployed⁴. Unemployment rates were lower in 2015 than the average for the South East and Great Britain. Also, a 2011 study to inform the West Sussex Local Economic Assessment showed that employment in the mining and quarrying sector grew from 2001 to 2008 by 0.2%, but employment in the sector is projected to decrease from 2008 to 2026 by 0.1%.</p>	<p>In the absence of the JMLP, employment in the minerals sector within West Sussex may further decrease.</p>
3	<p>Difficulties in terms of protecting West Sussex's environment whilst providing minerals needed by society</p> <p>Minerals can only be worked where they are found, and due to the close correlation between the location of mineral resources and areas of high quality and designated landscapes, which are considered to be sensitive environments, the need for mineral working should be balanced against the impact on protected</p>	<p>In the absence of the JMLP, and appropriate policies, there may be damage to valued landscapes and sensitive environments within West Sussex as a result of less stringent mitigation or poorly planned minerals development. However, there is a high level of protection afforded to internationally and nationally designated landscapes, nature conservation sites and cultural heritage sites within the NPPF.</p>

⁴ <https://www.nomisweb.co.uk/reports/imp/la/1941962888/printable.aspx>

No.	Key Sustainability Issues	The likely evolution of the environment in the absence of the JMLP
	landscapes.	
4	<p>Declines in condition status of West Sussex's biodiversity</p> <p>Overall the county has lost 28% of the semi-natural habitat that existed in 1971. 77% of SSSI were in favourable condition in 2012 compared to 85% in 2008. Only 46.31% were in 'favourable' condition in 2014, and 51.78% were in an 'unfavourable recovering' condition⁵.</p>	<p>The provision of minerals for society's needs may cause adverse effects to the natural environment. However, JMLPs contain policies which aim to protect and enhance the environment. Despite the high level of protection afforded to internationally and nationally designated nature conservation sites within the NPPF, without the JMLP it is more likely that environmental designations in the County could be adversely affected by poorly planned minerals development or with less stringent mitigation measures applied. In addition to designated nature conservation sites, wider habitat networks (including BAP habitats) and land used by protected species could be adversely affected. The opportunity to protect and enhance the environment and achieve net biodiversity gains (e.g. through restoration) could be limited.</p>
5	<p>Changes in landscape character and tranquillity</p> <p>There are two Areas of Outstanding Natural Beauty (AONB) in the County, South Downs National Park (SDNP) and other important Landscape Character Areas. There is the potential for minerals development to contribute to detrimental changes in landscape character in the County and plans should endeavour to avoid or minimise impacts as much as possible.</p> <p>The percentage of landscape classified as tranquil has reduced since 1960 when it was 69%, to 35% in 2007.</p>	<p>Despite the high level of protection afforded to nationally designated landscapes, within the NPPF, in the absence of the JMLP and appropriate policies there may be inappropriate mineral development within valued landscapes within West Sussex or adverse effects to them as a result of less stringent mitigation or poorly planned minerals development.</p>
6	<p>Potential for damage to the historic environment</p> <p>In West Sussex there are 235 Conservation Areas, 7,532 Listed Buildings (including 176 Grade I, and 300 Grade II* listed buildings), 34 Registered Park and Gardens, and 346 Scheduled Monuments.</p>	<p>Despite the high level of protection afforded to nationally designated cultural heritage sites within the NPPF, in the absence of the MLP and appropriate policies there may be adverse effects to West Sussex's cultural heritage (including architecture and archaeology) as a result of less stringent mitigation or poorly planned minerals development.</p>
7	<p>Climate change: warmer, wetter winters; drier summers, increase in flash flooding.</p> <p>134 extreme weather events between</p>	<p>Despite policies in the NPPF, in the absence of the JMLP and specific policies aimed at combating climate change and reducing the impacts, it is likely that contributions to climate change from minerals development in</p>

⁵ <http://www6.sssi.naturalengland.org.uk/Special/sssi/index.cfm>

No.	Key Sustainability Issues	The likely evolution of the environment in the absence of the JMLP
	<p>1998 and 2008 in West Sussex.</p> <p>In the south east, it is estimated that in 2050⁶, the winter mean temperature will rise by 2.5°C and the summer mean temperature will rise by 3.1 °C⁷.</p>	<p>West Sussex will not be appropriately controlled and mitigated.</p>
8	<p>Increases in greenhouse gas emissions</p> <p>UK Greenhouse gas emissions: 22.9 million tonnes (mt) from HGVs (2012 data).</p>	<p>Despite policies in the NPPF, in the absence of the JMLP and specific policies aimed at combating greenhouse gas emissions and therefore climate change and reducing the impacts, it is likely that greenhouse gas emissions from minerals development in West Sussex will not be appropriately controlled and mitigated.</p>
9	<p>Potential for flooding</p> <p>Certain areas in West Sussex are becoming more vulnerable and prone to coastal, fluvial, groundwater and surface water flooding.</p> <p>Currently 12.6% of West Sussex is within a flood plain.</p>	<p>In the absence of the JMLP the potential for flooding is unlikely to be affected due to national policy included in the NPPF. Although, in the absence of the JMLP there is unlikely to be the opportunity to increase flood storage capacity, as some mineral developments (e.g. sand and gravel sites) are compatible with all flood risk zones and therefore once restored can be used as a means of flood storage.</p>
10	<p>Water Quality</p> <p>The water quality within the County is not yet meeting 'good' ecological status in regards to the EU Water Framework Directive. Only 19% of water bodies within the County have good ecological status.</p> <p>In West Sussex there are 30 groundwater bodies and 33% are classified as good overall. The chalk resource in particular acts as an important aquifer in the South East and provides the principle source of water supply in West Sussex.</p>	<p>In the absence of the JMLP and policies aimed at the protection of the water environment, water bodies and hydrological regimes in West Sussex are more likely to be adversely affected as a result of less stringent mitigation or poorly planned minerals development.</p>
11	<p>Air Quality</p> <p>The number of Air Quality Management Areas has increased from 5 in 2008 to 10 in July 2015.</p>	<p>In the absence of the JMLP and policies aimed at reducing emissions from transport of minerals, air quality in West Sussex is more likely to be adversely affected as a result of less stringent mitigation or poorly planned minerals development.</p>
12	<p>Traffic Growth</p> <p>Current forecasts estimate that the amount of traffic on the roads within West Sussex will increase during 2011-2026. Traffic growth will continue to affect the</p>	<p>In the absence of the JMLP and policies aimed at reducing emissions from transport of minerals, traffic growth in West Sussex may continue in certain areas and along particular routes. However, other non-minerals related</p>

⁶ Under the high emission scenario

⁷ <http://ukclimateprojections.metoffice.gov.uk/23907?emission=high>

No.	Key Sustainability Issues	The likely evolution of the environment in the absence of the JMLP
	transport network and has exceeded planned capacity in some places ⁸ . Increased traffic could have a detrimental effect on quality of life within the County.	road traffic is likely to contribute more to overall traffic growth in the County.

Sustainability Appraisal Framework

- 1.40 The SA Framework contains a number of objectives and has been developed by LUC, SDNPA and WSCC's Minerals and Waste Planning Policy officers. The objectives have been informed by the objectives previously identified in the March 2013 SA Report for the West Sussex Waste Local Plan, reviewed to be relevant to the JMLP, and reflect the review of relevant plans and programmes and baseline situation and key issues for the plan area. This included reviewing the SA objectives developed for the SDNP Local Plan to ensure that issues relevant to the SDNP have also been taken into consideration.
- 1.41 The policies and sites included in the Proposed Submission Draft JMLP have been appraised against the SA Objectives, which are included in **Table 2** below. Each objective has a number of subsidiary questions, which help to provide decision-making criteria to use during the identification of potential effects from the JMLP.

Table 2: Sustainability Appraisal Framework for the JMLP

Sustainability Appraisal Objectives and Subsidiary questions	
Social	
1. To protect and, where possible, enhance health, well-being and amenity of residents, neighbouring land uses and visitors to West Sussex.	
Would the option/policy/site:	
<ul style="list-style-type: none"> ○ Have harmful effects on human health and be sited close to sensitive receptor(s)? ○ Affect amenity through dust and noise (e.g. through blasting/traffic) or vibration? ○ Affect road safety? ○ Have the potential to create land use conflict issues? ○ Provide opportunities for improvements to health, well-being and amenity through enhancements? ○ Create cumulative effects in terms of adverse impacts on environmental quality, social cohesion and inclusion or economic potential? 	
2. To protect and, where possible, enhance recreation opportunities for all, including access to and enjoyment of the countryside, open spaces and Public Rights of Way (PROW).	
Would the option/policy/site:	
<ul style="list-style-type: none"> ○ Be likely to affect the amenity of users on PROW, recreation areas/open spaces or other users of the countryside in the area, or affect views and/or tranquillity of these areas? ○ Provide restoration opportunities for recreation? 	

⁸ West Sussex Local Transport Plan 2011-2026

Sustainability Appraisal Objectives and Subsidiary questions

Economic

3. To protect, sustain, and where possible, enhance the vitality and viability of the local economy.

Would the option/policy/site:

- Help the local economy, for example by generating new jobs, and how might implementing the policy impact on local businesses?
- Encourage the provision of more locally based skills and facilities?
- Affect tourists' decisions to visit an area?
- Compromise safe operating of commercial aerodromes (i.e. be near to an airfield and through restoration likely to attract large numbers of birds and increase the chance of bird strike)?

4. To conserve minerals resources from inappropriate development whilst providing for the supply of aggregates and other minerals sufficient for the needs of society.

Would the option/policy/site:

- Reduce the extraction of virgin materials?
- Avoid sterilising mineral resources by preventing unnecessary development on or near to mineral resources?
- Require prior extraction if development that would sterilise mineral resources were to go ahead?

Environmental

5. To protect, and where possible, enhance the landscape, local distinctiveness and landscape character in West Sussex.

Would the option/policy/site:

- Help enable the protection of landscape (particularly AONBs and SDNP) and townscape character?
- Contribute to the restoration of minerals sites, maximising after-use potential for beneficial use (e.g. agriculture, nature conservation, recreation, amenity, water storage, flood management) as appropriate?
- Facilitate the supply and use of local building materials to protect local character?
- Affect dark skies from light pollution?
- Protect and enhance the tranquillity of West Sussex including the SDNP and AONBs (e.g. by minimising noise arising from minerals facilities and transport)?
- Encourage landscape improvement?

6. To protect, conserve and enhance biodiversity including natural habitats and protected species.

Would the option/policy/site:

- Have an adverse effect on biodiversity, including the protection of designated sites (e.g. Special Protection Areas, Special Areas of Conservation, Ramsars, Sites of Special Scientific Interest, National Nature Reserves and Ancient Woodland)?
- Have an adverse effect on locally designated sites which form part of a network of ecosystems?
- Have an adverse effect on wider habitat networks (including BAP habitats) and land used by protected species?

Sustainability Appraisal Objectives and Subsidiary questions

- Provide opportunities for enhancing biodiversity and achieving net gains as part of the development or restoration?

7. To protect and conserve geodiversity.

Would the option/policy/site:

- Have an adverse effect on geodiversity, including the protection of geological features or sites (e.g. Sites of Special Scientific Interest, and Local Geological Sites, formally RIGS)?
- Create new geological exposures of education interest?
- Provide opportunities for geodiversity as part of the development or restoration?

8. To conserve, and where possible, enhance the historic environment.

Would the option/policy/site:

- Help enable the conservation of features of archaeological and other historic interest in the county, such as conservation areas, listed buildings, scheduled ancient monuments and areas of archaeological potential?

9. To protect and, where possible, enhance soil quality, and minimise the loss of best and most versatile land.

Would the option/policy/site:

- Minimise the loss of the best and most versatile agricultural land?
- Improve the soil quality?

10. To reduce air pollution and to protect and, where possible, enhance air quality.

Would the option/policy/site:

- Lead to a change in local air quality?
- Cause further deterioration of air quality in Air Quality Management Areas?
- Cause an increase in deposition of pollutants on sensitive designated nature conservation sites?

11. To protect and, where possible, enhance water resources, water quality and the function of the water environment.

Would the option/policy/site:

- Affect the quality of surface and/or groundwater bodies?
- Interfere with the flows of water bodies?

12. To reduce vulnerability to flooding, in particular preventing inappropriate development in the floodplain.

Would the option/policy/site:

- Affect the likelihood of flooding or lead to inappropriate development in a flood risk zone (e.g. Flood Zones 2 or 3) contrary to national policy on flooding?
- Impact on flood defences?
- Provide opportunities for flood alleviation/mitigation?

13. To minimise transport of minerals by roads. Where road use is necessary, to reduce the impact by promoting use of the Lorry Route Network.

Would the option/policy/site:

- Have the potential for rail or water-based access to and from mineral sites?

Sustainability Appraisal Objectives and Subsidiary questions

- Lead to the production of traffic-derived pollutants, including CO₂, NO₂ and PM₁₀ due to road transport to and from minerals sites?
- Optimise the use of the Lorry Route Network and reduce the use of rural roads thus reducing the disruption and pollutants caused by HGVs?

14. To reduce the emissions of greenhouse gases.

Would the policy/option/site:

- Lead to the production of carbon dioxide or other greenhouse gases from on-site vehicles and machinery?
- Reductions in transport distances by supporting the location of mineral extraction sites in proximity to surrounding markets for minerals and to serve local needs?
- Encourage the use of renewable or lower carbon energy sources on-site (e.g. through the use of small on-site renewable energy sources, i.e. wind turbines, solar panels)?

Assumptions taken into account during the SA

- 1.42 SA relies on an element of subjective judgement. In predicting and assessing the likely sustainability effects of the JMLP, the SA team's analysis of the characteristics of West Sussex and the SDNP and the sustainability issues they face have been drawn on plus the professional experience of the SA team.
- 1.43 In making SA judgements for the appraisal of mineral site options and policy options included in the Draft JMLP the SA team has also used the extensive data collated and the technical assessments produced by WSCC and SDNPA for each site.
- 1.44 To support the appraisal of mineral site options a series of decision-making criteria for each SA headline objective was developed (this can be seen in **Appendix 4** of the full SA Report) with the purpose of providing a consistent approach to the prediction and assessment of effects. The decision-making criteria relates specifically to the assessment of the potential sites being considered at this stage for allocation in the JMLP, and set out assumptions and justifications for the level of significance of the potential effects that mineral sites developed at those sites may have. These assumptions were developed so that, where possible, quantitative data could be used to appraise the sites.
- 1.45 It should be noted that distances from specific assets (e.g. biodiversity, heritage, recreational) used within relevant SA Objectives to predict the magnitude of potential effects of allocating the sites are for a guide only and do not mean that mineral sites within a certain distance would definitely have an effect in every instance. The potential effect depends significantly on the type and design of mineral sites eventually developed on the site, which will need to be assessed if prescribed within policies of the JMLP or at the planning application stage.

Use of the SA Framework

- 1.46 Each mineral site option and policy option in the Draft JMLP was assessed against each SA objective, and a judgement was made with regards to the likely effect that the site/option would have on that objective. These judgements were recorded as a colour coded symbol, as shown below in **Figure 1**.
- 1.47 The sustainability effects are presented in a matrix for each policy and site option, in Appendices 5, 6 and 7 of the full SA Report, along with a brief justification of the judgement made.

Figure 1: Key to symbols and colour coding used in the SA of the Draft JMLP

++	The policy is likely to have a significant positive impact on the SA objective(s).
+	The policy is likely to have a minor positive impact on the SA objective(s).
0	The policy is likely to have a negligible or no impact on the SA objective(s).
+/-	The policy is likely to have a mixture of positive and negative impacts on the SA objective(s).
-	The policy is likely to have a minor negative impact on the SA objective(s).
--	The policy is likely to have a significant negative impact on the SA objective(s).
?	It is uncertain what effect the policy will have on the SA objective(s).

- 1.48 In addition, potential impacts on Ecosystem Services were taken into account as part of the SA of the JMLP. This is not a requirement of the SEA Regulations or Government Guidance; they were completed on request of WSCC and SDNPA.
- 1.49 Ecosystem services, defined simply, are the benefits people obtain from ecosystems⁹ and are grouped into four main groups:
- **Provisioning** services (e.g. crops, water supply, trees).
 - **Regulating** services (e.g. flood regulation, climate regulation, and noise regulation).
 - **Cultural** services (e.g. aesthetic, educational, and recreational benefits).
 - **Supporting** services (e.g. nutrient cycling, soil formation).
- 1.50 The full SA Report explains the context of Ecosystems Services further and the potential impacts on Ecosystem Services are scored using the same symbols and colours as shown in Figure 1 above.

Summary of Potential Effects of the Alternatives Considered for the Draft JMLP (April 2016)

- 1.51 This section provides a summary of the overall findings of the potential effects of the options/alternatives considered in preparing the Regulation 18 Draft JMLP (April 2016). A more detailed description can be found in **Chapter 5** of the main SA Report, and further explanation can be found in the matrices located in **Appendices 5 – 7**. Note that these findings are summarised to meet the requirement of the SEA Regulations regarding outlining the effects of reasonable alternatives considered during the preparation of the Plan; the SA findings for the proposed policies and site allocations now contained in the Proposed Submission Draft JMLP (January 2017) are summarised further ahead in this NTS.

Draft Vision and Objectives proposed for the Regulation 18 JMLP (April 2016)

- 1.52 The draft Vision for the Regulation 18 JMLP for West Sussex and the South Downs National Park set out a positive vision for the future to be achieved by the end of the plan period in 2033 which encourages sustainable economic growth as required by the NPPF. Overall, the Draft Vision and Draft Objectives were considered likely to have positive or negligible effects on the SA objectives.
- 1.53 Significant positive effects were identified in all social, economic and environmental categories as many of the draft JMLP Objectives aligned with the aspirations of the SA objectives.
- 1.54 Mixed effects were identified more for the environmental objectives as mineral sites may have some potential negative impacts during operation, but once workings have ceased, restoration of those sites is likely to bring positive effects in the longer term.

⁹ Millennium Ecosystem Assessment (2005) Millennium Ecosystem Assessment. Available at: <http://www.maweb.org/en/Index.aspx>

Strategic Supply Options considered for the Regulation 18 JMLP (April 2016)

- 1.55 Effects overall for the mineral supply options were considered likely to be mixed or minor negative. Nearly all of the options were likely to have an uncertain minor negative effect on SA objective 1 (health, well-being and amenity) due to the effects associated with mineral operations (e.g. dust, noise, traffic levels, landscape and land take). This minor negative effect was also likely on SA objective 2 (recreation), but as part of a mixed effect overall on this SA objective, as the restoration of minerals sites once minerals working has finished is likely to have positive impacts.
- 1.56 Minor positive effects were considered likely for SA objective 3 (local economy) as mineral supply would encourage local job and increased skills bases at a local level. However, mixed effects were likely for SA objective 4 (minerals resources) as nearly all the supply options encourage the extraction of virgin materials, except for one, which scored a significant positive effect due to its encouragement of the use of secondary and recycled aggregate.
- 1.57 Uncertain mixed effects and uncertain minor negative effects were mainly expected for the strategic mineral supply policy options on the environmental SA objectives. The minor negative effects identified related to the short term negative impact mineral workings can have on the local environment, but in the longer term, through site restoration, minerals sites can enhance the environmental quality of the local area.
- 1.58 Two policy options relating to supply of soft sand and clay were expected to have uncertain significant negative effects on SA objectives 10 (air quality) and 13 (transport) as the location of these types of minerals are relatively rural and therefore beyond the Advisory Lorry Route, thus the possibility of increasing road transportation which has adverse impacts on air quality.
- 1.59 The uncertain effects identified for these minerals supply policy options were largely attributed to the unknown design and nature of proposals that may come forward, and be determined through the planning application process.

Mineral Resource and Mineral Infrastructure Safeguarding Options considered for the Regulation 18 JMLP (April 2016)

- 1.60 Mixed effects in relation to the mineral resource and mineral infrastructure safeguarding options were considered likely for all the social objectives and SA objectives 3 (local economy), 5 (landscape) and 8 (historic environment), as through safeguarding areas for minerals development and operations, this restricts other types of development that could otherwise have adverse effects. However, minerals developments themselves could have adverse impacts on these SA objectives.
- 1.61 SA objectives 10 (air quality), 13 (transport) and 14 (greenhouse gas emissions) were likely to have uncertain minor positive effects as protecting wharves and railheads from unnecessary development ensures that minerals are transported by sustainable modes of transport (water and rail) thereby reducing the need for road transportation.
- 1.62 Uncertain minor positive effects were also likely for SA objective 6 (biodiversity) as the safeguarding policy options would restrict non-mineral developments that could potentially harm biodiversity, and if mineral development occurs, biodiversity could be enhanced through site restoration in the long term.

Development Management Policy Options considered for the Regulation 18 JMLP (April 2016)

- 1.63 Minor positive effects or negligible effects were identified for almost all SA objectives as the purpose of the development management policies is to encourage the protection and enhancement of the environment and amenity of West Sussex in light of mineral development. Significant positive effects were identified where the development management policy options align directly with the SA objective's aim, e.g. the Character and Landscape policy options were likely to have significant positive effects on SA objective 5 (landscape).

Recommendations for the policy options

- 1.64 A number of recommendations were provided by the SA team on the draft policy options for strengthening the policy safeguards and therefore helping to reduce the likelihood of potential negative effects identified. These recommendations were mostly incorporated into the final Draft

JMLP (April 2016) by WSCC and SDNPA, and this is documented in Chapter 5 of the full SA Report.

Potential Mineral Site Options considered for the Regulation 18 JMLP (April 2016)

- 1.65 **Table 3** illustrates the potential sustainability effects identified for the 16 minerals site options that were considered for inclusion in the Draft JMLP at the Regulation 18 stage. Negative effects were considered likely for the social SA objectives 1 (health, well-being and amenity) and 2 (recreation) as most of the sites are within 100m of sensitive receptors, in particular residential properties and businesses, and minerals working could also affect the enjoyment of nearby recreation areas. Three of the site options could have a significant negative effect on SA objective 2 because those sites intersect the Public Rights of Way Network.
- 1.66 Conversely, minor positive effects were considered likely on the economic SA objectives as all minerals site options could have a direct and indirect positive effect on increasing employment levels during site preparation, operation and restoration, as they are likely to result in a small amount of job creation for local people in both rural and urban areas, thereby encouraging the provision of more locally based skills.
- 1.67 Mostly minor negative effects were identified for the environmental SA objectives in relation to the 16 mineral site options, due to the potential for minerals operations on-site and transport to and from the site to affect sensitive receptors such as landscape, heritage, biodiversity assets, air, water and soil quality, as well as potentially contributing to flooding in areas of flood risk. In some cases, the potential for negative effects to be significant were identified, for example six site options could have a significant negative effect on SA objective 5 (landscape) (Land adjacent to West Hoathly Brickworks, Minsted West, Severals West, Horncroft, Buncton Manor Farm and Funtington West), as they were judged as having 'high' or 'medium-high' landscape sensitivity in the Landscape Assessment¹⁰.
- 1.68 In addition, eleven sites could have a significant negative effect on SA objective 6 (biodiversity) as they either contain or are within 250m of one or more national or local designated nature conservation sites, including SSSIs, SNCIs, National Nature Reserves, Ancient Woodland, Local Wildlife Sites or BAP priority habitats and/or the WSCC/SDNPA site assessment notes there is the potential for adverse effects on biodiversity. One site (Brick Kiln Farm) was identified as having the potential for a significant negative effect on SA objective 9 (soil/land quality), because although small areas in the far north and north western parts of the site were found to be on non-agricultural land, most of the 47.29 ha site was found to be on grade 1 agricultural land, which would result in a significant loss of high quality agricultural land.
- 1.69 Three sites were assessed as having the potential for significant negative effects on water quality as while they are not located within Source Protection Zone 1; there were several surface water streams running along the boundaries of Ham Farm¹¹, and there is a water body which passes through the northern area of Rock Common and the northern boundary/central area of Buncton Manor Farm. Therefore, these sites were considered to have the potential to have significant negative effects on the surface water bodies within and adjacent to them, however, this effect would be uncertain as it would be very dependent on the exact nature, working and proposed design of the site.
- 1.70 One site, Severals West was considered likely to have significant negative effects on SA Objective 13 (minimise road transport), as the West Sussex Minerals Local Plan: Transport Assessment (2015) found it to have a 'low' acceptability rating due to having uncertainties with regards to whether a safe and achievable access into the site can be provided and/or the site location and/or traffic routing may be routed through sensitive receptors, without the possibility of mitigation.

Hambrook Grouping

- 1.71 The Hambrook Grouping is located northwest of Chichester, situated between the settlements of Funtington, Woodmancote and Hambrook. The Grouping includes six separate sites: five sites

¹⁰ West Sussex Landscape Sensitivity and Capacity Study for Potential Mineral and Waste Sites (LUC, October 2011); and the Minerals Addendum (LUC, May 2015) and Supplement to WSCC Sensitivity Study 2011 (SDNP Landscape Architect 2015).

¹¹ Note that the site boundary was revised subsequent to the consultation on the Regulation 18 Draft JMLP, therefore this SA score has changed.

proposed for extraction (Woodmancote, Common Road West, Common Road East, Slades Field, and Funtington West) and one proposed processing site (Processing Area north of Woodmancote).

- 1.72 If all sites in the Hambrook Grouping were allocated in the Joint MLP, the five extraction sites would likely be worked sequentially over approximately 15-25 years. However, depending on the potential site operator, the Processing Area north of Woodmancote could also be used and would therefore be active while each extraction area is worked. Therefore, the combined effect of the operational processing area and active extraction in each of the five sites was considered likely to lead to cumulative effects in the area, particularly on the health and amenity of local communities at Funtington, Woodmancote and Hambrook. These effects would be due to the extraction and processing sites resulting in some level of noise, vibration, dust and light pollution during site preparation, operation and restoration and associated with the transport of minerals from the site. However, cumulative effects on the amenity and health of local communities are dependent on local circumstances (such as the topography, the nature of the landscape, the respective location of the site and the nearest residential property or other sensitive use in relation to the prevailing wind direction and visibility), the scale of the operations and the type of activities undertaken within the site and potential mitigation measures proposed, which would be assessed at the planning application stage. Therefore, cumulative effects on the amenity of local communities were considered minor and uncertain at this stage.
- 1.73 Cumulative effects of the operation of the Hambrook Grouping were also considered to be likely in relation to air quality and traffic, including highway safety and capacity, as all sites in the grouping are expected to have minor negative effects on SA objectives 10 (air quality) and 13 (transport). For example, the WSCC/SDNPA site assessment notes that '*traffic from this site may pass through the AQMA's in Chichester*', and the West Sussex Joint Minerals Local Plan: Transport Assessment (2015) assessed all sites within the Grouping as having a 'medium' acceptability rating, dependent on '*the outcome of Highways England proposals for the A27 Chichester bypass*'. Furthermore, the Transport Assessment notes that:
- The impact of development-related traffic (both singular and cumulative) on the proposed junction schemes will therefore need to be assessed for the future year scenario, before any decisions on sites suitability (in terms of traffic impact) can be made.
 - The site has the disadvantage of being located c.9km from the Lorry Route Network (LRN), and in order to access the LRN it will be necessary for development-related traffic to travel through residential areas.
- 1.74 The Hambrook Grouping was 'screened in' for Appropriate Assessment in the 2015 Habitat Regulations Assessment because of the possibility of adverse effects due to exhaust emissions which required further consideration. The HRA report concluded that overall, development at each of the sites within the Grouping was unlikely to cause harm to international sites or other sites within West Sussex. However, the potential for in-combination effects on internationally designated nature conservation sites in Hampshire and Surrey Counties could occur if a significant increase in movements on the A27 and A3 is likely, and the HRA noted that transport assessments for the Hambrook Grouping should take this into account. The West Sussex Minerals Local Plan: Transport Assessment (2015) has since estimated that there would be 108 two-way daily Annual Average Daily Traffic (AADT) movements and therefore does not represent a significant increase.
- 1.75 Due to the potential minor negative effects identified for all the sites within the Hambrook Grouping for a number of the SA objectives, if the Hambrook Grouping were allocated in the JMLP, it is likely that there could also be cumulative effects in relation to landscape, biodiversity, the historic environment, loss of best and most versatile agricultural land, and flooding.
- 1.76 However, there could be a cumulative positive effect on recreation in the long term if the Hambrook Grouping is allocated as the WSCC/SDNPA site assessments for these sites notes that '*creation of a new public bridleway connecting bridleway 254 with a point immediately south of Adsdean Park Road would be sought, providing a valuable local off-road connection for non-motorised users (NMUs) as an alternative to Hares Lane, where vehicles can speed and visibility around corners is not conducive for NMUs (and drivers') safety*'.

Table 3: Summary of SA scores for the potential mineral site options considered for inclusion in the Draft JMLP Regulation 18 stage

SA Objective	Rock Common West	Ham Farm	Land Adjacent to West Hoathly Brickworks	East of West Heath Common	Minsted West	Severals West	Horncroft	Bunton Manor Farm	Brick Kiln Farm	Hambrook Grouping						
										Woodmancote	Slades Field	Funtington West	Common Road East	Common Road West	Processing Area north of Woodmancote	Chantry Lane Extension
Social																
1. Health, well-being and amenity of residents	-?	-?	-?	-?	-?	-?	-?	-?	-?	-?	-?	-?	-?	-?	-?	-?
2. Recreation	--	-	-	-	-	--	-	-	++/-	--	-?	++/-	+?	-	-	-
Economic																
3. Local economy	+/-?	+	+	+	+	+	+	+/-?	+	+	+	+	+	+	+	+
4. Conservation and supply of mineral resources	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+
Environmental																
5. Landscape	-	-	--	-	--	--	--	--	0	-	-	--	-	-	-	-
6. Biodiversity	-?	--?	--?	-?	--?	--?	--?	-?	--?	-?	-?	--?	--?	--?	--?	--?
7. Geodiversity	-?	0	-?	0	0	0	0	-?	0	0	0	0	0	0	0	-?
8. Historic environment	-?	-?	-?	-?	-?	-?	-?	-?	-?	0	-?	-?	-?	-?	-?	-?
9. Soil	0	-	-	-	-	-	-	-	--	-	-	-	-	-	-	-
10. Air quality	-?	-?	0	0	-?	-?	-?	0	-?	-?	-?	-?	-?	-?	-?	-?
11. Water resources and water quality	--?	--?	?	-?	-?	-?	-?	--?	?	?	?	?	?	?	?	-?
12. Flooding	0?	-?	0?	-?	-?	-?	0?	0?	-?	-?	-?	-?	-?	-?	-?	-?
13. Transport	0/-	0/-	0/-	0/-	0/-	--	0/-	0/-	-	-	-	-	-	-	-	-
14. Greenhouse gases	+/-	+/-	+/-	-	-	-	-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	-

Potential Effects of the Proposed Submission Draft JMLP (Regulation 19) (January 2017)

- 1.77 The potential effects on each of the SA objectives in relation to the Proposed Submission Draft JMLP Vision Regulation 19, Strategic Objectives and Policies (including the two site allocations in Policy M11) are illustrated in **Tables 4, 5 and 6** respectively (using the symbols and colour coding referred to in **Figure 1** above). A summary of the SA findings and in particular the significant effects for the whole Proposed Submission Draft JMLP are provided below.

Vision and Strategic Objectives

- 1.78 The Vision for the Joint Minerals Plan for West Sussex and the South Downs National Park sets out a positive vision for the future to be achieved by the end of the plan period in 2033 which encourages sustainable economic growth as required by the NPPF, and is likely to have a positive effect on the majority of the SA objectives as shown in **Table 4**.
- 1.79 The Strategic Objectives are generally compatible with and supportive towards achievement of the SA objectives, although there are a number of minor negative effects identified as well for six of the Strategic Objectives, particularly for the environmental SA objectives, as shown in **Table 4**. There are also a number of negligible effects from the Strategic Objectives, as they tend to be narrowly focused on specific issues. Significant positive effects are identified where the Draft Objectives align directly with the aspirations of the SA objectives.
- 1.80 Mixed effects are expected on the environmental SA objectives in particular because mineral workings in the short term can have adverse effects on environmental assets, whereas restoration, in the long term, can help to enhance biodiversity, landscape and historical assets.

Strategic Policies

- 1.81 The eleven Strategic Policies set out the strategy for meeting minerals requirements in the plan area. Policy M11 allocates two new strategic sites; one for soft sand extraction and one for extraction of clay for brick making. Policy M10 safeguards existing minerals infrastructure including wharves and railheads. In general, the strategic policies are likely to have mostly uncertain minor negative or mixed effects because, in the short term, minerals workings are likely to have adverse effects on amenity and natural assets, however in the long term through site restoration, there is potential for enhancement of these assets. The uncertainty for a number of policies relates to the fact that effects are difficult to predict because they will depend on whether any proposals for minerals extraction come forward, and the exact location, nature and design of those proposals once received.
- 1.82 Two significant positive effects are expected for SA objectives 4 (conservation and supply of mineral resources) in relation to Policies M9 and M10, and one significant positive effect for SA objective 7 (geodiversity), in relation to Policy M9. For Policy M9, this is due to the principle of safeguarding, which ensures that mineral resources will be protected from unnecessary sterilisation by other development, by ensuring that minerals resources will be adequately and effectively considered in all planning decisions. Due to these considerations, within Minerals Safeguarding Areas¹², geological formations may be preserved and in some instances created, depending on whether mineral extraction takes place, and this should contribute to maintaining and enhancing geodiversity. For Policy M11, safeguarding minerals infrastructure also contributes to the supply of minerals and products to meet the needs of society.
- 1.83 Three significant positive effects are also identified for Policies M4 (Chalk), M5 (Clay) and M6 (Building Stone) as part of a mixed effect. Sites permitted under these policies may involve activities that affect the historic environment, but they could also help to conserve the historic environment in West Sussex and maintain its local distinctiveness, in some cases conserving

¹² "Minerals safeguarding is the process of ensuring that non-minerals development does not needlessly prevent the future extraction of mineral resources, of local and national importance" PPG Minerals
<http://planningguidance.communities.gov.uk/blog/guidance/minerals/minerals-safeguarding/>

buildings through the use of chalk, bricks and local stone, thereby conserving and enhancing West Sussex's historic environment.

- 1.84 Potential significant negative effects are only identified for two of the strategic policies: M2 (Soft Sand) and M11 (Strategic Mineral Site Allocations). Policy M2 could have significant negative effects for SA objectives 10 (air quality), 13 (transport) and 14 (greenhouse gases), due to the increased dependence on imports to meet requirements which cannot be met from indigenous supplies, which may result in increases in lorry traffic transporting soft sand into West Sussex by road. However, this is uncertain as soft sand supplies could potentially be replaced by marine won sand landed in West Sussex. Policy M11 has the potential to have significant negative effects for SA objectives 5 (landscape) and 6 (biodiversity) due to the location of the two allocated sites. Ham Farm is within 250m of the South Downs National Park, while the allocation at West Hoathly is within the High Weald AONB, and both allocations include or are in close proximity to a local biodiversity site or habitat. In addition, uncertain minor negative effects were identified for SA objectives 11 (water) and 12 (flooding) as part of mixed effects overall, because the revised site boundary allocation at Ham Farm is adjacent to only one surface water body along the north western boundary of the site. A large part of the Ham Farm site (50%) was identified as having a high risk (red) of flooding in relation to ground water, yet only a small proportion (10%) of the site is at low risk (yellow) of surface water flooding.

Development Management Policies

- 1.85 The fifteen Development Management (DM) policies are generally supportive of the SA objectives and ecosystem services as shown by the number of minor and significant positive scores illustrated in **Table 6**. Development Management policies seek to ensure avoid harm to the natural environment or local amenity resulting from mineral activities, as such positive or negligible effects are likely on the SA objectives. Significant positive effects are expected where the DM policy directly supports the intention of the SA objective.
- 1.86 Overall, the DM policies are likely to have a positive effect on the social SA objectives 1 (health, well-being and amenity of residents) and 2 (recreation). Most of the DM policies are likely to have a positive effect on SA objective 1, with two policies expected to have significant positive effects. Policy M18: Public Health and Amenity has a significant positive effect given that the policy aim is directly in line with the SA objective. That policy is also likely to have a significant positive effect on SA objective 2, as it seeks to safeguard recreational opportunities such as open spaces and Public Rights of Way. Policy M17: Biodiversity and Geodiversity also has a significant positive effect on SA objective 1 because in addition to benefiting the environment, biodiversity can bring recreational, aesthetic and health benefits to a community.
- 1.87 In most cases the DM policies would not directly affect the economic objectives and ecosystem services as the DM policies focus mainly on reducing potential environmental and social impacts of minerals development. However, Policy M26: Maximising the use of Secondary and Recycled Aggregates is likely to have a significant positive effect on SA objective 4 (conservation and supply of mineral resources) as supporting the use of secondary/recycled aggregate will reduce the extraction of virgin materials.
- 1.88 Similar to the social SA objectives, the DM policies are likely to have an overall positive effect on the SA objectives and ecosystem services. Most of the DM policies are expected to have positive effects on SA objective 5 (landscape), with four policies having likely significant positive effects (M12: Character, M13: Landscape, M14: Historic Environment and M23: Design and Operation of Mineral Developments). The aims of Policies M12: Character and M13: Landscape align directly with this SA objective (i.e. both are seeking to protect, and where possible, enhance the landscape). The significant positive effect on SA objective 5 from Policy M14: Historic Environment is due to the close relationship between the historic environment and the landscape character of West Sussex and the South Downs National Park. The seven remaining significant positive effects in the Environmental section are due to Policies M14: Historic Environment, M15: Air and Soil, M16: Water Resources, M17: Biodiversity and Geodiversity, M19: Flood Risk Management, M20: Transport and M23: Design and Operation of Mineral Developments being directly applicable to SA objectives 6, 7, 8, 10, 11, 12, 13 and 14.

Table 4: Summary of SA scores for the Draft Vision and Strategic Objectives

	Vision	1. Efficient production & use of minerals	2. Secondary and recycled aggregates	3. Provision of Soft sand	4. Provision of silica sand	5. Mineral development sites and infrastructure	6. Safeguarding mineral resources	7. Health and amenity	8. Landscape and townscape	9. Natural and historic environment	10. Flooding and the water environment	11. Transport	12. Protection from oil and gas impacts	13. After use	14. Climate change
Social															
1. Health, well-being and amenity of residents	+	0	+	0	0	0	0	++	0	0	+	+	++	+	0
2. Recreation	++	0	0	0	0	0	0	+	+	0	0	0	+	+	0
Economic															
3. Local economy	++	++	0	++	++	+	+	+	0	0	0	0	+	+	0
4. Conservation and supply of mineral resources	++	+/-	++	+/-	+/-	++	++	0	0	0	0	0	+	0	0
Environmental															
5. Landscape	++	+/-	+/-	+/-	+/-	0	0	0	++	++	0	0	+/-	+/-	0
6. Biodiversity	++	+/-	+/-	+/-	+/-	0	0	0	+	++	+	0	+/-	+	0
7. Geodiversity	+?	+/-	0	+/-	+/-	0	0	0	+	++	0	0	+/-	+	0
8. Historic environment	++	+/-	0	+/-	+/-	0	0	0	++	++	0	0	+/-	+	0
9. Soil	0	+/-	+	+/-	+/-	0	+	0	0	+	0	0	+/-	+	0
10. Air quality	+	+/-	+/-	+/-	+/-	+/-	0	0	0	+	0	+	+/-	+/-	+
11. Water resources and water quality	0	+/-	0	+/-	+/-	0	0	0	0	+	++	0	+/-	+/-	0
12. Flooding	0	+/-	0	+/-	+/-	0	0	0	0	+/-	++	0	+/-	+/-	0
13. Transport	+	+/-	+/-	+/-	+/-	+/-	0	0	0	+	0	++	+/-	+/-	0
14. Greenhouse gases	+	+/-	+/-	+/-	+/-	+/-	0	0	0	+	0	+	+/-	+/-	++

Table 5: Summary of SA scores for the Strategic Policies

Policy	Policy M1 – Sharp Sand and Gravel	Policy M2 – Soft Sand	Policy M3 – Silica Sand	Policy M4 – Chalk	Policy M5 – Clay	Policy M6 – Building Stone	Policy M7 – Oil and Gas	Policy M8 – Mineral processing and ancillary activities at mineral sites	Policy M9 – Safeguarding Minerals	Policy M10 – Safeguarding Minerals Infrastructure	Policy M11 – Strategic Minerals Site Allocations
SA Objective											
1. Health, well-being and amenity	+/-?	-?	-?	-?	-?	-?	-?	-?	+/-?	+/-?	-
2. Recreation	+/-?	+/-?	+/-?	+/-?	+/-?	+/-?	-?	-?	+/-?	+/-?	-
3. Local economy	+	+?	+	+	+	+	+	+	++/-	++/-	+
4. Minerals resources	+/-	+/-	+/-	+/-	+/-	+/-	+/-	+/-	++	++	+
5. Landscape	+/-?	+/-?	+/-?	+/-?	+/-?	+/-?	+/-?	-?	+/-?	+/-?	--
6. Biodiversity	+/-?	+/-?	-?	-?	-?	-?	-?	-?	+?	+?	--?
7. Geodiversity	+/-?	+/-?	+/-?	+/-?	+/-?	+/-?	-?	0	+++	0	0/-
8. Historic environment	+/-?	+/-?	+/-?	++/-?	++/-?	++/-?	-?	-?	+/-?	+/-?	--?
9. Soil quality	-?	-?	-?	-?	-?	-?	-?	0	0	0	-
10. Air quality	-?	--?	-?	-?	-?	+/-?	-?	-?	0	+/-?	0/-
11. Water resources and quality	-	?	?	?	?	?	?	?	0	0	0/-?
12. Flooding	+	+?	+?	0?	0?	0?	0?	0	0	0	0/-?
13. Transport	-?	--?	-?	-?	-?	+/-?	-?	-?	+/-?	+/-?	0/-?
14. Greenhouse gas emissions	+?	+/-?	+?	+?	+/-?	+?	-?	-?	0	+/-?	+/-

Table 6: Summary of SA findings for the Development Management Policies

DM Policies	M12: Character	M13: Landscape	M14: Historic Environment	M15: Air and Soil	M16: Water Resources	M17: Biodiversity and Geodiversity	M18: Public Health and Amenity	M19: Flood Risk Management	M20: Transport	M21: Aerodrome Safeguarding	M22: Cumulative Impact	M23 Design and Operation of Mineral Developments	M24: Restoration and Aftercare	M25: Community Benefits and Engagement	M26: Maximising use of Secondary and Recycled Aggregates
1. Health, well-being and amenity	+	+	0	+	+	++	++	+	+?	0	+	+	+?	+	0
2. Recreation	+	+	0	0	0	+	++	0	0	0	+?	+	+?	0	0
3. Local economy	0	0	0	0	0	0	0	0	0	+	+	0	+?	0	0
4. Minerals resources	0	0	0	0	0	0	0	0	0	0	0	0	0	0	++
5. Landscape	++	++	++	+	+	+	0	+	+?	0	+	++	+?	0	0
6. Biodiversity	+	+	0	+	+	++	+	+	+?	0	+	0	+?	0	0
7. Geodiversity	0	0	0	0	0	++	0	0	0	0	+	+?	?	0	0
8. Historic environment	+	+	++	+	0	0	+	0	+?	0	+?	+	+?	0	0
9. Soil quality	0	0	0	+	0	0	0	0	0	0	+	0	+?	0	0
10. Air quality	0	0	+	++	0	0	+	0	+	0	+	+	0	0	0
11. Water resources and quality	0	0	0	+	++	0	0	+	0	0	+	+	+?	0	0
12. Flooding	0	0	0	+?	+?	0	0	++	0	0	+	+	+?	0	0
13. Transport	0	0	+?	0	0	0	+	0	++	0	+	0	0	0	0
14. Greenhouse gas emissions	0	0	0	0	0	0	0	0	+	0	+	++	0	0	+?

Monitoring

1.89 The SEA Regulations require that monitoring is undertaken in relation to the significant effects of implementing the Plan in question. **Table 7** sets out a number of suggested indicators for monitoring the potential effects of implementing the JMLP. In order to make best use of existing monitoring arrangements, a number of indicators have been drawn from the JMLP itself. A number of the indicators proposed are included as suggestions from the SA team where no relevant indicator has already been included in the JMLP; therefore the indicators included in **Table 7** may change at subsequent stages of the JMLP preparation as the Authorities finalise the monitoring framework for the JMLP.

Table 1 Suggested framework for monitoring potential significant sustainability effects arising from implementation of the Proposed Submission Joint Minerals Local Plan (January 2017)

SA Objective	Suggested indicators (those taken from the JMLP shown in <i>italics</i>)
Social	
1. Health, well-being and amenity	<p>The number and % of all permitted minerals applications that were for operational 'improvements' to existing sites that would reduce the risk to public health.</p> <p>The number and % of all minerals refusals where concerns over public health acted as part of the reason for refusal.</p> <p>The number and % of minerals permissions, which include conditions relating to: Noise, hours of operations, traffic and lighting.</p> <p>The number and % of minerals refusals on health and amenity grounds.</p> <p><i>Number of applications refused on cumulative impact grounds (including percentage against total applications received).</i></p> <p><i>Number of applications refused on cumulative impact grounds (including percentage against total applications received).</i></p>
2. Recreation	<p><i>The number and % of minerals refusals on health and amenity grounds</i></p> <p>The number of complaints by local tourist based businesses after site has commenced workings.</p>
Economic	
3. Local economy	<p>Annual production of minerals. Permitted reserves of minerals.</p> <p>Amount and% of minerals consumed locally/imported per year by type.</p> <p>Number of new minerals developments permitted during the monitoring period. 'New' in this context only relates to brand new facilities and does not include extended, expanded or revised minerals operations.</p> <p>Employment in the Minerals sector in West Sussex and the South Downs National Park.</p>

SA Objective	Suggested indicators (those taken from the JMLP shown in <i>italics</i>)
	Number of minerals developments permitted within aerodrome safeguarding areas.
4. Minerals resources	<p>The number and % of minerals developments permitted upon existing sites or Preferred Areas identified within the Minerals Plan.</p> <p>The number of non-minerals developments permitted upon Preferred Areas identified within the adopted Minerals Local Plan.</p> <p><i>Upward trend of minerals applications refused as a result of unacceptable impacts on aviation safety arising from the proposal.</i></p> <p><i>Landbank for sharp sand and gravel.</i></p> <p><i>Soft sand sales.</i></p> <p><i>Permitted soft sand reserves.</i></p> <p><i>Level of chalk reserves.</i></p> <p><i>Clay landbank at individual brickworks.</i></p> <p><i>Level of stone reserves.</i></p> <p><i>Sterilisation of important mineral resources.</i></p> <p><i>Number of planning permissions permitted per annum where the use of recycled and secondary aggregate has been considered as part of the proposal.</i></p> <p><i>Recycling of inert waste (capacity, tonnes per annum, and % of total arising's).</i></p>
Environmental	
5. Landscape	<p>Number and % of mineral applications refused in the AONBs and SDNP (including percentage against total applications received) for large scale and small scale facilities.</p> <p>Number and % of applications for minerals facilities permitted per annum within protected landscapes.</p> <p><i>Number of applications refused on character grounds per annum (including percentage against total applications received).</i></p>
6. Biodiversity	<p><i>Number of mineral applications refused on biodiversity and geodiversity grounds (including percentage against total applications received).</i></p> <p>Number and % of mineral applications with associated mitigation measures provided.</p>
7. Geodiversity	<p>Number and % of mineral applications refused on geodiversity grounds (including percentage against total applications received).</p> <p>Number of mineral applications with associated mitigation measures provided.</p>

SA Objective	Suggested indicators (those taken from the JMLP shown in <i>italics</i>)
8. Historic environment	<p><i>Number and % of mineral applications refused on historic grounds.</i></p> <p>Number and % of all permitted minerals applications that included conditions related to archaeology.</p> <p>Number and % of Listed Buildings and Scheduled Ancient Monuments on Buildings at Risk Register (Historic England).</p> <p>The need for, frequency and outcomes of planning enforcement investigations/ planning appeals concerning aspects of the historic environment, such as damage or pollution affecting the historic environment, or the loss of locally important buildings within a conservation area.</p>
9. Soil quality	<p><i>The number and % of minerals applications refused on air quality, soil and water grounds.</i></p>
10. Air quality	<p><i>The number and % of minerals applications refused on air quality, soil and water grounds.</i></p> <p>The number and % of minerals approvals that included conditions concerning air pollution control.</p>
11. Water resources and quality	<p><i>The number and % of minerals applications refused on air quality, soil and water grounds.</i></p> <p>The number and % of minerals refusals where safeguarding water supplies acted as part of the reason for the refusal.</p> <p>The number and % of minerals approvals that included conditions concerning water pollution control.</p>
12. Flooding	<p><i>Applications refused on flooding grounds (including percentage against total applications received).</i></p> <p><i>Permissions granted with associated mitigation measures (including percentage against total applications received).</i></p> <p><i>Number of applications refused/permitted in flood risk zones 2b and 3 (including percentage against total applications received).</i></p>
13. Transport	<p>The number and % of minerals permissions that included one or more of the following highway conditions: Restricted vehicle numbers; Restricted tonnages; Restricted routings; and Highway mitigation measures – the need for wheel washing, lorry sheeting etc.</p> <p><i>The number and % of applications refused on transport grounds.</i></p>
14. Greenhouse gas emissions	<p>The number and % of minerals permissions that included non-road based transport.</p> <p>The number and % of minerals approvals that included conditions concerning air pollution control.</p> <p><i>Number of applications permitted that includes low carbon energy initiatives/sources (including percentage against total</i></p>

SA Objective	Suggested indicators (those taken from the JMLP shown in <i>italics</i>)
	<i>applications received).</i>

Conclusions

- 1.90 The policies and site options in the Proposed Submission Draft JMLP (Regulation 19) (January 2017) have been subject to a detailed appraisal against the SA objectives which were developed at the scoping stage of the SA process.
- 1.91 The Proposed Submission Draft JMLP provides well-reasoned proposed policies and a clear guide to minerals development based on sound sustainable development principles. In general, the Proposed Submission Draft JMLP has been found to have a wide range of positive effects on the SA objectives, although significant negative and a number of minor negative effects have also been identified (mainly in relation to the potential for one or both of the two allocated sites (Policy M11) to affect landscape, biodiversity, water resources and flooding, but also in relation to the potential increased reliance on imports of soft sand (Policy M2), which could increase road-based transport of minerals with associated air pollution and greenhouse gas emissions). The severity of these impacts will depend very much on the nature and scale of the proposed development at the allocated sites, which cannot be known until the planning application stage, and how well proposals adhere to the development principles contained in the supporting text to Policy M11, as well as other relevant development management policies in the Proposed Submission Draft JMLP. The allocated sites have been identified for minerals development through a comprehensive site selection methodology undertaken by WSCC and SDNPA; by doing so the Authorities have sought to minimise the potential sustainability effects of minerals development in West Sussex. In addition, when the Proposed Submission Draft JMLP is considered as a whole, the SA team consider that all of the policies will work together to reduce the potentially negative effects of minerals development.
- 1.92 Following this stage any comments on the SA will be submitted to the Secretary of State along with the Proposed Submission JMLP. The SA and any comments will then be considered by an independent planning inspector who will examine the Plan and check that the SA has been undertaken in accordance with the regulations and that the Plan has taken account of the SA as appropriate. The full SA Report may need to be updated to reflect any minor changes the Authorities makes to the JMLP that it submits otherwise this NTS and the full SA Report will be submitted alongside the JMLP.

LUC

December 2016